

Add a new 345 kV double circuit line looping the existing line into a new substation

General Information

Proposing entity name	Business confidential information
Does the entity who is submitting this proposal intend to be the Designated Entity for this proposed project?	Yes
Company proposal ID	Business confidential information
PJM Proposal ID	664
Project title	Add a new 345 kV double circuit line looping the existing line into a new substation
Project description	<p>1. Reconductor NEETMA IN 6.95 miles of existing Crete to St John line. NEETMA portion goes from IL/IN State Line to St. John substation owned by NIPSCO. The line will be reconducted using 2x1033 Curlew ACSS HS. Upgrade is for reconductor only (Tower replacement will be part of supplemental project # s2509). 2. Install dead-end structures to loop-in NEETMA owned Crete - St. John and Uni - Olive 345 kV transmission line in NEET proposed State Line Sub 3. Rebuild NEETMA owned Uni (IN/IL border) to State Line sub 345 kV transmission with 2x1033 Curlew ACSS rated 2193/2691 WN/WE. 4. Reconductor ComEd's section of existing line from IN State Line to Crete with 2x1277 ACSR. 5. Reconductor ComED section of existing line of University - Olive with 2x1277 ACSR conductor rated 2058/2381 WN/WE. 6. Construct dead-end structures to loop-in Bloom to Davis 345 kV TL in to NEET proposed 345 kV DCT line connecting into St. John Sub 7. Upgrade the limiting element at Stillwell or Dumont substation to increase the rating of the Stillwell -Dumont line to match conductor rating (1408/1887/1780/2143 for SN/SE/WN/WE for PJM side) 8. Upgrade the existing terminal equipment (substation conductor) at St. John on the existing Crete to St. John 345 kV line with bundled 2x1590 ACSR Lapwing rated 2239/2390 WN/WE 9. Construct approx. 5 mi new DCT 345 kV Line with 2x 795 kcmil Drake ACSS rated 1546/1772 WN/WE to loop-in Bloom – Davis into proposed new State line Sub near IL/IN border. 10. Create a new 6-terminal, 345 kV ring bus on ~5 acre property near IN state line. Loop in Crete - St. John 345 kV and University Park - Olive 345 kV line and Bloom to Davis Creek 345kV line</p>
Email	amanda.gittens@nexteraenergy.com
Project in-service date	11/2027
Tie-line impact	Yes
Interregional project	Yes

Interregional RTO name	MISO
Interregional cost allocation evaluation	No
Evaluated in interregional analysis under PJM Tariff or Operating Agreement provisions	No
Specify analysis and applicable Tariff or Operating Agreement provisions	
Is the proposer offering a binding cap on capital costs?	No
Additional benefits	Project addressing reliability and market efficiency needs documented by PJM. While this project is interregional in that there are transmission components in both MISO and PJM, the need that is being addressed is only a PJM need.

Project Components

1. Reconductor Crete - St. John-NEETMA 345 kV TL upgrade
2. Loop-in Crete - St. John and Uni - Olive 345 kV TL in proposed State Line Sub
3. Rebuild Uni (IN/IL border) to State Line sub 345 kV TL
4. Crete - St. John-ComEd 345 kV TL upgrade
5. Uni North - Uni-Olive IN/IL section 345kV TL Upgrade
6. Loop-in Bloom to Davis 345 kV TL in new 345 kV DCT line
7. Stillwell - Dumont 345 kV TL substation limiting element rating upgrade
8. St. Johns substation terminal equipment upgrade
9. Loop-in Bloom -Davis Creek 345kV line into State Line sub via a DCT 345 kV TL
10. State Line Substation-6 terminal

Transmission Line Upgrade Component

Component title	Reconductor Crete - St. John-NEETMA 345 kV TL upgrade
Project description	Detailed cost breakdown is business confidential information.
Impacted transmission line	Crete Bus to St John Bus 345 kV line

Point A	Crete Bus
Point B	St John Bus
Point C	Not Applicable
Terrain description	The terrain along the transmission line right-of-way (ROW) is predominantly silt loam and clay loam soils with gentle slopes, and about 94% of the ROW having a ground slope of 4% or less. Elevations along the ROW range from about 670 feet to 721 feet MSL. Minor vegetation clearing anticipated for the project. The existing land use adjacent to the ROW is primarily cultivated crops and developed lands.

