Goodenow-Lemon Lake 345kV Greenfield Line and Stations

General Information

Proposing entity name	COMPANY CONFIDENTIAL INFORMATION
Company proposal ID	COMPANY CONFIDENTIAL INFORMATION
PJM Proposal ID	235
Project title	Goodenow-Lemon Lake 345kV Greenfield Line and Stations
Project description	Designated Entity Statement of Intent: The Proposing Entity seeks consideration as the Designated Entity for the Project. If selected, the Proposing Entity reserves the right to assign the Project to any of its affiliate(s) if circumstances deem appropriate. Any future assignment to affiliate(s) would be with PJM-established entities. The Proposing Entity does not foresee any potential assignment materially impacting the Project's constructability or schedule. Project Description Info: Tap Bloom – Davis Creek 345kV line (ComEd) and construct greenfield Goodenow 345kV substation as a three-breaker ring in Illinois. Tap St. John-Rollin Schahfer 345kV line (NISPCO) and construct greenfield Lemon Lake 345kV substation as a three breaker ring in Indiana. Construct 13.90-mile single circuit 345kV greenfield line connecting Goodenow-Lemon Lake 345kV. Equipment on the through path of Bloom-Davis Creek 345kV and St. John-Schahfer 345kV will meet or exceed existing line ratings. Tie-line Impact Info: The proposal topology connects equipment owned by more than one Transmission Owner, in this case ComEd (PJM) and NIPSCO (MISO). Greenfield Goodenow 345kV station taps the Bloom-Davis Creek 345kV ComEd transmission line and the greenfield Lemon Lake 345kV station taps the St. John-Schahfer 345kV NIPSCO transmission line with a new greenfield line connecting the two new stations. Interregional Project Info: The proposed project is not a solution to a cross-border issue project between PJM and MISO. The proposed project only addresses an issue solely identified by PJM. The proposed connection with NIPSCO will be coordinated directly with NIPSCO.
Project in-service date	03/2025
Tie-line impact	Yes
Interregional project	No
Is the proposer offering a binding cap on capital costs?	Yes
Additional benefits	COMPANY CONFIDENTIAL INFORMATION

Project Components

1. Greenfield 345kV Line
2. Greenfield Bloom-Goodenow and Goodenow-Davis Creek 345kV cut ins
3. Greenfield St. John-Lemon Lake and Lemon Lake-Rollin Schahfer 345kV cut ins
4. Greenfield 345kV Station (Goodenow)
5. Greenfield 345kV Station (Lemon Lake)

Greenfield Transmission Line Component

Component title	Greenfield 345kV Line	
Point A	Goodenow 345kV	
Point B	Lemon Lake 345kV	
Point C		
	Normal ratings	**Emergency ratings**
Summer (MVA)	1409.000000	1781.000000
Winter (MVA)	1959.000000	2200.000000
Conductor size and type	two-bundle 954 (54/7) ACSR Cardinal	
Nominal voltage	AC	
Nominal voltage	345	
Line construction type	Overhead	

General route description	The the Proposing Entity reviewed a range of siting alternatives for the Proposed Solution evaluating each with respect to potential impacts to the surrounding communities and the environment, constructability, operations and maintenance considerations, and cost effectiveness. Solutions were initially considered within a broad study area, as the solution needed to tap the Bloom-Davis Creek 345kV line (ComEd) and the St. John-Rollin Schahfer 345kV line (NISPCO). This area was further refined based on an assessment of the existing infrastructure and the availability of property and/or suitable space. Potential routes that were evaluated and determined to be unsuitable due to length, circuitousness, constructability issues, major permitting concerns, or expected high costs, were dismissed and not investigated further. Starting at the proposed Goodenow Substation in Illinois (location shown in attachments), the Conceptual Route runs nearly straight east to the proposed Lemon Lake Substation located in Indiana (location shown in attachments). The Conceptual Route is approximately 13.90 miles in length and is located in mainly agricultural areas with rural residential development. The conceptual route will cross the West Creek, Norfolk Southern Railroad, CSX Railroad, U.S. Route 41, and the Cedar Creek. The Conceptual Route also crosses one-transmission line, the existing Dumont-Wilton Center 765kV Line owned by Indiana Michigan Power Company. Multiple local road crossings will be also required. Many of the identified constraints in the area were avoided or minimized by paralleling the previously mentioned Dumont-Wilton Center 765kV transmission line. There are no identified habitable structures located within the proposed ROW and only a few barns/outbuildings may be impacted. Two private airstrips are located in the vicinity of the conceptual route. While there is no specific FAA requirement for private airstrips, the Proposing Entity believes it can mitigate any potential concerns since the proposed structures will be shorter than the existing structures being paralleled. The Conceptual Route is the most direct route between the two proposed stations, has the least overall impact to land use and environmental resources, and parallels the existing Dumont-Wilton Center 765kV Line for nearly the entire route. Based on the constraints identified within the Project Area, the Conceptual Route represents a logical and constructible route.
Terrain description	The Project terrain is flat agricultural lands with a small portion of residential lands (location shown in attachments).

