Proposal C - Hunterstown-New Green Valley 500kV

General Information

Proposing entity name	Competitive
Does the entity who is submitting this proposal intend to be the Designated Entity for this proposed project?	Competitive
Company proposal ID	Competitive
PJM Proposal ID	229
Project title	Proposal C - Hunterstown-New Green Valley 500kV
Project description	Hunterstown-New Green Valley 500kV
Email	Competitive
Project in-service date	06/2027
Tie-line impact	Yes
Interregional project	No
Is the proposer offering a binding cap on capital costs?	Yes
Additional benefits	Competitive

Project Components

1. North Delta 500/230kV Upgrade
2. Northeast 230kV Upgrade
3. Peach Bottom 500kV Upgrade
4. Doubs 500/230kV Upgrade
5. Conastone 500kV Upgrade
6. Ox 500kV Upgrade

7. North Delta-Northeast 230kV
8. Hunterstown-New Green Valley 500kV
9. New Green Valley 500kV
10. Hunterstown 500kV Upgrade

Substation Upgrade Component

Component title	North Delta 500/230kV Upgrade
Project description	Competitive
Substation name	North Delta
Substation zone	PECO
Substation upgrade scope	Expand the North Delta 230kV ring bus by adding one 230kV circuit breaker and its associated disconnect switches along with one 230kV line terminal and line disconnect switch for the new 230kV line to Northeast Substation. Upgrade (4) 500kV breakers to a higher rating of 80kA

Transformer Information

None

New equipment description	One (1) 230kV circuit breaker, two (2) 230kV circuit breaker disconnect switches, one (1) 230kV line disconnect switch.
Substation assumptions	This proposal assumes that all necessary outages will be available; existing AC, DC, and telecom. systems will accommodate the new equipment; geotechnical data is available; the existing cable trench has space for the new cables; the existing control house has space for the new relay panels; existing yard station equipment does not need to be replaced except for the associated line relays and existing line interchange metering exists and does not need to be replaced. The future 500/230kV North Delta Substation will include a 230kV ring bus with an open line position that will allow for the installation of the new 230kV line from Northeast Substation
Real-estate description	No substation expansion is anticipated.
Construction responsibility	Competitive
Benefits/Comments	Competitive

Component Cost Details - In Current Year $

Engineering & design	Competitive
Permitting / routing / siting	Competitive
ROW / land acquisition	Competitive
Materials & equipment	Competitive
Construction & commissioning	Competitive
Construction management	Competitive
Overheads & miscellaneous costs	Competitive
Contingency	Competitive
Total component cost	$8,440,072.00
Component cost (in-service year)	$9,178,308.00

Substation Upgrade Component

Component title	Northeast 230kV Upgrade
Project description	Competitive
Substation name	Northeast
Substation zone	BGE
Substation upgrade scope	Rebuild the Northeast 230kV yard by constructing a seven-breaker 230kV ring bus along with replacing the existing XFMRs with two (2) 230/115kV 750MVA XFMRs. This project will also install the new 230kV Northeast to North Delta line.

Transformer Information

None

New equipment description	Two (2) 230/115kV 750MVA XFMRs, two (2) 230kV XFMR disconnect switches, seven (7) 230kV circuit breakers, fourteen (14) 230kV circuit breaker disconnect switches, four (4) 230kV line terminals, four (4) 230kV line disconnect switches, and one (1) control building.

Substation assumptions	This proposal assumes that all necessary outages will be available; existing AC, DC, and telecom. systems will accommodate the new equipment; geotechnical data is available; the existing cable trench has space for the new cables; the existing control house has space for the new relay panels; existing yard station equipment does not need to be replaced except for the associated line relays and existing line interchange metering exists and does not need to be replaced.
Real-estate description	No substation expansion is anticipated.
Construction responsibility	Competitive
Benefits/Comments	Competitive

Component Cost Details - In Current Year $

Engineering & design	Competitive
Permitting / routing / siting	Competitive
ROW / land acquisition	Competitive
Materials & equipment	Competitive
Construction & commissioning	Competitive
Construction management	Competitive
Overheads & miscellaneous costs	Competitive
Contingency	Competitive
Total component cost	$56,434,017.00
Component cost (in-service year)	$61,370,184.00

Substation Upgrade Component

Component title	Peach Bottom 500kV Upgrade
Project description	Competitive
Substation name	Peach Bottom
Substation zone	PECO

Substation upgrade scope	Rebuild two (2) Peach Bottom South main busses and upgrade four (4) 500kV breakers to a higher rating of 80kA

Transformer Information

None

New equipment description	Upgrade four (4) 500kV breakers
Substation assumptions	This proposal assumes that all necessary outages will be available; existing AC, DC, and telecom. systems will accommodate the new equipment; geotechnical data is available; ground grid upgrades will not be needed; the existing cable trench has space for the new cables; the existing control house has space for the new relay panels; existing yard station equipment does not need to be replaced except for the associated line relays and existing line interchange metering exists and does not need to be replaced.
Real-estate description	No substation expansion is anticipated.
Construction responsibility	Competitive
Benefits/Comments	Competitive

Component Cost Details - In Current Year $

Engineering & design	Competitive
Permitting / routing / siting	Competitive
ROW / land acquisition	Competitive
Materials & equipment	Competitive
Construction & commissioning	Competitive
Construction management	Competitive
Overheads & miscellaneous costs	Competitive
Contingency	Competitive
Total component cost	$12,535,570.00
Component cost (in-service year)	$13,632,031.00

Substation Upgrade Component

Component title	Doubs 500/230kV Upgrade
Project description	Competitive
Substation name	Doubs
Substation zone	APS
Substation upgrade scope	Upgrade 500/230kV transformers #01 and #03 at Doubs

Transformer Information

	Name	Capacity (MVA)
Transformer	#01	

	High Side	Low Side	Tertiary
Voltage (kV)	500	230	

	Name	Capacity (MVA)
Transformer	#03	

	High Side	Low Side	Tertiary
Voltage (kV)	500	230	

New equipment description	Two (2) new 500/230kV transformers
Substation assumptions	This proposal assumes that all necessary outages will be available; existing AC, DC, and telecom. systems will accommodate the new equipment; geotechnical data is available; ground grid upgrades will not be needed; the existing cable trench has space for the new cables; the existing control house has space for the new relay panels; existing yard station equipment does not need to be replaced except for the associated line relays and existing line interchange metering exists and does not need to be replaced.
Real-estate description	No substation expansion is anticipated.

Construction responsibility	Competitive
Benefits/Comments	Competitive

Component Cost Details - In Current Year $

Engineering & design	Competitive
Permitting / routing / siting	Competitive
ROW / land acquisition	Competitive
Materials & equipment	Competitive
Construction & commissioning	Competitive
Construction management	Competitive
Overheads & miscellaneous costs	Competitive
Contingency	Competitive
Total component cost	$25,202,609.00
Component cost (in-service year)	$27,407,029.00

Substation Upgrade Component

Component title	Conastone 500kV Upgrade
Project description	Competitive
Substation name	Conastone
Substation zone	BGE
Substation upgrade scope	Upgrade terminal equipment at Conastone 500kV station and upgrade two (2) 230kV breakers to a higher rating of 63kA

Transformer Information

None

New equipment description	New terminal equipment
Substation assumptions	This proposal assumes that all necessary outages will be available; existing AC, DC, and telecom. systems will accommodate the new equipment; geotechnical data is available; ground grid upgrades will not be needed; the existing cable trench has space for the new cables; the existing control house has space for the new relay panels; existing yard station equipment does not need to be replaced except for the associated line relays and existing line interchange metering exists and does not need to be replaced.
Real-estate description	No substation expansion is anticipated.
Construction responsibility	Competitive
Benefits/Comments	Competitive

