Hunterstown #2 500/230 kV Transformer

General Information

Proposing entity name	Confidential Information
Does the entity who is submitting this proposal intend to be the Designated Entity for this proposed project?	Confidential Information
Company proposal ID	Confidential Information
PJM Proposal ID	502
Project title	Hunterstown #2 500/230 kV Transformer
Project description	Install a new 500/230 kV Transformer at Hunterstown Substation. Reconfigure the 500 kV and 230 kV yards at Hunterstown Substation to accommodate the new transformer installation.
Email	Confidential Information
Project in-service date	12/2030
Tie-line impact	No
Interregional project	No
Is the proposer offering a binding cap on capital costs?	No
Additional benefits	Confidential Information

Project Components

1. Hunterstown #2 500/230 kV Transformer

Substation Upgrade Component

Component title	Hunterstown #2 500/230 kV Transformer
Project description	Confidential Information

Substation name	Hunterstown (Bus #200026)
Substation zone	227
Substation upgrade scope	Below Grade: - Install (1 Lot) of foundations, conduit, and grounding for new equipment. - Install (1 Lot) of cable trench. - Install (1 Lot) of stoning, grading, and ground grid for the substation yard expansion. Above Grade: - Install (3) 500/230 kV single phase transformers. - Install (4) 500 kV circuit breakers. - Install (7) 500 kV MOAB disconnect switches. (Assume breaker disconnects are also MOAB at 500 kV) - Install (3) 500 kV MOAB disconnect switches. - Install (5) 500 kV CCVTs. - Install (12) 500kV surge arresters. - Install (5) 500 kV steel H-frame deadend structures. - Install (1) 230 kV MOAB disconnect switch. - Install (1) 230 kV steel H-frame deadend structure. - Install (1 Lot) of 500 kV hard bus, conductor, insulators, steel structures, connectors, fittings, and conduit. - Install (1 Lot) of fencing for substation yard expansion. - Re-terminate transmission conductors on new deadend structures for 500kV lines Hunterstown CT #1 & Hunterstown CT#2. Relaying & Control: - Install (1) transformer protection panel consisting of (1) SEL-587, (1) SEL-487E & (1) SEL-587 relays. - Install (2) bus protection panels consisting of (2) SEL-487B relays each. - Install (4) breaker failure protection panels consisting of (1) SEL-451 each. - Install (1 Lot) of control cable, SIS wire, and data cables. - Revise existing relay settings as required. Additional Equipment to be Removed: - Remove (1) 230 kV series reactor from TR#1 low side.

Transformer Information

	Name	Capacity (MVA)		
Transformer	Hunterstown #2	957/1085/1500 MVA SN/SSTE/SLD		
	High Side	Low Side	Tertiary	
Voltage (kV)	500	230		

New equipment description	Below Grade: - Install (1 Lot) of foundations, conduit, and grounding for new equipment. - Install (1 Lot) of cable trench. - Install (1 Lot) of stoning, grading, and ground grid for the substation yard expansion. Above Grade: - Install (3) 500/230 kV single phase transformers. - Install (4) 500 kV circuit breakers. - Install (7) 500 kV MOAB disconnect switches. (Assume breaker disconnects are also MOAB at 500 kV) - Install (3) 500 kV MOAB disconnect switches. - Install (5) 500 kV CCVTs. - Install (12) 500 kV surge arresters. - Install (5) 500 kV steel H-frame deadend structures. - Install (1) 230 kV MOAB disconnect switch. - Install (1) 230 kV steel H-frame deadend structure. - Install (1 Lot) of 500kV hard bus, conductor, insulators, steel structures, connectors, fittings, and conduit. - Install (1 Lot) of fencing for substation yard expansion. - Re-terminate transmission conductors on new deadend structures for 500kV lines Hunterstown CT #1 & Hunterstown CT#2. Relaying & Control: - Install (1) transformer protection panel consisting of (1) SEL-587, (1) SEL-487E & (1) SEL-587 relays. - Install (2) bus protection panels consisting of (2) SEL-487B relays each. - Install (4) breaker failure protection panels consisting of (1) SEL-451 each. - Install (1 Lot) of control cable, SIS wire, and data cables. - Revise existing relay settings as required. Additional Equipment to be Removed: - Remove (1) 230 kV series reactor from TR#1 low side.
Substation assumptions	- Hunterstown Substation will require expansion. - Substation expansion will not require any structure relocations for the Hunterstown - Lincoln - Ortanna 115 kV Line. - Substation expansion will not require structure relocations for new the Hunterstown - Carroll 230kV Line. - New relay panels can be accommodated in the current control house. - Wetland mitigation is required for substation expansion.
Real-estate description	Real estate acquisition will be required.
Construction responsibility	Confidential Information
Benefits/Comments	Confidential Information
Component Cost Details - In Current Year $	
Engineering & design	Confidential Information
Permitting / routing / siting	Confidential Information
ROW / land acquisition	Confidential Information
Materials & equipment	Confidential Information
Construction & commissioning	Confidential Information
Construction management	Confidential Information
Overheads & miscellaneous costs	Confidential Information

Contingency	Confidential Information
Total component cost	$43,092,242.00
Component cost (in-service year)	$50,410,439.00

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-GD-S462	200026	HUNTERTN	204501	27HUNTRSTN	1	500/230	227	Summer Gen Deliv	Included
2024W1-GD-S88	200026	HUNTERTN	204501	27HUNTRSTN	1	500/230	227	Summer Gen Deliv	Included

New Flowgates

Confidential Information

Financial Information

Capital spend start date	03/2025
Construction start date	03/2030
Project Duration (In Months)	69

Additional Comments

Please call or email with any questions.