Right-of-way width by segment	The proposed Goodenow-Lemon Lake 345kV Line will require the acquisition of 13.90 miles of transmission line with 165’ wide ROW. The IL portion is 2.71 miles & 10.87 miles in IN. The project will begin at the Proposing Entity’s proposed Lemon Lake Station in Indiana and runs in a westerly direction to the Proposing Entity’s Goodenow Station in Illinois. The tabletop analysis found there were no public lands required for this Project. The private land use is predominantly agricultural and a small portion of residential that the tabletop analysis found and was verified through the County Clerk’s Offices which classified/assessed the land use as agricultural and residential. The private land requirements include acquiring 165’ (82.5’/82.5’) wide ROW where the land use is predominantly agricultural & flat lands. The Proposing Entity will use proven land acquisition process and approach that are successfully employed on projects over the years. The Proposing Entity’s initial land acquisition step is to verify current ownership by an examination of title, current property tax status, as well as document any liens, and or mortgages. The Proposing Entity will also research the status of the subsurface estate, whether or not it is severed from the surface. Once ownership is established, the Proposing Entity will negotiate with landowners based on the fair market value of the property needed for the ROW easements. Market data studies and appraisals, both general and for specific tracts, will be conducted to establish values and a basis for acquisition negotiations. The Proposing Entity will also pay for any crop damage and/or physical damage to property resulting from the construction and/or maintenance of the transmission line. Good Faith negotiations must be made with all landowners. Negotiations will be done in an ethical, non-confrontational and non-threatening manner with the landowners. The long-term relationship with the landowners is paramount and will be kept in mind in all negotiations and honesty, integrity and professionalism will be displayed at all times. Negotiations will continue as long as practical to reach a voluntary agreement. If, and only if, it becomes evident that a voluntary fee purchase agreement between the company and the property owner cannot be reached, and other viable alternatives do not exist, the company may exercise the right of eminent domain to secure required property through condemnation proceedings.
Electrical transmission infrastructure crossings	The Project will involve one (1) electrical transmission infrastructure crossing under the existing Dumont-Wilton Center 765kV Line owned by Indiana Michigan Power Company. Two custom horizontal deadend structures will be used for crossing under the existing 765kV line.
Civil infrastructure/major waterway facility crossing plan	The Project will not involve any civil infrastructure/major waterway facility crossings.

Environmental impacts	Land use along the proposed Lemon Lake-Goodenow 345kV corridor is predominantly undeveloped or agricultural and largely parallels an existing 765kV transmission line. The proposed line intersects seven FEMA-mapped floodplains and/or floodways and National Wetlands Inventory-mapped wetlands are located within the central and eastern portion of the route. Named and unnamed streams also transect the route in various locations. Based on existing aerial photography, the proposed route likely has unmapped wetland or drainage features. To ensure appropriate due diligence for environmental protection, studies will be completed for the right-of-way and proposed access routes including a wetland and stream delineation, threatened and endangered species review, and cultural resource study. Following these studies, the line route or structure locations will be adjusted to completely avoid or minimize impacts to sensitive environmental features. Examples of minimizing impacts to regulated waters or floodplains along the proposed route include installing timber mats within regulated wetlands or floodplains and temporarily bridging across streams. All areas designated for temporary impact will be restored to pre-existing condition following construction. It is anticipated unavoidable impacts to regulated wetlands or streams would be covered under a Nationwide Permit with appropriate offsetting mitigation as directed by the US Army Corps of Engineers, Indiana Department of Environmental Management and/or Illinois EPA. Construction will be covered under a general construction storm water permit from the Indiana Department of Environmental Management and Illinois EPA and appropriate best management practices will be installed prior to construction to manage storm water runoff. The proposed solution and all associated impacts are typical of energy infrastructure projects and would not represent a risk to the overall project schedule or cost.
Tower characteristics	The new 345kV line will require 79 tubular galvanized steel self-supporting structures. The predominate structure type (69 structures) will be a tangent monopole with suspension insulators supported by davit arms arranged in an alternating configuration. Additionally, the line will also require 8 vertically configured deadend poles. Finally, two custom horizontal deadend structures will be used for crossing under the existing 765kV line. The alternating configured tangent poles will be constructed on a combination of direct embedded and concrete pier foundations using full-length anchor bolt cages. The deadend poles will be constructed on concrete pier foundations utilizing full-length anchor bolt cates. A sketch of the structures, design plan, profile drawings, and 3-D model of the proposed transmission line that can be viewed in Google Earth can be found in the attached file under the Supporting Documents section titled “Proposed Structure Types”. The Proposing Entity includes these documents to illustrate the level of preliminary design rigor conducted to support a competent and well planned proposal.
Construction responsibility	COMPANY CONFIDENTIAL INFORMATION
Additional comments	COMPANY CONFIDENTIAL INFORMATION
Component Cost Details - In Current Year $	
Engineering & design	COMPANY CONFIDENTIAL INFORMATION
Permitting / routing / siting	COMPANY CONFIDENTIAL INFORMATION

