Old York 230/500kV Transmission Project

General Information

Proposing entity name	CONFIDENTIAL
Does the entity who is submitting this proposal intend to be the Designated Entity for this proposed project?	CONFIDENTIAL
Company proposal ID	CONFIDENTIAL
PJM Proposal ID	103
Project title	Old York 230/500kV Transmission Project
Project description	The Old York Transmission Project includes a new 500/230kV substation. The 500kV yard will include a 4 position breaker and a half configuration 500kV gas insulated substation (GIS). The project will include two (2) 500/230kV transformers. The transformers connect the 500kV yard with a six position four thirds configuration 230kV gas insulated substation. The substation interconnects the East Windsor - New Freedom 500kV transmission line, the Burlington - Crosswick 230kV transmission line, and the Mansfield - William 230kV transmission line.
Email	CONFIDENTIAL
Project in-service date	05/2028
Tie-line impact	No
Interregional project	No
Is the proposer offering a binding cap on capital costs?	Yes
Additional benefits	CONFIDENTIAL

Project Components

1. Old York 230/500kV Substation
2. East Windsor - New Freedom 500kV Interconnection
3. Burlington - Crosswick 230kV Interconnection

Greenfield Substation Component

Component title	Old York 230/500kV Substation
Project description	CONFIDENTIAL
Substation name	Old York
Substation description	The Old York substation will include a four (4) position breaker and a half configuration 500kV yard that connects to a six (6) position four-thirds configuration 230kV yard via two (2) transformers. The 500kV yard and the 230kV yard will be gas insulated substations housed in separate enclosures. Each transformer will be rated at 1200 MVA.
Nominal voltage	AC
Nominal voltage	500/230

Transformer Information

	Name	Capacity (MVA)	
Transformer	Old York 500/230kV Transformer 1	1200	
	High Side	**Low Side**	**Tertiary**
Voltage (kV)	500	230	

	Name	Capacity (MVA)	
Transformer	Old York 500/230kV Transformer 2	1200	
	High Side	**Low Side**	**Tertiary**
Voltage (kV)	500	230	

Major equipment description	500kV gas insulated substation (GIS) circuit breakers (6) will have a continuous current rating of 4000A, a 3464 MVA rating, and a short circuit current rating of 63kA. 500kV terminal equipment will be rated at 4000A. 230kV GIS circuit breakers (8) will have a continuous current rating of 4000A, a 1593 MVA rating, and a short circuit current rating of 63kA. 230kV terminal equipment will be rated at 4000A. The two (2) 500/230kV transformer will each have a capacity of 1200 MVA.

	Normal ratings	**Emergency ratings**
Summer (MVA)	3464.000000	3464.000000
Winter (MVA)	3464.000000	3464.000000

Environmental assessment	The proposed Project was sited to avoid and minimize impacts to wetlands or other areas of environmental concern based on GIS data. It is possible that the Project cannot avoid impacts to a limited number of wetlands and waterways. If so, Proposer expects the Project will be subject to regulation under certain permitting programs, namely Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act, and Section 401 of the Clean Water Act. Proposer will engage a qualified consultant to conduct a wetlands delineation of the selected site/route in order to establish the extent of proposed impacts and the need for specific permits from the state or U.S. Army Corps of Engineers. In addition to the permits described above, Proposer has identified other permits which may be required for the construction of the Project. Proposer considers these permits to be minor due to the more limited effort to prepare applications and the less intensive permitting processes which follow. These include permits related to airspace clearance, stormwater/erosion and sedimentation control, road crossings, and utility and railroad crossings.
Outreach plan	Proposer will identify and engage stakeholders, such as community officials and landowners within the Project area, early in the process and maintain an active dialogue throughout. Public meetings may be held to offer a venue for landowners and other interested community members to learn about the Project and for Proposer to learn more about specific landowner and community preferences. Proposer plans to make information available on its website and provide notification of public meetings to landowners within the Project area as required in the siting approval process.
Land acquisition plan	The Project will be located primarily on new right-of-way to be purchased by Proposer. In addition, Proposer will procure any necessary easements required to access the site. Proposer will assign a Right-of-Way Manager to oversee all real estate related activities for the Project including appraisals, title work, surveying, land acquisition and restoration. A right-of-way agent will contact the property owner(s) in person to explain the Project and, as necessary, secure permission to conduct surveys, archaeological studies, etc. The right-of-way agent will be the primary point of contact to negotiate with the property owner to acquire the substation site and any required easements on a mutually agreeable basis. To the extent that negotiations reach an impasse, Proposer will be able to pursue eminent domain. The right-of-way agents will continue to act as a liaison with the property owners during construction and through the restoration process.

