# 230kv Eagle Point - Penrose

#### **General Information**

Proposing entity name

Does the entity who is submitting this proposal intend to be the Designated Entity for this proposed project?

Company proposal ID

PJM Proposal ID

Project title

Project description

**Email** 

Project in-service date

Tie-line impact

Interregional project

Is the proposer offering a binding cap on capital costs?

Additional benefits

**Project Components** 

- 1. 230kV New Eagle Point Penrose
- 2. New Eagle Point Station
- 3. Penrose Station Upgrade
- 4. Gloucester Station Upgrade
- 5. Peltz Upgrade

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955

230kv Eagle Point - Penrose

Construct New 5.1-mile 230kV circuit from a new station near the existing Eagle Point station to the existing Penrose station.

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06/2029

Yes

No

No

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- 6. Grays Ferry Upgrade
- 7. Eagle Point Upgrade
- 8. New Eagle Point to Gloucester Circuit
- 9. New Eagle Point to Thorofare
- 10. Eagle Point Gen Lead Line

#### **Greenfield Transmission Line Component**

Component title 230kV New Eagle Point - Penrose

Project description CONFIDENTIAL

Point A New Eagle Point 230kV Station

Point B Penrose 230kV Station

Point C

Normal ratings Emergency ratings

Summer (MVA) 798.000000 1297.000000

Winter (MVA) 798.000000 1297.000000

Conductor size and type

Twin bundled 1033 kcmil ACSS "Curlew" (OH); 2x5000 kcmil XLPE per phase (UG)

Nominal voltage AC

Nominal voltage 230

Line construction type Overhead, Underground

General route description Terrain description Right-of-way width by segment Electrical transmission infrastructure crossings Civil infrastructure/major waterway facility crossing plan **Environmental impacts** Tower characteristics

The new proposed 230kV circuit will be approximately 5.1 miles in length involving an underground section and an overhead section connecting the new Eagle Point Station in Westville, Gloucester County, New Jersey, to the existing PECO Penrose Station in the City of Philadelphia, PA. This new transmission line consists of approximately 1.5 miles of 230kV overhead transmission and approximately 3.6 miles underground 230kV XLPE transmission. The overhead portion of the route is from the new Eagle Point Station to the Horizontal Direction Drill (HDD) entry point for the Delaware crossing. The underground portion of the route is from the HDD crossing of the Delaware River through to the Penrose Station including the HDD crossing of the Schuylkill River. Much of the proposed cable route and station development is sited within former industrial properties, with the proposed HDD portions of the route being located in the Delaware River and the Schuylkill River. A portion of the proposed cable route and two (2) of the HDD-related work areas (exit and entry workspaces) are located within an existing federally owned Fort Mifflin Confined Disposal Facility (CDF). The proposal cost and modeling files included in the proposal are based on this route.

The terrestrial portion of the new 230-kV AC circuit will be installed, primarily in privately owned properties; requiring easements through this mostly flat ground.

The Project proposes to utilize the following right-of-way widths: (1) 100' for overhead (OH) 230kV transmission lines (50' off the centerline, both sides); (2) 20' for underground (UG) duct banks.

There are no electrical transmission crossing in the proposed route.

"Special Crossings - Along the cable routes, where open trenching or overhead transmission is not viable, special crossing techniques will be used to install the cable while minimizing environmental impacts. - Horizontal Directional Drilling (HDD): There will be two (2) major river crossings associated with this project: one under the Delaware River from the Eagle Point to Mud Island and a second under the Schuylkill River from Mud Island to the area near the PECO Substation. The Delaware River crossing will be approximately 9,000 feet long and the Schuylkill River crossing will be approximately 1,000 feet long. Each crossing will consist of two (2) HDDs to accommodate 36"" pipe casings. Each 36"" pipe casing will house conduits for three (3) single core 230kV, 5000kcmil, enamel-coated, copper conductor XLPE power cables and one (1) spare conduit, fiber optic communication cables for relay and protection, and piping required to install the thermal grouting following installation. HDD burial depths below the federally maintained navigable channels will comply with USACE requirements. PSEG has received proposals, including pricing, from multiple major HDD contractors confirming the feasibility of the HDDs for this project. - RR Crossings: The overhead portion of the new Eagle Point- Penrose circuit crosses a privately owned railroad, within the Sunoco property. The extensions of the Eagle Point - Thorofare and Eagle Point - Gloucester circuits, cross the same rail, but at a different location. "

Part of attached supporting documents.