ROW / land acquisition	COMPANY CONFIDENTIAL INFORMATION
Materials & equipment	COMPANY CONFIDENTIAL INFORMATION
Construction & commissioning	COMPANY CONFIDENTIAL INFORMATION
Construction management	COMPANY CONFIDENTIAL INFORMATION
Overheads & miscellaneous costs	COMPANY CONFIDENTIAL INFORMATION
Contingency	COMPANY CONFIDENTIAL INFORMATION
Total component cost	$22,368,693.00
Component cost (in-service year)	$22,368,693.00

Greenfield Transmission Line Component

Component title	Greenfield Bloom-Goodenow and Goodenow-Davis Creek 345kV cut ins	
Point A	Bloom (ComEd) 345kV	
Point B	Goodenow 345kV (tap station)	
Point C	Davis Creek (ComEd) 345kV	
	Normal ratings	**Emergency ratings**
Summer (MVA)	1334.000000	1528.000000
Winter (MVA)	1590.000000	1781.000000
Conductor size and type	two-bundle 954 (54/7) ACSR Cardinal	
Nominal voltage	AC	
Nominal voltage	345	
Line construction type	Overhead	

General route description	The proposed route is the most direct route between the proposed station and the existing transmission line. The proposed route is located entirely on property the Proposing Entity is expecting to acquire and the existing incumbent ROW. No alternatives were developed due to the route's direct, short length.
Terrain description	The Project terrain is flat agricultural lands for the two (2) 345kV lines to loop in and out of the proposed Goodenow Station.
Right-of-way width by segment	The Project will be sited per the attachments. The tabletop analysis found there were no public lands required for this Project. The private land use is agricultural as tabletop analysis found and was verified through the County Clerk's Office which classified/assessed the land use as agricultural. The private land requirements include two (2) new 345kV lines to loop in & out of the proposed Goodenow Station off of the existing Davis Creek-Bloom 345kV Line. The two (2) new 345kV lines will require 0.14 of a mile of 150' (75'/75') wide ROW each in Indiana (location shown in attachments) where the land use is predominantly agricultural and flat lands. The Proposing Entity will use proven land acquisition process and approach that are successfully employed on projects over the years. The Proposing Entity's initial land acquisition step is to verify current ownership by an examination of title, current property tax status, as well as document any liens, and or mortgages. The Proposing Entity will also research the status of the subsurface estate, whether or not it is severed from the surface. Once ownership is established, the Proposing Entity will negotiate with landowners based on the fair market value of the property needed for the ROW easements. Market data studies and appraisals, both general and for specific tracts, will be conducted to establish values and a basis for acquisition negotiations. The Proposing Entity will also pay for any crop damage and/or physical damage to property resulting from the construction and/or maintenance of the transmission line. Good Faith negotiations must be made with all landowners. Negotiations will be done in an ethical, non-confrontational and non-threatening manner with the landowners. The long-term relationship with the landowners is paramount and will be kept in mind in all negotiations and honesty, integrity and professionalism will be displayed at all times. Negotiations will continue as long as practical to reach a voluntary agreement. If, and only if, it becomes evident that a voluntary fee purchase agreement between the company and the property owner cannot be reached, and other viable alternatives do not exist, the company may exercise the right of eminent domain to secure required property through condemnation proceedings.
Electrical transmission infrastructure crossings	The component of the project involves one (1) electrical transmission infrastructure crossing under the existing Bloom – Burnham 345kV Circuit owned by ComEd Power Company. Bloom – Goodenow – Davis Creek 345kV tie in will utilize two short 6-pole deadened structures to cross under the Bloom – Burnham 345kV circuit.
Civil infrastructure/major waterway facility crossing plan	The Project in Will County, Illinois will not involve any civil infrastructure/major waterway facility crossings.