Existing Line Physical Characteristics

Operating voltage	345
Conductor size and type	Single 1414 kcmil paper expanded ACSR per phase
Hardware plan description	NEET MA IN has received approval for a supplemental project that involves replacing aging infrastructure between of an existing double circuit 345 kV line. This reconductor represents a portion of the supplemental project that is necessary to address the PJM reliability issue, which only involves reconductoring the Crete-St. John section of the 345 kV line.
Tower line characteristics	NEET MA IN has received approval for a supplemental project that involves replacing aging infrastructure between of an existing double circuit 345 kV line. This reconductor represents a portion of the supplemental project that is necessary to address the PJM reliability issue, which only involves reconductoring the Crete-St. John section of the 345 kV line.

Proposed Line Characteristics

	Designed	Operating
Voltage (kV)	345.000000	345.000000
	Normal ratings	Emergency ratings
Summer (MVA)	2050.000000	2495.000000
Winter (MVA)	2193.000000	2621.000000
Conductor size and type	1033.5 kcmil Curlew ACSS HS: 2C Bundle	

Shield wire size and type	Reuse OPGW from supplemental project
Rebuild line length	7 miles
Rebuild portion description	Line will be rebuilt as part of the supplemental project utilizing tubular steel monopoles in existing ROW replacing aging lattice towers. Tangent structures will be direct embedded with angles and deadend on drilled piers. New hardware and conductor will be installed as part of the rebuild.
Right of way	Segment 1: This approximately 7 mile segment, starting from the Illinois/Indiana state line heading East crosses mostly agricultural and developing residential area to St. John Substation. The right of way varies in width between 100 and 150 feet and crosses 14 roadways (public and community) and two railroads.
Construction responsibility	Business confidential information
Benefits/Comments	Resolves market efficiency and reliability issues identified per PJM's Generation Deliverability Process.
Component Cost Details - In Current Year \$	
Engineering & design	Detailed cost breakdown is business confidential information.
Permitting / routing / siting	Detailed cost breakdown is business confidential information.
ROW / land acquisition	Detailed cost breakdown is business confidential information.
Materials & equipment	Detailed cost breakdown is business confidential information.
Construction & commissioning	Detailed cost breakdown is business confidential information.
Construction management	Detailed cost breakdown is business confidential information.
Overheads & miscellaneous costs	Detailed cost breakdown is business confidential information.
Contingency	Detailed cost breakdown is business confidential information.
Total component cost	\$1,990,250.00
Component cost (in-service year)	\$2,095,000.00
Transmission Line Upgrade Component	
Component title	Loop-in Crete - St. John and Uni - Olive 345 kV TL in proposed State Line Sub

Project description	Business confidential information
Impacted transmission line	Crete Bus to St John Bus 345 kV line, University to Olive 345 kV line
Point A	Crete Bus
Point B	St John Bus
Point C	Not Applicable
Terrain description	The terrain at the station is predominantly silt loam and clay loam soils with gentle slopes, with a ground slope of 4% or less. Elevations across the area are approximately 703 feet MSL. No vegetation clearing anticipated for the project. The existing land use is primarily cultivated crops surrounded by developed land.

Existing Line Physical Characteristics

Operating voltage	345
Conductor size and type	Single 1414 kcmil paper expanded ACSR per phase
Hardware plan description	345kV hardware, with the same design as the supplemental project, will be installed on the new section of line.
Tower line characteristics	Four new structures will be installed to accommodate the cut into the new substation. Tubular steel structures of similar design to the approved supplemental project will be used and bundled 1033 kcmil ACSS conductor installed.

