

Upgrades for Deans 3000 MW Injection

General Information

Proposing entity name	NEETMH
Does the entity who is submitting this proposal intend to be the Designated Entity for this proposed project?	Yes
Company proposal ID	1A-D30
PJM Proposal ID	44
Project title	Upgrades for Deans 3000 MW Injection
Project description	Upgrades for 2-D30 injection
Email	Johnbinh.Vu@nexteraenergy.com
Project in-service date	10/2025
Tie-line impact	Yes
Interregional project	No
Is the proposer offering a binding cap on capital costs?	No
Additional benefits	

Project Components

1. Reconductor existing Deans - Brunswick 230 kV OH line
2. Add 1x Phase Shifting Transformer (PST) at Aldene 230kV substation
3. Increase existing Linden Bergen_4 - Bergen_R 138 kV bus section ratings
4. Eliminate conditions which derate the Smithburg-E. Windsor 230 kV line

Transmission Line Upgrade Component

Component title	Reconductor existing Deans - Brunswick 230 kV OH line
Project description	Reconductor existing Deans - Brunswick 230 kV OH line
Impacted transmission line	Brunswick to Deans 230 kV line
Point A	Brunswick
Point B	Deans
Point C	
Terrain description	Expect to utilize existing easements/utility owned property, no expansion anticipated

Existing Line Physical Characteristics

Operating voltage	230
Conductor size and type	Same as existing
Hardware plan description	Utilize existing line hardware to extent practicable
Tower line characteristics	Utilize existing towers to extent practicable

Proposed Line Characteristics

	Designed	Operating
Voltage (kV)	230.000000	230.000000
	Normal ratings	Emergency ratings
Summer (MVA)	937.000000	1123.000000
Winter (MVA)	982.000000	1173.000000
Conductor size and type	1272 kcmil Bittern ACSS HS	
Shield wire size and type	Utilize existing shield wire to extent practicable	
Rebuild line length	3.6 miles	

Rebuild portion description	Proposing to reconductor the entire line (or necessary portion) to achieve the specified rating
Right of way	Use of existing ROW, no expansion anticipated
Construction responsibility	PSEG
Benefits/Comments	Resolves reliability issues identified per PJM's Gen. Deliv. Process

Component Cost Details - In Current Year \$

Engineering & design	Confidential competitive information
Permitting / routing / siting	Confidential competitive information
ROW / land acquisition	Confidential competitive information
Materials & equipment	Confidential competitive information
Construction & commissioning	Confidential competitive information
Construction management	Confidential competitive information
Overheads & miscellaneous costs	Confidential competitive information
Contingency	Confidential competitive information
Total component cost	\$4,680,000.00
Component cost (in-service year)	\$5,070,000.00

Substation Upgrade Component

Component title	Add 1x Phase Shifting Transformer (PST) at Aldene 230kV substation
Project description	Add 1x Phase Shifting Transformer (PST) at Aldene substation in series with Aldene-Springfield Road Bus Section 2 230 kV line
Substation name	Aldene 230 kV
Substation zone	PSEG

Substation upgrade scope

Add 1x Phase Shifting Transformers at Aldene substation in series with Aldene-Springfield Road Bus Section 2 230 kV line to following ratings - Summer Normal :766 MVA Summer Emergency : 963 MVA

Transformer Information

	Name	Capacity (MVA)	
Transformer	Aldene 230kV PST	766	
	High Side	Low Side	Tertiary
Voltage (kV)	230	230	0
New equipment description	Add 1x Phase Shifter at Aldene 230kV substation with the following ratings: 766 (summer normal) and 963 (summer emergency)		
Substation assumptions	Use available space in sub to add phase shifting transformer		
Real-estate description	No expansion of substation fence anticipated		
Construction responsibility	PSEG		
Benefits/Comments	Resolves reliability issues identified per PJM's Gen. Deliv. Process		
Component Cost Details - In Current Year \$			
Engineering & design	Confidential competitive information		
Permitting / routing / siting	Confidential competitive information		
ROW / land acquisition	Confidential competitive information		
Materials & equipment	Confidential competitive information		
Construction & commissioning	Confidential competitive information		
Construction management	Confidential competitive information		
Overheads & miscellaneous costs	Confidential competitive information		
Contingency	Confidential competitive information		

Total component cost \$15,000,000.00
 Component cost (in-service year) \$16,240,000.00

Substation Upgrade Component

Component title Increase existing Linden Bergen_4 - Bergen_R 138 kV bus section ratings
 Project description Increase existing Linden Bergen_4 - Bergen_R 138 kV bus sections
 Substation name Bergen 138 kV
 Substation zone PSEG
 Substation upgrade scope 0

Transformer Information

	Name	Capacity (MVA)		
Transformer	Linden Bergen_4 - Bergen_R 138 kV bus sections			
		High Side	Low Side	Tertiary
Voltage (kV)	0	0		0
New equipment description	AC Substation : Busbar with MVA of 243 (summer normal) and 360 (summer emergency)			
Substation assumptions	0			
Real-estate description	No expansion of substation fence anticipated			
Construction responsibility	PSEG			
Benefits/Comments	Resolves reliability issues identified per PJM's Gen. Deliv. Process			

Component Cost Details - In Current Year \$

Engineering & design Confidential competitive information
 Permitting / routing / siting Confidential competitive information

ROW / land acquisition	Confidential competitive information
Materials & equipment	Confidential competitive information
Construction & commissioning	Confidential competitive information
Construction management	Confidential competitive information
Overheads & miscellaneous costs	Confidential competitive information
Contingency	Confidential competitive information
Total component cost	\$3,000,000.00
Component cost (in-service year)	\$3,250,000.00

Transmission Line Upgrade Component

Component title	Eliminate conditions which derate the Smithburg-E. Windsor 230 kV line
Project description	eliminate conditions that will derate the existing time
Impacted transmission line	Smithburg to East Windsor 230 kV line
Point A	Smithburg
Point B	E. Windsor
Point C	
Terrain description	existing line being uprated

Existing Line Physical Characteristics

Operating voltage	230
Conductor size and type	existing conductor
Hardware plan description	upgrade any hardware necessary to allow circuit to be rated at conductor rating
Tower line characteristics	utilize existing structures to the extent practicable

Proposed Line Characteristics

	Designed	Operating
Voltage (kV)	230.000000	230.000000
	Normal ratings	Emergency ratings
Summer (MVA)	1245.000000	1394.000000
Winter (MVA)	1476.000000	1652.000000
Conductor size and type	Same as existing	
Shield wire size and type	Same as existing	
Rebuild line length	none	
Rebuild portion description	no rebuild anticipated, eliminate issues to increase the rating of the line	
Right of way	no new row anticipated	
Construction responsibility	JCPL	
Benefits/Comments		

Component Cost Details - In Current Year \$

Engineering & design	Confidential competitive information
Permitting / routing / siting	Confidential competitive information
ROW / land acquisition	Confidential competitive information
Materials & equipment	Confidential competitive information
Construction & commissioning	Confidential competitive information
Construction management	Confidential competitive information
Overheads & miscellaneous costs	Confidential competitive information

Contingency

Confidential competitive information

Total component cost

\$5,000,000.00

Component cost (in-service year)

\$5,410,000.00

Congestion Drivers

None

Existing Flowgates

None

New Flowgates

None

Financial Information

Capital spend start date

04/2021

Construction start date

11/2021

Project Duration (In Months)

54

Additional Comments

None