Environmental impacts	Land use at the proposed parcel for Goodenow Station is currently undeveloped and predominantly agricultural. Pike Creek runs through the parcel and there are mapped riparian and FEMA floodplain areas along Pike Creek. This County in Illinois has listed threatened and endangered species and based on existing aerial photography, the parcel may contain unmapped wetland or drainage features. To ensure appropriate due diligence for environmental protection, studies will be completed for the development parcel including an environmental site assessment(s), wetland and stream delineation, threatened and endangered species review, and cultural resource study. Following these studies, the station will be sited on the property and designed to avoid impacts to sensitive features. For example, Pike Creek and its adjacent riparian and floodplain areas will be avoided. It is not anticipated that impacts to regulated wetlands or streams will be necessary as part of this solution. Major regulatory approvals for the proposed solution is not anticipated to exceed any general performance standard or require any variance to be readily permitted. Construction will be covered under a general construction storm water permit from the Illinois EPA and appropriate best management practices will be installed prior to construction to manage storm water runoff. Additionally, appropriate post-construction storm water controls will be implemented as necessitated by the design. The components of the proposed solution and all associated impacts are typical of energy infrastructure projects and would not represent a risk to the overall project schedule, cost, or ability to meet the identified requirements of the RFP.
Tower characteristics	The new 345kV tie line will require three structures. The first structure required is a vertically configured, double-circuit steel monopole structure with suspension insulators supported by davit arms. Additionally, two sets of short 3-pole deadend structures will be constructed to facilitate the new tie line crossing under the existing Davis Creek-Burnham 345kV Line that lies between the proposed substation and the Bloom-Davis Creek 345kV circuit. All poles will be constructed on a concrete pier foundation using a full-length anchor bolt cage. Drawings of the structures and tie line configuration can be found in the attached file under the Supporting Documents section titled “Proposed Structure Types”.
Construction responsibility	COMPANY CONFIDENTIAL INFORMATION
Additional comments	COMPANY CONFIDENTIAL INFORMATION

Component Cost Details - In Current Year $

Engineering & design	COMPANY CONFIDENTIAL INFORMATION
Permitting / routing / siting	COMPANY CONFIDENTIAL INFORMATION
ROW / land acquisition	COMPANY CONFIDENTIAL INFORMATION
Materials & equipment	COMPANY CONFIDENTIAL INFORMATION
Construction & commissioning	COMPANY CONFIDENTIAL INFORMATION

Construction management	COMPANY CONFIDENTIAL INFORMATION
Overheads & miscellaneous costs	COMPANY CONFIDENTIAL INFORMATION
Contingency	COMPANY CONFIDENTIAL INFORMATION
Total component cost	$1,261,456.00
Component cost (in-service year)	$1,261,456.00

Greenfield Transmission Line Component

Component title	Greenfield St. John-Lemon Lake and Lemon Lake-Rollin Schahfer 345kV cut ins	
Point A	St. John (NIPSCO) 345kV	
Point B	Lemon Lake 345kV (tap station)	
Point C	Rollin Schahfer (NIPSCO) 345kV	
	Normal ratings	**Emergency ratings**
Summer (MVA)	1314.000000	1592.000000
Winter (MVA)	1546.000000	1772.000000
Conductor size and type	two-bundle 954 (54/7) ACSR Cardinal	
Nominal voltage	AC	
Nominal voltage	345	
Line construction type	Overhead	
General route description	The proposed route is the most direct route between the proposed station and the existing transmission line. The proposed route is located entirely on property the Proposing Entity is expecting to acquire and the existing incumbent ROW. No alternatives were developed due to the route’s direct, short length.	
Terrain description	The Project terrain is flat agricultural lands for the two (2) 345kV lines to loop in and out of the proposed Lemon Lake Station.	