Proposed Line Characteristics

	Designed	Operating
Voltage (kV)	345.000000	345.000000
	Normal ratings	Emergency ratings
Summer (MVA)	2050.000000	2495.000000
Winter (MVA)	2193.000000	2621.000000
Conductor size and type	1033.5 kcmil Curlew ACSS HS: 2C Bundle	

Shield wire size and type	reuse existing OPGW from supplemental project
Rebuild line length	0.1mile
Rebuild portion description	4 structures will be added to cut in the new substation within the existing ROW
Right of way	Existing ROW will be used, new substation is proposed to be adjacent to the ROW.
Construction responsibility	Business confidential information
Benefits/Comments	

Component Cost Details - In Current Year \$

Engineering & design	Detailed cost breakdown is business confidential information.
Permitting / routing / siting	Detailed cost breakdown is business confidential information.
ROW / land acquisition	Detailed cost breakdown is business confidential information.
Materials & equipment	Detailed cost breakdown is business confidential information.
Construction & commissioning	Detailed cost breakdown is business confidential information.
Construction management	Detailed cost breakdown is business confidential information.
Overheads & miscellaneous costs	Detailed cost breakdown is business confidential information.
Contingency	Detailed cost breakdown is business confidential information.
Total component cost	\$1,976,000.00
Component cost (in-service year)	\$2,080,000.00

Transmission Line Upgrade Component

Component title	Rebuild Uni (IN/IL border) to State Line sub 345 kV TL
Project description	Business confidential information
Impacted transmission line	University Park Sub to State line Sub 345 kV line
Point A	University Park Sub

Point B	State line Sub
Point C	Not Applicable
Terrain description	The terrain along the transmission line right-of-way (ROW) is predominantly silt loam and clay loam soils with gentle slopes, and about 94% of the ROW having a ground slope of 4% or less. Elevations along the ROW range from about 670 feet to 782 feet MSL. Minor vegetation clearing anticipated for the project. The existing land use adjacent to the ROW is primarily cultivated crops and developed lands.

Existing Line Physical Characteristics

Operating voltage	345
Conductor size and type	Single 1414 kcmil paper expanded ACSR per phase
Hardware plan description	NEET MA IN has received approval for a supplemental project that involves replacing aging infrastructure between of an existing double circuit 345 kV line. This reconductor represents a portion of the supplemental project that is necessary to address the PJM reliability issue, which only involves rebuilding the Uni (IN/IL border) to State Line section of the 345 kV line.
Tower line characteristics	NEET MA IN has received approval for a supplemental project that involves replacing aging infrastructure between of an existing double circuit 345 kV line. This reconductor represents a portion of the supplemental project that is necessary to address the PJM reliability issue, which only involves rebuilding the Uni (IN/IL border) to State Line section of the 345 kV line.

Proposed Line Characteristics

	Designed	Operating
Voltage (kV)	345.000000	345.000000
	Normal ratings	Emergency ratings
Summer (MVA)	2050.000000	2495.000000
Winter (MVA)	2193.000000	2621.000000
Conductor size and type	1033.5 kcmil Curlew ACSS HS: 2C Bundle	
Shield wire size and type	Utilize existing shield wire to extent practical	

Rebuild line length	0.9 miles
Rebuild portion description	Line will be rebuilt as part of the supplemental project utilizing tubular steel monopoles in existing ROW replacing aging lattice towers. Tangent structures will be direct embedded with angles and deadend on drilled piers. New hardware and conductor will be installed as part of the rebuild.
Right of way	Existing ROW will be utilized
Construction responsibility	Business confidential information
Benefits/Comments	Resolves reliability and market efficiency issues identified per PJM's Generation Deliverability Process.

