# Clean Energy Gateway - Offshore

## General Information

| | |
|---|---|
| Proposing entity name | Confidential Information |
| Does the entity who is submitting this proposal intend to be the Designated Entity for this proposed project? | Confidential Information |
| Company proposal ID | Confidential Information |
| PJM Proposal ID | 594 |
| Project title | Clean Energy Gateway - Offshore |
| Project description | See BPU Supplemental Attachment. The Clean Energy Gateway - Offshore consists of two (2) 345kV offshore substations and eight (8) 345kV submarine cables that connect to the Proposal Option 1b. |
| Email | Confidential Information |
| Project in-service date | 06/2029 |
| Tie-line impact | No |
| Interregional project | No |
| Is the proposer offering a binding cap on capital costs? | Yes |
| Additional benefits | Confidential Information |

## Project Components

1. Prosperity Substation
2. Revolution Substation
3. Prosperity - Lighthouse 345kV Transmission Line #1
4. Revolution - Lighthouse 345kV Transmission Line #1
5. Lighthouse Substation

6. Prosperity - Lighthouse 345kV Transmission Line #2
7. Prosperity - Lighthouse 345kV Transmission Line #3
8. Prosperity - Lighthouse 345kV Transmission Line #4
9. Revolution - Lighthouse 345kV Transmission Line #2
10. Revolution - Lighthouse 345kV Transmission Line #3
11. Revolution - Lighthouse 345kV Transmission Line #4

## Greenfield Substation Component

| | |
|---|---|
| Component title | Prosperity Substation |
| Project description | Confidential Information |
| Substation name | Prosperity Substation |
| Substation description | 345kV Gas-Insulated Substation with eight (8) shunt reactors for cable compensation. See BPU Supplemental Attachment for detailed design criteria and installation plan. |
| Nominal voltage | AC |
| Nominal voltage | 345 |

## Transformer Information

None

| | | |
|---|---|---|
| Major equipment description | Eight (8) shunt reactors for cable compensation - 345kV Fourteen (14) 345kV circuit breakers One (1) offshore platform | |
| | **Normal ratings** | **Emergency ratings** |
| Summer (MVA) | 2100.000000 | 2100.000000 |
| Winter (MVA) | 2100.000000 | 2100.000000 |
| Environmental assessment | See BPU Supplemental Attachment Section VI and VII. | |
| Outreach plan | See BPU Supplemental Attachment Section VI and VII. | |

| | |
|---|---|
| Land acquisition plan | See BPU Supplemental Attachment Section VI and VII. |
| Construction responsibility | Confidential Information |
| Benefits/Comments | Confidential Information |

**Component Cost Details - In Current Year $**

| | |
|---|---|
| Engineering & design | Confidential Information |
| Permitting / routing / siting | Confidential Information |
| ROW / land acquisition | Confidential Information |
| Materials & equipment | Confidential Information |
| Construction & commissioning | Confidential Information |
| Construction management | Confidential Information |
| Overheads & miscellaneous costs | Confidential Information |
| Contingency | Confidential Information |
| Total component cost | $410,309,843.00 |
| Component cost (in-service year) | $479,030,197.00 |

## Greenfield Substation Component

| | |
|---|---|
| Component title | Revolution Substation |
| Project description | Confidential Information |
| Substation name | Revolution Substation |
| Substation description | 345kV Gas-Insulated Substation with eight (8) shunt reactors for cable compensation. See BPU Supplemental Attachment for detailed design criteria and installation plan. |
| Nominal voltage | AC |
| Nominal voltage | 345 |

## Transformer Information

None

| | | |
|---|---|---|
| Major equipment description | Eight (8) shunt reactors for cable compensation - 345kV Fourteen (14) 345kV circuit breakers One (1) offshore platform | |
| | **Normal ratings** | **Emergency ratings** |
| Summer (MVA) | 2100.000000 | 2100.000000 |
| Winter (MVA) | 2100.000000 | 2100.000000 |
| Environmental assessment | See BPU Supplemental Attachment Section VI and VII | |
| Outreach plan | See BPU Supplemental Attachment Section VI and VII | |
| Land acquisition plan | See BPU Supplemental Attachment Section VI and VII | |
| Construction responsibility | Confidential Information | |
| Benefits/Comments | Confidential Information | |

