

Zebedee 345 kV Greenfield Station

General Information

Proposing entity name	COMPANY CONFIDENTIAL INFORMATION
Company proposal ID	COMPANY CONFIDENTIAL INFORMATION
PJM Proposal ID	393
Project title	Zebedee 345 kV Greenfield Station
Project description	<p>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: Construct greenfield Zebedee 345kV substation as a four-breaker ring in Schererville, Indiana. Tie University Park (ComEd)-Olive (AEP) 345kV and Crete (ComEd)-St. John (NIPSCO) 345kV together at Zebedee 345kV station. Install an 11.9025 ohm, 3000 A, 50 kA static series reactor on the Crete-Zebedee 345kV line and an 11.9025 ohm, 3000 A, 50 kA static series reactor on the University Park-Zebedee 345kV line. These reactors are designed to operate normally in-service. Reconductor 0.1 mile span from Zebedee-St. John 345kV. Equipment installed on the through path of Crete-Zebedee 345kV, University Park-Zebedee 345kV, and Zebedee-Olive 345kV will exceed existing line ratings. Tie-line Impact Info: The 0.1 mi incumbent reconductor component of the proposal is a tie from a ComEd owned line into NIPSCO's St. John 345kV station. This incumbent reconductor component will be coordinated directly with ComEd and NIPSCO. Greenfield Zebedee 345kV station taps the Crete-St. John 345kV transmission line and the University Park-Olive 345kV transmission line. Though both lines are tielines from ComEd to NIPSCO and AEP respectively, at the tap point the conductor on either side is owned solely by ComEd. 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.</p>
Project in-service date	08/2024
Tie-line impact	Yes
Interregional project	No
Is the proposer offering a binding cap on capital costs?	Yes

Project Components

1. Reconductor 345kV Line
2. Greenfield 345kV Tie-In (Zebedee-St. John)
3. Greenfield 345kV Tie-In (Zebedee-Olive)
4. Greenfield 345kV Tie-In (Zebedee-Crete)
5. Greenfield 345kV Tie-In (Zebedee-University Park)
6. Greenfield 345kV Station

Transmission Line Upgrade Component

Component title	Reconductor 345kV Line
Impacted transmission line	Crete (ComEd)-St. John (NIPSCO) 345kV
Point A	Zebedee 345kV (tap station)
Point B	St. John (NIPSCO) 345kV
Point C	
Terrain description	The Project terrain is flat, at approximately 700' mean sea level (MSL), and is farmed agricultural land located in Schererville, Lake County, Indiana.

Existing Line Physical Characteristics

Operating voltage	345 kV
Conductor size and type	1414 KCM ACSR
Hardware plan description	The existing line between the proposed Zebedee substation and the existing St. John station will require new hardware. There is only one transmission line structure between the two stations. New hardware will be installed on that tower to accommodate reconductoring that section of line. Additionally, optical ground wire (OPGW) will be installed on the existing line between the two stations. The Proposing Entity plans to install a single 0.646" diameter OPGW containing 48 fibers on this section line.

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	\$173,248.00
Component cost (in-service year)	\$173,248.00

Greenfield Transmission Line Component

Component title	Greenfield 345kV Tie-In (Zebedee-St. John)
Point A	Zebedee 345kV
Point B	St. John (NIPSCO) 345kV
Point C	

	Normal ratings	Emergency ratings
Summer (MVA)	1409.000000	1959.000000
Winter (MVA)	1781.000000	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 proposed route is the most direct route between the proposed station and the existing St. John transmission line. The proposed route is located entirely on property the Proposing Entity is expecting to acquire. No alternatives were developed due to the route's direct, short length.
Terrain description	The Project terrain is flat, at approximately 700' mean sea level (MSL), and is farmed agricultural land (location shown in attachments).
Right-of-way width by segment	The component will involve no new right-of-way nor right-of-way expansion. This component piece of the new 345kV line will be entirely located on the proposed Zebedee Station.
Electrical transmission infrastructure crossings	The Project will not involve any electrical transmission infrastructure crossings.
Civil infrastructure/major waterway facility crossing plan	The Project will not involve any civil infrastructure/major waterway facility crossings.
Environmental impacts	The proposed route is the most direct route between the proposed station and the existing St. John transmission line. The proposed route is located entirely on property the Proposing Entity is expecting to acquire and the existing incumbent ROW. 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 line component will be designed to avoid impacts to sensitive features. It is not anticipated that regulated wetlands or drainage issues will be necessary as part of this solution. 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 identified component would not represent a risk to the overall project schedule or cost.
Tower characteristics	The new 345kV tie line will require a single tubular galvanized steel, deadend pole. The vertically configured pole will be constructed on a concrete pier foundation using a full-length anchor bolt cage. A sketch of the structure 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	\$431,106.00
Component cost (in-service year)	\$431,106.00