Component Cost Details - In Current Year $

Engineering & design	Competitive
Permitting / routing / siting	Competitive
ROW / land acquisition	Competitive
Materials & equipment	Competitive
Construction & commissioning	Competitive
Construction management	Competitive
Overheads & miscellaneous costs	Competitive
Contingency	Competitive
Total component cost	$770,574.00
Component cost (in-service year)	$837,974.00

Substation Upgrade Component

Component title	Ox 500kV Upgrade
Project description	Competitive

Substation name	Ox 500kV
Substation zone	Dominion
Substation upgrade scope	Upgrade one (1) 500kV breaker to a higher rating of 50kA

Transformer Information

None

New equipment description	Upgrade one (1) 500kV breaker to a higher rating of 50kA
Substation assumptions	This proposal assumes that all necessary outages will be available; existing AC, DC, and telecom. systems will accommodate the new equipment; geotechnical data is available; ground grid upgrades will not be needed; the existing cable trench has space for the new cables; the existing control house has space for the new relay panels; existing yard station equipment does not need to be replaced except for the associated line relays and existing line interchange metering exists and does not need to be replaced.
Real-estate description	No substation expansion is anticipated.
Construction responsibility	Competitive
Benefits/Comments	Competitive

Component Cost Details - In Current Year $

Engineering & design	Competitive
Permitting / routing / siting	Competitive
ROW / land acquisition	Competitive
Materials & equipment	Competitive
Construction & commissioning	Competitive
Construction management	Competitive
Overheads & miscellaneous costs	Competitive
Contingency	Competitive
Total component cost	$1,171,097.00

Component cost (in-service year)	$1,273,530.00

Greenfield Transmission Line Component

Component title	North Delta-Northeast 230kV
Project description	Competitive
Point A	North Delta 230kV
Point B	Northeast 230kV
Point C	

	Normal ratings	Emergency ratings
Summer (MVA)	1886.000000	2160.000000
Winter (MVA)	1998.000000	2286.000000

Conductor size and type	230-kV AC single-circuit 1590 kcmil ACSS/AW "Falcon"
Nominal voltage	AC
Nominal voltage	230
Line construction type	Overhead
General route description	Approximately 36.5 miles between 230kV North Delta Substation and the 230kV Northeast Substation
Terrain description	North Delta-Northeast 230kV is mostly in rural areas to the north and urban to the south. Northern portion of the route is located in southern Pennsylvania with rural and farmed properties and as the route heads to the south, it ends to the northeast of Baltimore.
Right-of-way width by segment	The greenfield transmission line will require an ROW with a width of 85 feet in residential areas and 100 feet in farmland

Electrical transmission infrastructure crossings	Existing transmission line crossing between #132 and #133, Existing transmission line crossing between #136 and #137, Existing transmission line crossing between #141 and #142, Existing transmission line crossing between #145 and #146, Existing transmission line crossing between #148 and #149, Existing transmission line crossing between #151 and #152, Existing transmission line crossing between #156 and #157, Existing transmission line crossing between #177 and #178
Civil infrastructure/major waterway facility crossing plan	All civil infrastructure and major waterway crossings can be found in the attached crossing plan
Environmental impacts	The Team conducted an assessment of anticipated permits associated with the proposed route and have supported the evaluation of routing and development scenarios throughout the process. The assessments included a review of Federal, state, regional, and local regulatory requirements that could potentially impact each of the individual project scenarios. The circuits and associated stations are located in Pennsylvania and Maryland. A GIS analysis was performed to route away from known public lands and no public lands will be required for this project scope. Reviews were performed using publicly available GIS data from both MD and PA sources. Upon award a detailed field based analysis will be completed. No transmission towers are located in stream crossings which will minimize stream bed impacts. NWI wetlands data, FEMA floodplain layers, and state datasets were reviewed as part of the project analysis. Known wetlands areas were used for avoidance however field analysis will confirm total proposed temporary and permanent impacts. PSE&G has been able to largely avoid permanent impacts to wetlands for overhead transmission projects and will work to shift tower foundations wherever feasible in detailed design upon confirmation of field conditions. The proposed route will intersect FEMA mapped floodplains however only the tower foundations will have assumed impacts. Field based delineations and assessments will include the above mentioned wetlands and streams delineations, habitat surveys for species identified by the records review, and cultural resource studies will be completed for the entire project (including known construction only impacts). Following field studies, data will be incorporated into the engineering model so that tower locations and applicable station location are sited to maximize avoidance of sensitive resources. Towers will be placed outside of wetlands, streams, known threatened and endangered species habitat and cultural/historical areas and floodplains to the greatest extent possible. Construction timing will be scheduled in accordance with USFWS and state agency specifications to minimize impacts to threatened and endangered habitat locations. At a minimum, approvals and permits are anticipated to be acquired from the Maryland Public Service Commission, Pennsylvania Public Utility Commission, USACE, USFWS, MDE, PADEP, MD County Soil Conservation Districts and in accordance with the standards & specifications of applicable local ordinance
Tower characteristics	Monopole - single circuit
Construction responsibility	Competitive
Benefits/Comments	Competitive

Component Cost Details - In Current Year $

Engineering & design	Competitive
Permitting / routing / siting	Competitive
ROW / land acquisition	Competitive
Materials & equipment	Competitive
Construction & commissioning	Competitive
Construction management	Competitive
Overheads & miscellaneous costs	Competitive
Contingency	Competitive
Total component cost	$188,387,826.00
Component cost (in-service year)	$204,865,720.00

Greenfield Transmission Line Component

Component title	Hunterstown-New Green Valley 500kV
Project description	Competitive
Point A	Hunterstown 500kV
Point B	New Green Valley 500kV
Point C	

	Normal ratings	Emergency ratings
Summer (MVA)	3341.000000	4156.000000
Winter (MVA)	3759.000000	4595.000000

Conductor size and type	500-kV AC single-circuit 954 kcmil ACSR "Cardinal"
Nominal voltage	AC

Nominal voltage	500
Line construction type	Overhead
General route description	Approximately 40.1 miles between 500kV Hunterstown Substation and the 500kV New Green Valley Substation
Terrain description	Hunterstown-New Green Valley 500kV begins in Southern PA and heads in a southerly direction until the New Green Valley Station. Much of this route is in rural areas and is routed to the west of Taneytown.
Right-of-way width by segment	The greenfield transmission line will require an ROW with a width of150 feet in farmland
Electrical transmission infrastructure crossings	Existing 115kV wooden H-frame transmission line crossing between #137 and #138, Existing 500kV transmission line crossing between #26 and #27, Existing transmission (appears to be 230kV) line crossing between #141 and #142, Existing transmission (or distribution) line crossing between #34 and #35
Civil infrastructure/major waterway facility crossing plan	All civil infrastructure and major waterway crossings can be found in the attached crossing plan

Environmental impacts	The Team conducted an assessment of anticipated permits associated with the proposed route and have supported the evaluation of routing and development scenarios throughout the process. The assessments included a review of Federal, state, regional, and local regulatory requirements that could potentially impact each of the individual project scenarios. The circuits and associated stations are located in Pennsylvania and Maryland. A GIS analysis was performed to route away from known public lands and no public lands will be required for this project scope. Reviews were performed using publicly available GIS data from both MD and PA sources. Upon award a detailed field based analysis will be completed. No transmission towers are located in stream crossings which will minimize stream bed impacts. NWI wetlands data, FEMA floodplain layers, and state datasets were reviewed as part of the project analysis. Known wetlands areas were used for avoidance however field analysis will confirm total proposed temporary and permanent impacts. PSE&G has been able to largely avoid permanent impacts to wetlands for overhead transmission projects and will work to shift tower foundations wherever feasible in detailed design upon confirmation of field conditions. The proposed route will intersect FEMA mapped floodplains however only the tower foundations will have assumed impacts. Field based delineations and assessments will include the above mentioned wetlands and streams delineations, habitat surveys for species identified by the records review, and cultural resource studies will be completed for the entire project (including known construction only impacts). Following field studies, data will be incorporated into the engineering model so that tower locations and applicable station location are sited to maximize avoidance of sensitive resources. Towers will be placed outside of wetlands, streams, known threatened and endangered species habitat and cultural/historical areas and floodplains to the greatest extent possible. Construction timing will be scheduled in accordance with USFWS and state agency specifications to minimize impacts to threatened and endangered habitat locations. At a minimum, approvals and permits are anticipated to be acquired from the Maryland Public Service Commission, Pennsylvania Public Utility Commission, USACE, USFWS, MDE, PADEP, MD County Soil Conservation Districts and in accordance with the standards & specifications of applicable local ordinance
Tower characteristics	Monopole - single circuit
Construction responsibility	Competitive
Benefits/Comments	Competitive
Component Cost Details - In Current Year $	
Engineering & design	Competitive
Permitting / routing / siting	Competitive
ROW / land acquisition	Competitive
Materials & equipment	Competitive