Component Cost Details - In Current Year \$

Engineering & design	Detailed cost breakdown is business confidential information.
Permitting / routing / siting	Detailed cost breakdown is business confidential information.
ROW / land acquisition	Detailed cost breakdown is business confidential information.
Materials & equipment	Detailed cost breakdown is business confidential information.
Construction & commissioning	Detailed cost breakdown is business confidential information.
Construction management	Detailed cost breakdown is business confidential information.
Overheads & miscellaneous costs	Detailed cost breakdown is business confidential information.
Contingency	Detailed cost breakdown is business confidential information.
Total component cost	\$1,999,750.00
Component cost (in-service year)	\$2,105,000.00

Transmission Line Upgrade Component

Component title	Crete - St. John-ComEd 345 kV TL upgrade
Project description	Business confidential information
Impacted transmission line	Crete Bus to St John Bus 345 kV line

Point A	Crete Bus
Point B	St John Bus
Point C	Not Applicable
Terrain description	The terrain along the transmission line right-of-way (ROW) is relatively flat with about 94% of the ROW having a ground slope of 4% or less. Elevations along the ROW range from about 670 feet to 725 feet MSL. Minor vegetation clearing anticipated for the project. The existing land use adjacent to the ROW is primarily cultivated crops and developed lands.

Existing Line Physical Characteristics

Operating voltage	345
Conductor size and type	Single 1414 kcmil paper expanded ACSR per phase
Hardware plan description	Unknown
Tower line characteristics	Lattice structure towers built in 1950's

Proposed Line Characteristics

	Designed	Operating
Voltage (kV)	345.000000	345.000000
	Normal ratings	Emergency ratings
Summer (MVA)	1679.000000	2058.000000
Winter (MVA)	2091.000000	2381.000000
Conductor size and type	1277 kcmil ACSR: 2C Bundle	
Shield wire size and type	Utilize existing shield wire to extent practicable	
Rebuild line length	4.97 miles	
Rebuild portion description	4.97 miles going from Crete Substation to IL/IN State line	

Right of way	This approximately 5 mile segment from the IL/IN state line that runs west to the Crete substation crosses mostly agricultural land and crosses 7 roadways and utilizes existing ROW.
Construction responsibility	ComEd
Benefits/Comments	Resolves reliability and market efficiency issues identified per PJM's Generation Deliverability Process.

Component Cost Details - In Current Year \$

Engineering & design	Detailed cost breakdown is business confidential information.
Permitting / routing / siting	Detailed cost breakdown is business confidential information.
ROW / land acquisition	Detailed cost breakdown is business confidential information.
Materials & equipment	Detailed cost breakdown is business confidential information.
Construction & commissioning	Detailed cost breakdown is business confidential information.
Construction management	Detailed cost breakdown is business confidential information.
Overheads & miscellaneous costs	Detailed cost breakdown is business confidential information.
Contingency	Detailed cost breakdown is business confidential information.
Total component cost	\$6,454,500.00
Component cost (in-service year)	\$7,121,321.20

Transmission Line Upgrade Component

Component title	Uni North - Uni-Olive IN/IL section 345kV TL Upgrade
Project description	Business confidential information
Impacted transmission line	University Park Sub to Olive Sub 345 kV line
Point A	University Park Sub
Point B	Olive Sub
Point C	Not Applicable

Construction responsibility	ComEd
Benefits/Comments	Resolves reliability and market efficiency issues identified per PJM's Generation Deliverability Process.

Component Cost Details - In Current Year \$

Engineering & design	Detailed cost breakdown is business confidential information.
Permitting / routing / siting	Detailed cost breakdown is business confidential information.
ROW / land acquisition	Detailed cost breakdown is business confidential information.
Materials & equipment	Detailed cost breakdown is business confidential information.
Construction & commissioning	Detailed cost breakdown is business confidential information.
Construction management	Detailed cost breakdown is business confidential information.
Overheads & miscellaneous costs	Detailed cost breakdown is business confidential information.
Contingency	Detailed cost breakdown is business confidential information.
Total component cost	\$15,827,777.70
Component cost (in-service year)	\$17,475,145.60

Transmission Line Upgrade Component

Component title	Loop-in Bloom to Davis 345 kV TL in new 345 kV DCT line
Project description	Business confidential information
Impacted transmission line	Bloom Sub to Davis Creek Sub 345 kV line
Point A	Bloom Sub
Point B	Davis Creek Sub
Point C	Not Applicable