Greenfield Transmission Line Component

Component title	Greenfield 345kV Tie-In (Zebedee-Olive)
Point A	Zebedee 345kV
Point B	Olive (AEP) 345kV
Point C	

	Normal ratings	Emergency ratings
Summer (MVA)	971.000000	971.000000
Winter (MVA)	1234.000000	1234.000000
Conductor size and type	two-bundle 954 (54/7) ACSR Cardinal	
Nominal voltage	AC	
Nominal voltage	345	
Line construction type	Overhead	

General route description	This route is the most direct route between the proposed station and the existing Olive 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, at approximately 700' mean sea level (MSL), and is farmed agricultural land (location shown in attachments).
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 that classified/assessed the land use as agricultural. The private land requirements include new 345kV line to loop in & out of the new station off of the existing St John-Rollin Schahfer 345kV Line. The new 345kV line will require 0.02 of a mile of 150' (75'/75') wide ROW in Indiana (location shown in attachments) where the land use is predominantly agricultural. 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 ROW. Market data studies and appraisals, both general and for specific tracts, will be conducted to establish values and a basis for acquisition negotiations. In addition to compensation for the easements, the Proposing Entity will pay for any crop damage and/or physical damage to property resulting from the construction and/or maintenance of the transmission lines. 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 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 not involve any electrical transmission infrastructure crossings.
Civil infrastructure/major waterway facility crossing plan	The Project will not involve any civil infrastructure/major waterway facility crossings.

Environmental impacts	<p>The proposed route is the most direct route between the proposed station and the existing Olive transmission line. The proposed route is located entirely on property the Proposing Entity is expecting to acquire and the existing incumbent ROW. 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 line component will be designed to avoid impacts to sensitive features. It is not anticipated that regulated wetlands or drainage issues will be necessary as part of this solution. 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 identified component would not represent a risk to the overall project schedule or cost.</p>
Tower characteristics	<p>The new 345kV tie line will require a single tubular galvanized steel, deadend pole. The vertically configured pole will be constructed on a concrete pier foundation utilizing a full-length anchor bolt cage. A sketch of the structure can be found in the attached file under the Supporting Documents section titled "Proposed Structure Types".</p>
Construction responsibility	COMPANY CONFIDENTIAL INFORMATION
Additional comments	<p>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.</p>
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	\$454,734.00
Component cost (in-service year)	\$454,734.00

Greenfield Transmission Line Component

Component title	Greenfield 345kV Tie-In (Zebedee-Crete)
Point A	Zebedee 345kV
Point B	Crete (ComEd) 345kV
Point C	

	Normal ratings	Emergency ratings
Summer (MVA)	1091.000000	1399.000000
Winter (MVA)	1310.000000	1557.000000
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 Crete 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, at approximately 700' mean sea level (MSL), and is farmed agricultural lands (location shown in attachments).	

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 that classified/assessed the land use as agricultural. The private land requirements include new 345kV line to loop in & out of the new station off of the existing Tower 274-Illinois State 345kV Line. The new 345kV line will require 0.07 of a mile of 150' (75'/75') wide ROW in Indiana (location shown in attachments) where the land use is predominantly agricultural. 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 ROW. Market data studies and appraisals, both general and for specific tracts, will be conducted to establish values and a basis for acquisition negotiations. In addition to compensation for the easements, the Proposing Entity will pay for any crop damage and/or physical damage to property resulting from the construction and/or maintenance of the transmission lines. 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 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 not involve any electrical transmission infrastructure crossings.

Civil infrastructure/major waterway facility crossing plan

The Project will not involve any civil infrastructure/major waterway facility crossings.

Environmental impacts

The proposed route is the most direct route between the proposed station and the existing Crete transmission line. The proposed route is located entirely on property the Proposing Entity is expecting to acquire and the existing incumbent ROW. 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 line component will be designed to avoid impacts to sensitive features. It is not anticipated that regulated wetlands or drainage issues will be necessary as part of this solution. 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 identified component would not represent a risk to the overall project schedule or cost.

Tower characteristics The new 345kV tie line will require 3 tubular galvanized steel, deadend poles and one tubular galvanized steel tangent structure. The vertically configured deadend poles and the alternating configured tangent pole will be constructed on a concrete pier foundations using full-length anchor bolt cages. A sketch of the structure 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 \$1,060,567.00

Component cost (in-service year) \$1,060,567.00

Greenfield Transmission Line Component

Component title Greenfield 345kV Tie-In (Zebedee-University Park)

Point A Zebedee 345kV

Point B University Park (ComEd) 345kV

Point C

	Normal ratings	Emergency ratings
Summer (MVA)	1091.000000	1091.000000
Winter (MVA)	1310.000000	1310.000000
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 University Park 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, at approximately 700' mean sea level (MSL), and is farmed agricultural lands (location shown in attachments).	