Construction & commissioning	Competitive
Construction management	Competitive
Overheads & miscellaneous costs	Competitive
Contingency	Competitive
Total component cost	$190,189,567.00
Component cost (in-service year)	$206,825,054.00

Greenfield Substation Component

Component title	New Green Valley 500kV
Project description	Competitive
Substation name	New Green Valley
Substation description	Build greenfield New Green Valley 500kV station with a five (5) breaker ring bus. Cut and loop the 500kV circuit 5011 between Conastone, and Brighton into new Green Valley 500kV Station. Cut and loop the 500kV circuit 5055 between Doubs, and Brighton into new Green Valley 500kV Station
Nominal voltage	AC
Nominal voltage	500kV

Transformer Information

None

Major equipment description	500kV five (5) breaker ring bus

	Normal ratings	**Emergency ratings**
Summer (MVA)	0.000000	0.000000
Winter (MVA)	0.000000	0.000000

Environmental assessment	A GIS analysis was performed to locate known public lands and no public lands will be required for this project scope. Environmental reviews were performed using publicly available GIS data from Maryland sources. Upon award a detailed field based analysis will be completed. NWI wetlands data, FEMA floodplain layers, and state datasets were reviewed as part of the project analysis. Field based delineations and assessments will include wetlands and streams delineations, habitat surveys for species identified by the records review, and cultural resource studies will be completed for the entire project (including known temporary –construction based impacts). Following field studies, data will be incorporated into the engineering model so that the station development maximizes avoidance of sensitive resources. Development will be placed outside of wetlands, streams, known threatened and endangered species habitat and cultural/historical areas and floodplains to the greatest extent possible. Construction timing will be scheduled in accordance with USFWS and state agency specifications to minimize impacts to threatened and endangered habitat locations. At a minimum, approvals and permits are anticipated to be acquired from the Maryland Public Service Commission, USACE, USFWS, MDE, MD County Soil Conservation District and in accordance with the standards and specifications of applicable local ordinances.
Outreach plan	PSE&G will coordinate all outreach, real estate-related requests, and efforts to identify environmental and non-environmental conditions affecting the properties along the proposed Project route. Working collaboratively with our internal Outreach Team, PSE&G will coordinate stakeholder engagement and public outreach with land acquisition planning. This level of collaboration will help to ensure proactive and cohesive stakeholder communications in order to better serve landowners and impacted individuals and entities. PSE&G contemplates the need for access roads and areas, as part of any lands to be acquired.
Land acquisition plan	PSEG has identified several properties that are suitable for this proposed solution. The Project Team has initiated contact with the property owners and will continue to work to acquire site control in the event of award. The Project Team will work with impacted stakeholders, municipalities, and local authorities to obtain the necessary property rights to construct and maintain its facilities. While this solution is located outside of PSE&G territory, PSE&G is committed to a transparent, timely, and efficient land rights acquisition process for any site control required. PSE&G intends to utilize the same land acquisition professionals from start to finish, ensuring landowners have the same team assigned to their negotiations throughout the process.
Construction responsibility	Competitive
Benefits/Comments	Competitive
Component Cost Details - In Current Year $	
Engineering & design	Competitive
Permitting / routing / siting	Competitive
ROW / land acquisition	Competitive

Materials & equipment	Competitive
Construction & commissioning	Competitive
Construction management	Competitive
Overheads & miscellaneous costs	Competitive
Contingency	Competitive
Total component cost	$41,121,477.00
Component cost (in-service year)	$44,718,288.00

Substation Upgrade Component

Component title	Hunterstown 500kV Upgrade
Project description	Competitive
Substation name	Hunterstown
Substation zone	ME
Substation upgrade scope	Connect the new Hunterstown to Green Valley 500kV circuit to an existing position at Hunterstown 500kV

Transformer Information

None

New equipment description	n/a
Substation assumptions	This proposal assumes that all necessary outages will be available; existing AC, DC, and telecom. systems will accommodate the new equipment; geotechnical data is available; ground grid upgrades will not be needed; the existing cable trench has space for the new cables; the existing control house has space for the new relay panels; existing yard station equipment does not need to be replaced except for the associated line relays and existing line interchange metering exists and does not need to be replaced.
Real-estate description	No substation expansion is anticipated.
Construction responsibility	Competitive

Benefits/Comments	Competitive
Component Cost Details - In Current Year $	
Engineering & design	Competitive
Permitting / routing / siting	Competitive
ROW / land acquisition	Competitive
Materials & equipment	Competitive
Construction & commissioning	Competitive
Construction management	Competitive
Overheads & miscellaneous costs	Competitive
Contingency	Competitive
Total component cost	$4,861,755.00
Component cost (in-service year)	$5,287,002.00

