Executive Summary

1. Executive Summary

Instructions		Inputs	
Provide the name of the Proposing Entity. If there are multiple entities, please identify each party.	1.a.	Proposing Entity name	[redacted]
Provide the RTEP Proposal Window in which this proposal is being submitted.	1.b.	Proposal window	2018/19 RTEP Long-Term Proposal Window
Provide the Proposing Entity project proposal id. Use "A, B, C, …", etc. to differentiate between proposals.	1.c.	Proposal identification	[redacted]
PJM proposal identification	1.d.	PJM proposal identification	201819_1-293
Provide a general description of the scope of this project (e.g. Project is a new line between X and Y substations utilizing AAA structures. A new bay will be created within the existing substation X footprint. Substation Y will be reconfigured to a breaker and a half with accomodations for the new line.)	1.e.	General project description	Construct a 4 position ultimate 115kV ring bus (Meade) at Lincoln Tap Substation. Meade will include four (4) outgoing lines. Two (2) lines will go to Ortania. One (1) line will go to Hunterstown. One (1) line will go to Lincoln.
Identify if the proposal or a proposal component span two PJM Transmission Owner zones. I.e. The proposal topology connects equipment owned by more than one Transmission Owner. This group includes transmission that spans two or more affiliated companies (e.g. Meted and Allegheny Power).	1.f.	Tie line impact	*No*
Indicate if the project is being proposed as a solution to a cross-border (e.g. PJM to MISO, PJM to NYISO) issue. (Note: The Proposing Entity is responsible for initiating and satisfying all regional and interregional requirements.)	1.g.	Interregional project	*No*
Indicate if the Proposing Entity intends to construct, own, operate, and maintain the infrastructure built under this proposal.	1.h.	Construct, own, operate and maintain	*Yes*
Total current year project cost estimate including estimates for any required Transmission Owner upgrades.	1.i.	Project cost estimate (current year)	$ 8,575,478
Total in-service year project cost estimate including estimates for any required Transmission Owner upgrades.	1.j.	Project cost estimate (in-service year)	$ 8,954,983
Project estimated schedule duration in months.	1.k.	Project schedule duration	46
Indicate if any cost containment commitment is being proposed as part of the project. If yes, the "10. Cost Contain" tab within this project proposal template is to be completed	1.l.	Cost containment commitment	*No*

Executive Summary

1. Executive Summary

Instructions		Inputs	
If the project provides any known additional benefits above solving the identified violations or constraints, identify those benefits (e.g. reliability, economic, resilience, etc.).	**1.m.**	**Additional benefits**	
Confirm that all technical analysis files have been provided for this proposal.	**1.n.**	**Technical analysis files provided**	☑
Confirm that all necessary project diagrams have been provided for this proposal.	**1.o.**	**Project diagram files provided**	☑
Indicate if company evaluation and operations and maintenance information has been provided for this proposal.	**1.p.**	**Company evaluation and operations and maintenance information provided**	☑
		If the answer to the cross-border question above at 1.g. was yes, complete the questions below.	
Indicate if an evaluation for interregional cost allocation is desired.	**1.q.i.**	**Interregional Cost Allocation Evaluation**	*No*
Indicate if the proposal has been evaluated in a coordinated interregional analysis under the PJM Tariff or Operating Agreement provisions. Specify the analysis and applicable Tariff or Operating Agreement provisions.	**1.q.ii.**	**Evaluated in interregional analysis under PJM Tariff or Operating Agreement provisions**	*No*
		If 'yes,' specify analysis and applicable Tariff or Operating Agreement provisions	
		NA	
List the specific regional and interregional violations and issues from the regional and/or interregional analyses that identified the violations and issues addressed by the proposal.	**1.q.iii.**	**Regional and Interregional violations and issues from the Regional and/or Interregional analyses that identified the violations and issues addressed by the proposal.**	
		NA	

Overloaded Facilities

2. Overloaded Facilities

2.a.

Facilities addressed by the proposed project								
Instructions: Identify the criteria violation(s) or system constraint(s) that the proposed project solves or mitigates.								
FG #	Analysis Type	Bus #	Facility Name	To Bus #	To Bus Name	CKT	Voltage	Area

Overloaded Facilities

2. Overloaded Facilities

2.b.

Facilities not addressed/caused by the proposed project								
Instructions:	Identify the criteria violation(s) or system constraint(s) that the proposed project causes or does not address.							
Unique Proposer Generated ID	Analysis Type	Bus #	Facility Name	To Bus #	To Bus Name	CKT	Voltage	Area

Overloaded Facilities

2. Overloaded Facilities

2.c.

