

Wiley Rd-Conastone 500 kV

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-WILEY3
PJM Proposal ID	587
Project title	Wiley Rd-Conastone 500 kV
Project description	Wiley Rd – Conastone 500 kV Project using adjacent ROW
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?	Yes
Additional benefits	

Project Components

1. Wiley Rd Substation 500 kV
2. Wiley Rd - Conastone 500 kV OH
3. Add 1x Phase Shifting Transformer (PST) at Hope Creek 230 kV substation ...
4. Add 1x Phase Shifting Transformer (PST) at Hope Creek 230 kV substation ...
5. Conastone 500kV Substation Upgrade
6. Loop in existing Peach Bottom - Delta 500 kV OH line circuit into NEETMA...

7. Loop in existing Peach Bottom - Delta 500 kV OH line circuit into NEETMA...

Greenfield Substation Component

Component title	Wiley Rd Substation 500 kV
Project description	New Wiley Rd 500 kV substation with ring bus configuration with 3 positions (3 CB) to solve for overloads on the Peach Bottom – Conastone 500 kV line
Substation name	Wiley Rd
Substation description	New Wiley Rd 500 kV substation with ring bus configuration with 3 positions (3 CB) to solve for overloads on the Peach Bottom – Conastone 500 kV line
Nominal voltage	AC
Nominal voltage	500

Transformer Information

None

Major equipment description New Wiley Rd 500 kV substation with ring bus configuration with 3 positions (3 CB) to solve for overloads on the Peach Bottom – Conastone 500 kV line

	Normal ratings	Emergency ratings
Summer (MVA)	0.000000	0.000000
Winter (MVA)	0.000000	0.000000
Environmental assessment	See Attachment 19	
Outreach plan	See Attachment 1, Section 7.4	
Land acquisition plan	See Attachment 22	
Construction responsibility	Proposer	
Benefits/Comments	See Attachment 1, Section 3.4	

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	\$40,788,000.00
Component cost (in-service year)	\$45,970,282.64

Greenfield Transmission Line Component

Component title	Wiley Rd - Conastone 500 kV OH
Project description	Confidential competitive information
Point A	Wiley Rd
Point B	Conastone
Point C	

	Normal ratings	Emergency ratings
Summer (MVA)	3287.000000	3971.000000
Winter (MVA)	3442.000000	4136.000000
Conductor size and type	2627.3 kcmil Santee ACSS/TW HS (1 conductor per bundle)	

Nominal voltage	AC
Nominal voltage	500
Line construction type	Overhead
General route description	The project will be located adjacent to the existing transmission line corridor. See Attachments 4, 19, and 22
Terrain description	The terrain along the route is generally flat with agricultural and rural residential land uses. A kmz of the route has been provided in Attachment 4
Right-of-way width by segment	See Attachments 4 and 22
Electrical transmission infrastructure crossings	See Attachment 7
Civil infrastructure/major waterway facility crossing plan	See Attachment 7
Environmental impacts	See Attachment 19
Tower characteristics	See Attachment 6
Construction responsibility	Proposer
Benefits/Comments	See Attachment 1, Section 3.4
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 \$43,570,141.00
 Component cost (in-service year) \$47,980,141.00

Substation Upgrade Component

Component title Add 1x Phase Shifting Transformer (PST) at Hope Creek 230 kV substation to prevent downstream overload on Hope-Creek LS Power Ckt. 1
 Project description Add 1x Phase Shifting Transformer (PST) at Hope Creek 230 kV substation to prevent downstream overload on Hope-Creek LS Power Ckt. 1
 Substation name Hope Creek 230 kV
 Substation zone PSEG
 Substation upgrade scope Add 1x Phase Shifting Transformer (PST) at Hope Creek 230 kV substation to prevent downstream overload on Hope-Creek LS Power Ckt. 1

Transformer Information

	Name	Capacity (MVA)	
Transformer	Hope Creek 230 kV PST - Ckt. 1 766		
	High Side	Low Side	Tertiary
Voltage (kV)	230	230	
New equipment description	AC Substation : Phase Shifter		
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	Add 1x Phase Shifting Transformer (PST) at Hope Creek 230 kV substation to prevent downstream overload on Hope-Creek LS Power Ckt. 2
Project description	Add 1x Phase Shifting Transformer (PST) at Hope Creek 230 kV substation to prevent downstream overload on Hope-Creek LS Power Ckt. 1
Substation name	Hope Creek 230 kV
Substation zone	PSEG
Substation upgrade scope	Add 1x Phase Shifting Transformer (PST) at Hope Creek 230 kV substation to prevent downstream overload on Hope-Creek LS Power Ckt. 2