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
2022W3-GD-S177	204538	27STRABAN	204529	27GERMANTN	1	115	227	Summer Gen Deliv	Included
2022W3-GD-W123	204544	27LINCOLN	204538	27STRABAN	1	115	227	Winter Gen Deliv	Included
2022W3-GD-S169	204530	27GERMANTN	235463	01TANEY	1	138	227/201	Summer Gen Deliv	Included
2022W3-GD-S280	235105	01DOUBS	235459	01DOUBS	3	500/230	201	Summer Gen Deliv	Included
2022W3-GD-W38	213869	PCHBTMTP	214087	COOPER2	1	230	230	Winter Gen Deliv	Included
2022W3-GD-S119	213869	PCHBTMTP	214087	COOPER2	1	230	230	Summer Gen Deliv	Included
2022W3-GD-S177	208047	PPL-BGE TIE	220963	CONASTON	1	230	229/232	Summer Gen Deliv	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2022W3-GD-S203	200004	CNASTONE	200003	BRIGHTON	1	500	233/232	Summer Gen Deliv	Included
2022W3-GD-W41	204544	27LINCOLN	204538	27STRABAN	1	115	227	Winter Gen Deliv	Included
2022W3-GD-S281	200065	PCHBTM2S	200064	PCHBTM1S	Z1	500	230	Summer Gen Deliv	Included
2022W3-GD-W126	200532	26ROXBURY	235188	01GREENE	1	138	226/201	Winter Gen Deliv	Included
2022W3-GD-S125	204529	27GERMANTN	204530	27GERMANTN	1	115/138	227	Summer Gen Deliv	Included
2022W3-GD-S169	235463	01TANEY	235450	01CARROL	1	138	201	Summer Gen Deliv	Included
2022W3-GD-W122	200512	26LEWISTWN	200519	26REED TAP	1	115	226	Winter Gen Deliv	Included
2022W3-GD-S779	200512	26LEWISTWN	200519	26REED TAP	1	115	226	Summer Gen Deliv	Included
2022W3-N1-ST216	204544	27LINCOLN	204538	27STRABAN	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-N1-ST217	204544	27LINCOLN	204538	27STRABAN	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-N1-ST218	235105	01DOUBS	235459	01DOUBS	3	500/230	201/201	Summer N-1 Thermal	Included
2022W3-GD-S165	213846	NOTTREAC	213869	PCHBTMTP	1	230	230	Summer Gen Deliv	Included
2022W3-GD-S828	235105	01DOUBS	235459	01DOUBS	3	500/230	201	Summer Gen Deliv	Included
2022W3-GD-W29	235463	01TANEY	235450	01CARROL	1	138	201	Winter Gen Deliv	Included
2022W3-GD-W138	200004	CNASTONE	200003	BRIGHTON	1	500	233/232	Winter Gen Deliv	Included
2022W3-GD-S276	204514	27TMI	204502	27JACKSON	1	230	227	Summer Gen Deliv	Included
2022W3-GD-W31	204550	27ORRTANNA	204544	27LINCOLN	1	115	227	Winter Gen Deliv	Included
2022W3-N1-ST209	200512	26LEWISTWN	200519	26REED TAP	1	115/115	226/226	Summer N-1 Thermal	Included
2022W3-N1-ST245	204544	27LINCOLN	204538	27STRABAN	1	115/115	227/227	Summer N-1	Included
2022W3-GD-S176	204538	27STRABAN	204529	27GERMANTN	1	115	227	Summer Gen Deliv	Included
2022W3-N1-ST210	235105	01DOUBS	235459	01DOUBS	3	500/230	201/201	Summer N-1 Thermal	Included
2022W3-N1-ST211	208069	PPL-BGE TIE	220964	GRACETON	1	230/230	229/232	Summer N-1 Thermal	Included
2022W3-N1-ST212	221090	GLENARM2	221089	WINDYED1	1	115/115	232/232	Summer N-1 Thermal	Included
2022W3-GD-W814	204544	27LINCOLN	204538	27STRABAN	1	115	227	Winter Gen Deliv	Included
2022W3-GD-S135	213869	PCHBTMTP	214087	COOPER2	1	230	230	Summer Gen Deliv	Included
2022W3-GD-S177	204538	27STRABAN	204529	27GERMANTN	1	115	227	Summer Gen Deliv	Included
2022W3-GD-S299	235105	01DOUBS	235459	01DOUBS	3	500/230	201	Summer Gen Deliv	Included
2022W3-GD-S300	235105	01DOUBS	235459	01DOUBS	3	500/230	201	Summer Gen Deliv	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2022W3-GD-W949	213844	NOTTNGHM	213846	NOTTREAC	1	230	230	Winter Gen Deliv	Included
2022W3-GD-W50	200064	PCHBTM1S	200004	CNASTONE	1	500	232/230	Winter Gen Deliv	Included
2022W3-GD_L331	235105	01DOUBS	235459	01DOUBS	1	500/230	201/201	Light Load Gen Deliv	Included
2022W3-GD-S84	213844	NOTTNGHM	213846	NOTTREAC	1	230	230	Summer Gen Deliv	Included
2022W3-GD-W955	235105	01DOUBS	235459	01DOUBS	3	500/230	201	Winter Gen Deliv	Included
2022W3-GD-S85	213846	NOTTREAC	213869	PCHBTMTP	1	230	230	Summer Gen Deliv	Included
2022W3-GD-S139	208071	SAHA34TP	208069	PPL-BGE TIE	1	230	229	Summer Gen Deliv	Included
2022W3-GD-W132	200065	PCHBTM2S	200064	PCHBTM1S	Z2	500	230	Winter Gen Deliv	Included
2022W3-GD-S177	208048	OTCR	208047	PPL-BGE TIE	1	230	229	Summer Gen Deliv	Included
2022W3-GD-S780	200512	26LEWISTWN	200519	26REED TAP	1	115	226	Summer Gen Deliv	Included
2022W3-GD-S127	208069	PPL-BGE TIE	220964	GRACETON	1	230	229/232	Summer Gen Deliv	Included
2022W3-GD-W44	204550	27ORRTANNA	204544	27LINCOLN	1	115	227	Winter Gen Deliv	Included
2022W3-GD-S1692	235463	01TANEY	235450	01CARROL	1	138	201	Summer Gen Deliv	Included
2022W3-N1-ST220	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-GD-S1662	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115	227	Summer Gen Deliv	Included
2022W3-GD-S1667	200064	PCHBTM1S	200004	CNASTONE	1	500	232/230	Summer Gen Deliv	Included
2022W3-GD-S1782	200512	26LEWISTWN	200519	26REED TAP	1	115	226	Summer Gen Deliv	Included
2022W3-GD-S147	213869	PCHBTMTP	214087	COOPER2	1	230	230	Summer Gen Deliv	Included
2022W3-GD-W831	213844	NOTTNGHM	213846	NOTTREAC	1	230	230	Winter Gen Deliv	Included
2022W3-GD-W832	213846	NOTTREAC	213869	PCHBTMTP	1	230	230	Winter Gen Deliv	Included
2022W3-GD-S1671	204530	27GERMANTN	235463	01TANEY	1	138	227/201	Summer Gen Deliv	Included
2022W3-GD-S1707	204544	27LINCOLN	204538	27STRABAN	1	115	227	Summer Gen Deliv	Included
2022W3-GD-S326	208048	OTCR	208047	PPL-BGE TIE	1	230	229	Summer Gen Deliv	Included
2022W3-GD-S152	200512	26LEWISTWN	200519	26REED TAP	1	115	226	Summer Gen Deliv	Included
2022W3-GD-S95	213844	NOTTNGHM	213846	NOTTREAC	1	230	230	Summer Gen Deliv	Included
2022W3-GD-S155	208069	PPL-BGE TIE	220964	GRACETON	1	230	229/232	Summer Gen Deliv	Included
2022W3-GD-W58	204538	27STRABAN	204529	27GERMANTN	1	115	227	Winter Gen Deliv	Included
2022W3-GD-S96	213846	NOTTREAC	213869	PCHBTMTP	1	230	230	Summer Gen Deliv	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2022W3-GD-S2038	221092	FIVE.FOR	221096	ROCKRGE1	1	115	232	Summer Gen Deliv	Included
2022W3-N1-ST240	200512	26LEWISTWN	200519	26REED TAP	1	115/115	226/226	Summer N-1 Thermal	Included
2022W3-GD-S312	208047	PPL-BGE TIE	220963	CONASTON	1	230	229/232	Summer Gen Deliv	Included
2022W3-GD-S1662	213869	PCHBTMTP	214087	COOPER2	1	230	230	Summer Gen Deliv	Included
2022W3-GD-S170	200064	PCHBTM1S	200004	CNASTONE	1	500	232/230	Summer Gen Deliv	Included
2022W3-N1-ST109	221092	FIVE.FOR	221096	ROCKRGE1	1	115/115	232/232	Summer N-1 Thermal	Included
2022W3-N1-ST230	235105	01DOUBS	235459	01DOUBS	3	500/230	201/201	Summer N-1 Thermal	Included
2022W3-GD-S1662	204530	27GERMANTN	235463	01TANEY	1	138	227/201	Summer Gen Deliv	Included
2022W3-N1-ST231	200064	PCHBTM1S	200004	CNASTONE	1	500/500	230/232	Summer N-1 Thermal	Included