Monopoles with conductors supported in a delta configuration are being proposed for the overhead segment. Refer to supporting documents.

Construction responsibility CONFIDENTIAL

Benefits/Comments CONFIDENTIAL

Component Cost Details - In Current Year \$

Engineering & design CONFIDENTIAL

Permitting / routing / siting CONFIDENTIAL

ROW / land acquisition CONFIDENTIAL

Materials & equipment CONFIDENTIAL

Construction & commissioning CONFIDENTIAL

Construction management CONFIDENTIAL

Overheads & miscellaneous costs CONFIDENTIAL

Contingency CONFIDENTIAL

Total component cost \$291,781,692.66

Component cost (in-service year) \$324,178,233.57

**Greenfield Substation Component** 

Component title New Eagle Point Station

Project description CONFIDENTIAL

Substation name New Eagle Point Station

Substation description New 230kV (5) breaker ring bus substation

Nominal voltage AC

Nominal voltage 230

Transformer Information

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None

Major equipment description

Summer (MVA)

Winter (MVA)

Environmental assessment

Outreach plan

Install a new five (5) 80kA breaker ring bus station with associated disconnects, line disconnects, metering equipment, control house and relays.

| Normal ratings | Emergency ratings |
|----------------|-------------------|
| 1192.000000    | 1422.000000       |
| 1276.000000    | 1508.000000       |

Part of attached supporting documents.

PSEG has developed a comprehensive communication process for all transmission projects to adequately keep stakeholders engaged at all levels, including public officials, municipal officials, environmental organizations, business customers, and residents. This process ensures constant and detailed communication efforts throughout all phases of a project, including pre, mid and post-construction activities. PSEG has been able to gain a thorough understanding of the various concerns typically raised by either directly impacted or peripheral parties, such as potential impacts to the local community during construction activities, concerns regarding electromagnetic fields (EMF), property value, traffic impacts, environmental concerns, visual impacts, and other potential matters. However, more importantly, PSEG has been able to identify solutions for each potential concern, and has strong insight on how to mitigate public apprehension and construction impacts. PSEG's outreach strategy and plan uses multiple and concurrent communication methods to reach and inform and address diverse audiences and knowledge levels such as Public/Community Workshops Door Hangers/Construction Updates during active construction periods, Project hotline and project website to communicate ongoing Project updates, etc.. A variety of communication tactics will be used, tailored to each stakeholder audience and its particular communication style and preference. Communications will be designed to provide adequate information to stakeholders, and the timing of these communications will be aligned with the project's schedule pre- and post-bid submission as appropriate. As details of the project are finalized and upon a potential award, PSEG will create a stronger focus to establish and maintain positive and ongoing relationships with state, local and county officials.