Transformer Information

	Name	Capacity (MVA)	
Transformer	Hope Creek 230 kV PST - Ckt. 2	766	
	High Side	Low Side	Tertiary
Voltage (kV)	230	230	

New equipment description	AC Substation : Phase Shifter
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	Conastone 500kV Substation Upgrade
Project description	Add one new breaker at Conastone 500kV substation to land new NEETMA proposed Wiley Rd - Conastone 500kV OH line
Substation name	Conastone 500 kV
Substation zone	BGE

Substation upgrade scope

Add 1 CB

Transformer Information

None

New equipment description

AC Substation : Upgrade - add one position

Substation assumptions

Space available to add new breaker

Real-estate description

No expansion of substation fence anticipated

Construction responsibility

BGE

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

\$6,080,000.00

Component cost (in-service year)

\$6,570,000.00

Transmission Line Upgrade Component

Component title

Loop in existing Peach Bottom - Delta 500 kV OH line circuit into NEETMA proposed Wiley Rd 500 kV substation and use existing conductors

Project description	Loop in existing Peach Bottom - Delta 500 kV OH line circuit into NEETMA proposed Wiley 500 kV sub, use existing conductors on the section Peach Bottom - Wiley Rd	
Impacted transmission line	New NEETMA-Wiley Rd substation to Peach Bottom 500 kV	
Point A	Wiley Rd	
Point B	Peach Bottom	
Point C		
Terrain description	Expect to utilize existing easements/utility owned property, no expansion anticipated	
Existing Line Physical Characteristics		
Operating voltage	500	
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)	500.000000	500.000000
	Normal ratings	Emergency ratings
Summer (MVA)	2338.000000	2931.000000
Winter (MVA)	2338.000000	2931.000000
Conductor size and type	Same as existing	
Shield wire size and type	Utilize existing shield wire to extent practicable	
Rebuild line length	0.1 miles	
Rebuild portion description	0.1 miles	

Right of way	Use of existing ROW, no expansion anticipated
Construction responsibility	PECO
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	Loop in existing Peach Bottom - Delta 500 kV OH line circuit into NEETMA proposed Wiley Rd 500 kV sub and use existing conductors
Project description	Loop in existing Peach Bottom - Delta 500 kV OH line circuit into NEETMA proposed Wiley Rd 500 kV sub, use existing conductors on the section Wiley Rd - Delta
Impacted transmission line	New NEETMA-Wiley Rd sub to Delta 500 kV line
Point A	Wiley Rd
Point B	Delta
Point C	

Terrain description Expect to utilize existing easements/utility owned property, no expansion anticipated

Existing Line Physical Characteristics

Operating voltage 500
 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)	500.000000	500.000000
	Normal ratings	Emergency ratings
Summer (MVA)	2338.000000	2931.000000
Winter (MVA)	2338.000000	2931.000000
Conductor size and type	Same as existing	
Shield wire size and type	Utilize existing shield wire to extent practicable	
Rebuild line length	0.1 miles	
Rebuild portion description	0.1 miles	
Right of way	Use of existing ROW, no expansion anticipated	
Construction responsibility	PECO	
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

Congestion Drivers

None

Existing Flowgates

None

New Flowgates

None

Financial Information

Capital spend start date	01/2022
Construction start date	12/2024
Project Duration (In Months)	45

Cost Containment Commitment

Cost cap (in current year)

Confidential competitive information

Cost cap (in-service year)

Confidential competitive information

Components covered by cost containment

1. Wiley Rd Substation 500 kV - Proposer
2. Wiley Rd - Conastone 500 kV OH - 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	Yes
Additional Information	Confidential competitive information
Is the proposer offering a binding cap on ROE?	Yes
Would this ROE cap apply to the determination of AFUDC?	Yes
Would the proposer seek to increase the proposed ROE if FERC finds that a higher ROE would not be unreasonable?	No
Is the proposer offering a Debt to Equity Ratio cap?	Confidential competitive information

Additional cost containment measures not covered above

Additional Comments

None