Right-of-way width by segment	The Project will be sited per the attachments. The tabletop analysis found there were no public lands required for this Project. The private land use is agricultural as tabletop analysis found and was verified through the County Clerk's Office which classified/assessed the land use as agricultural. The private land requirements include two (2) new 345kV lines to loop in & out of the proposed Lemon Lake Station off of the existing St. John-R. M. Schahfer 345kV Line. The two (2) new 345kV lines will require 0.03 of a mile of 150' (75'/75') wide ROW each in Indiana (location shown in attachments) where the land use is predominantly agricultural and flat lands. The Proposing Entity will use proven land acquisition process and approach that are successfully employed on projects over the years. The Proposing Entity's initial land acquisition step is to verify current ownership by an examination of title, current property tax status, as well as document any liens, and or mortgages. The Proposing Entity will also research the status of the subsurface estate, whether or not it is severed from the surface. Once ownership is established, the Proposing Entity will negotiate with landowners based on the fair market value of the property needed for the ROW easements. Market data studies and appraisals, both general and for specific tracts, will be conducted to establish values and a basis for acquisition negotiations. The Proposing Entity will also pay for any crop damage and/or physical damage to property resulting from the construction and/or maintenance of the transmission line. Good Faith negotiations must be made with all landowners. Negotiations will be done in an ethical, non-confrontational and non-threatening manner with the landowners. The long-term relationship with the landowners is paramount and will be kept in mind in all negotiations and honesty, integrity and professionalism will be displayed at all times. Negotiations will continue as long as practical to reach a voluntary agreement. If, and only if, it becomes evident that a voluntary fee purchase agreement between the company and the property owner cannot be reached, and other viable alternatives do not exist, the company may exercise the right of eminent domain to secure required property through condemnation proceedings.
Electrical transmission infrastructure crossings	This Project Component will not involve any electrical transmission infrastructure crossings.
Civil infrastructure/major waterway facility crossing plan	This Project Component will not involve any civil infrastructure/major waterway facility crossings.

Environmental impacts	Land use at the proposed parcel for Lemon Lake Station is currently undeveloped and predominantly agricultural. National Wetlands Inventory-mapped wetlands are located on the southeastern portion of the parcel. This Indiana County has listed threatened and endangered species and based on existing aerial photography, the parcel may contain unmapped wetland or drainage features. To ensure appropriate due diligence for environmental protection, studies will be completed for the development parcel including an environmental site assessment(s), wetland and stream delineation, threatened and endangered species review, and cultural resource study. Following these studies, the station will be sited on the property and designed to avoid impacts to sensitive features. It is not anticipated that regulated wetlands or streams will be necessary as part of this solution. Major regulatory approvals for the proposed solution would not be anticipated to exceed any general performance standard or require any variance to be readily permitted. Construction will be covered under a general construction storm water permit from the Indiana Department of Environmental Management and appropriate best management practices will be installed prior to construction to manage storm water runoff. Additionally, appropriate post-construction storm water controls will be implemented as necessitated by the design. The components of the proposed solution and all associated impacts are typical of energy infrastructure projects and would not represent a risk to the overall project schedule, cost, or ability to meet the identified requirements of the RFP.
Tower characteristics	Each new 345kV tie line will require two tubular galvanized steel, deadend monopole structures. The vertically configured pole will be constructed on a concrete pier foundation using a full-length anchor bolt cage. Drawings of the structures and configuration can be found in the attached file under the Supporting Documents section titled “Proposed Structure Types”.
Construction responsibility	COMPANY CONFIDENTIAL INFORMATION
Additional comments	Construction Responsibility Note: For purposes of this submittal, the Proposing Entity has provided their best judgment in indicating the appropriate entity for construction responsibility. Worth noting, however, is that Points of Interconnection (“POI”) should be determined on a case-by-case basis and further diligence may be needed to determine ownership status for some components within this Project.

Component Cost Details - In Current Year $

Engineering & design	COMPANY CONFIDENTIAL INFORMATION
Permitting / routing / siting	COMPANY CONFIDENTIAL INFORMATION
ROW / land acquisition	COMPANY CONFIDENTIAL INFORMATION
Materials & equipment	COMPANY CONFIDENTIAL INFORMATION
Construction & commissioning	COMPANY CONFIDENTIAL INFORMATION

Construction management	COMPANY CONFIDENTIAL INFORMATION
Overheads & miscellaneous costs	COMPANY CONFIDENTIAL INFORMATION
Contingency	COMPANY CONFIDENTIAL INFORMATION
Total component cost	$1,048,498.00
Component cost (in-service year)	$1,048,498.00

Greenfield Substation Component

Component title	Greenfield 345kV Station (Goodenow)
Substation name	Goodenow
Substation description	Construct a greenfield switching station to install a 3-breaker ring bus that will interconnect the following 345KV lines = LEMON LAKE, BLOOM, and DAVIS CREEK. This scope is also assuming that the land adjacent to the location at which these lines converge is available for purchase and it will require minimum grading on a parcel of approximately 600’ x 915’ in size. On this parcel we will require approximately a 315’ x 505’ fenced area. Access to this site will require an approx. 871’ drive access road from the nearest accessible road to the east of this proposed location. This greenfield station is proposed to be located per the attachments.
Nominal voltage	AC
Nominal voltage	345

Transformer Information

	Name	**Capacity (MVA)**	
Transformer	N/A	N/A	
	High Side	**Low Side**	**Tertiary**
Voltage (kV)	N/A	N/A	N/A

Major equipment description	Install 3 – 345kV, 3000A, 50kA Circuit Breakers along with their corresponding 3000A double-end break disconnect switches.