Land acquisition plan

Construction responsibility

Benefits/Comments

Component Cost Details - In Current Year \$

Engineering & design

Permitting / routing / siting

ROW / land acquisition

Materials & equipment

Construction & commissioning

Construction management

Overheads & miscellaneous costs

Contingency

Total component cost

PSEG has identified several properties that are suitable for this proposed solution. The Project Team has initiated contact with the property owners and will continue to work to acquire site control in the event of award. The Project Team will work with impacted stakeholders, municipalities, and local authorities to obtain the necessary property rights to construct and maintain its facilities. PSEG is committed to a transparent, timely, and efficient land rights acquisition process for any site control required. PSEG intends to utilize the same land acquisition professionals from start to finish, ensuring landowners have the same team assigned to their negotiations throughout the process. PSEG will coordinate all outreach, real estate-related requests, and efforts to identify environmental and non-environmental conditions affecting the properties along the proposed Project route. Working collaboratively with our internal Outreach Team, PSE&G will coordinate stakeholder engagement and public outreach with land acquisition planning. This level of collaboration will help to ensure proactive and cohesive stakeholder communications in order to better serve landowners and impacted individuals and entities. PSEG contemplates the need for access roads and areas, as part of any lands to be acquired.? As part of its facilities construction, PSEG also contemplates the need for temporary staging areas and laydown sites to help facilitate construction. PSEG has extensive experience coordinating complex construction projects and will work to leverage that experience to execute this Project efficiently from a cost, impact, and timing perspective. The Project Team is confident that its experience in real estate negotiations and acquisitions will yield site control and ensure that the Project will be buildable in the event of award

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\$37,080,284.42

Component cost (in-service year) \$41,197,310.89

Substation Upgrade Component

Component title Penrose Station Upgrade

Project description CONFIDENTIAL

Substation name Penrose

Substation zone PECO

Substation upgrade scope

Add new line position and increase the fault rating of PECO's Penrose 230kV Station by replacing

(2) existing 50kA circuit breakers with (2) 4000A, 63kA circuit breakers.

Transformer Information

None

New equipment description

Replace(2) existing 50kA Gas circuit breakers with (2) 4000A, 63kA Gas Circuit Breakers.

Upgrade/Replace all existing inside plant equipment to an 63kA fault rating as necessary. This

includes rigid bus, strain bus, bus supports, grounding, terminations, insulators, etc.

Substation assumptions

There is sufficient room to accommodate the breaker replacement. Upgrading to 63kA fault current rating is assumed to require upgrades to associated rigid bus, strain bus, bus supports, grounding terminations, insulators, etc. No Piles are required. Outages will be available. Permits will be available. Resources will be available. No additional property purchase and leasing cost for station scope. No modification to underground utilities. No work associated with removal of contaminated

materials and hazardous waste.

Real-estate description Proposed work is to be performed within the existing fence area.

Construction responsibility CONFIDENTIAL

Benefits/Comments CONFIDENTIAL

Component Cost Details - In Current Year \$

Engineering & design CONFIDENTIAL

Permitting / routing / siting CONFIDENTIAL

ROW / land acquisition CONFIDENTIAL

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Materials & equipment CONFIDENTIAL

Construction & commissioning CONFIDENTIAL

Construction management CONFIDENTIAL

Overheads & miscellaneous costs CONFIDENTIAL

Contingency CONFIDENTIAL

Total component cost \$3,177,155.00

Component cost (in-service year) \$3,529,914.73

**Substation Upgrade Component** 

Component title Gloucester Station Upgrade

Project description CONFIDENTIAL

Substation name

Substation zone

Substation upgrade scope

**Transformer Information** 

None

New equipment description

Substation assumptions

Increase the fault rating by replacing (17) existing 63kA circuit breakers with (17) 4000A, 80kA circuit breakers. This will require upgrades to rigid bus, strain bus, bus supports, grounding, terminations, insulators, etc.

Replace (17) existing 4000A, 63kA Gas circuit breakers with (17) 4000A, 80kA Gas Circuit Breakers. Upgrade/Replace all existing inside plant equipment to an 80kA fault rating as necessary. This includes rigid bus, strain bus, bus supports, grounding, terminations, insulators, etc.

There is sufficient room to accommodate the breaker replacement. Upgrading to 80kA fault current rating is assumed to require upgrades to associated rigid bus, strain bus, bus supports, grounding terminations, insulators, etc. No Piles are required. Outages will be available. Permits will be available. Resources will be available. No additional property purchase and leasing cost for station scope. No modification to underground utilities. No work associated with removal of contaminated materials and hazardous waste

Real-estate description Proposed work is to be performed within the existing fence area.

