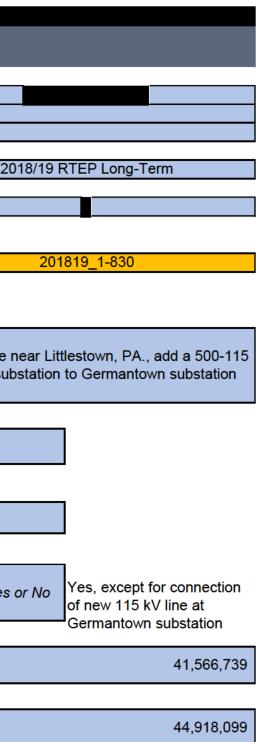


Executive Summary

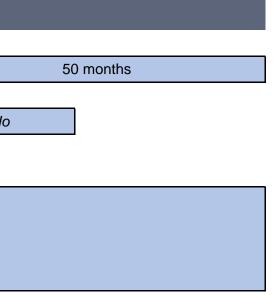
	Instructions		Ir	nputs
Provide the name of party.	of the Proposing Entity. If there are multiple entities, please identify ea	ach ^{1.a.}	Proposing Entity name	
Provide the RTEP	Proposal Window in which this proposal is being submitted.	1.b.	Proposal window	
Provide the Propos between proposals	ing Entity project proposal id. Use "A, B, C, …", etc. to differentiate .	1.c.	Proposal identification	
PJM proposal iden	ification	1.d.	PJM proposal identification	
X and Y substation	description of the scope of this project (e.g. Project is a new line betwe s utilizing AAA structures. A new bay will be created within the existin int. Substation Y will be reconfigured to a breaker and a half with the new line.)		General project description Add a 500 kV substation on Hunterstown-Conaste kV transformer at new substation, add a 115 kV li	
I.e. The proposal to	osal or a proposal component span two PJM Transmission Owner zone opology connects equipment owned by more than one Transmission p includes transmission that spans two or more affiliated companies (e ny Power).	1.1.	Tie line impact	No
Indicate if the proje PJM to NYISO) iss	ect is being proposed as a solution to a cross-border (e.g. PJM to MISC ue. (Note: The Proposing Entity is responsible for initiating and satisfy erregional requirements.)		Interregional project	Nc
	osing Entity intends to construct, own, operate, and maintain the under this proposal.	1.h.	Construct, own, operate and maintain	Choose Ye
	project cost estimate including estimates for any required Transmissio	^{on} 1.i.	Project cost estimate (current year)	\$
Total current year Owner upgrades.				





Executive Summary

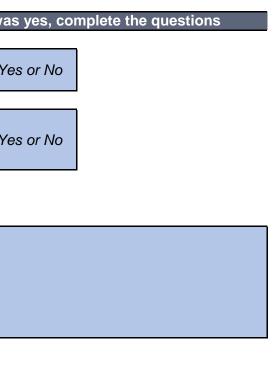
utive Summary Instructions		In	puts
Project estimated schedule duration in months.	1.k.	Project schedule duration	
Indicate if any cost containment commitment is being proposed as part of the project. If y the "10. Cost Contain" tab within this project proposal template is to be completed	_{/es,} 1.I.	Cost containment commitment	No
	1.m.	Additional benefits	
If the project provides any known additional benefits above solving the identified violations constraints, identify those benefits (e.g. reliability, economic, resilience, etc.).	s or		
Confirm that all technical analysis files have been provided for this proposal.	1.n.	Technical analysis files provided	V
Confirm that all necessary project diagrams have been provided for this proposal.	1.0.	Project diagram files provided	V
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	





Executive Summary

1. Exec	utive Summary			
	Instructions		Inp	outs
		-	If the answer to the cross-border question abov	ve at 1.g. wa
	Indicate if an evaluation for interregional cost allocation is desired.	1.q.i.	Interregional Cost Allocation Evaluation	Choose Y
		1.q.ii.	Evaluated in interregional analysis under PJM Tariff or Operating Agreement provisions	Choose Y
	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.		If 'yes,' specify analysis and applicable Tariff or Operating Agreement provisions	
	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.	





