Bushkill - Kittatinny 230 kV line reconductor

General Information

Proposing entity name **Proprietary Information** Does the entity who is submitting this proposal intend to be the **Proprietary Information** Designated Entity for this proposed project? Company proposal ID **Proprietary Information** PJM Proposal ID 17 Project title Bushkill - Kittatinny 230 kV line reconductor Project description Proposer Scope: Reconduct the Bushkill - Kittatinny 230kV line for 0.01 miles out of Bushkill substation with 1590 54/19 ACSS with a rating of 916 MVA SN, 1075 MVA SE, 995.9 MVA WN, and 1115.4 MVA WE. Add two additional 1590 45/7 ACSR sub-conductors to each phase of the Bushkill -Kittatinny 230kV line for the next 1.0 mile to the New Jersey border such that the segment is triple-bundle 1590 45/7 ACSR with a rating of 1645 MVA SN, 2130 MVA SE, 2079 MVA WN, and 2463 MVA WE. Other Scope: Add two additional 1590 45/7 ACSR sub-conductors to each phase of the Bushkill -Kittatinny 230 kV line for 3.4 miles from the New Jersey border to 41.060093° -74.943135° such that the segment is triple-bundle 1590 45/7 ACSR with a rating of 1645 MVA SN, 2130 MVA SE, 2079 MVA WN, and 2463 MVA WE. Reconduct the Bushkill - Kittatinny 230 kV line for 6.7 miles from 41.060093° -74.943135° to the Kittatinny Substation dead-end with 1590 54/19 **Email** ACSS with a rating of 916 MVA SN, 1075 MVA SE, 995.9 MVA WN, and 1115.4 MVA WE. **Proprietary Information** Project in-service date 06/2028 Tie-line impact Yes Interregional project No Is the proposer offering a binding cap on capital costs? Yes Additional benefits **Proprietary Information**

2024-W1-17

Project Components

- 1. Bushkill Kittatinny 230 kV line reconductor (PPL Portion)
- 2. Bushkill Kittatinny 230 kV line reconductor (JCPL Portion)

Transmission Line Upgrade Component

Component title Bushkill - Kittatinny 230 kV line reconductor (PPL Portion)

Project description Proprietary Information

Impacted transmission line

Bushkill - Kittatinny 230 kV line

Point A Bushkill

Point B Kittatinny

Point C

Terrain description Existing transmission corridor congested and mountainous within national park.

Existing Line Physical Characteristics

Operating voltage 230

Conductor size and type 1590 ACSR 45/7

Hardware plan description New hardware will be installed with the proposed conductors.

Tower line characteristics Double circuit 500 kV structures installed as part of the Susquehanna - Roseland 500 kV project in

2015. One side of the structure is operated at 230 kV.

Proposed Line Characteristics

Designed Operating

Voltage (kV) 230.000000 230.000000

Normal ratings Emergency ratings

Summer (MVA) 916.000000 1075.000000

Winter (MVA) 995.900000 1115.400000 Conductor size and type 1590 54/19 ACSS and triple-bundle 1590 45/7 ACSR **OPGW** Shield wire size and type Rebuild line length 1.01 miles Reconduct the Bushkill - Kittatinny 230kV line for 0.01 miles out of Bushkill substation with 1590 Rebuild portion description 54/19 ACSS with a rating of 916 MVA SN, 1075 MVA SE, 995.9 MVA WN, and 1115.4 MVA WE. Add two additional 1590 45/7 ACSR sub-conductors to each phase of the Bushkill - Kittatinny 230kV line for the next 1.0 mile to the New Jersey border such that the segment is triple-bundle 1590 45/7 ACSR with a rating of 1645 MVA SN, 2130 MVA SE, 2079 MVA WN, and 2463 MVA WE. Right of way Work will take place in existing ROW. No expansion is required. Construction responsibility **Proprietary Information** Benefits/Comments **Proprietary Information** Component Cost Details - In Current Year \$ Engineering & design **Proprietary Information Proprietary Information** Permitting / routing / siting ROW / land acquisition **Proprietary Information** Materials & equipment **Proprietary Information** Construction & commissioning **Proprietary Information Proprietary Information** Construction management Overheads & miscellaneous costs **Proprietary Information Proprietary Information** Contingency Total component cost \$3,500,000.00

\$3,835,319.70

Component cost (in-service year)

Transmission Line Upgrade Component

Component title Bushkill - Kittatinny 230 kV line reconductor (JCPL Portion)

Project description Proprietary Information

Impacted transmission line

Bushkill - Kittatinny 230 kV line

Point A Bushkill

Point B Kittatinny

Point C

Terrain description Existing transmission corridor congested and mountainous within national park.

Existing Line Physical Characteristics

Operating voltage 230

Conductor size and type 1590 ACSR 45/7

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Tower line characteristics Double circuit 500 kV structures installed as part of the Susquehanna - Roseland 500 kV project in

2015. One side of the structure is operated at 230 kV.

Proposed Line Characteristics

Designed Operating

Voltage (kV) 230.000000 230.000000

Normal ratings Emergency ratings

Summer (MVA) 916.000000 1075.000000

Winter (MVA) 995.900000 1115.400000

Conductor size and type 1590 54/19 ACSS and triple-bundle 1590 45/7 ACSR

Shield wire size and type OPGW

Rebuild line length

Rebuild portion description

Add two additional 1590 45/7 ACSR sub-conductors to each phase of the Bushkill - Kittatinny 230 kV line for 3.4 miles from the New Jersey border to 41.060093° -74.943135° such that the segment

10.1 miles

is triple-bundle 1590 45/7 ACSR with a rating of 1645 MVA SN, 2130 MVA SE, 2079 MVA WN, and 2463 MVA WE. Reconduct the Bushkill - Kittatinny 230 kV line for 6.7 miles from 41.060093° -74.943135° to the Kittatinny Substation dead-end with 1590 54/19 ACSS with a rating of 916 MVA

SN, 1075 MVA SE, 995.9 MVA WN, and 1115.4 MVA WE.

Right of way Work will take place in existing ROW. No expansion is required.

Construction responsibility Proprietary Information

Benefits/Comments Proprietary Information

Component Cost Details - In Current Year \$

Engineering & design Proprietary Information

Permitting / routing / siting Proprietary Information

ROW / land acquisition Proprietary Information

Materials & equipment Proprietary Information

Construction & commissioning Proprietary Information

Construction management Proprietary Information

Overheads & miscellaneous costs Proprietary Information

Contingency Proprietary Information

Total component cost \$31,500,000.00

Component cost (in-service year) \$32,911,493.09

Congestion Drivers

None

Existing Flowgates

None

New Flowgates

Proprietary Information

Financial Information

Capital spend start date 05/2025

Construction start date 09/2027

Project Duration (In Months) 37

Cost Containment Commitment

Cost cap (in current year) Proprietary Information

Cost cap (in-service year) Proprietary Information

Components covered by cost containment

1. Bushkill - Kittatinny 230 kV line reconductor (PPL Portion) - PPL

Cost elements covered by cost containment

Engineering & design Yes

Permitting / routing / siting No

ROW / land acquisition No

Materials & equipment Yes

Construction & commissioning Yes

Construction management Yes

Overheads & miscellaneous costs

No

Taxes

No

AFUDC

No

Escalation

No

Additional Information

Proprietary Information

Is the proposer offering a binding cap on ROE?

No

Is the proposer offering a Debt to Equity Ratio cap?

Proprietary Information

Additional Comments

None