Construction responsibility CONFIDENTIAL

Benefits/Comments CONFIDENTIAL

Component Cost Details - In Current Year \$

Engineering & design CONFIDENTIAL

Permitting / routing / siting CONFIDENTIAL

ROW / land acquisition CONFIDENTIAL

Materials & equipment CONFIDENTIAL

Construction & commissioning CONFIDENTIAL

Construction management CONFIDENTIAL

Overheads & miscellaneous costs CONFIDENTIAL

Contingency CONFIDENTIAL

Total component cost \$30,986,847.00

Component cost (in-service year) \$34,427,318.78

Substation Upgrade Component

Component title Peltz Upgrade

Project description CONFIDENTIAL

Substation name Peltz

Substation zone PECO

Substation upgrade scope

**Transformer Information** 

None

New equipment description

Replace (3) existing 50kA Gas circuit breakers with (3) 4000A, 63kA Gas Circuit Breakers.

Upgrade/Replace all existing inside plant equipment to an 63kA fault rating as necessary. This

includes rigid bus, strain bus, bus supports, grounding, terminations, insulators, etc.

Substation assumptions

There is sufficient room to accommodate the breaker replacement. Upgrading to 63kA fault current rating is assumed to require upgrades to associated rigid bus, strain bus, bus supports, grounding

terminations, insulators, etc. No Piles are required. Outages will be available. Permits will be available. Resources will be available. No additional property purchase and leasing cost for station scope. No modification to underground utilities. No work associated with removal of contaminated

materials and hazardous waste.

Real-estate description Proposed work is to be performed within the existing fence area.

Construction responsibility CONFIDENTIAL

Benefits/Comments CONFIDENTIAL

Component Cost Details - In Current Year \$

Engineering & design CONFIDENTIAL

Permitting / routing / siting CONFIDENTIAL

ROW / land acquisition CONFIDENTIAL

Materials & equipment CONFIDENTIAL

Construction & commissioning CONFIDENTIAL

Construction management CONFIDENTIAL

Overheads & miscellaneous costs CONFIDENTIAL

Contingency CONFIDENTIAL

Total component cost \$5,419,831.00

Component cost (in-service year) \$6,021,595.48

Substation Upgrade Component

Component title Grays Ferry Upgrade

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Project description CONFIDENTIAL

Substation name Greys Ferry

Substation zone PECO

Substation upgrade scope Increase the fault rating of PECO's Grays Ferry 230kV Station by replacing (4) existing 50kA circuit

breakers with (4) 4000Å, 63kA circuit breakers.

Transformer Information

None

New equipment description

Replace (4) existing 50kA Gas circuit breakers with (4) 4000A, 63kA Gas Circuit Breakers.

Upgrade/Replace all existing inside plant equipment to an 63kA fault rating as necessary. This

includes rigid bus, strain bus, bus supports, grounding, terminations, insulators, etc.

Substation assumptions

There is sufficient room to accommodate the breaker replacement. Upgrading to 63kA fault current rating is assumed to require upgrades to associated rigid bus, strain bus, bus supports, grounding terminations, insulators, etc. No Piles are required. Outages will be available. Permits will be available. Resources will be available. No additional property purchase and leasing cost for station

scope. No modification to underground utilities. No work associated with removal of contaminated materials and hazardous waste

Real-estate description Proposed work is to be performed within the existing fence area.

Construction responsibility CONFIDENTIAL

Benefits/Comments CONFIDENTIAL

Component Cost Details - In Current Year \$

Engineering & design CONFIDENTIAL

Permitting / routing / siting CONFIDENTIAL

ROW / land acquisition CONFIDENTIAL

Materials & equipment CONFIDENTIAL

Construction & commissioning CONFIDENTIAL

Construction management CONFIDENTIAL

Overheads & miscellaneous costs CONFIDENTIAL

Contingency CONFIDENTIAL

Total component cost \$4,907,245.00

Component cost (in-service year) \$5,452,096.60

**Substation Upgrade Component** 

Component title Eagle Point Upgrade

Project description CONFIDENTIAL

Substation name Eagle Point

Substation zone

Substation upgrade scope

Transformer Information

None

New equipment description No new equipment

Substation assumptions Demolish existing station below grade.