Page 3 of 16



2.a.

Overloaded Facilities

2. Overloaded Facilities

ions:	ed by the proposed pro	olation(s) or system constraint(s) that the	proposed project col	vos or mitigatos				
		oration(s) or system constraint(s) that the	e proposed project sol	ves of milligales			1	
FG #	Analysis Type	Bus #	Facility Name	To Bus #	To Bus Name	СКТ	Voltage	Area
					-			



2.b.

Overloaded Facilities

2. Overloaded Facilities

tructions:	Identify the cri	teria violatio	n(s) or system co	nstraint(s) th	at the proposed	project cause	s or does not a	ddress.
Unique Proposer Generated ID	Analysis Type	Bus #	Facility Name	To Bus #	To Bus Name	СКТ	Voltage	Area

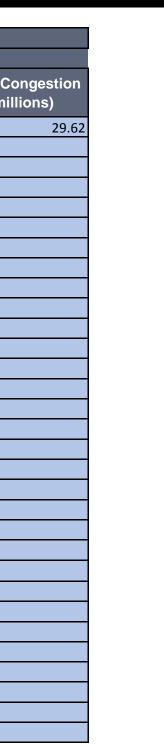
Page 5 of 16



2.c.

2. Overloaded Facilities

nstructions:	Identify the Market Efficiency flowgate(s)	the proposed p	project mitigates	S.			
FG#	Facility Name	Area	Туре	Frequency (Hours)	Market Congestion (\$ millions)	Frequency (Hours)	Market Co (\$ mill
ME-1	Hunterstown-Lincoln 115 kV line	METED	Internal FG	1720	20.77	1832	
				_			
				_			





3.

Major Project Components				
Instructions			Component 1	Component 2
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)	Add 500 kV substation on Hunterstown-Conastone 500 kV line near Littlestown, PA., add 500-115 kV transformer at new substation, add 115 kV line from new substation to Germantown substation (includes subcomponents 1a-1b as described in tabs 4-7)	Connect new 115 kV line at Germantown substation
Provide a component project cost breakdown into the identified categories along with a total component cost. Costs should be in current year dollars.	3.b.	Component cost (current year) 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	\$ 40,943,907	\$ 622,832
If this proposal is being submitted as Market Efficiency project, provide an in-service year component project	3.c.	Component cost (in-service year)	\$ 44,245,051	\$ 673,048
Identify the entity who will be designated the component.	3.d.	Construction responsibility		

	Component 3	
2		
		1
3		

Page 7 of 16



Instructions		Inputs
Provide the corresponding component number from the "Project Components" tab of the proposal template.	7.a.	Component number 1a
Provide the name for the proposed substation.	7.b.	Proposed substation name
Provide the latitude and longitude (in decimal degrees) of the site(s) evaluated for the substation.	7.c.	Evaluated location(s)
Provide a general description of the substation. Also, provide a single line diagram and general arrangement drawing.	7.d.	Substation description substation will contain a 500 kV ring bus with three circuit transmission facilities; a 500-115 kV transformer will also
Describe the major substation equipment and provide the equipment ratings.	7.e.	Substation equipment 500 kV ring bus with three circuit breakers; rating of bus a connected facilities; rating of circuit breakers will exceed a transformer will be 356 MVA normal and 378 MVA emerg
Describe the required site size, geography and current land use for the proposed site(s).	7.f.	Geography and land use eight acres of land is estimated to be required; siting wou acquisition; area is rural, relatively flat farmland
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 An environmental assessment study will be performed pri potential environmental impacts. All environmental permi operation of a new electric substation will be obtained and

s - 1
a
Littlestown
it breakers creating three positions for connecting b be added at the substation
and circuit breakers will not limit rating of any required fault interrupting capability; summer rating of gency
uld be along 500 kV ROW to minimize required land
rior to construction to identify and mitigate any nits and requirements related to construction and nd followed.



