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	2018-2019 Long Term 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_1-436
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	The proposed Toto 345kV Switching Station Project will interconnect the existing Olive - Reynolds #1, Olive - Reynolds #2, and Schahfer - Burr Oak 345kV transmission lines with a new 345kV switching station.
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	*Yes*
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)	$18,066,077
Total in-service year project cost estimate including estimates for any required Transmission Owner upgrades.	1.j.	Project cost estimate (in-service year)	$19,313,181

1. Executive Summary

Instructions		Inputs	
Project estimated schedule duration in months.	**1.k.**	**Project schedule duration**	42
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**	*Yes*
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**	The project also should provide capacity market (RPM) benefits through increased CETL into the COMED LDA.
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**	☑

1. Executive Summary

Instructions		Inputs	
		If the answer to the cross-border question above at 1.g. was yes, complete the questions	
Indicate if an evaluation for interregional cost allocation is desired.	**1.q.i.**	**Interregional Cost Allocation Evaluation**	*Yes*
	1.q.ii.	**Evaluated in interregional analysis under PJM Tariff or Operating Agreement provisions**	*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.		**If 'yes,' specify analysis and applicable Tariff or Operating Agreement provisions**	
	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.**	
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.			

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.

2.a.

FG #	Analysis Type	Bus #	Facility Name	To Bus #	To Bus Name	CKT	Voltage	Area

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-7	Bosserman to Trail Creek	AEP		145	3.99	198	5.1
MISO - C-G	Bosserman to Trail Creek	MISOE					

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

Identify the entity who will be designated the component.

		Component 1	Component 2	Component 3
3.a.	Component description(s)	Toto 345kV Switching Station	Transmission Line Interconnections	
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	$ 16,341,076.69	$ 1,725,000.00	
3.c.	Component cost (in-service year)	$ 17,469,103.51	$ 1,844,076.99	
3.d.	Construction responsibility	[redacted]	NIPSCO, AEP	

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	Toto 345kV Substation
Provide the latitude and longitude (in decimal degrees) of the site(s) evaluated for the substation.	7.c.	Evaluated location(s)	[redacted]
Provide a general description of the substation. Also, provide a single line diagram and general arrangement drawing.	7.d.	Substation description	The proposed Toto 345kV Switching Station Project will interconnect the existing Olive - Reynolds #1, Olive - Reynolds #2, and Schahfer - Burr Oak 345kV transmission lines with a new 345kV switching station configured in a breaker-and-a-half configuration.
Describe the major substation equipment and provide the equipment ratings.	7.e.	Substation equipment	345kV breakers (9) - rated 4000A each
Describe the required site size, geography and current land use for the proposed site(s).	7.f.	Geography and land use	The proposed site will require approximately 5 acres. The site is generally flat and currently used for agriculture.
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	[redacted]

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
Community and landowner outreach plan	7.h.	Outreach plan: [redacted] will identify and engage stakeholders, such as community officials and landowners within the Project area, early in the process and maintain an active dialogue throughout. Public meetings may be held to offer a venue for landowners and other interested community members to learn about the Project and for [redacted] to learn more about specific landowner and community preferences. [redacted] plans to make information available on its website and provide notification of public meetings to landowners within the Project area as required in the siting approval process.
Provide the project land acquisition plan and approach for both public and private lands.	7.i.	Land acquisition plan: The Project will be located primarily on new right-of-way to be purchased by [redacted]. In addition, [redacted] will procure any necessary easements required to access the site. [redacted] will assign a Right-of-Way Manager to oversee all real estate related activities for the Project including appraisals, title work, surveying, land acquisition and restoration. A right-of-way agent will contact the property owner(s) in person to explain the Project and, as necessary, secure permission to conduct surveys, archaeological studies, etc. The right-of-way agent will be the primary point of contact to negotiate with the property owner to acquire the substation site and any required easements on a mutually agreeable basis. To the extent that negotiations reach an impasse, [redacted] will be able to pursue eminent domain. The right-of-way agents will continue to act as a liaison with the property owners during construction and through the restoration process.
Describe any files or information that has been redacted from this section and provide the basis for the redaction.	7.j.	Redacted information: [redacted]