Market Efficiency flowgate(s) addressed by the proposed project							
Instructions:	Identify the Market Efficiency flowgate(s) the proposed project mitigates.						
FG#	Facility Name	Area	Type	Frequency (Hours)	Market Congestion ($ millions)	Frequency (Hours)	Market Congestion ($ millions)
ME-1	Huntertown to Lincoln 115 kV	METED	Line	1720	$ 20.77	1832	$ 29.62

3. Major Project Components

Instructions

Provide a description for each major project component. Each project component will require the completion of the tab corresponding to the category of the component ("Greenfield Substation Component" tab for any proposed new substation, for example).

Provide a component project cost breakdown into the identified categories along with a total component cost. Costs should be in current year dollars.

If this proposal is being submitted as Market Efficiency project, provide an in-service year component project total cost.

Identify the entity who will be designated the component.

		Component 1
3.a.	Component description(s)	Four (4) position Ring bus loacted near the former Lincoln Tap location
3.b.	Component cost (current year)	
	Engineering and design	[redacted]
	Permitting / routing / siting	
	ROW / land acquisition	
	Materials and equipment	
	Construction and commissioning	
	Construction management	
	Overheads and miscellaneous costs	
	Contingency	
	Total component cost	$ 8,575,478
3.c.	Component cost (in-service year)	$ 8,954,983
3.d.	Construction responsibility	[redacted]

Greenfield Substation Component

7. Greenfield Substation Component

Instructions		Inputs - 1	
Provide the corresponding component number from the "Project Components" tab of the proposal template.	7.a.	Component number	1
Provide the name for the proposed substation.	7.b.	Proposed substation name	Meade Substation
Provide the latitude and longitude (in decimal degrees) of the site(s) evaluated for the substation.	7.c.	Evaluated location(s)	Straban Township, PA Latitude: 39°52'26.46"N Longitude: 77°11'47.32"W
Provide a general description of the substation. Also, provide a single line diagram and general arrangement drawing.	7.d.	Substation description	Construct a 4 position ultimate 115kV ring bus (Grant) at Lincoln Tap Substation. Grant will include four (4) outgoing lines. Two (2) lines will go to Ortania. One (1) line will go to Hunterstown. One (1) line will go to Lincoln.
Describe the major substation equipment and provide the equipment ratings.	7.e.	Substation equipment	•(4) 115kV circuit breakers, 40kA, SF6 •(8) 115kV bus disconnect switches, 3000A, 120kA, 550kV BIL •(4) 115kV line disconnect switches with motor operator, 2000A, 100kA, 550kV BIL •(4) 115kV line trap, 2000A •(9) 115kV CCVTs with carrier accessories •(3) 115kV PTs •(2) SSVT, 115kV, 100kVA, 1 phase, 1 bushing •(1) Control Building, 25'x 60' and associated equipment
Describe the required site size, geography and current land use for the proposed site(s).	7.f.	Geography and land use	This land is currently being used as farm land. Terrain in this location is steep, increased grading costs and access road improvement costs are included in the bid. We will need to purchase approximatley 5 acres (some of this being for the access road that needs improvements).

7. Greenfield Substation Component

Instructions		Inputs - 1
Provide an assessment of the potential environmental impacts (i.e. environmental impact study requirements, environmental permitting, sediment, and erosion control issues).	7.g.	**Environmental assessment** At this time we do not believe a formal Federal Environmental Impact Statement will be required for this project. [redacted] will review the project site for potential wetlands, threatened and endangered species and habitat, and cultural resource concerns and will work with the appropriate regulatory agencies to avoid, minimize, and mitigate any potential impacts and obtain any permits required for the planned construction activities. [redacted] will also review and comply with State and Local regulatory agency requirements regarding sediment and erosion control from the construction activities as well as any storm water design or control requirements for operation of the site after construction. [redacted] will review the property for potential floodplain impacts and will work with the appropriate State and Local agencies to minimize any impacts and obtain any required permits. [redacted] will review the property to determine if there are any drainage district or levee district assets that may be impacted by the construction of this project. [redacted] will consult with the appropriate USACE District office and local authorities to obtain any permits or reviews required for construction.
Community and landowner outreach plan	7.h.	**Outreach plan** The community and landowner outreach plan will utilize tools and materials across multiple genres of communication means including direct mail, digital media, public and one-on-one landowner meetings, and hotline. By ensuring communication crosses multiple channels, this will provide the necessary information to stakeholders and enables landowners an outlet for feedback and concerns to the project team.
Provide the project land acquisition plan and approach for both public and private lands.	7.i.	**Land acquisition plan** [redacted] has performed an initial review and has identified private parcels that are in very close proximity to the former Lincoln Tap and are suitable to provide the five acre footprint that is required to construct the proposed substation. If selected to construct the proposed project, [redacted] will quickly approach the identified landowners to acquire the identified parcels. Reference page 10 of the Company Evaluation Information document for general information regarding [redacted] experience in acquiring rights-of-way.
Describe any files or information that has been redacted from this section and provide the basis for the redaction.	7.j.	**Redacted information**

Project Financial Information

9. Project Financial Information

Project Schedule

Provide the planned construction period, include the month and year of when capital spend will begin, when construction will begin and when construction will end. The final construction month should be the month preceding the commercial operation month.