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 that classified/assessed the land use as agricultural. The private land requirements include new 345kV line to loop in & out of the new station off of the existing St John-Rollin Schahfer 345kV Line. The new 345kV line will require 0.07 of a mile of 150' (75'/75') wide ROW in Indiana (location shown in attachments) where the land use is predominantly agricultural. 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 ROW. Market data studies and appraisals, both general and for specific tracts, will be conducted to establish values and a basis for acquisition negotiations. In addition to compensation for the easements, the Proposing Entity will pay for any crop damage and/or physical damage to property resulting from the construction and/or maintenance of the transmission lines. 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 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 not involve any electrical transmission infrastructure crossings.

Civil infrastructure/major waterway facility crossing plan

The Project will not involve any civil infrastructure/major waterway facility crossings.

Environmental impacts

The proposed route is the most direct route between the proposed station and the existing University Park transmission line. The proposed line is located entirely on property the Proposing Entity is expecting to acquire and the existing incumbent ROW. 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 line component will be designed to avoid impacts to sensitive features. It is not anticipated that regulated wetlands or drainage issues will be necessary as part of this solution. 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 identified component would not represent a risk to the overall project schedule or cost.

Tower characteristics The new 345kV tie line will require 3 tubular galvanized steel, deadend poles and one tubular galvanized steel tangent structure. The vertically configured deadend poles and the alternating configured tangent pole will be constructed on a concrete pier foundations using full-length anchor bolt cages. A sketch of the structure 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 \$1,058,593.00

Component cost (in-service year) \$1,058,593.00

Greenfield Substation Component

Component title Greenfield 345kV Station

Substation name Zebedee

Substation description

Construct a greenfield station to install two sets of 345kV series reactors equipment; one on the Zebedee (Greenfield)-Crete (ComEd) 345kV Line and one on the Zebedee (Greenfield)-University Park (ComEd) 345kV line. Along with the series reactor equipment, the Proposing Entity will install a 4-breaker ring bus so that the two lines mentioned above are electrically tied. This scope assumes that the land adjacent to the St. John Station is available for purchase and will require minimum grading on a parcel of 600' x 800' in size. The parcel will require approximately a 545' x 780' fenced area. Access to this site will require approximately 610' drive access from the nearest accessible road.

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 an 11.9025 ohm, 3000 A, 50 kA static series reactor on the Crete-Zebedee 345kV line and an 11.9025 ohm, 3000 A, 50 kA static series reactor on the University Park-Zebedee 345kV line. Each reactor assembly will be equipped with their corresponding double-end reactor disconnect set of switches. Install two (2) 345kV, 3000A, 50kA reactor by-pass circuit breakers. All breakers will be equipped with their corresponding double-end breaker disconnect set of switches. Install four (4) 345kV, 3000A, 50kA circuit breakers that will be part of the 4-breaker ring bus. All breakers will be equipped with their corresponding double-end breaker disconnect set of switches.

	Normal ratings	Emergency ratings
Summer (MVA)	1409.000000	1959.000000
Winter (MVA)	1781.000000	2200.000000

Environmental assessment

The proposed Zebedee 345kV Station is adjacent to the existing St. John Station. There are not any National Wetland Inventory mapped wetlands located on of the identified parcel. Based on existing aerial photography, the parcel may contain unmapped wetland or drainage features on the western parcel boundary. The station's location would not have any direct impact on regulated resource areas, such as wetlands or protected species habitat, nor would affect any further previously undeveloped lands outside of the parcel the Proposing Entity identified to purchase. Development would be consistent with local land use and distant enough from residential uses and sensitive receptors to ensure that operational noise and visual impacts would be minimal. 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 designed to avoid impacts to sensitive features. It is not anticipated that regulated wetlands or drainage issues will be necessary as part of this solution. 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 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.

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 a public open house meeting in the Project location to engage with the community and collect feedback on the Project. Each landowner whose property adjoins the proposed station and tap lines 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 newspaper 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 house 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 on the site 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 Zebedee 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 further verified through the County Clerk's Office that classified/assessed the land use as agricultural. The private land requirements include approximately 20.64 acres for the new station site/detention pond and 0.44 of an acre of access road to the new station site. The total Project acreage is 21.04 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	\$22,731,544.00
Component cost (in-service year)	\$22,731,544.00

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	04/2023
Project Duration (In Months)	35

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 Tie-In (Zebedee-St. John) - AEP
2. Greenfield 345kV Station - 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