2022W3-N1-ST232	204544	27LINCOLN	204538	27STRABAN	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-N1-ST233	204544	27LINCOLN	204538	27STRABAN	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-N1-ST234	208071	SAHA34TP	208069	PPL-BGE TIE	1	230/230	229/229	Summer N-1 Thermal	Included
2022W3-N1-ST236	208069	PPL-BGE TIE	220964	GRACETON	1	230/230	229/232	Summer N-1 Thermal	Included
2022W3-N1-ST116	207922	BRIS	204515	27YORKANA	1	230/230	229/227	Summer N-1 Thermal	Included
2022W3-N1-ST237	208069	PPL-BGE TIE	220964	GRACETON	1	230/230	229/232	Summer N-1 Thermal	Included
2022W3-GD-S1792	221092	FIVE.FOR	221096	ROCKRGE1	1	115	232	Summer Gen Deliv	Included
2022W3-GD-S164	208071	SAHA34TP	208069	PPL-BGE TIE	1	230	229	Summer Gen Deliv	Included
2022W3-GD-W1220	200532	26ROXBURY	235188	01GREENE	1	138	226/201	Winter Gen Deliv	Included
2022W3-GD-S1798	220962	NWEST311	220972	GRANITE1	1	230	232	Summer Gen Deliv	Included
2022W3-GD-S1712	200004	CNASTONE	200003	BRIGHTON	1	500	233/232	Summer Gen Deliv	Included
2022W3-GD-W1082	204530	27GERMANTN	235463	01TANEY	1	138	227/201	Winter Gen Deliv	Included
2022W3-GD-S1714	200004	CNASTONE	200003	BRIGHTON	1	500	233/232	Summer Gen Deliv	Included
2022W3-GD-S1797	313746	6SOJOURNER	313822	6RUNWAY	1	230	345	Summer Gen Deliv	Included
2022W3-GD-W849	204538	27STRABAN	204529	27GERMANTN	1	115	227	Winter Gen Deliv	Included
2022W3-GD-W1052	204530	27GERMANTN	235463	01TANEY	1	138	227/201	Winter Gen Deliv	Included
2022W3-GD-S1672	242563	05BOXWD	242603	05CLIFFR	1	138	205	Summer Gen Deliv	Included
2022W3-N1-ST122	221092	FIVE.FOR	221096	ROCKRGE1	1	115/115	232/232	Summer N-1 Thermal	Included
2022W3-GD-S1716	208071	SAHA34TP	208069	PPL-BGE TIE	1	230	229	Summer Gen Deliv	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2022W3-N1-ST9	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-GD-S171	200004	CNASTONE	200003	BRIGHTON	1	500	233/232	Summer Gen Deliv	Included
2022W3-GD-W84	213844	NOTTNGHM	213846	NOTTREAC	1	230	230	Winter Gen Deliv	Included
2022W3-GD-W11	200532	26ROXBURY	235188	01GREENE	1	138	226/201	Winter Gen Deliv	Included
2022W3-GD-S179	204515	27YORKANA	208048	OTCR	1	230	227/229	Summer Gen Deliv	Included
2022W3-GD-W84	213846	NOTTREAC	213869	PCHBTMTP	1	230	230	Winter Gen Deliv	Included
2022W3-GD-W12	200512	26LEWISTWN	200519	26REED TAP	1	115	226	Winter Gen Deliv	Included
2022W3-N1-ST7	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-N1-ST12	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-GD-S97	207922	BRIS	204515	27YORKANA	1	230	227/229	Summer Gen Deliv	Included
2022W3-GD-S170	208069	PPL-BGE TIE	220964	GRACETON	1	230	229/232	Summer Gen Deliv	Included
2022W3-N1-ST24	200512	26LEWISTWN	200519	26REED TAP	1	115/115	226/226	Summer N-1 Thermal	Included
2022W3-GD-S167	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115	227	Summer Gen Deliv	Included
2022W3-GD-W11	200004	CNASTONE	200003	BRIGHTON	1	500	233/232	Winter Gen Deliv	Included
2022W3-GD-S167	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115	227	Summer Gen Deliv	Included
2022W3-GD-S103	200064	PCHBTM1S	200004	CNASTONE	1	500	232/230	Summer Gen Deliv	Included
2022W3-N1-ST3	235105	01DOUBS	235459	01DOUBS	3	500/230	201/201	Summer N-1 Thermal	Included
2022W3-GD-S104	213844	NOTTNGHM	213846	NOTTREAC	1	230	230	Summer Gen Deliv	Included
2022W3-N1-ST4	235105	01DOUBS	235459	01DOUBS	1	500/230	201/201	Summer N-1 Thermal	Included
2022W3-GD-S204	221092	FIVE.FOR	221096	ROCKRGE1	1	115	232	Summer Gen Deliv	Included
2022W3-GD-S340	204515	27YORKANA	208048	OTCR	1	230	227/229	Summer Gen Deliv	Included
2022W3-GD-S180	200512	26LEWISTWN	200519	26REED TAP	1	115	226	Summer Gen Deliv	Included
2022W3-GD-S180	200512	26LEWISTWN	200519	26REED TAP	1	115	226	Summer Gen Deliv	Included
2022W3-GD-W11	235463	01TANEY	235450	01CARROL	1	138	201	Winter Gen Deliv	Included
2022W3-GD-S205	200004	CNASTONE	200003	BRIGHTON	1	500	233/232	Summer Gen Deliv	Included
2022W3-GD-W11	235463	01TANEY	235450	01CARROL	1	138	201	Winter Gen Deliv	Included
2022W3-GD-S172	200004	CNASTONE	200003	BRIGHTON	1	500	233/232	Summer Gen Deliv	Included
2022W3-GD-S172	200004	CNASTONE	200003	BRIGHTON	1	500	233/232	Summer Gen Deliv	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2022W3-N1-ST139	207922	BRIS	204515	27YORKANA	1	230/230	229/227	Summer N-1 Thermal	Included
2022W3-N1-ST19	204550	27ORRTANNA	204544	27LINCOLN	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-N1-ST140	207922	BRIS	204515	27YORKANA	1	230/230	229/227	Summer N-1 Thermal	Included
2022W3-N1-ST20	204530	27GERMANTN	235463	01TANEY	1	138/138	227/201	Summer N-1 Thermal	Included
2022W3-GD-S1717	235463	01TANEY	235450	01CARROL	1	138	201	Summer Gen Deliv	Included
2022W3-GD-S1718	235463	01TANEY	235450	01CARROL	1	138	201	Summer Gen Deliv	Included
2022W3-N1-ST18	204550	27ORRTANNA	204544	27LINCOLN	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-N1-WT142	200512	26LEWISTWN	200519	26REED TAP	1	115/115	226/226	Winter N-1 Thermal	Included
2022W3-N1-ST12	204550	27ORRTANNA	204544	27LINCOLN	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-N1-ST138	207922	BRIS	204515	27YORKANA	1	230/230	229/227	Summer N-1 Thermal	Included
2022W3-N1-ST13	204550	27ORRTANNA	204544	27LINCOLN	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-N1-ST14	204550	27ORRTANNA	204544	27LINCOLN	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-GD-S1728	235463	01TANEY	235450	01CARROL	1	138	201	Summer Gen Deliv	Included
2022W3-GD-S1807	200512	26LEWISTWN	200519	26REED TAP	1	115	226	Summer Gen Deliv	Included
2022W3-GD-S1728	200064	PCHBTM1S	200004	CNASTONE	1	500	232/230	Summer Gen Deliv	Included
2022W3-GD-S1727	200064	PCHBTM1S	200004	CNASTONE	1	500	232/230	Summer Gen Deliv	Included
2022W3-GD-S1902	242563	05BOXWD	242603	05CLIFFR	1	138	205	Summer Gen Deliv	Included
2022W3-GD-S2052	200004	CNASTONE	200003	BRIGHTON	1	500	233/232	Summer Gen Deliv	Included
2022W3-GD_L311	235105	01DOUBS	235459	01DOUBS	3	500/230	201/201	Light Load Gen Deliv	Included
2022W3-GD-S1724	204544	27LINCOLN	204538	27STRABAN	1	115	227	Summer Gen Deliv	Included
2022W3-GD-S1723	204544	27LINCOLN	204538	27STRABAN	1	115	227	Summer Gen Deliv	Included
2022W3-GD-S346	200065	PCHBTM2S	200066	PCHBTM1N	2	500	230	Summer Gen Deliv	Included
2022W3-N1-ST21	204530	27GERMANTN	235463	01TANEY	1	138/138	227/201	Summer N-1 Thermal	Included
2022W3-N1-ST22	204550	27ORRTANNA	204544	27LINCOLN	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-N1-WT154	207922	BRIS	204515	27YORKANA	1	230/230	229/227	Winter N-1 Thermal	Included
2022W3-N1-ST24	204544	27LINCOLN	204538	27STRABAN	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-N1-ST25	204544	27LINCOLN	204538	27STRABAN	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-GD-S1732	200064	PCHBTM1S	200004	CNASTONE	1	500	232/230	Summer Gen Deliv	Included