Construction responsibility	CONFIDENTIAL
Benefits/Comments	CONFIDENTIAL

Component Cost Details - In Current Year $

Engineering & design	CONFIDENTIAL
Permitting / routing / siting	CONFIDENTIAL
ROW / land acquisition	CONFIDENTIAL
Materials & equipment	CONFIDENTIAL
Construction & commissioning	CONFIDENTIAL
Construction management	CONFIDENTIAL
Overheads & miscellaneous costs	CONFIDENTIAL
Contingency	CONFIDENTIAL
Total component cost	$73,101,957.00
Component cost (in-service year)	$84,202,406.00

Transmission Line Upgrade Component

Component title	East Windsor - New Freedom 500kV Interconnection
Project description	CONFIDENTIAL
Impacted transmission line	East Windsor - New Freedom
Point A	East Windsor
Point B	New Freedom
Point C	
Terrain description	The terrain traversed by the project features mainly scrub land areas.

Existing Line Physical Characteristics

Operating voltage	500
Conductor size and type	N/A
Hardware plan description	N/A
Tower line characteristics	N/A

Proposed Line Characteristics

	Designed	**Operating**
Voltage (kV)	500.000000	500.000000
	Normal ratings	**Emergency ratings**
Summer (MVA)	2654.000000	2983.000000
Winter (MVA)	2931.000000	3229.000000

Conductor size and type	N/A
Shield wire size and type	N/A
Rebuild line length	<0.25 miles
Rebuild portion description	The existing line will be broken and new deadend towers installed to facilitate looping into the new Old York 500/230kV Substation.
Right of way	The existing right-of-way will be reused to facilitate the transmission interconnection facilities necessary to loop the lines into the new substation.
Construction responsibility	CONFIDENTIAL
Benefits/Comments	CONFIDENTIAL

Component Cost Details - In Current Year $

Engineering & design	CONFIDENTIAL
Permitting / routing / siting	CONFIDENTIAL

ROW / land acquisition	CONFIDENTIAL
Materials & equipment	CONFIDENTIAL
Construction & commissioning	CONFIDENTIAL
Construction management	CONFIDENTIAL
Overheads & miscellaneous costs	CONFIDENTIAL
Contingency	CONFIDENTIAL
Total component cost	$1,150,000.00
Component cost (in-service year)	$1,400,199.00

Transmission Line Upgrade Component

Component title	Burlington - Crosswick 230kV Interconnection
Project description	CONFIDENTIAL
Impacted transmission line	Burlington - Crosswick
Point A	Burlington
Point B	Crosswick
Point C	
Terrain description	The terrain traversed by the project features mainly scrub land areas.

Existing Line Physical Characteristics

Operating voltage	230
Conductor size and type	N/A
Hardware plan description	N/A
Tower line characteristics	N/A

Proposed Line Characteristics

	Designed	Operating
Voltage (kV)	230.000000	230.000000
	Normal ratings	**Emergency ratings**
Summer (MVA)	947.000000	1094.000000
Winter (MVA)	1012.000000	1158.000000
Conductor size and type	N/A	
Shield wire size and type	N/A	
Rebuild line length	<0.25 miles	
Rebuild portion description	The existing line will be broken and new deadend towers installed to facilitate looping into the new Old York 500/230kV Substation.	
Right of way	The existing right-of-way will be reused to facilitate the transmission interconnection facilities necessary to loop the lines into the new substation.	
Construction responsibility	CONFIDENTIAL	
Benefits/Comments	CONFIDENTIAL	

Component Cost Details - In Current Year $

Engineering & design	CONFIDENTIAL
Permitting / routing / siting	CONFIDENTIAL
ROW / land acquisition	CONFIDENTIAL
Materials & equipment	CONFIDENTIAL
Construction & commissioning	CONFIDENTIAL
Construction management	CONFIDENTIAL

Overheads & miscellaneous costs	CONFIDENTIAL
Contingency	CONFIDENTIAL
Total component cost	$690,000.00
Component cost (in-service year)	$840,119.00

Transmission Line Upgrade Component

Component title	Mansfield - William 230kV Interconnection
Project description	CONFIDENTIAL
Impacted transmission line	Mansfield - William
Point A	Mansfield
Point B	William
Point C	
Terrain description	The terrain traversed by the project features mainly scrub land areas.