Real-estate description Proposed work is to be performed within the existing fence area.

Construction responsibility CONFIDENTIAL

Benefits/Comments CONFIDENTIAL

Component Cost Details - In Current Year \$

Engineering & design CONFIDENTIAL

Permitting / routing / siting CONFIDENTIAL

ROW / land acquisition CONFIDENTIAL

Materials & equipment CONFIDENTIAL

Construction & commissioning CONFIDENTIAL

Construction management CONFIDENTIAL

Overheads & miscellaneous costs CONFIDENTIAL

Contingency CONFIDENTIAL

Total component cost \$2,182,468.06

Component cost (in-service year) \$2,424,787.64

Transmission Line Upgrade Component

Component title New Eagle Point to Gloucester Circuit

Project description CONFIDENTIAL

Impacted transmission line Eagle Point to Gloucester

Point A New Eagle Point 230kV Station

Point B Gloucester 230kV Station

Point C

Terrain description

The existing Gloucester P-2242 will traverse the existing ROW of the Eagle Point gen lead lines.

The line is although description and provide a solution arithment of the provided and provided

The line is situated over industrial land and running adjacent to an existing railway. The line will be

sharing the same structure as O-2241 circuit (Eagle Point to Thorofare).

**Existing Line Physical Characteristics** 

Operating voltage 230kV

Conductor size and type 795KCMIL 76X7 ACSS DRAKE

Hardware plan description New hardware will be used for the new portions of the transmission line. No modifications to the

existing line are expected.

Tower line characteristics New monopoles structures will be used for the modified segments of the line. The project team

assumes the generator lead lines have exiting fiber optic infrastructure

**Proposed Line Characteristics** 

Designed Operating

Voltage (kV) 230.000000 230.000000

Normal ratings Emergency ratings

Summer (MVA) 1192.000000 1422.000000

Winter (MVA) 1276.000000 1508.000000

Conductor size and type 1033kcmil ACSS Curlew

Shield wire size and type

Rebuild line length AFL OPGW 48 Fiber 0.742"

Rebuild portion description 3,833 feet

Right of way

The extension of the Eagle Point to Gloucester P-2242 will traverse the existing ROW.

Construction responsibility CONFIDENTIAL

Benefits/Comments CONFIDENTIAL

Component Cost Details - In Current Year \$

Engineering & design CONFIDENTIAL

Permitting / routing / siting CONFIDENTIAL

ROW / land acquisition CONFIDENTIAL

Materials & equipment CONFIDENTIAL

Construction & commissioning CONFIDENTIAL

Construction management CONFIDENTIAL

Overheads & miscellaneous costs CONFIDENTIAL

Contingency CONFIDENTIAL

Total component cost \$2,361,280.46

Component cost (in-service year) \$2,623,453.59

Transmission Line Upgrade Component

Component title New Eagle Point to Thorofare

Project description CONFIDENTIAL

Impacted transmission line Eagle Point to Thorofare

Point A New Eagle Point 230kV Station

Point B Thorofare 230kV Station

Point C

Terrain description The existing Thorofare O-2241 will traverse the existing ROW of the Eagle Point gen lead lines. The

line is situated over industrial land and running adjacent to an existing railway. The line will be

sharing the same structure as P-2242

**Existing Line Physical Characteristics** 

Operating voltage 230kV

Conductor size and type 795 kcmil ACSS Drake

Hardware plan description New hardware will be used for the new portions of the transmission line. No modifications to the

existing line is expected.

Tower line characteristics New monopoles structures will be used for the modified segments of the line.

Proposed Line Characteristics

Designed Operating

Voltage (kV) 230.000000 230.000000

Normal ratings Emergency ratings

Summer (MVA) 1192.000000 1422.000000

Winter (MVA) 1276.000000 1508.000000

Conductor size and type 1033kcmil ACSS Curlew

Shield wire size and type AFL OPGW 48 Fiber 0.742"

Rebuild line length 3,833 feet

Rebuild portion description

Right of way

The extension of Eagle Point to Thorofare O-2241 will traverse the existing ROW.