**Component Cost Details - In Current Year $**

| | |
|---|---|
| Engineering & design | Confidential Information |
| Permitting / routing / siting | Confidential Information |
| ROW / land acquisition | Confidential Information |
| Materials & equipment | Confidential Information |
| Construction & commissioning | Confidential Information |
| Construction management | Confidential Information |
| Overheads & miscellaneous costs | Confidential Information |
| Contingency | Confidential Information |
| Total component cost | $410,309,842.00 |

| | |
|---|---|
| Component cost (in-service year) | $470,142,198.00 |

## Greenfield Transmission Line Component

| | |
|---|---|
| Component title | Prosperity - Lighthouse 345kV Transmission Line #1 |
| Project description | Confidential Information |
| Point A | Prosperity |
| Point B | Lighthouse |
| Point C | |

| | Normal ratings | Emergency ratings |
|---|---|---|
| Summer (MVA) | 589.000000 | 756.000000 |
| Winter (MVA) | 589.000000 | 756.000000 |

| | |
|---|---|
| Conductor size and type | 1800mm^2 - tri-core submarine cable - 345kV |
| Nominal voltage | AC |
| Nominal voltage | 345kV |
| Line construction type | Submarine |
| General route description | See BPU Supplemental Form Section VI and VII |
| Terrain description | See BPU Supplemental Form Section VI and VII |
| Right-of-way width by segment | See BPU Supplemental Form Section VI and VII |
| Electrical transmission infrastructure crossings | See BPU Supplemental Form Section VI and VII |
| Civil infrastructure/major waterway facility crossing plan | See BPU Supplemental Form Section VI and VII |
| Environmental impacts | See BPU Supplemental Form Section VI and VII |
| Tower characteristics | Submarine Cable will be directly buried below the seafloor. |

| | |
|---|---|
| Construction responsibility | Confidential Information |
| Benefits/Comments | Confidential Information |

**Component Cost Details - In Current Year $**

| | |
|---|---|
| Engineering & design | Confidential Information |
| Permitting / routing / siting | Confidential Information |
| ROW / land acquisition | Confidential Information |
| Materials & equipment | Confidential Information |
| Construction & commissioning | Confidential Information |
| Construction management | Confidential Information |
| Overheads & miscellaneous costs | Confidential Information |
| Contingency | Confidential Information |
| Total component cost | $127,138,933.50 |
| Component cost (in-service year) | $146,783,518.00 |

## Greenfield Transmission Line Component

| | |
|---|---|
| Component title | Revolution - Lighthouse 345kV Transmission Line #1 |
| Project description | Confidential Information |
| Point A | Revolution |
| Point B | Lighthouse |
| Point C | |

| | **Normal ratings** | **Emergency ratings** |
|---|---|---|
| Summer (MVA) | 589.000000 | 756.000000 |

| | | |
|---|---|---|
| Winter (MVA) | 589.000000 | 756.000000 |
| Conductor size and type | 1800mm^2 - tri-core submarine cable - 345kV | |
| Nominal voltage | AC | |
| Nominal voltage | 500 | |
| Line construction type | Submarine | |
| General route description | See BPU Supplemental Attachment Section VI and VII. | |
| Terrain description | See BPU Supplemental Attachment Section VI and VII. | |
| Right-of-way width by segment | See BPU Supplemental Attachment Section VI and VII. | |
| Electrical transmission infrastructure crossings | See BPU Supplemental Attachment Section VI and VII. | |
| Civil infrastructure/major waterway facility crossing plan | See BPU Supplemental Attachment Section VI and VII. | |
| Environmental impacts | See BPU Supplemental Attachment Section VI and VII. | |
| Tower characteristics | Submarine Cable will be directly buried below the sea floor. | |
| Construction responsibility | Confidential Information | |
| Benefits/Comments | Confidential Information | |
| **Component Cost Details - In Current Year $** | | |
| Engineering & design | Confidential Information | |
| Permitting / routing / siting | Confidential Information | |
| ROW / land acquisition | Confidential Information | |
| Materials & equipment | Confidential Information | |
| Construction & commissioning | Confidential Information | |
| Construction management | Confidential Information | |
| Overheads & miscellaneous costs | Confidential Information | |

| | |
|---|---|
| Contingency | Confidential Information |
| Total component cost | $132,166,856.00 |
| Component cost (in-service year) | $149,712,290.00 |

## Greenfield Substation Component

| | |
|---|---|
| Component title | Lighthouse Substation |
| Project description | Confidential Information |
| Substation name | Lighthouse Substation |
| Substation description | Install eight (8) circuit breakers and and eight (8) shunt reactors at the Lighthouse substation to connect the eight (8) submarine cables from Revolution & Prosperity Offshore Substations. See BPU Supplemental Attachment for detailed design criteria and installation plan. |
| Nominal voltage | AC |
| Nominal voltage | 500 / 345kV |