Existing Line Physical Characteristics

Operating voltage	230/138
Conductor size and type	N/A
Hardware plan description	N/A
Tower line characteristics	N/A

Proposed Line Characteristics

	Designed	**Operating**
Voltage (kV)	230.000000	230.000000
	Normal ratings	**Emergency ratings**

Summer (MVA)	731.000000	885.000000
Winter (MVA)	821.000000	978.000000
Conductor size and type	N/A	
Shield wire size and type	N/A	
Rebuild line length	<0.25 miles	
Rebuild portion description	The existing line will be broken and new deadend towers installed to facilitate looping into the new Old York 500/230kV Substation.	
Right of way	The existing right-of-way will be reused to facilitate the transmission interconnection facilities necessary to loop the lines into the new substation.	
Construction responsibility	CONFIDENTIAL	
Benefits/Comments	CONFIDENTIAL	

Component Cost Details - In Current Year $

Engineering & design	CONFIDENTIAL
Permitting / routing / siting	CONFIDENTIAL
ROW / land acquisition	CONFIDENTIAL
Materials & equipment	CONFIDENTIAL
Construction & commissioning	CONFIDENTIAL
Construction management	CONFIDENTIAL
Overheads & miscellaneous costs	CONFIDENTIAL
Contingency	CONFIDENTIAL
Total component cost	$690,000.00
Component cost (in-service year)	$840,119.00

Congestion Drivers

None

Existing Flowgates

FG #	From Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
28-GD-S66	206316	28WINDSOR	219752	CLRKSVLL_1	1	230	228/231	Gen Deliv (Summer)	Included
28-GD-S2-S3	206316	28WINDSOR	219752	CLRKSVLL_1	1	230	228/231	Gen Deliv (Summer)	Included
35-GD-S2-S2	218306	DEANS	218304	BRUNSWCK	1	230/230	231/231	Gen Deliv (Summer)	Included
35-GD-W9	218306	DEANS	218304	BRUNSWCK	1	230/230	231/231	Gen Deliv (winter)	Included
35-GD-W7	218306	DEANS	218304	BRUNSWCK	1	230/230	231/231	Gen Deliv (winter)	Included
35-GD-W4	218306	DEANS	218304	BRUNSWCK	1	230/230	231/231	Gen Deliv (winter)	Included
35-GD-S2-W16	218306	DEANS	218304	BRUNSWCK	1	230/230	231/231	Gen Deliv (winter)	Included
35-GD-S2-W15	218306	DEANS	218304	BRUNSWCK	1	230/230	231/231	Gen Deliv (winter)	Included
35-GD-S2-W13	218306	DEANS	218304	BRUNSWCK	1	230/230	231/231	Gen Deliv (winter)	Included
28-GD-S2-W94	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (winter)	Included
28-GD-S2-W98	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (winter)	Included
28-GD-S2-W97	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (winter)	Included
28-GD-S2-W6	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (winter)	Included
28-GD-S2-W7	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (winter)	Included
28-GD-S2-S2	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (Summer)	Included
28-GD-S2-S1	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (Summer)	Included
28-GD-W6	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (winter)	Included
28-GD-W8	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (winter)	Included
28-GD-W3	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (winter)	Included
28-GD-W108	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (winter)	Included
28-GD-W109	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (winter)	Included
28-GD-S65	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (Summer)	Included
28-GD-S64	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (Summer)	Included

FG #	From Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
35-GD-L14	218306	DEANS	218304	BRUNSWCK	1	230	231	Light Load - Gen Deliv	Included
28-GD-L14	218306	DEANS	218304	BRUNSWCK	1	230	231	Light Load - Gen Deliv	Included
28-GD-S72	219104	CLRKSVLL_2	217150	LAWRENCE	1	230	231	Gen Deliv (Summer)	Included
28-GD-S73	200006	DEANS C	218306	DEANS	3	500/230	231	Gen Deliv (Summer)	Included

New Flowgates

CONFIDENTIAL

Financial Information

Capital spend start date	01/2024
Construction start date	01/2026
Project Duration (In Months)	52

Cost Containment Commitment

Cost cap (in current year)	CONFIDENTIAL
Cost cap (in-service year)	CONFIDENTIAL

Components covered by cost containment

1. Old York 230/500kV Substation - Proposer

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	Yes
AFUDC	Yes
Escalation	No
Additional Information	CONFIDENTIAL
Is the proposer offering a binding cap on ROE?	No
Is the proposer offering a Debt to Equity Ratio cap?	CONFIDENTIAL

Additional Comments

None