Construction responsibility CONFIDENTIAL

Benefits/Comments CONFIDENTIAL

Component Cost Details - In Current Year \$

Engineering & design CONFIDENTIAL

Permitting / routing / siting CONFIDENTIAL

ROW / land acquisition CONFIDENTIAL

Materials & equipment CONFIDENTIAL

Construction & commissioning CONFIDENTIAL

Construction management CONFIDENTIAL

Overheads & miscellaneous costs CONFIDENTIAL

Contingency CONFIDENTIAL

Total component cost \$9,467,358.26

Component cost (in-service year) \$10,518,519.69

Transmission Line Upgrade Component

Component title Eagle Point Gen Lead Line

| Project description                    | CONFIDENTIAL  |   |
|--|---|---|
| Impacted transmission line             |   |   |
| Point A                                | New Eagle Point Station   |   |
| Point B                                | Eagle Point Generation Station  |   |
| Point C                                |   |   |
| Terrain description                    | The existing eagle point lead line path will be re station. Three structures will be replaced to guid | duced and re-directed to the new Eagle Point le the generator lead lines into the new substation. |
| Existing Line Physical Characteristics |   |   |
| Operating voltage                      | 230kV   |   |
| Conductor size and type                |   |   |
| Hardware plan description              | New hardware will be used for the new portions  | of the transmission line.   |
| Tower line characteristics             | New monopoles structures will be used for the rassumes the generator lead lines have exiting fi       |   |
| Proposed Line Characteristics          |   |   |
|  | Designed  | Operating   |
| Voltage (kV)                           | 230.000000  | 230.000000  |
|  | Normal ratings  | Emergency ratings   |
| Summer (MVA)                           | 1192.000000   | 1422.000000   |
| Winter (MVA)                           | 1276.000000   | 1508.000000   |
| Conductor size and type                | 1590 kcmil ACSR   |   |
| Shield wire size and type              | AFL OPGW 48 Fiber 0.742"  |   |
| Rebuild line length                    | 1,140 feet for gen lead 1 & 1,377 feet for gen lea  | ad 2  |

Rebuild portion description

Right of way Within existing ROW.

Construction responsibility CONFIDENTIAL

Benefits/Comments CONFIDENTIAL

Component Cost Details - In Current Year \$

Engineering & design CONFIDENTIAL

Permitting / routing / siting CONFIDENTIAL

ROW / land acquisition CONFIDENTIAL

Materials & equipment CONFIDENTIAL

Construction & commissioning CONFIDENTIAL

Construction management CONFIDENTIAL

Overheads & miscellaneous costs CONFIDENTIAL

Contingency CONFIDENTIAL

Total component cost \$3,627,990.48

Component cost (in-service year) \$4,030,806.50

#### **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   |
|------------------|------------|---------------|------------|-------------|-----|---------|---------|-----------------------|----------|
| 2024W1-32GD-S135 | 213819     | N PHILA8      | 213783     | MASTER      | 1   | 230     | 230     | 2032 Summer Gen Deliv | Included |
| 2024W1-32GD-S136 | 213819     | N PHILA8      | 213783     | MASTER      | 1   | 230     | 230     | 2032 Summer Gen Deliv | Included |
| 2024W1-32GD-S137 | 213819     | N PHILA8      | 213783     | MASTER      | 1   | 230     | 230     | 2032 Summer Gen Deliv | Included |