4. Transmission Line Reconductor/Rebuild Component

Instructions		Inputs - 1	
Provide the corresponding component number from the "Project Components" tab of the proposal template.	4.a.	Component number	2
Identify the line terminal points. Add additional spaces if required.	4.b.	Terminal points	Olive, Reynolds, Burr Oak, Schahfer
		Existing Line Physical Characteristics	
Provide the size and type conductor that will be removed.	4.c.	Existing conductor size and type	Not Applicable.
Indicate whether the existing line hardware will be reused. If so, provide the age and condition of the hardware.	4.d.	Existing hardware plan	Not Applicable.
Provide the condition and age of the existing structures. Describe the findings of any recent inspections or of analysis that has indicated a need for structural repair or reinforcement to re-conductor the line.	4.e.	Existing tower line characteristics	Not Applicable.
Describe the terrain that the existing line traverses. Additionally, provide a Google Earth .KMZ file with the existing line path as an included document with the project proposal package.	4.f.	Terrain description	Not Applicable.

Reconductor/Rebuild Transmission Line Component

4. Transmission Line Reconductor/Rebuild Component

Instructions		Inputs - 1	
Provide the corresponding component number from the "Project Components" tab of the proposal template.	4.a.	Component number	2
		Reconductor/Rebuild Component Plan	
Provide the target ratings for the line.	4.g.	Component target ratings	Not Applicable.
Provide the type and size of the conductor to be installed.	4.h.	Proposed conductor size and type	Not Applicable.
If the shield wire is to be replaced, identify the type and size to be used.	4.i.	Proposed shield wire size and type	Not Applicable.
Describe the amount of the line that is anticipated to be rebuilt versus reconductored. Provide any assumptions that were used in arriving at this determination. If specific line sections have been identified for rebuild, provide route maps for (or specify in a Google Earth .KMZ file) those segments and identify the areas.	4.j.	Rebuild portion	The second component of the Project will require new 345kV dead-end towers at the new 345kV Toto substation to loop-in the the Olive - Reynolds #1, Olive - Reynolds #2, and Burr Oak - Schahfer 345kV transmission lines.
Describe the segments of the existing right-of-way that will need to be expanded or any newly required rights-of-way that will be required. If new or expanded right-of-way is required, provide route maps for (or specify in a Google Earth .KMZ file) those segments and identify the areas.	4.k.	Right of way	Any new ROW for the interconnections to be provided by [redacted] as part of its securing the substation site. Refer to Tab 7.
Describe any files or information that has been redacted from this section and provide the basis for the redaction.	4.l.	Redacted information	

9. Project Financial Information

Instructions		Inputs

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-20
Construction start date (Mo-Yr)	Dec-21
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	2020	2021	2022	2023	2024	2025
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	$ 16,341,076.7	$ 640,599.6	$ 4,796,509.5	$ 6,064,823.9	$ 4,839,143.8		
Work by others capex	$ 1,725,000.0	$ -	$ 862,500.0	$ 862,500.0	$ -		
Total project capex	$ 18,066,076.7	$ 640,599.6	$ 5,659,009.5	$ 6,927,323.9	$ 4,839,143.8		

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

9.c.

	Total	2020	2021	2022	2023	2024	2025
AFUDC	1,663,437.7	$0.0	$51,568.3	$520,978.2	$1,090,891.3		

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
Describe any files or information that has been redacted from this section and provide the basis for the redaction.	9.e.	Redacted information

10. Cost Containment Commitment

Instructions		Inputs
Provide a description of the cost containment mechanism being proposed.	10.a. Cost containment commitment description	All facilities constructed by the Proposing Entity will be subject to cost containment.
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	All facilities constructed by the Proposing Entity will be subject to cost containment. This includes all work associated with Component 1.

10. Cost Containment Commitment

Instructions		Inputs
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	[redacted]
	Cost cap in in-service year dollars	[redacted]
	10.b.ii. Additional Information on cost cap:	[redacted]
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. Cost Containment Commitment

Instructions		Inputs

10.b.iii. Cost containment capital expenditure exemptions

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

Capital cost component	Component covered by cost containment
Engineering and design	[redacted]
Permitting / routing / siting	
ROW / land acquisition	
Materials and equipment	
Construction and commissioning	
Construction management	
Overheads and miscellaneous costs	
Taxes	
AFUDC	
Escalation	

Describe any other cost containment measures not detailed above.

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

[redacted] Under Review by PJM

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

[redacted] Under Review by PJM

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

[redacted]

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

10.f. Redacted information

[redacted]