Benefits/Comments	Resolves reliability and market efficiency issues identified per PJM's Generation Deliverability Process.
Component Cost Details - In Current Year \$	
Engineering & design	Detailed cost breakdown is business confidential information.
Permitting / routing / siting	Detailed cost breakdown is business confidential information.
ROW / land acquisition	Detailed cost breakdown is business confidential information.
Materials & equipment	Detailed cost breakdown is business confidential information.
Construction & commissioning	Detailed cost breakdown is business confidential information.
Construction management	Detailed cost breakdown is business confidential information.
Overheads & miscellaneous costs	Detailed cost breakdown is business confidential information.
Contingency	Detailed cost breakdown is business confidential information.
Total component cost	\$2,000,000.00
Component cost (in-service year)	\$2,208,161.60
Substation Upgrade Component	
Component title	Stillwell - Dumont 345 kV TL substation limiting element rating upgrade
Project description	Business confidential information
Substation name	Existing substation name where the upgrade will take place. Stillwell or Dumont 345 kV TL
Substation zone	NIPS to AEP
Substation upgrade scope	Upgrade the limiting element at Stillwell or Dumont substation to increase the rating of the Stillwell -Dumont line to t match conductor rating (1408/1887/1780/2143 for SN/SE/WN/WE for PJM side)
Transformer Information	
None	

New equipment description	Upgrade the limiting element at Stillwell or Dumont substation to increase the rating of the Stillwell -Dumont line to match conductor rating (1408/1887/1780/2143 for SN/SE/WN/WE for PJM side)
Substation assumptions	Upgrade of limiting element possible without any substation expansion. Either AEP or NIPSCO' scope of work. In service date should occur in fall 2027 to accommodate overload in summer 2027
Real-estate description	No substation expansion anticipated.
Construction responsibility	AEP
Benefits/Comments	Resolves reliability and market efficiency issues identified per PJM's process.

Component Cost Details - In Current Year \$

Engineering & design	Detailed cost breakdown is business confidential information.
Permitting / routing / siting	Detailed cost breakdown is business confidential information.
ROW / land acquisition	Detailed cost breakdown is business confidential information.
Materials & equipment	Detailed cost breakdown is business confidential information.
Construction & commissioning	Detailed cost breakdown is business confidential information.
Construction management	Detailed cost breakdown is business confidential information.
Overheads & miscellaneous costs	Detailed cost breakdown is business confidential information.
Contingency	Detailed cost breakdown is business confidential information.
Total component cost	\$5,000,000.00
Component cost (in-service year)	\$5,520,404.02

Substation Upgrade Component

Component title	St. Johns substation terminal equipment upgrade
Project description	Business confidential information
Substation name	St Johns 345 kV
Substation zone	NIPSCO

Substation upgrade scope	Upgrade the existing terminal equipment (substation conductor) at St. John on the existing Crete to St. John 345 kV line with bundled 2x1590 ACSR Lapwing rated 2239/2390 WN/WE
Transformer Information	
None	
New equipment description	Upgrade the existing terminal equipment (substation conductor) at St. John on the existing Crete to St. John 345 kV line with bundled 2x1590 ACSR Lapwing rated 2239/2390 WN/WE
Substation assumptions	Upgrade has been evaluated to be feasible per supplemental project supplemental project # s2509.
Real-estate description	No substation expansion anticipated
Construction responsibility	NIPSCO
Benefits/Comments	Resolves reliability and market efficiency issues identified per PJM's process.
Component Cost Details - In Current Year \$	
Engineering & design	Detailed cost breakdown is business confidential information.
Permitting / routing / siting	Detailed cost breakdown is business confidential information.
ROW / land acquisition	Detailed cost breakdown is business confidential information.
Materials & equipment	Detailed cost breakdown is business confidential information.
Construction & commissioning	Detailed cost breakdown is business confidential information.
Construction management	Detailed cost breakdown is business confidential information.
Overheads & miscellaneous costs	Detailed cost breakdown is business confidential information.
Contingency	Detailed cost breakdown is business confidential information.
Total component cost	\$2,000,000.00
Component cost (in-service year)	\$2,208,161.61
Greenfield Transmission Line Component	
Component title	Loop-in Bloom -Davis Creek 345kV line into State Line sub via a DCT 345 kV TL