## Transformer Information

None

| | |
|---|---|
| Major equipment description | Install Eight (8) circuit breakers and Eight (8) shunt reactors at the Lighthouse substation to connect the eight (8) submarine cables from Revolution & Prosperity Offshore Substations. |

| | **Normal ratings** | **Emergency ratings** |
|---|---|---|
| Summer (MVA) | 4200.000000 | 4200.000000 |
| Winter (MVA) | 4200.000000 | 4200.000000 |

| | |
|---|---|
| Environmental assessment | See BPU Supplemental Attachment Section VI and Section VII. |
| Outreach plan | See BPU Supplemental Attachment Section VI and Section VII. |
| Land acquisition plan | See BPU Supplemental Attachment Section VI and Section VII. |
| Construction responsibility | Confidential Information |

| | |
|---|---|
| Benefits/Comments | Confidential Information |

**Component Cost Details - In Current Year $**

| | |
|---|---|
| Engineering & design | Confidential Information |
| Permitting / routing / siting | Confidential Information |
| ROW / land acquisition | Confidential Information |
| Materials & equipment | Confidential Information |
| Construction & commissioning | Confidential Information |
| Construction management | Confidential Information |
| Overheads & miscellaneous costs | Confidential Information |
| Contingency | Confidential Information |
| Total component cost | $110,500,300.00 |
| Component cost (in-service year) | $121,416,883.00 |

## Greenfield Transmission Line Component

| | |
|---|---|
| Component title | Prosperity - Lighthouse 345kV Transmission Line #2 |
| Project description | Confidential Information |
| Point A | Prosperity |
| Point B | Lighthouse |
| Point C | |

| | Normal ratings | Emergency ratings |
|---|---|---|
| Summer (MVA) | 589.000000 | 756.000000 |
| Winter (MVA) | 589.000000 | 756.000000 |

| | |
|---|---|
| Conductor size and type | 1800mm^2 - tri-core submarine cable - 345kV |
| Nominal voltage | AC |
| Nominal voltage | 345kV |
| Line construction type | Submarine |
| General route description | See BPU Supplemental Form Section VI and VII |
| Terrain description | See BPU Supplemental Form Section VI and VII |
| Right-of-way width by segment | See BPU Supplemental Form Section VI and VII |
| Electrical transmission infrastructure crossings | See BPU Supplemental Form Section VI and VII |
| Civil infrastructure/major waterway facility crossing plan | See BPU Supplemental Form Section VI and VII |
| Environmental impacts | See BPU Supplemental Form Section VI and VII |
| Tower characteristics | Submarine Cable will be directly buried below the seafloor. |
| Construction responsibility | Confidential Information |
| Benefits/Comments | Confidential Information |
| **Component Cost Details - In Current Year $** | |
| Engineering & design | Confidential Information |
| Permitting / routing / siting | Confidential Information |
| ROW / land acquisition | Confidential Information |
| Materials & equipment | Confidential Information |
| Construction & commissioning | Confidential Information |
| Construction management | Confidential Information |
| Overheads & miscellaneous costs | Confidential Information |
| Contingency | Confidential Information |

| | |
|---|---|
| Total component cost | $127,138,933.50 |
| Component cost (in-service year) | $146,783,518.00 |

## Greenfield Transmission Line Component

| | |
|---|---|
| Component title | Prosperity - Lighthouse 345kV Transmission Line #3 |
| Project description | Confidential Information |
| Point A | Prosperity |
| Point B | Lighthouse |
| Point C | |

| | Normal ratings | Emergency ratings |
|---|---|---|
| Summer (MVA) | 589.000000 | 756.000000 |
| Winter (MVA) | 589.000000 | 756.000000 |

| | |
|---|---|
| Conductor size and type | 1800mm^2 - tri-core submarine cable - 345kV |
| Nominal voltage | AC |
| Nominal voltage | 345kV |
| Line construction type | Submarine |
| General route description | See BPU Supplemental Form Section VI and VII |
| Terrain description | See BPU Supplemental Form Section VI and VII |
| Right-of-way width by segment | See BPU Supplemental Form Section VI and VII |
| Electrical transmission infrastructure crossings | See BPU Supplemental Form Section VI and VII |
| Civil infrastructure/major waterway facility crossing plan | See BPU Supplemental Form Section VI and VII |
| Environmental impacts | See BPU Supplemental Form Section VI and VII |

| | |
|---|---|
| Tower characteristics | Submarine Cable will be directly buried below the seafloor. |
| Construction responsibility | Confidential Information |
| Benefits/Comments | Confidential Information |