7. Gr	eenfield Substation Component		
	Instructions		Inputs
	Provide the corresponding component number from the "Project Components" tab of the proposal template.	7.a.	Component number 1a
	Community and landowner outreach plan	7.h.	Outreach plan As much of the new substation would be sited within the F will likely need to be some land acquired. will desi will work with nearby residents to construct appropriate so and address any nearby resident or community concerns substation.
	Provide the project land acquisition plan and approach for both public and private lands.	7.i.	Land acquisition plan It is estimated that the new substation will require eight ac could be within the existing 500 kV ROW. Additional land owner. Since the area is rural and mostly farmland, there ROW and therefore where the land would have to be acquire
	Describe any files or information that has been redacted from this section and provide the basis for the redaction.	7.j.	Redacted information

s - 1
a
ROW of the 500 kV line as possible. However, there sign the substation to minimize the footprint.
acres of land. However, a significant amount of that d that is required would have to be purchased from the e is some flexibility in locating the substation along the quired.



Instructions			Inpu
Provide the corresponding component number from the "Project Components" tab of the propo	osal template. 6.a.	Component Number	
Provide the substation endpoints for the proposed transmission line component.	6.b.	Line terminal points	
Provide the target ratings for the proposed line.	6.c.	Project ratings	33
Provide the proposed conductor type and size.	6.d.	Conductor type and size	
	6.e.	General line description	
Provide a general description of the line, including nominal voltage, whether the facility will be A f the construction will be overhead, underground, submarine or some combination.		e will be 115 kV AC all aerial constructi proximately two miles	ion with single
	6.f.	General route description	
rovide a general description of the evaluated routes or routing study area. Provide a Google E rith the evaluated routes or study plan.		m new substation, line would be routed ross	d west approx Germantown
	6.g.	Terrain description	
Describe the terrain traversed by the proposed new line.	rel	atively flat, open space and farmland	
	6.h.	Right of way plan by segment	-
Route description by segment that includes lengths and widths and classified by whether the se			
new right of way, an expansion of an existing right of way or use an existing right of way. This may be included with the Google Earth .KMZ.	information	e will require new ROW,	

s - 1
b
Littlestown 115 kV (new substation)
Germantown 115 kV bus
MVA normal / 437 MVA emergency
2167 kcmil 72/7 ACSR
conductor on pole type towers; line length would be
1 mile across then south approx. 1 mile ubstation



Instructions			Inputs
Provide the corresponding component number from the "Project Components" tab of the proposal template.	6.a.	Component Number	1b
Provide the project right of way and land acquisition plan and approach for both public and private lands.	6.i.	ROW and land acquisition plan It is estimated that approximately two miles of 70 ft new substation at the 500 kV ROW to Germantown so the assumption is that this ROW would have to rural, there is some flexibility in how the line could b	n substa be acqu
rovide the location and plan for any transmission facility crossings.	6.j.	Transmission facility crossings there would be no transmission facility crossings	
Provide an assessment of the potential environmental impacts (i.e. environmental impact study requirements, environmental permitting, sediment, and erosion control issues).	6.k.	Environmental impacts An environmental assessment study will be perform potential environmental impacts. All environmental operation of a new transmission line will be obtaine	l permit
Proposed tower characteristics such as monopole, lattice, wood h-frame design, double or single circuit, and norizontal, vertical or delta conductor configurations. Note, preliminary drawings for proposed structure ypes are acceptable in place of a written description.	6.1.	Tower characteristics new line would be constructed as a single circuit or configuration	n pole ty
Describe any files or information that has been redacted from this section and provide the basis for the redaction.	6.m.	Redacted information	

ıts - 1
1b
the ROW would be needed to route the new line from the postation. There is no known ROW available in that area, cquired from the property owners. Since the area is puted, thereby minimizing impact to the community.
prior to construction to identify and mitigate any mits and requirements related to construction and nd followed.
e type towers with phases arranged in vertical