Project description	Business confidential information	
Point A	Bloom Sub	
Point B	State line Sub	
Point C	Not Applicable	
	Normal ratings	Emergency ratings
Summer (MVA)	1314.000000	1592.000000
Winter (MVA)	1546.000000	1772.000000
Conductor size and type	2x 795 kcmil Drake ACSS	
Nominal voltage	AC	
Nominal voltage	345	
Line construction type	Overhead	
General route description	Route is approximately 5 miles long. Starting at a new dead end structure in the COMED ROW south of the Plum Valley Reserve it goes eastward for 1.3 miles turns north for .75 miles and then heads NE for .65 miles until it crosses the existing 345kV line. This would all be in new ROW across farmland crossing only 1 roadway. After crossing the existing lines the route proceeds east for 1.1 miles adjacent to the existing ROW crossing 1 roadway. It then turns N for .2 miles and E for .15 miles to the IL/IN border across farmland and crossing no roadways. After crossing into IN the route proceeds E and SE for approximately .85 miles through a residential area to the new State Line substation crossing 4 roads.	
Terrain description	The Project is located predominantly within silt loam and clay loam soils with gentle slopes generally less than 2 percent and deposited in depressions on outwash, till, and lake plains, and in drainageways and ground moraines. Aerial imagery suggests the land is used primarily for agriculture.	
Right-of-way width by segment	The new right of way will have its own corridor and will be 140' wide and will parallel the existing ROW in certain locations.	
Electrical transmission infrastructure crossings	Alignment will cross the Crete-St.John/University-Olive line	
Civil infrastructure/major waterway facility crossing plan	No major crossings	

Environmental impacts	<p>Environmental constraints identified are manageable through implementation of NEET MA's environmental avoidance, minimization and mitigation strategy incorporated at the beginning of the routing/siting process. The proposed route crosses one national wetland inventory (NWI) wetlands and nine waterbodies, but it appears that most features are small and could be avoided without permitting. Fatal flaws have not been identified for the NEET MA proposed Loop-in Bloom -Davis Creek 345kV line into State Line sub via a DCT 345 kV TL. Three areas mapped by Federal Emergency Management Agency as 100-year floodplain are crossed. Ten federally listed species, including one candidate species, were identified in the area, but no critical habitat was identified. If suitable habitat is identified or regulations change, agency coordination and species-specific surveys will occur. Several historic structures are listed in the DNR historic structures database near the proposed line. The western end of the line crosses Moeller Woods Preserve which requires permitting, fees, board approval and compensatory mitigation. The project intends to adhere to tree removal seasonal restriction windows to avoid and minimize impacts to protected birds and bats, such as the Indiana Bat, Northern Long-eared Bat, Bald Eagle, and other common raptors. Erosion control best management practices and setbacks will be engineered and utilized to prevent sedimentation from leaving the site for the protection of aquatic species and to avoid water quality impacts. A Cultural Resource Assessment Survey will be conducted to determine the presence of archeological or culturally sensitive areas and implementation of NEET MA's avoidance strategy. There are no unique or sensitive environmental concerns or impacts with the NEET MA proposed transmission line that cannot be addressed.</p>
Tower characteristics	<p>Structures will be double circuit 345kV monopole structures in a vertical circuit configuration with davit arms and v-string type insulators. These structures will be similar in framing to the supplemental project approved by PJM.</p>
Construction responsibility	Business confidential information
Benefits/Comments	Resolves reliability and market efficiency issues identified per PJM's.
Component Cost Details - In Current Year \$	
Engineering & design	Detailed cost breakdown is business confidential information.
Permitting / routing / siting	Detailed cost breakdown is business confidential information.
ROW / land acquisition	Detailed cost breakdown is business confidential information.
Materials & equipment	Detailed cost breakdown is business confidential information.
Construction & commissioning	Detailed cost breakdown is business confidential information.
Construction management	Detailed cost breakdown is business confidential information.