**Component Cost Details - In Current Year $**

| | |
|---|---|
| Engineering & design | Confidential Information |
| Permitting / routing / siting | Confidential Information |
| ROW / land acquisition | Confidential Information |
| Materials & equipment | Confidential Information |
| Construction & commissioning | Confidential Information |
| Construction management | Confidential Information |
| Overheads & miscellaneous costs | Confidential Information |
| Contingency | Confidential Information |
| Total component cost | $127,138,933.50 |
| Component cost (in-service year) | $146,783,518.00 |

## Greenfield Transmission Line Component

| | |
|---|---|
| Component title | Prosperity - Lighthouse 345kV Transmission Line #4 |
| Project description | Confidential Information |
| Point A | Prosperity |
| Point B | Lighthouse |
| Point C | |

| | **Normal ratings** | **Emergency ratings** |
|---|---|---|

| | | |
|---|---|---|
| Summer (MVA) | 589.000000 | 756.000000 |
| Winter (MVA) | 589.000000 | 756.000000 |
| Conductor size and type | 1800mm^2 - tri-core submarine cable - 345kV | |
| Nominal voltage | AC | |
| Nominal voltage | 345kV | |
| Line construction type | Submarine | |
| General route description | See BPU Supplemental Form Section VI and VII | |
| Terrain description | See BPU Supplemental Form Section VI and VII | |
| Right-of-way width by segment | See BPU Supplemental Form Section VI and VII | |
| Electrical transmission infrastructure crossings | See BPU Supplemental Form Section VI and VII | |
| Civil infrastructure/major waterway facility crossing plan | See BPU Supplemental Form Section VI and VII | |
| Environmental impacts | See BPU Supplemental Form Section VI and VII | |
| Tower characteristics | Submarine Cable will be directly buried below the seafloor. | |
| Construction responsibility | Confidential Information | |
| Benefits/Comments | Confidential Information | |
| **Component Cost Details - In Current Year $** | | |
| Engineering & design | Confidential Information | |
| Permitting / routing / siting | Confidential Information | |
| ROW / land acquisition | Confidential Information | |
| Materials & equipment | Confidential Information | |
| Construction & commissioning | Confidential Information | |
| Construction management | Confidential Information | |

| | |
|---|---|
| Overheads & miscellaneous costs | Confidential Information |
| Contingency | Confidential Information |
| Total component cost | $127,138,933.50 |
| Component cost (in-service year) | $146,783,518.00 |

## Greenfield Transmission Line Component

| | |
|---|---|
| Component title | Revolution - Lighthouse 345kV Transmission Line #2 |
| Project description | Confidential Information |
| Point A | Revolution |
| Point B | Lighthouse |
| Point C | |

| | Normal ratings | Emergency ratings |
|---|---|---|
| Summer (MVA) | 589.000000 | 756.000000 |
| Winter (MVA) | 589.000000 | 756.000000 |

| | |
|---|---|
| Conductor size and type | 1800mm^2 - tri-core submarine cable - 345kV |
| Nominal voltage | AC |
| Nominal voltage | 500 |
| Line construction type | Submarine |
| General route description | See BPU Supplemental Attachment Section VI and VII. |
| Terrain description | See BPU Supplemental Attachment Section VI and VII. |
| Right-of-way width by segment | See BPU Supplemental Attachment Section VI and VII. |
| Electrical transmission infrastructure crossings | See BPU Supplemental Attachment Section VI and VII. |

| | |
|---|---|
| Civil infrastructure/major waterway facility crossing plan | See BPU Supplemental Attachment Section VI and VII. |
| Environmental impacts | See BPU Supplemental Attachment Section VI and VII. |
| Tower characteristics | Submarine Cable will be directly buried below the sea floor. |
| Construction responsibility | Confidential Information |
| Benefits/Comments | Confidential Information |

**Component Cost Details - In Current Year $**

| | |
|---|---|
| Engineering & design | Confidential Information |
| Permitting / routing / siting | Confidential Information |
| ROW / land acquisition | Confidential Information |
| Materials & equipment | Confidential Information |
| Construction & commissioning | Confidential Information |
| Construction management | Confidential Information |
| Overheads & miscellaneous costs | Confidential Information |
| Contingency | Confidential Information |
| Total component cost | $132,166,856.00 |
| Component cost (in-service year) | $149,712,290.00 |

