

Install an Approx. 294 MVar Cap Bank at Lexington substation

General Information

Proposing entity name	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Does the entity who is submitting this proposal intend to be the Designated Entity for this proposed project?	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Company proposal ID	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
PJM Proposal ID	722
Project title	Install an Approx. 294 MVar Cap Bank at Lexington substation
Project description	Expand Substation. Install approximately 294 MVar cap bank at 500kV Lexington substation along with a 500kV breaker. Adjust the tap positions associated with the two 230/69kV TXs at Harrisonburg to neutral position and lock them.
Email	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Project in-service date	06/2026
Tie-line impact	No
Interregional project	No
Is the proposer offering a binding cap on capital costs?	No
Additional benefits	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.

Project Components

1. Lexington Substation

Substation Upgrade Component

Component title	Lexington Substation
Project description	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.

Substation name	Lexington
Substation zone	366
Substation upgrade scope	-Install an Approx. 294 MVar cap bank at 500kV Lexington substation along with a 500kV breaker - Adjust the tap positions associated with the two 230/69kV TXs at Harrisonburg to neutral position and lock them - Expand Substation. Purchase property adjacent to substation to allow for site expansion, Cap Bank installation, ground grid installation, and required buffering requirements - Expand Level 1 security fence - Install one (1) static pole with foundation at Lexington Substation. - Install 0.15 mi (3 spans) of 7#7 ALWD shield wire at Lexington Substation.

Transformer Information

None	
New equipment description	Purchase and install : 1. One (1), 500kV, 4000A Switch 2. One (1), 500kV, 63kA Breaker (Sync Close) 3. One (1), Series Air Reactor (Equipment engineering to provide site specific rating) 4. Three (3), 396kV, 318kV MCOV Arrestors 5. Two (2), 500kV, 4000A Switches 6. One (1), 343.2MVAR, 540.4 kV Cap Bank 7. Conductor, steel, fencing, connectors, insulators, and grounding materials as per engineering standards. 8. Install one (1) static pole with foundation 9. Install 0.15 mi (3 spans) of 7#7 ALWD shield wire Purchase & Install Relay Material: 1. One (1), 4521 – Synchronous Breaker Monitor 2. One (1), 4510 - SEL-2411 Breaker Annunciator 3. One (1), 1518 – 28” SEL-351 Cap. Bank Breaker w/ Sync. Close Panel 4. One (1), 1558 – 28” SEL-487V Transmission Cap. Bank Panel 5. Two (2), 4518 – Cap. Bank Mid-Point Potential M.U. Box 6. One (1), 4526_B – Sync. Breaker Fiber M.U. Box
Substation assumptions	N/A
Real-estate description	The substation footprint will be expanded to accommodate the new equipment.
Construction responsibility	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Benefits/Comments	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Component Cost Details - In Current Year \$	
Engineering & design	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Permitting / routing / siting	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
ROW / land acquisition	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Materials & equipment	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.

Construction & commissioning	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Construction management	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Overheads & miscellaneous costs	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Contingency	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Total component cost	\$5,860,240.00
Component cost (in-service year)	\$6,276,317.00

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
N1-LLVD2	314901	8BATH CO	314901	8BATH CO	0	500	345	Voltage Drop Light Load	Included
N1-LLVD3	314901	8BATH CO	314901	8BATH CO	0	500	345	Voltage Drop Light Load	Included
N1-LLVM3	314901	8BATH CO	314901	8BATH CO	0	500	345	Voltage Magnitude Light Load	Included
N1-LLVM4	314901	8BATH CO	314901	8BATH CO	0	500	345	Voltage Magnitude Light Load	Included
N1-LLVM5	314901	8BATH CO	314901	8BATH CO	0	500	345	Voltage Magnitude Light Load	Included
N1-LLVM6	314901	8BATH CO	314901	8BATH CO	0	500	345	Voltage Magnitude Light Load	Included
N1-LLVM7	314901	8BATH CO	314901	8BATH CO	0	500	345	Voltage Magnitude Light Load	Included
N1-LLVM8	314901	8BATH CO	314901	8BATH CO	0	500	345	Voltage Magnitude Light Load	Included
N1-LLVD1	314912	8LEXNGTN	314912	8LEXNGTN	0	500	345	Voltage Drop Light Load	Included
N1-LLVM1	314912	8LEXNGTN	314912	8LEXNGTN	0	500	345	Voltage Magnitude Light Load	Included
N1-LLVM2	314912	8LEXNGTN	314912	8LEXNGTN	0	500	345	Voltage Magnitude Light Load	Included

New Flowgates

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Financial Information

Capital spend start date	06/2025
Construction start date	01/2026
Project Duration (In Months)	12

Additional Comments

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