	Normal ratings	Emergency ratings
Summer (MVA)	1409.000000	1959.000000
Winter (MVA)	1781.000000	2200.000000
Environmental assessment	Land use at the proposed parcel for Goodenow Station is currently undeveloped and predominantly agricultural. Pike Creek runs through the parcel and there are mapped riparian and FEMA floodplain areas along Pike Creek. This Illinois County has listed threatened and endangered species and based on existing aerial photography, the parcel may contain unmapped wetland or drainage features. To ensure appropriate due diligence for environmental protection, studies will be completed for the development parcel including an environmental site assessment(s), wetland and stream delineation, threatened and endangered species review, and cultural resource study. Following these studies, the station will be sited on the property and designed to avoid impacts to sensitive features. For example, Pike Creek and its adjacent riparian and floodplain areas will be avoided. It is not anticipated that impacts to regulated wetlands or streams will be necessary as part of this solution. Major regulatory approvals for the proposed solution is not anticipated to exceed any general performance standard or require any variance to be readily permitted. Construction will be covered under a general construction storm water permit from the Illinois EPA and appropriate best management practices will be installed prior to construction to manage storm water runoff. Additionally, appropriate post-construction storm water controls will be implemented as necessitated by the design. The components of the proposed solution and all associated impacts are typical of energy infrastructure projects and would not represent a risk to the overall project schedule, cost, or ability to meet the identified requirements of the RFP.	

Outreach plan	Public outreach is a critical component to the Proposing Entity’s siting process, so efforts will include properly informing the public; federal, state and local agencies; local governments; and other key stakeholders on the need for, and benefits of, this Project. The Proposing Entity’s approach to public outreach is to be candid and transparent at all times, and to offer a variety of tools and means for impacted parties to engage with our staff. Public outreach also will involve collecting information about landowner properties, which will be considered during the final siting process. Proactive and interactive communication strategies and tools will assist siting efforts by soliciting comments and concerns from persons and entities affected by the Project. These strategies and tools also will assist in garnering support for the line siting process, as well as promote clear communication to landowners during land/ROW acquisition. The Proposing Entity will host two (2) public open house meetings in Indiana and Illinois respectively to engage with the community and collect feedback on the Project. Each landowner whose property lies within 1,000 feet of the proposed stations and transmission line will be invited to attend an open house and will be given the opportunity to review detailed Project area maps and provide comment as it relates to the Project and their property. These comments are a key component on refining the project. The Proposing Entity will also advertise in local newspapers so that community members may participate in the open house. Also, the Proposing Entity will host an interactive website so the public can obtain the same information that’s provided at the open house, submit their comments, and receive regular and timely Project updates. Open houses will consist of multiple informational stations set as a workshop-style event, designed to educate the public on different aspects of the Project, including: purpose, need, engineering, structure type, and Land/ROW acquisition processes. While the Proposing Entity is confident in the route selected, it is important before beginning the Project to obtain public vetting before initiating land/ROW acquisition. This process can identify unique items such as wells, geological formations, and other features that must be considered in selecting the route to acquire land/ROW upon.