5. Substation Upgrade Component		
Instructions		Inputs-1
Provide the corresponding component number from the "Project Components" tab of the proposal template.	5.a.	Component number 2
Identify the name of the existing substation where the upgrade will take place.	5.b.	Substation Germantown
	5.c.	Substation upgrade scope
Describe the scope of the upgrade work at the identified substation.		attach new 115 kV line to Germantown substation by adding a new circuit breaker to the existing bus
	5.d.	New equipment description
Describe any new substation equipment and provide the equipment ratings.		new 115 kV circuit breaker with ratings that will meet or exceed the ratings of the new line and interrupting capability that will exceed the required fault interrupting capability
	5.e.	Substation assumptions
Describe the assumptions that were made about the substation that were used in developing the scope and cost for the upgrade. For example, the use of a bay that appears to be available, the proposed use of an open area within the substation or the relocation of existing equipment.		space is available to add a circuit breaker in the substation and create a position for the new line on the existing straight bus
If the upgrade changes or expands upon the substation configuration provide a single line diagram and a station general arrangement drawing. These documents should be provided on the 'Redacted Information' tab under the appropriate project component.	5.f.	Substation drawings
	5.g.	Real-estate plan
If the substation fence needs to be expanded, indicate the real-estate plan for acquiring the needed land. Also, provide a Google Earth .KMZ file detailing the expansion.		
	5.h.	Redacted information
Describe any files or information that has been redacted from this section and provide the basis for the redaction.		



9. Project Financial Information						
Instructions				Input	S	
Provide the planned construction period, include the month and ⁹ . year of when capital spend will begin, when construction will	.a.	Project Schedule Capital spend start date (Mo-Yr)	Apr-20			
begin and when construction will end. The final construction month should be the month preceding the commercial operation month.		Construction start date (Mo-Yr) Commercial operation date (Mo-Yr)	Apr-21 May-24			
		Project Capital Expenditures	May 24		-	
Provide, in present year dollars, capital expenditure estimates 9 .	.b.	Capital expenditure details	Total	2020	2021	
by year for the Proposing Entity, work to be completed by others (e.g. incumbent TO) and total project. Capital		Engineering and design				
expenditure estimates should include all capital expenditure,		Permitting / routing / siting				
including any ongoing expenditures, for which the Proposing Entity plans to seek FERC approval for recovery.		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	\$ 41,566,739	\$ 3,234,725	\$ 10,992,086	\$ 9,

Even if AFUDC is not going to be employed, provide a yearly **9.c.** AFUDC cash flow.

	Total	2020	2021	2021 2022		2022 2023 2024		2024	2025
AFUDC	\$ 8,391,139	\$ 232,278	\$ 1,021,594	\$ 1,724,684	\$ 2,427,773	\$ 2,984,811			

	2022	2023	2024	2025
,791,284 \$ 9,791,284 \$ 7,757,360	9,791,284	\$ 9 791 284	\$ 7 757 360	
$[\psi^{-3}, \psi^{-3}, \psi^{$,791,204	φ 3,731,204	φ 1,151,500	



9. Project Financial Information Instructions		Inputs
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	9.d.	Assumptions for the capital expenditure estimate assumes standard seasonal weather and permitting schedule
Describe any files or information that has been redacted from this section and provide the basis for the redaction.	9.e.	Redacted information

Page 14 of 16



t Containment Commitment			
Instructions		Inputs	
	10.a.	Cost containment commitment description]
Provide a description of the cost containment mechanism being proposed.			
		Project scope covered by the cost containment commitment	
Indicate what project scope is covered by the proposed cost containment commitment. Identify the components covered by number.			
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:	<u> </u>
	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
Indicate which components of capital costs fall under the cost cap.		ROW / land acquisition Materials and equipment	Choose Yes or No 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

Page 15 of 16



40 0			
10. Cos	et Containment Commitment Instructions		Inputs
		10.c.	Describe any other Cost Containment Measures not covered above:
	Describe any other cost containment measures not detailed above.		
	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 exceed the proposed cost containment commitment.	10.e.	Actuals Exceed Commitment
	Describe any files or information that has been redacted from this section and provide the basis for the redaction.	10.f.	Redacted information