## Greenfield Transmission Line Component

| | |
|---|---|
| Component title | Revolution - Lighthouse 345kV Transmission Line #3 |
| Project description | Confidential Information |
| Point A | Revolution |
| Point B | Lighthouse |
| Point C | |

| | Normal ratings | Emergency ratings |
|---|---|---|
| Summer (MVA) | 589.000000 | 756.000000 |
| Winter (MVA) | 589.000000 | 756.000000 |
| Conductor size and type | 1800mm^2 - tri-core submarine cable - 345kV | |
| Nominal voltage | AC | |
| Nominal voltage | 500 | |
| Line construction type | Submarine | |
| General route description | See BPU Supplemental Attachment Section VI and VII. | |
| Terrain description | See BPU Supplemental Attachment Section VI and VII. | |
| Right-of-way width by segment | See BPU Supplemental Attachment Section VI and VII. | |
| Electrical transmission infrastructure crossings | See BPU Supplemental Attachment Section VI and VII. | |
| Civil infrastructure/major waterway facility crossing plan | See BPU Supplemental Attachment Section VI and VII. | |
| Environmental impacts | See BPU Supplemental Attachment Section VI and VII. | |
| Tower characteristics | Submarine Cable will be directly buried below the sea floor. | |
| Construction responsibility | Confidential Information | |
| Benefits/Comments | Confidential Information | |
| **Component Cost Details - In Current Year $** | | |
| Engineering & design | Confidential Information | |
| Permitting / routing / siting | Confidential Information | |
| ROW / land acquisition | Confidential Information | |
| Materials & equipment | Confidential Information | |
| Construction & commissioning | Confidential Information | |

| | |
|---|---|
| Construction management | Confidential Information |
| Overheads & miscellaneous costs | Confidential Information |
| Contingency | Confidential Information |
| Total component cost | $132,166,856.00 |
| Component cost (in-service year) | $149,712,290.00 |

## Greenfield Transmission Line Component

| | |
|---|---|
| Component title | Revolution - Lighthouse 345kV Transmission Line #4 |
| Project description | Confidential Information |
| Point A | Revolution |
| Point B | Lighthouse |
| Point C | |

| | Normal ratings | Emergency ratings |
|---|---|---|
| Summer (MVA) | 589.000000 | 756.000000 |
| Winter (MVA) | 589.000000 | 756.000000 |

| | |
|---|---|
| Conductor size and type | 1800mm^2 - tri-core submarine cable - 345kV |
| Nominal voltage | AC |
| Nominal voltage | 500 |
| Line construction type | Submarine |
| General route description | See BPU Supplemental Attachment Section VI and VII. |
| Terrain description | See BPU Supplemental Attachment Section VI and VII. |
| Right-of-way width by segment | See BPU Supplemental Attachment Section VI and VII. |

| | |
|---|---|
| Electrical transmission infrastructure crossings | See BPU Supplemental Attachment Section VI and VII. |
| Civil infrastructure/major waterway facility crossing plan | See BPU Supplemental Attachment Section VI and VII. |
| Environmental impacts | See BPU Supplemental Attachment Section VI and VII. |
| Tower characteristics | Submarine Cable will be directly buried below the sea floor. |
| Construction responsibility | Confidential Information |
| Benefits/Comments | Confidential Information |
| **Component Cost Details - In Current Year $** | |
| Engineering & design | Confidential Information |
| Permitting / routing / siting | Confidential Information |
| ROW / land acquisition | Confidential Information |
| Materials & equipment | Confidential Information |
| Construction & commissioning | Confidential Information |
| Construction management | Confidential Information |
| Overheads & miscellaneous costs | Confidential Information |
| Contingency | Confidential Information |
| Total component cost | $132,166,856.00 |
| Component cost (in-service year) | $149,712,290.00 |

## Congestion Drivers

None

## Existing Flowgates

None

## New Flowgates

Confidential Information

## Financial Information

| | |
|---|---|
| Capital spend start date | 08/2022 |
| Construction start date | 05/2025 |
| Project Duration (In Months) | 82 |

## Cost Containment Commitment

| | |
|---|---|
| Cost cap (in current year) | Confidential Information |
| Cost cap (in-service year) | Confidential Information |

### Components covered by cost containment

1. Prosperity Substation - Proposer
2. Revolution Substation - Proposer
3. Prosperity - Lighthouse 345kV Transmission Line #1 - Proposer
4. Revolution - Lighthouse 345kV Transmission Line #1 - Proposer
5. Lighthouse Substation - Proposer
6. Prosperity - Lighthouse 345kV Transmission Line #2 - Proposer
7. Prosperity - Lighthouse 345kV Transmission Line #3 - Proposer
8. Prosperity - Lighthouse 345kV Transmission Line #4 - Proposer
9. Revolution - Lighthouse 345kV Transmission Line #2 - Proposer
10. Revolution - Lighthouse 345kV Transmission Line #3 - Proposer
11. Revolution - Lighthouse 345kV Transmission Line #4 - 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 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 Information |
| Additional cost containment measures not covered above | Confidential Information |

## Additional Comments

None