Land acquisition plan	The proposed Goodenow Station will be sited per the attachments. The tabletop analysis found there were no public lands required for this Project. The private land use is agricultural as tabletop analysis found and was verified through the County Clerk's Office that classified/assessed the land use as agricultural. The private land requirements include approximately 12.6 acres for the new station site/detention pond/grading and 0.59 acres of access road to the new station site. The total Project acreage is 13.19 acres to be purchased in fee. Station site and access road placement were chosen to minimize impacting farming operations. The Proposing Entity will use proven land acquisition process and approach that are successfully employed on projects over the years. The Proposing Entity's initial land acquisition step is to verify current ownership by an examination of title, current property tax status, as well as document any liens, and or mortgages. The Proposing Entity will also research the status of the subsurface estate, whether or not it is severed from the surface. Once ownership is established, the Proposing Entity will negotiate with property owners based on the fair market value of the property needed for the station site and access road (both fee purchases). Market data studies and appraisals, both general and for specific tracts, will be conducted to establish values and a basis for acquisition negotiations. Good Faith negotiations must be made with all landowners. Negotiations will be done in an ethical, non-confrontational and non-threatening manner with the landowners. The long-term relationship with the landowners is paramount and will be kept in mind in all negotiations, and honesty, integrity and professionalism will be displayed at all times. Negotiations will continue as long as practical to reach a voluntary agreement. If, and only if, it becomes evident that a voluntary fee purchase agreement between the company and the property owner cannot be reached, and other viable alternatives do not exist, the company may exercise the right of eminent domain to secure required property through condemnation proceedings.
Construction responsibility	COMPANY CONFIDENTIAL INFORMATION
Additional comments	COMPANY CONFIDENTIAL INFORMATION
Component Cost Details - In Current Year $	
Engineering & design	COMPANY CONFIDENTIAL INFORMATION
Permitting / routing / siting	COMPANY CONFIDENTIAL INFORMATION
ROW / land acquisition	COMPANY CONFIDENTIAL INFORMATION
Materials & equipment	COMPANY CONFIDENTIAL INFORMATION
Construction & commissioning	COMPANY CONFIDENTIAL INFORMATION
Construction management	COMPANY CONFIDENTIAL INFORMATION
Overheads & miscellaneous costs	COMPANY CONFIDENTIAL INFORMATION

Contingency	COMPANY CONFIDENTIAL INFORMATION
Total component cost	$11,241,550.00
Component cost (in-service year)	$11,241,550.00

Greenfield Substation Component

Component title	Greenfield 345kV Station (Lemon Lake)
Substation name	Lemon Lake
Substation description	Construct a greenfield switching station to install a 3-breaker ring bus that will interconnect the following 345KV lines = R.M. SCHAFER, BURNHAM, and GOODENOW. This scope is also assuming that the land adjacent to the location at which these lines converge is available for purchase and it will require minimum grading on a parcel of approximately 500’ x 800’ in size. On this parcel we will require approximately a 315’ x 505’ fenced area. Access to this site will require an approx. 416’ drive access road from the nearest accessible road to the east of this proposed location.
Nominal voltage	AC
Nominal voltage	345

Transformer Information

	Name	**Capacity (MVA)**
Transformer	N/A	N/A

	High Side	**Low Side**	**Tertiary**
Voltage (kV)	N/A	N/A	N/A

Major equipment description: Install 3 – 345kV, 3000A, 50kA Circuit Breakers along with their corresponding 3000A double-end break disconnect switches.

	Normal ratings	**Emergency ratings**
Summer (MVA)	1409.000000	1959.000000

Winter (MVA)	1781.000000	2200.000000
Environmental assessment	Land use at the proposed parcel for Lemon Lake Station is currently undeveloped and predominantly agricultural. National Wetlands Inventory-mapped wetlands are located on the southeastern portion of the parcel. This County in Indiana has listed threatened and endangered species and based on existing aerial photography, the parcel may contain unmapped wetland or drainage features. To ensure appropriate due diligence for environmental protection, studies will be completed for the development parcel including an environmental site assessment(s), wetland and stream delineation, threatened and endangered species review, and cultural resource study. Following these studies, the station will be sited on the property and designed to avoid impacts to sensitive features. It is not anticipated that regulated wetlands or streams will be necessary as part of this solution. Major regulatory approvals for the proposed solution would not be anticipated to exceed any general performance standard or require any variance to be readily permitted. Construction will be covered under a general construction storm water permit from the Indiana Department of Environmental Management and appropriate best management practices will be installed prior to construction to manage storm water runoff. Additionally, appropriate post-construction storm water controls will be implemented as necessitated by the design. The components of the proposed solution and all associated impacts are typical of energy infrastructure projects and would not represent a risk to the overall project schedule, cost, or ability to meet the identified requirements of the RFP.	