Overheads & miscellaneous costs	Detailed cost breakdown is business confidential information.
Contingency	Detailed cost breakdown is business confidential information.
Total component cost	\$23,119,201.00
Component cost (in-service year)	\$24,018,700.00

Greenfield Substation Component

Component title	State Line Substation-6 terminal
Project description	Business confidential information
Substation name	State Line Substation
Substation description	6-terminal, 345kV ring bus substation equipped with six 4000A, 63kAIC breakers.
Nominal voltage	AC
Nominal voltage	345

Transformer Information

None

Major equipment description AC Substation: New – ring bus Six 4000A breaker

	Normal ratings	Emergency ratings
Summer (MVA)	2390.000000	4000.000000
Winter (MVA)	2390.000000	4000.000000

Environmental assessment

Fatal flaws have not been identified for the NEET MA proposed State Line substation. Environmental constraints identified are manageable through implementation of NEET MA's environmental avoidance, minimization and mitigation strategy incorporated at the beginning of the routing/siting process. While there is a small NWI wetland mapped adjacent to the proposed station, any temporary impacts in the area will be included in the Nationwide Permit application. No streams or associated floodplains are within the proposed substation location. Permanent impacts to wetlands will be avoided and minimized to the extent possible through site specific design, engineering, and structure placement. While there do not appear to be any trees at the proposed substation, the project intends to adhere to tree removal seasonal restriction windows to avoid and minimize impacts to protected birds and bats, such as the Indiana Bat, Northern Long-eared Bat, Bald Eagle, and other common raptors. Erosion control best management practices and setbacks will be engineered and utilized to prevent sedimentation from leaving the site for the protection of aquatic species and to avoid water quality impacts. A Cultural Resource Assessment Survey will be conducted to determine the presence of archeological or culturally sensitive areas and implementation of NEET MA's avoidance strategy. There are no unique or sensitive environmental concerns or impacts with the NEET MA proposed Illinois substation.

Outreach plan

NEETMA IN is committed to working with all interested stakeholders through a robust outreach and education (O&E) program to address/respond to community concerns and inform the public about the project to the greatest extent practicable. NEETMA IN believes a well-designed O&E program can have numerous benefits, including fostering a cooperative relationship with landowners and other stakeholders, expediting the regulatory permitting process, and assisting with project development. In general, the purpose of the community outreach plan is to gain community support for the project, in particular the affected community, to enable NEETMA IN to expeditiously comply with all relevant regulatory requirements that would permit timely construction and operation of the proposed project. Elements of the community outreach plan will include the following: 1) Identify potential issues at an early stage by engagement with key community stakeholders at the outset; 2) Broaden the community engagement process to identify potential and relevant community benefits that can facilitate community support for the proposed project; 3) Develop a broad base of community support for the proposed project before the regulatory agencies; and 4) Develop a comprehensive administrative record documenting the community outreach process that can be presented to the regulatory agency or, in the event of a legal challenge, to the appropriate court. The plan proposes to dedicate considerable time and resources in engaging the community, and specifically the affected community during the planning process to identify highly sensitive areas that have the least amount of cultural, environmental, and social impacts on the community. The plans will reflect avoidance of impacts rather than mitigation. However, in some cases, if avoidance is not possible, then NEETMA IN will involve the community in providing appropriate and practical mitigation measures.

