

Executive Summary

Instructions		Inputs
Provide the name of the Proposing Entity. If there are multiple entities, please identify ea	1.a.	Proposing Entity name
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
PJM proposal identification	1.d.	PJM proposal identification 201819_1-469
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 accommodations for the new line.)	1.e.	General project description Congestion mitigation via power flow control technology is needed on a 115kV facility. 5% of series re on a 100MVA base is required to mitigate the congestion. Two smartvalves per phase will be employ inject 6.6 ohms of reactance into the line.
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	1.f.	
Transmission Owner. This group includes transmission that spans two or more affiliated companies (e.g. Meted and Allegheny Power).		Tie line impact No
Transmission Owner. This group includes transmission that spans two or more	1.g.	Interregional project No
Transmission Owner. This group includes transmission that spans two or more affiliated companies (e.g. Meted and Allegheny Power). 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		
Transmission Owner. This group includes transmission that spans two or more affiliated companies (e.g. Meted and Allegheny Power). 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.) Indicate if the Proposing Entity intends to construct, own, operate, and maintain the	1.g.	Interregional project No
Transmission Owner. This group includes transmission that spans two or more affiliated companies (e.g. Meted and Allegheny Power). 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.) Indicate if the Proposing Entity intends to construct, own, operate, and maintain the infrastructure built under this proposal. Total current year project cost estimate including estimates for any required	1.g. 1.h.	Interregional project No Construct, own, operate and maintain Yes

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Executive Summary

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Instructions		Inputs
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
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.	1.0.	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 b
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	1.q.ii.	Evaluated in interregional analysis under PJM Tariff or Operating Agreement provisions
the PJM Tariff or Operating Agreement provisions. Specify the analysis and applicable Tariff or Operating Agreement provisions.		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 and identified the violations and issues addressed by the proposal.

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Overloaded Facilities

2. Overloaded Facilities

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 Voltage 2.a. CKT Area

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Overloaded Facilities

2. Overloaded Facilities

	lities not addressed/caused by the proposed project ructions: Identify the criteria violation(s) or system constraint(s) that the proposed project causes or does not address.								
O. Uni	ique Proposer Generated ID	Analysis Type	Bus#	Facility Name	To Bus #	To Bus Name	СКТ	Voltage	Area

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Overloaded Facilities

2. Overloaded Facilities

		lowgate(s) addressed by the proposed proje	ect							
ln	structions:	Identify the Market Efficiency flowgate(s) the proposed project mitigates.								
c.	FG#	Facility Name	Area	Туре	Frequency (Hours)	Market Co mill	ngestion (\$ ions)	Frequency (Hours)	Market Co (\$ mill	ongestion lions)
	ME-1	Huntertown to Lincoln 115 kV	METED	Line	1720	\$	20.77	1832	\$	29.62

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Major Project Components

3.	Major Project Components			
	Instructions			Component 1
	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).	3.a.	Component description(s)	Install a SmartWires Device on the Lincoln - Hunterstown 115 kV line
		3.b.	Component cost (current year)	
	Provide a component project cost breakdown into the identified categories along with a total component cost. Costs should be in current year dollars.		Engineering and design Permitting / routing / siting ROW / land acquisition Materials and equipment Construction and commissioning Construction management Overheads and miscellaneous costs Contingency Total component cost	\$ 4,490,860
	If this proposal is being submitted as Market Efficiency project, provide an inservice year component project total cost.	3.c.	Component cost (in-service year)	\$ 4,653,874
	Identify the entity who will be designated the component.	3.d.	Construction responsibility	

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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 Smart
Provide the latitude and longitude (in decimal degrees) of the site(s) evaluated for the substation.	7.c.	Evaluated location(s) Straban Township, PA Longitude: 77°12'11.23"W Latitude: 39°50'48.08"N
Provide a general description of the substation. Also, provide a single line diagram and general arrangement drawing.	7.d.	Substation description Congestion mitigation via power flow control technology is needed on a 115kV facility. 5% of series reactar on a 100MVA base is required to mitigate the congestion. 2 smartvalves per phase will be employeed to in 6.6 ohms of reactance into the line.
Describe the major substation equipment and provide the equipment ratings.	7.e.	Substation equipment •(6) Smartvalve 5 - 1800i devices (2 per phase) • (3) Disconnect switches, 115kV, 2000A, 100kA, 550kV BIL
Describe the required site size, geography and current land use for the proposed site(s).	7.f.	Geography and land use Proposed land is currently being used as farm land. The smart wire device will require .25 acres and can be located anywhere along the Lincoln Tap - Hunterstown line.
Provide an assessment of the potential environmental impacts (i.e. environmental impact study requirements, environmental permitting, sediment, and erosion control issues).	7.g.	At this time we do not believe a formal Federal Environmental Impact Statement will be required for this prowill review the project site for potential wetlands, threatened and endangered species and habitat, a 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. 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 requirement for operation of the site after construction. 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. will review the property to determine if there are any drainage district or levee district assets that making impacted by the construction of this project. will consult with the appropriate USACE District office a local authorities to obtain any permits or reviews required for construction.

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Greenfield Substation Component

Greenfield Substation Component Instructions		Inputs - 1
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 .	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 0.25 acre footprint that is required to construct the proposed substation. If selected to construct the proposed project, xxxxxx will quickly approach the identified landowners to acquire the identified parcels. Reference page 10 of the Company Evaluation Information document for general information regarding 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

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9. Project Financial Information

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.

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.

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

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.).

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

Project Schedule

9.b.

9.e.

9.a. Capital spend start date (Mo-Yr) Jan-19

Construction start date (Mo-Yr) Apr-22

Commercial operation date (Mo-Yr) Jul-22

Project Capital Expenditures

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 \$

9.d. Assumptions for the capital expenditure estimate

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 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).

Redacted information

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Cost Containment Commitment

Containment Commitment Instructions		Inputs	
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:	
	10.b.iii.	Cost containment capital expenditure exemptions Capital cost component	Component covered by cost
Indicate which components of capital costs fall under the cost cap.		Engineering and design Permitting / routing / siting ROW / land acquisition Materials and equipment Construction and commissioning	Choose Yes or No
		Construction management Overheads and miscellaneous costs Taxes AFUDC Escalation	Choose Yes or No
	10.c.	Describe any other Cost Containment Measures not covered above:	<u> </u>

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Cost Containment Commitment

10. Cost Containment Commitment		
Instructions		Inputs
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.d.	Cost Commitment Legal Language
Explain any plans the proposing entity has in place to address the situation where project actual costs	10.e.	Actuals Exceed Commitment
Describe any files or information that has been redacted from this section and provide the basis for the	10.f.	Redacted information

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