

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

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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

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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
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Additional comments

None