| FG#              | Fr Bus No. | From Bus Name | To Bus No. | To Bus Name | CKT | Voltage | TO Zone | Analysis type             | Status   |
|------------------|------------|---------------|------------|-------------|-----|---------|---------|---------------------------|----------|
| 2024W1-32GD-S138 | 213819     | N PHILA8      | 213783     | MASTER      | 1   | 230     | 230     | 2032 Summer Gen Deliv     | Included |
| 2024W1-GD-S89N   | 213819     | N PHILA8      | 213783     | MASTER      | 1   | 230     | 230     | Summer Gen Deliv          | Included |
| 2024W1-GD-S90N   | 213819     | N PHILA8      | 213783     | MASTER      | 1   | 230     | 230     | Summer Gen Deliv          | Included |
| 2024W1-GD-S91N   | 213819     | N PHILA8      | 213783     | MASTER      | 1   | 230     | 230     | Summer Gen Deliv          | Included |
| 2024W1-GD-S770   | 213819     | N PHILA8      | 213783     | MASTER      | 1   | 230     | 230     | Summer Gen Deliv          | Included |
| 2024W1-32GD-S139 | 214277     | RICHMOND35    | 214012     | WANEETA3    | 1   | 230     | 230     | 2032 Summer Gen Deliv     | Included |
| 2024W1-32GD-S140 | 214277     | RICHMOND35    | 214012     | WANEETA3    | 1   | 230     | 230     | 2032 Summer Gen Deliv     | Included |
| 2024W1-32GD-S141 | 214277     | RICHMOND35    | 214012     | WANEETA3    | 1   | 230     | 230     | 2032 Summer Gen Deliv     | Included |
| 2024W1-32GD-S142 | 214277     | RICHMOND35    | 214012     | WANEETA3    | 1   | 230     | 230     | 2032 Summer Gen Deliv     | Included |
| 2024W1-32GD-W24  | 214277     | RICHMOND35    | 214012     | WANEETA3    | 1   | 230     | 230     | 2032 Winter Gen Deliv     | Included |
| 2024W1-32GD-W14  | 214277     | RICHMOND35    | 214012     | WANEETA3    | 1   | 230     | 230     | 2032 Winter Gen Deliv     | Included |
| 2024W1-32GD-W15  | 214277     | RICHMOND35    | 214012     | WANEETA3    | 1   | 230     | 230     | 2032 Winter Gen Deliv     | Included |
| 2024W1-32GD-W2   | 214277     | RICHMOND35    | 214012     | WANEETA3    | 1   | 230     | 230     | 2032 Winter Gen Deliv     | Included |
| 2024W1-32GD-W3   | 214277     | RICHMOND35    | 214012     | WANEETA3    | 1   | 230     | 230     | 2032 Winter Gen Deliv     | Included |
| 2024W1-32GD-W4   | 214277     | RICHMOND35    | 214012     | WANEETA3    | 1   | 230     | 230     | 2032 Winter Gen Deliv     | Included |
| 2024W1-32GD-W5   | 214277     | RICHMOND35    | 214012     | WANEETA3    | 1   | 230     | 230     | 2032 Winter Gen Deliv     | Included |
| 2024W1-32GD-W6   | 214277     | RICHMOND35    | 214012     | WANEETA3    | 1   | 230     | 230     | 2032 Winter Gen Deliv     | Included |
| 2024W1-32GD-LL15 | 214277     | RICHMOND35    | 214012     | WANEETA3    | 1   | 230     | 230     | 2032 Light Load Gen Deliv | Included |
| 2024W1-32GD-LL16 | 214277     | RICHMOND35    | 214012     | WANEETA3    | 1   | 230     | 230     | 2032 Light Load Gen Deliv | Included |
| 2024W1-32GD-LL17 | 214277     | RICHMOND35    | 214012     | WANEETA3    | 1   | 230     | 230     | 2032 Light Load Gen Deliv | Included |
| 2024W1-32GD-LL18 | 214277     | RICHMOND35    | 214012     | WANEETA3    | 1   | 230     | 230     | 2032 Light Load Gen Deliv | Included |
| 2024W1-32GD-LL19 | 214277     | RICHMOND35    | 214012     | WANEETA3    | 1   | 230     | 230     | 2032 Light Load Gen Deliv | Included |
| 2024W1-32GD-LL20 | 214277     | RICHMOND35    | 214012     | WANEETA3    | 1   | 230     | 230     | 2032 Light Load Gen Deliv | Included |
| 2024W1-32GD-LL21 | 214277     | RICHMOND35    | 214012     | WANEETA3    | 1   | 230     | 230     | 2032 Light Load Gen Deliv | Included |
| 2024W1-32GD-LL22 | 214010     | WANEETA2      | 213817     | N PHILA     | 1   | 230     | 230     | 2032 Light Load Gen Deliv | Included |
| 2024W1-32GD-LL23 | 214010     | WANEETA2      | 213817     | N PHILA     | 1   | 230     | 230     | 2032 Light Load Gen Deliv | Included |
| 2024W1-32GD-LL24 | 214010     | WANEETA2      | 213817     | N PHILA     | 1   | 230     | 230     | 2032 Light Load Gen Deliv | Included |
| 2024W1-32GD-LL25 | 214010     | WANEETA2      | 213817     | N PHILA     | 1   | 230     | 230     | 2032 Light Load Gen Deliv | Included |