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2022W3-GD-S201	200004	CNASTONE	200003	BRIGHTON	1	500	233/232	Summer Gen Deliv	Included
2022W3-GD-S202	200004	CNASTONE	200003	BRIGHTON	1	500	233/232	Summer Gen Deliv	Included
2022W3-N1-ST39	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-N1-ST41	204550	27ORRTANNA	204544	27LINCOLN	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-N1-ST42	204550	27ORRTANNA	204544	27LINCOLN	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-GD-S1729	204544	27LINCOLN	204538	27STRABAN	1	115	227	Summer Gen Deliv	Included
2022W3-N1-WT43	204550	27ORRTANNA	204544	27LINCOLN	1	115/115	227/227	Winter N-1 Thermal	Included
2022W3-N1-WT44	204550	27ORRTANNA	204544	27LINCOLN	1	115/115	227/227	Winter N-1 Thermal	Included
2022W3-GD_L81	242563	05BOXWD	242603	05CLIFFR	1	138/138	205/205	Light Load Gen Deliv	Included
2022W3-N1-WT45	204550	27ORRTANNA	204544	27LINCOLN	1	115/115	227/227	Winter N-1 Thermal	Included
2022W3-N1-ST35	235463	01TANEY	235450	01CARROL	1	138/138	201/201	Summer N-1 Thermal	Included
2022W3-N1-ST156	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-N1-WT162	207922	BRIS	204515	27YORKANA	1	230/230	229/227	Winter N-1 Thermal	Included
2022W3-N1-ST37	235463	01TANEY	235450	01CARROL	1	138/138	201/201	Summer N-1 Thermal	Included
2022W3-N1-LLT14	235105	01DOUBS	235459	01DOUBS	3	500/230	201/201	Light Load N-1	Included
2022W3-N1-ST50	204538	27STRABAN	204529	27GERMANTN	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-N1-ST51	204538	27STRABAN	204529	27GERMANTN	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-N1-LLT18	235105	01DOUBS	235459	01DOUBS	1	500/230	201/201	Light Load N-1	Included
2022W3-N1-WT62	235463	01TANEY	235450	01CARROL	1	138/138	201/201	Winter N-1 Thermal	Included
2022W3-N1-ST53	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-GD-S1734	204538	27STRABAN	204529	27GERMANTN	1	115	227	Summer Gen Deliv	Included
2022W3-N1-WT53	204544	27LINCOLN	204538	27STRABAN	1	115/115	227/227	Winter N-1 Thermal	Included
2022W3-N1-ST168	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-N1-WT58	204544	27LINCOLN	204538	27STRABAN	1	115/115	227/227	Winter N-1 Thermal	Included
2022W3-N1-WT60	235463	01TANEY	235450	01CARROL	1	138/138	201/201	Winter N-1 Thermal	Included
2022W3-LD-ST11	200004	CNASTONE	200064	PCHBTM1S	1	500/500	232/230	Load Deliverability	Included
2022W3-N1-ST59	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-LD-ST13	200064	PCHBTM1S	200004	CNASTONE	1	500/500	230/232	Load Deliverability	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2022W3-LD-ST12	200064	PCHBTM1S	200004	CNASTONE	1	500/500	230/232	Load Deliverability	Included
2022W3-N1-WT72	204550	27ORRTANNA	204544	27LINCOLN	1	115/115	227/227	Winter N-1 Thermal	Included
2022W3-GD-W850	213844	NOTTNGHM	213846	NOTTREAC	1	230	230	Winter Gen Deliv	Included
2022W3-N1-ST63	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-GD-W851	213846	NOTTREAC	213869	PCHBTMTP	1	230	230	Winter Gen Deliv	Included
2022W3-N1-LLT22	242563	05BOXWD	242603	05CLIFFR	1	138/138	205/205	Light Load N-1	Included
2022W3-N1-LLT21	242563	05BOXWD	242603	05CLIFFR	1	138/138	205/205	Light Load N-1	Included
2022W3-N1-LLT24	242563	05BOXWD	242603	05CLIFFR	1	138/138	205/205	Light Load N-1	Included
2022W3-N1-LLT23	242563	05BOXWD	242603	05CLIFFR	1	138/138	205/205	Light Load N-1	Included
2022W3-GD-W977	204515	27YORKANA	208048	OTCR	1	230	227/229	Winter Gen Deliv	Included
2022W3-N1-WT64	204550	27ORRTANNA	204544	27LINCOLN	1	115/115	227/227	Winter N-1 Thermal	Included
2022W3-N1-WT65	204550	27ORRTANNA	204544	27LINCOLN	1	115/115	227/227	Winter N-1 Thermal	Included
2022W3-N1-ST178	208069	PPL-BGE TIE	220964	GRACETON	1	230/230	229/232	Summer N-1 Thermal	Included
2022W3-N1-ST58	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-N1-ST71	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-GD-W1002	208047	PPL-BGE TIE	220963	CONASTON	1	230	229/232	Winter Gen Deliv	Included
2022W3-N1-ST72	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-GD-W73	200004	CNASTONE	200003	BRIGHTON	1	500	233/232	Winter Gen Deliv	Included
2022W3-GD-W74	200004	CNASTONE	200003	BRIGHTON	1	500	233/232	Winter Gen Deliv	Included
2022W3-N1-ST74	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-GD-W63	204514	27TMI	204502	27JACKSON	1	230	227	Winter Gen Deliv	Included
2022W3-GD-W987	200065	PCHBTM2S	200064	PCHBTM1S	Z2	500	230	Winter Gen Deliv	Included
2022W3-GD-W64	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115	227	Winter Gen Deliv	Included
2022W3-GD-W65	200064	PCHBTM1S	200004	CNASTONE	1	500	232/230	Winter Gen Deliv	Included
2022W3-GD-W68	200004	CNASTONE	200003	BRIGHTON	1	500	233/232	Winter Gen Deliv	Included
2022W3-GD-W995	200065	PCHBTM2S	200064	PCHBTM1S	Z1	500	230	Winter Gen Deliv	Included
2022W3-GD-W67	200004	CNASTONE	200003	BRIGHTON	1	500	233/232	Winter Gen Deliv	Included
2022W3-GD-W78	200512	26LEWISTWN	200519	26REED TAP	1	115	226	Winter Gen Deliv	Included