9.a.

Capital spend start date (Mo-Yr)	Jan-19
Construction start date (Mo-Yr)	Apr-22
Commercial operation date (Mo-Yr)	Jun-23

Project Capital Expenditures

Provide, in present year dollars, capital expenditure estimates by year for the Proposing Entity, work to be completed by others (e.g. incumbent TO) and total project. Capital expenditure estimates should include all capital expenditure, including any ongoing expenditures, for which the Proposing Entity plans to seek FERC approval for recovery.

9.b.

Capital expenditure details	Total	2019	2020	2021	2022	2023	2024
Engineering and design							
Permitting / routing / siting							
ROW / land acquisition							
Materials and equipment							
Construction and commissioning							
Construction management							
Overheads and miscellaneous costs							
Contingency							
Proposer total capex							
Work by others capex							
Total project capex	$ 8,189,741	$ -	$ 75,000	$ 61,546	$ 2,312,934	$ 5,740,261	$ -

Even if AFUDC is not going to be employed, provide a yearly AFUDC cash flow.

9.c.

	Total	2019	2020	2021	2022	2023	2024
AFUDC	$ 385,737			$ 3,077	$ 115,647	$ 267,013	

Project Financial Information

9. Project Financial Information

Provide any assumptions for the capital expenditure estimate (e.g. design assumptions, weather, manpower needed and work schedule, number of hours per day, construction area access, etc.).

9.d. Assumptions for the capital expenditure estimate

[redacted] project cost estimate is based upon the following assumptions:
- Schedule float to account for typical amount of in climate weather for the region;
- Design based upon and in accordance with [redacted] transmission design standards;
- Vendor standard delivery times for material components;
- Reasonable access to the construction area;
- Blanket pricing for key material components that is in place with strategic suppliers;
- Contingency covering the degree of unknowns currently in place at this stage.
- Reasonable availability for outages to make interconnections.
- We assume OPGW is on the existing structures that would run from Hunterstown to Meade and from Lincoln to Meade.
- Location of Ring bus is close to where the Lincoln Tap is located currently (assumed $400,000 for incumbent line routing).

Describe any files or information that has been redacted from this section and provide the basis for the redaction.

9.e. Redacted information

Cost Containment Commitment

To be publically posted by PJM

Blue indicates input cells for the Proposing Entity to complete

10. Cost Containment Commitment

Provide a description of the cost containment mechanism being proposed.

10.a. **Cost containment commitment description**

Indicate what project scope is covered by the proposed cost containment commitment. Identify the components covered by number.

10.b. **Project scope covered by the cost containment commitment**

Provide, in present year dollars and year of occurrence dollars, the Proposing Entity's proposed binding cap on capital expenditures.

10.b.i. **Cost cap in present year dollars**

Cost cap in in-service year dollars

Provide any additional information related to the cap on capital expenditures, including but not limited to: if AFUDC is included in the cap, if all costs prior to commercial operation date are included in the cap, if the cap includes a variable or fixed inflation rate, etc.

10.b.ii. **Additional Information on cost cap:**

Indicate which components of capital costs fall under the cost cap.

10.b.iii. **Cost containment capital expenditure exemptions**

Capital cost component	Component covered by cost containment
Engineering and design	*Choose Yes or No*
Permitting / routing / siting	*Choose Yes or No*
ROW / land acquisition	*Choose Yes or No*
Materials and equipment	*Choose Yes or No*
Construction and commissioning	*Choose Yes or No*
Construction management	*Choose Yes or No*
Overheads and miscellaneous costs	*Choose Yes or No*
Taxes	*Choose Yes or No*
AFUDC	*Choose Yes or No*
Escalation	*Choose Yes or No*

Describe any other cost containment measures not detailed above.

10.c. **Describe any other Cost Containment Measures not covered above:**

Cost Containment Commitment

To be publically posted by PJM

Blue indicates input cells for the Proposing Entity to complete

10. Cost Containment Commitment

10.d. **Cost Commitment Legal Language**

Provide language to be included in the Designated Entity Agreement that expresses the legally binding commitment of the developer to the construction cost cap.

10.e. **Actuals Exceed Commitment**

Explain any plans the proposing entity has in place to address the situation where project actual costs exceed the proposed cost containment commitment.

10.f. **Redacted information**

Describe any files or information that has been redacted from this section and provide the basis for the redaction.