

PJM Greenfield

General Information

| | |
|--|---|
| Proposing entity name | PJM |
| Company proposal ID | PJM-101 |
| PJM Proposal ID | 362 |
| Project title | PJM Greenfield |
| Project description | Build the "Barnyard 500/138 kV Project" in south eastern Pennsylvania. The project will establish a greenfield 500/138 kV station cutting in Whitemarsh-Jenkintown 500 kV circuit on the high side and Montco-Flint and Montco-Barbadoes 138 kV circuits on the low side with a 500/138 kV step-down transformer. |
| Project in-service date | 04/2021 |
| Tie-line impact | No |
| Interregional project | No |
| Is the proposer offering a binding cap on capital costs? | Yes |
| Additional benefits | Additional Project benefits |

Supporting Documents

| | |
|---|-----------------------|
| Project analysis attachments | Project Analysis.csv |
| Market efficiency simulation modeling files | Market Efficiency.csv |

Project Components

1. PJM Greenfield

Greenfield Substation Component

| | |
|------------------------|--|
| Component title | PJM Greenfield |
| Substation name | Barnyard |
| Substation description | The project will establish a greenfield 500/138 kV station cutting in Whitemarsh-Jenkintown 500 kV circuit on the high side and Montco-Flint and Montco-Barbadoes 138 kV circuits on the low side with a 500/138 kV step-down transfor |
| Nominal voltage | AC |
| Nominal voltage | 500/138 |

Transformer Information

| | Name | Capacity (MVA) | |
|-----------------------------|---|--------------------------|-----------------|
| Transformer | Montco 1 | 500 | |
| | High Side | Low Side | Tertiary |
| Voltage (kV) | 500 | 138 | |
| Major equipment description | One 450 MVA, 3 phase, 500/138 kV transformer. | | |
| | Normal ratings | Emergency ratings | |
| Summer (MVA) | 500.000000 | 600.000000 | |
| Winter (MVA) | 450.000000 | 550.000000 | |
| Environmental assessment | The study area is primarily agricultural. will PJM begin coordination with local, state, and federal agencies in the early stages of the Project to identify potential mitigation and/or avoidance measures. Additionally, the majority of the project parallels an existing extra-high voltage (EHV) line which will minimize new environmental impacts. | | |
| Outreach plan | PJM will begin outreach efforts early in project planning to clearly convey the need for the Project, as well as collect input from interested parties. The station will be located near an existing Whitemarsh substation in an agricultural area near EHV lines and little opposition is expected. | | |
| Land acquisition plan | PJM will use the same land acquisition process and approach that is successfully employed on hundreds of projects every year. | | |

Construction responsibility

Proposer

Additional comments

Additional comments applicable to proposal.

Supporting Documents

Single line diagram

Single line diagram.txt

General arrangement drawing

General Arrangement.txt

Substation location

Barnyard substation location.png

Component Cost Details - In Current Year \$

Engineering & design

\$223,550.00

Permitting / routing / siting

\$15,000.00

ROW / land acquisition

\$76,960.00

Materials & equipment

\$702,004.00

Construction & commissioning

\$8,494,564.00

Construction management

\$66,866.00

Overheads & miscellaneous costs

\$23,591.00

Contingency

\$9,775,941.00

Total component cost

\$19,378,476.00

Component cost (in-service year)

\$1,447,583.00

Congestion Drivers

None

Existing Flowgates

| FG # | From Bus No. | From Bus Name | To Bus No. | To Bus Name | CKT | Voltage | TO Zone | Analysis type |
|---------|--------------|---------------|------------|--------------|-----|---------|---------|-------------------|
| N2-ST65 | 341563 | 2GREEN CO | 324554 | 2GRENSBRG KU | 1 | 69/69 | 320/363 | SUMMER_N1_THERMAL |

New Flowgates

None

Financial Information

Capital spend start date 08/2020

Construction start date 09/2020

Project Duration (In Months) 8

Capital Expenditure Documents

Upload completed template Capital Expenditure.xlsx

Cost Containment Commitment

Cost cap (in current year) \$22,212,343.00

Cost cap (in-service year) \$29,431,756.00

Components covered by cost containment

1. PJM Greenfield - 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 | No |
| Escalation | No |
| Additional Information | The cost containment commitment covers the competitive portion of the proposal. |
| Is the proposer offering a binding cap on ROE? | No |
| Is the proposer offering a Debt to Equity Ratio cap? | No |

Supporting Documents

| | |
|--------------------------------|--------------------------------------|
| Cost commitment legal language | Cost Containment Legal Language.docx |
|--------------------------------|--------------------------------------|

Additional comments

None