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2022W3-GD-W101	208048	OTCR	208047	PPL-BGE TIE	1	230	229	Winter Gen Deliv	Included
2022W3-GD-S181	235596	01VASC T	235173	01EDGEWT	1	138	201	Summer Gen Deliv	Included
2022W3-GD-S361	235105	01DOUBS	235459	01DOUBS	1	500/230	201	Summer Gen Deliv	Included
2022W3-N1-WT86	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115/115	227/227	Winter N-1 Thermal	Included
2022W3-N1-WT88	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115/115	227/227	Winter N-1 Thermal	Included
2022W3-N1-WT102	204538	27STRABAN	204529	27GERMANTN	1	115/115	227/227	Winter N-1 Thermal	Included
2022W3-GD-W86	208071	SAHA34TP	208069	PPL-BGE TIE	1	230	229	Winter Gen Deliv	Included
2022W3-GD-S181	235105	01DOUBS	235459	01DOUBS	3	500/230	201	Summer Gen Deliv	Included
2022W3-GD-W88	204530	27GERMANTN	235463	01TANEY	1	138	227/201	Winter Gen Deliv	Included
2022W3-N1-WT102	204538	27STRABAN	204529	27GERMANTN	1	115/115	227/227	Winter N-1 Thermal	Included
2022W3-GD-W887	213869	PCHBTMTP	214087	COOPER2	1	230	230	Winter Gen Deliv	Included
2022W3-GD-W81	200064	PCHBTM1S	200004	CNASTONE	1	500	232/230	Winter Gen Deliv	Included
2022W3-GD-W83	204515	27YORKANA	208048	OTCR	1	230	227/229	Winter Gen Deliv	Included
2022W3-GD-W883	208071	SAHA34TP	208069	PPL-BGE TIE	1	230	229	Winter Gen Deliv	Included
2022W3-GD-W85	200512	26LEWISTWN	200519	26REED TAP	1	115	226	Winter Gen Deliv	Included
2022W3-GD-S181	235105	01DOUBS	235459	01DOUBS	3	500/230	201	Summer Gen Deliv	Included
2022W3-GD-W93	208069	PPL-BGE TIE	220964	GRACETON	1	230	229/232	Winter Gen Deliv	Included
2022W3-N1-WT1826	235463	01TANEY	235450	01CARROL	1	138/138	201/201	Winter N-1 Thermal	Included
2022W3-GD-S2062	221090	GLENARM2	221089	WINDYED1	1	115	232	Summer Gen Deliv	Included
2022W3-GD-S1741	200004	CNASTONE	200003	BRIGHTON	1	500	233/232	Summer Gen Deliv	Included
2022W3-GD-W899	207922	BRIS	204515	27YORKANA	1	230	227/229	Winter Gen Deliv	Included
2022W3-N1-WT1910	204530	27GERMANTN	235463	01TANEY	1	138/138	227/201	Winter N-1 Thermal	Included
2022W3-GD-W95	200064	PCHBTM1S	200004	CNASTONE	1	500	232/230	Winter Gen Deliv	Included
2022W3-GD-W138	200004	CNASTONE	200003	BRIGHTON	1	500	233/232	Winter Gen Deliv	Included
2022W3-GD-W891	208071	SAHA34TP	208069	PPL-BGE TIE	1	230	229	Winter Gen Deliv	Included
2022W3-GD-W892	208069	PPL-BGE TIE	220964	GRACETON	1	230	229/232	Winter Gen Deliv	Included
2022W3-GD-W1240	200512	26LEWISTWN	200519	26REED TAP	1	115	226	Winter Gen Deliv	Included
2022W3-LD-ST15	200064	PCHBTM1S	200004	CNASTONE	1	500/500	230/232	Load Deliverability	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2022W3-LD-ST14	200064	PCHBTM1S	200004	CNASTONE	1	500/500	230/232	Load Deliverability	Included
2022W3-GD-S240	235105	01DOUBS	235459	01DOUBS	3	500/230	201	Summer Gen Deliv	Included
2022W3-GD-W903	207922	BRIS	204515	27YORKANA	1	230	227/229	Winter Gen Deliv	Included
2022W3-LD-ST17	200004	CNASTONE	200003	BRIGHTON	1	500/500	232/233	Load Deliverability	Included
2022W3-LD-ST16	200004	CNASTONE	200003	BRIGHTON	1	500/500	232/233	Load Deliverability	Included
2022W3-GD-S1642	204550	27ORRTANNA	204544	27LINCOLN	1	115	227	Summer Gen Deliv	Included
2022W3-N1-ST184	208071	SAHA34TP	208069	PPL-BGE TIE	1	230/230	229/229	Summer N-1 Thermal	Included
2022W3-GD-S1644	235463	01TANEY	235450	01CARROL	1	138	201	Summer Gen Deliv	Included
2022W3-GD-S17	235105	01DOUBS	235459	01DOUBS	1	500/230	201	Summer Gen Deliv	Included
2022W3-GD-W96	200064	PCHBTM1S	200004	CNASTONE	1	500	232/230	Winter Gen Deliv	Included
2022W3-N1-WT192	204544	27LINCOLN	204538	27STRABAN	1	115/115	227/227	Winter N-1 Thermal	Included
2022W3-GD-W900	213869	PCHBTMTP	214087	COOPER2	1	230	230	Winter Gen Deliv	Included
2022W3-N1-WT192	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115/115	227/227	Winter N-1 Thermal	Included
2022W3-GD-S10	235105	01DOUBS	235459	01DOUBS	3	500/230	201	Summer Gen Deliv	Included
2022W3-GD-W97	200004	CNASTONE	200003	BRIGHTON	1	500	233/232	Winter Gen Deliv	Included
2022W3-GD-S13	235484	01MESSCK	235490	01MORGAN	1	138	201	Summer Gen Deliv	Included
2022W3-N1-WT192	204538	27STRABAN	204529	27GERMANTN	1	115/115	227/227	Winter N-1 Thermal	Included
2022W3-GD-S14	235484	01MESSCK	235490	01MORGAN	1	138	201	Summer Gen Deliv	Included
2022W3-GD-S1641	204530	27GERMANTN	235463	01TANEY	1	138	227/201	Summer Gen Deliv	Included
2022W3-GD-S1754	204529	27GERMANTN	204530	27GERMANTN	1	115/138	227	Summer Gen Deliv	Included
2022W3-GD-S1642	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115	227	Summer Gen Deliv	Included
2022W3-GD-S15	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115	227	Summer Gen Deliv	Included
2022W3-GD-S1752	208395	FARO FF	208393	FARO DC TIE	2	69/115	229	Summer Gen Deliv	Included
2022W3-GD-W12	204530	27GERMANTN	235463	01TANEY	1	138	227/201	Winter Gen Deliv	Included
2022W3-GD-S1052	213846	NOTTREAC	213869	PCHBTMTP	1	230	230	Summer Gen Deliv	Included
2022W3-GD-S247	208047	PPL-BGE TIE	220963	CONASTON	1	230	229/232	Summer Gen Deliv	Included
2022W3-GD-W15	213844	NOTTNGHM	213846	NOTTREAC	1	230	230	Winter Gen Deliv	Included
2022W3-GD-W108	200004	CNASTONE	200003	BRIGHTON	1	500	233/232	Winter Gen Deliv	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2022W3-GD-S110	207922	BRIS	204515	27YORKANA	1	230	227/229	Summer Gen Deliv	Included
2022W3-GD-S249	235504	01RIDGLY	235484	01MESSCK	1	138	201	Summer Gen Deliv	Included
2022W3-GD-W16	213846	NOTTREAC	213869	PCHBTMTP	1	230	230	Winter Gen Deliv	Included
2022W3-GD-W91	213869	PCHBTMTP	214087	COOPER2	1	230	230	Winter Gen Deliv	Included
2022W3-GD-S167	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115	227	Summer Gen Deliv	Included
2022W3-GD-S252	235504	01RIDGLY	235484	01MESSCK	1	138	201	Summer Gen Deliv	Included
2022W3-GD-W19	207922	BRIS	204515	27YORKANA	1	230	227/229	Winter Gen Deliv	Included
2022W3-GD-W315	235504	01RIDGLY	235484	01MESSCK	1	138	201	Winter Gen Deliv	Included
2022W3-GD-S260	208048	OTCR	208047	PPL-BGE TIE	1	230	229	Summer Gen Deliv	Included
2022W3-GD-W775	235105	01DOUBS	235459	01DOUBS	1	500/230	201	Winter Gen Deliv	Included
2022W3-GD-W314	235504	01RIDGLY	235484	01MESSCK	1	138	201	Winter Gen Deliv	Included
2022W3-N1-ST194	200512	26LEWISTWN	200519	26REED TAP	1	115/115	226/226	Summer N-1 Thermal	Included
2022W3-N1-ST196	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-N1-ST197	235105	01DOUBS	235459	01DOUBS	3	500/230	201/201	Summer N-1 Thermal	Included
2022W3-GD-S2062	221090	GLENARM2	221089	WINDYED1	1	115	232	Summer Gen Deliv	Included