| FG#              | Fr Bus No. | From Bus Name | To Bus No. | To Bus Name | CKT | Voltage | TO Zone | Analysis type         | Status   |
|------------------|------------|---------------|------------|-------------|-----|---------|---------|-----------------------|----------|
| 2024W1-32GD-W16  | 214010     | WANEETA2      | 213817     | N PHILA     | 1   | 230     | 230     | 2032 Winter Gen Deliv | Included |
| 2024W1-32GD-W17  | 214010     | WANEETA2      | 213817     | N PHILA     | 1   | 230     | 230     | 2032 Winter Gen Deliv | Included |
| 2024W1-32GD-W18  | 214010     | WANEETA2      | 213817     | N PHILA     | 1   | 230     | 230     | 2032 Winter Gen Deliv | Included |
| 2024W1-32GD-W19  | 214010     | WANEETA2      | 213817     | N PHILA     | 1   | 230     | 230     | 2032 Winter Gen Deliv | Included |
| 2024W1-32GD-W20  | 214010     | WANEETA2      | 213817     | N PHILA     | 1   | 230     | 230     | 2032 Winter Gen Deliv | Included |
| 2024W1-32GD-W21  | 214010     | WANEETA2      | 213817     | N PHILA     | 1   | 230     | 230     | 2032 Winter Gen Deliv | Included |
| 2024W1-32GD-W8   | 214010     | WANEETA2      | 213817     | N PHILA     | 1   | 230     | 230     | 2032 Winter Gen Deliv | Included |
| 2024W1-32GD-S143 | 214010     | WANEETA2      | 213817     | N PHILA     | 1   | 230     | 230     | 2032 Summer Gen Deliv | Included |
| 2024W1-32GD-S144 | 214010     | WANEETA2      | 213817     | N PHILA     | 1   | 230     | 230     | 2032 Summer Gen Deliv | Included |
| 2024W1-32GD-S145 | 214010     | WANEETA2      | 213817     | N PHILA     | 1   | 230     | 230     | 2032 Summer Gen Deliv | Included |
| 2024W1-32GD-S146 | 214010     | WANEETA2      | 213817     | N PHILA     | 1   | 230     | 230     | 2032 Summer Gen Deliv | Included |
| 2024W1-GD-S201N  | 214010     | WANEETA2      | 213817     | N PHILA     | 1   | 230     | 230     | Summer Gen Deliv      | Included |
| 2024W1-GD-S202N  | 214010     | WANEETA2      | 213817     | N PHILA     | 1   | 230     | 230     | Summer Gen Deliv      | Included |
| 2024W1-GD-S203N  | 214010     | WANEETA2      | 213817     | N PHILA     | 1   | 230     | 230     | Summer Gen Deliv      | Included |
| 2024W1-GD-W238   | 214010     | WANEETA2      | 213817     | N PHILA     | 1   | 230     | 230     | Winter Gen Deliv      | Included |
| 2024W1-GD-S791   | 214010     | WANEETA2      | 213817     | N PHILA     | 1   | 230     | 230     | Summer Gen Deliv      | Included |

# New Flowgates

CONFIDENTIAL

# Financial Information

Capital spend start date 05/2025

Construction start date 04/2027

Project Duration (In Months) 49

### **Additional Comments**

None

2024-W1-955 21