Outreach plan	Public outreach is a critical component to the Proposing Entity’s siting process, so efforts will include properly informing the public; federal, state and local agencies; local governments; and other key stakeholders on the need for, and benefits of, this Project. The Proposing Entity’s approach to public outreach is to be candid and transparent at all times, and to offer a variety of tools and means for impacted parties to engage with our staff. Public outreach also will involve collecting information about landowner properties, which will be considered during the final siting process. Proactive and interactive communication strategies and tools will assist siting efforts by soliciting comments and concerns from persons and entities affected by the Project. These strategies and tools also will assist in garnering support for the line siting process, as well as promote clear communication to landowners during land/ROW acquisition. The Proposing Entity will host two (2) public open house meetings in Indiana and Illinois respectively to engage with the community and collect feedback on the Project. Each landowner whose property lies within 1,000 feet of the proposed stations and transmission line will be invited to attend an open house and will be given the opportunity to review detailed Project area maps and provide comment as it relates to the Project and their property. These comments are a key component on refining the project. The Proposing Entity will also advertise in local newspapers so that community members may participate in the open house. Also, the Proposing Entity will host an interactive website so the public can obtain the same information that is provided at the open house, submit their comments, and receive regular and timely Project updates. Open houses will consist of multiple informational stations set as a workshop-style event, designed to educate the public on different aspects of the Project, including: purpose, need, engineering, structure type, and Land/ROW acquisition processes. While the Proposing Entity is confident in the route selected, it is important before beginning the Project to obtain public vetting before initiating land/ROW acquisition. This process can identify unique items such as wells, geological formations, and other features that must be considered in selecting the route to acquire land/ROW upon.

Land acquisition plan	The proposed Lemon Lake Station will be sited per the attachments. The tabletop analysis found there were no public lands required for this Project. The private land use is agricultural as tabletop analysis found and was verified through the County Clerk's Office that classified/assessed the land use as agricultural. The private land requirements include approximately 8.34 acres for the new station site/detention pond/grading and 0.28 acres of access road to the new station site. The total Project acreage is 8.62 acres to be purchased in fee. Station site and access road placement were chosen to minimize impacting farming operations. The Proposing Entity will use proven land acquisition process and approach that are successfully employed on projects over the years. The Proposing Entity's initial land acquisition step is to verify current ownership by an examination of title, current property tax status, as well as document any liens, and or mortgages. The Proposing Entity will also research the status of the subsurface estate, whether or not it is severed from the surface. Once ownership is established, the Proposing Entity will negotiate with property owners based on the fair market value of the property needed for the station site and access road (both fee purchases). Market data studies and appraisals, both general and for specific tracts, will be conducted to establish values and a basis for acquisition negotiations. Good Faith negotiations must be made with all landowners. Negotiations will be done in an ethical, non-confrontational and non-threatening manner with the landowners. The long-term relationship with the landowners is paramount and will be kept in mind in all negotiations, and honesty, integrity and professionalism will be displayed at all times. Negotiations will continue as long as practical to reach a voluntary agreement. If, and only if, it becomes evident that a voluntary fee purchase agreement between the company and the property owner cannot be reached, and other viable alternatives do not exist, the company may exercise the right of eminent domain to secure required property through condemnation proceedings.
Construction responsibility	COMPANY CONFIDENTIAL INFORMATION
Additional comments	COMPANY CONFIDENTIAL INFORMATION
Component Cost Details - In Current Year $	
Engineering & design	COMPANY CONFIDENTIAL INFORMATION
Permitting / routing / siting	COMPANY CONFIDENTIAL INFORMATION
ROW / land acquisition	COMPANY CONFIDENTIAL INFORMATION
Materials & equipment	COMPANY CONFIDENTIAL INFORMATION
Construction & commissioning	COMPANY CONFIDENTIAL INFORMATION
Construction management	COMPANY CONFIDENTIAL INFORMATION
Overheads & miscellaneous costs	COMPANY CONFIDENTIAL INFORMATION

Contingency	COMPANY CONFIDENTIAL INFORMATION
Total component cost	$10,274,265.00
Component cost (in-service year)	$10,274,265.00

Congestion Drivers

None

Existing Flowgates

FG #	From Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type
GD-W3	274750	CRETE EC ;BP	255112	17STJOHN	1	345	217/222	Gen Deliv (winter)

New Flowgates

None

Financial Information

Capital spend start date	09/2021
Construction start date	11/2023
Project Duration (In Months)	42

Cost Containment Commitment

Cost cap (in current year)	COMPANY CONFIDENTIAL INFORMATION
Cost cap (in-service year)	COMPANY CONFIDENTIAL INFORMATION

Components covered by cost containment

1. Greenfield 345kV Line - AEP
2. Greenfield 345kV Station (Goodenow) - AEP

3. Greenfield 345kV Station (Lemon Lake) - AEP

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	Yes
Escalation	Yes
Additional Information	COMPANY CONFIDENTIAL INFORMATION
Is the proposer offering a binding cap on ROE?	Yes
Would this ROE cap apply to the determination of AFUDC?	Yes
Would the proposer seek to increase the proposed ROE if FERC finds that a higher ROE would not be unreasonable?	No
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	Yes
Escalation	Yes
Additional Information	COMPANY CONFIDENTIAL INFORMATION
Is the proposer offering a Debt to Equity Ratio cap?	No

Additional comments

None