2022W3-GD-W906	208069	PPL-BGE TIE	220964	GRACETON	1	230	229/232	Winter Gen Deliv	Included
2022W3-LD-ST19	200004	CNASTONE	200003	BRIGHTON	1	500/500	232/233	Load Deliverability	Included
2022W3-GD-S1642	204550	27ORRTANNA	204544	27LINCOLN	1	115	227	Summer Gen Deliv	Included
2022W3-GD-S1752	200512	26LEWISTWN	200519	26REED TAP	1	115	226	Summer Gen Deliv	Included
2022W3-LD-ST18	200004	CNASTONE	200003	BRIGHTON	1	500/500	232/233	Load Deliverability	Included
2022W3-GD-S23	204544	27LINCOLN	204538	27STRABAN	1	115	227	Summer Gen Deliv	Included
2022W3-GD-S1758	204538	27STRABAN	204529	27GERMANTN	1	115	227	Summer Gen Deliv	Included
2022W3-LD-ST21	200003	BRIGHTON	200004	CNASTONE	1	500/500	233/232	Load Deliverability	Included
2022W3-GD-S1648	204544	27LINCOLN	204538	27STRABAN	1	115	227	Summer Gen Deliv	Included
2022W3-GD-S1757	200532	26ROXBURY	235188	01GREENE	1	138	226/201	Summer Gen Deliv	Included
2022W3-LD-ST20	208047	PPL-BGE TIE	220963	CONASTON	1	230/230	229/232	Load Deliverability	Included
2022W3-GD-S1762	208395	FARO FF	208393	FARO DC TIE	1	69/115	229	Summer Gen Deliv	Included
2022W3-LD-ST22	208048	OTCR	208047	PPL-BGE TIE	1	230/230	229/229	Load Deliverability	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2022W3-N1-ST193	313746	6SOJOURNER	313822	6RUNWAY	1	230/230	345/345	Summer N-1 Thermal	Included
2022W3-GD-W912	200004	CNASTONE	200003	BRIGHTON	1	500	233/232	Winter Gen Deliv	Included
2022W3-N1-WT23	204530	27GERMANTN	235463	01TANEY	1	138/138	227/201	Winter N-1 Thermal	Included
2022W3-GD-S81N	200004	CNASTONE	200003	BRIGHTON	1	500	233/232	Summer Gen Deliv	Included
2022W3-GD-S827	235105	01DOUBS	235459	01DOUBS	3	500/230	201	Summer Gen Deliv	Included
2022W3-GD-S1182	204544	27LINCOLN	204538	27STRABAN	1	115	227	Summer Gen Deliv	Included
2022W3-GD-S1682	204530	27GERMANTN	235463	01TANEY	1	138	227/201	Summer Gen Deliv	Included
2022W3-GD-W116	204530	27GERMANTN	235463	01TANEY	1	138	227/201	Winter Gen Deliv	Included
2022W3-GD-S1682	204530	27GERMANTN	235463	01TANEY	1	138	227/201	Summer Gen Deliv	Included
2022W3-GD-S1232	235463	01TANEY	235450	01CARROL	1	138	201	Summer Gen Deliv	Included
2022W3-GD-W920	200064	PCHBTM1S	200004	CNASTONE	1	500	232/230	Winter Gen Deliv	Included
2022W3-N1-ST244	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115/115	227/227	Summer N-1	Included
2022W3-GD-S1652	213844	NOTTNGHM	213846	NOTTREAC	1	230	230	Summer Gen Deliv	Included
2022W3-GD-W114	200064	PCHBTM1S	200004	CNASTONE	1	500	232/230	Winter Gen Deliv	Included
2022W3-N1-ST84	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-N1-ST205	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115/115	227/227	Summer N-1 Thermal	Included
2022W3-GD-S1652	204539	27HUNTRSTN	205912	AD1-020 TAP	1	115	227	Summer Gen Deliv	Included
2022W3-N1-ST208	313746	6SOJOURNER	313822	6RUNWAY	1	230/230	345/345	Summer N-1 Thermal	Included
2022W3-GD-S1682	204514	27TMI	204502	27JACKSON	1	230	227	Summer Gen Deliv	Included
2022W3-GD-S1762	242563	05BOXWD	242603	05CLIFFR	1	138	205	Summer Gen Deliv	Included
2022W3-N1-WT20	204530	27GERMANTN	235463	01TANEY	1	138/138	227/201	Winter N-1 Thermal	Included
2022W3-GD-W806	208047	PPL-BGE TIE	220963	CONASTON	1	230	229/232	Winter Gen Deliv	Included
2022W3-GD-S47	204538	27STRABAN	204529	27GERMANTN	1	115	227	Summer Gen Deliv	Included
2022W3-GD-S262	235180	01FAYETT	235271	01WWAYNE	1	138	201	Summer Gen Deliv	Included
2022W3-N1-ST199	200512	26LEWISTWN	200519	26REED TAP	1	115/115	226/226	Summer N-1 Thermal	Included
2022W3-GD-S76N	200064	PCHBTM1S	200004	CNASTONE	1	500	232/230	Summer Gen Deliv	Included
2022W3-GD-S1652	204538	27STRABAN	204529	27GERMANTN	1	115	227	Summer Gen Deliv	Included
2022W3-GD-S1682	204544	27LINCOLN	204538	27STRABAN	1	115	227	Summer Gen Deliv	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2022W3-N1-ST202	200512	26LEWISTWN	200519	26REED TAP	1	115/115	226/226	Summer N-1 Thermal	Included
2022W3-GD-S1652	200064	PCHBTM1S	200004	CNASTONE	1	500	232/230	Summer Gen Deliv	Included
2022W3-N1-ST202	213846	NOTTREAC	213869	PCHBTMTP	1	230/230	230/230	Summer N-1 Thermal	Included
2022W3-GD-S1652	207922	BRIS	204515	27YORKANA	1	230	227/229	Summer Gen Deliv	Included
2022W3-N1-ST202	213844	NOTTNGHM	213846	NOTTREAC	1	230/230	230/230	Summer N-1 Thermal	Included
2022W3-N1-SNC1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Summer N-1 Non Converge	Included
2022W3-N1-SNC2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Summer N-1 Non Converge	Included
2022W3-N1-SNC3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Summer N-1 Non Converge	Included
2022W3-N1-SNC4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Summer N-1 Non Converge	Included
2022W3-N1-SNC5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Summer N-1 Non Converge	Included
2022W3-N1-SNC6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Summer N-1 Non Converge	Included
2022W3-N1-SNC7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Summer N-1 Non Converge	Included
2022W3-N1-SNC8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Summer N-1 Non Converge	Included
2022W3-N1-SNC9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Summer N-1 Non Converge	Included
2022W3-N1-SNC10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Summer N-1 Non Converge	Included
2022W3-N1-SNC11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Summer N-1 Non Converge	Included

New Flowgates

Competitive

Financial Information

Capital spend start date	01/2024
Construction start date	11/2025
Project Duration (In Months)	41

Cost Containment Commitment

Cost cap (in current year)	Competitive

Cost cap (in-service year)	Competitive

Components covered by cost containment

1. North Delta-Northeast 230kV - PSEG
2. Hunterstown-New Green Valley 500kV - PSEG
3. New Green Valley 500kV - PSEG

Cost elements covered by cost containment

Engineering & design	Yes
Permitting / routing / siting	Yes
ROW / land acquisition	Yes
Materials & equipment	Yes
Construction & commissioning	Yes
Construction management	Yes
Overheads & miscellaneous costs	Yes
Taxes	No
AFUDC	No
Escalation	Yes
Additional Information	Competitive
Is the proposer offering a binding cap on ROE?	Yes
Would this ROE cap apply to the determination of AFUDC?	No
Would the proposer seek to increase the proposed ROE if FERC finds that a higher ROE would not be unreasonable?	Yes
Is the proposer offering a Debt to Equity Ratio cap?	Competitive

Additional cost containment measures not covered above	Competitive

Additional Comments

None