Land acquisition plan	Key elements in NEETMA IN's approach to the landowner negotiation process for this project, and other projects in PJM, include: 1) Proactively conducting a market analysis of land values in the project area; 2) Producing a fair and comprehensive land acquisition plan and schedule for securing necessary land rights and site control; 3) Utilizing local land acquisition teams knowledgeable of the project area; and 4) Taking a transparent approach in discussing the project and NEETMA IN development interests in the subject property. NEETMA IN will negotiate agreements with the landowners of the proposed project area. NEETMA IN's philosophy for landowner relations is to work with residents during all phases of a project to address issues as they arise, before and after acquisition of land rights. NEETMA IN is committed to serving as the point of contact for residents, whether directly or indirectly affected by the project, for the duration of the project. NEETMA IN uses a collaborative and consultative approach to working with landowners, focusing on regular communication, to understand and address issues on an ongoing basis. NEETMA IN is also committed to using design and construction techniques that minimize impacts on private lands, and to restoring the construction sites of the projects to be both good stewards of the environment and good neighbors in the communities in which NEETMA IN live and work.
Construction responsibility	Business confidential information
Benefits/Comments	Business confidential information
Component Cost Details - In Current Year \$	
Engineering & design	Detailed cost breakdown is business confidential information.
Permitting / routing / siting	Detailed cost breakdown is business confidential information.
ROW / land acquisition	Detailed cost breakdown is business confidential information.
Materials & equipment	Detailed cost breakdown is business confidential information.
Construction & commissioning	Detailed cost breakdown is business confidential information.
Construction management	Detailed cost breakdown is business confidential information.
Overheads & miscellaneous costs	Detailed cost breakdown is business confidential information.
Contingency	Detailed cost breakdown is business confidential information.
Total component cost	\$13,594,500.00
Component cost (in-service year)	\$14,310,000.00

Congestion Drivers

None

Existing Flowgates

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
MDW1-GD-S1620	255113	17STILLWELL	243219	05DUMONT	1	345	205/217	Summer Gen Deliv	Included
MDW1-ME-01	255113	17STILLWELL	243219	05DUMONT	1	345	205/217	Market Efficiency	Included
MDW1-ME-02	274804	UNIV PK N;RP	243229	05OLIVE	1	345	205/222	Market Efficiency	Included
MDW1-GD-W392	274804	UNIV PK N;RP	243229	05OLIVE	1	345	205/222	Winter Gen Deliv	Included
MDW1-GD-W393	274804	UNIV PK N;RP	243229	05OLIVE	1	345	205/222	Winter Gen Deliv	Included
MDW1-GD-W309	274750	CRETE EC ;BP	255112	17STJOHN	1	345	217/222	Winter Gen Deliv	Included
MDW1-GD-W404	274750	CRETE EC ;BP	255112	17STJOHN	1	345	217/222	Winter Gen Deliv	Included
MDW1-GD-W419	274750	CRETE EC ;BP	255112	17STJOHN	1	345	217/222	Winter Gen Deliv	Included
MDW1-ME-04	274750	CRETE EC ;BP	255112	17STJOHN	1	345	217/222	Market Efficiency	Included
MDW1-GD-W172	274750	CRETE EC ;BP	255112	17STJOHN	1	345	217/222	Winter Gen Deliv	Included
MDW1-GD-W171	274750	CRETE EC ;BP	255112	17STJOHN	1	345	217/222	Winter Gen Deliv	Included
MDW1-GD-W188	274750	CRETE EC ;BP	255112	17STJOHN	1	345	217/222	Winter Gen Deliv	Included
MDW1-GD-W190	274750	CRETE EC ;BP	255112	17STJOHN	1	345	217/222	Winter Gen Deliv	Included
MDW1-GD-W185	274750	CRETE EC ;BP	255112	17STJOHN	1	345	217/222	Winter Gen Deliv	Included
MDW1-GD-W332	270728	E FRANKFO; B	274750	CRETE EC ;BP	1	345	222	Winter Gen Deliv	Included
MDW1-GD-W331	270728	E FRANKFO; B	274750	CRETE EC ;BP	1	345	222	Winter Gen Deliv	Included
MDW1-ME-03	270728	E FRANKFO; B	274750	CRETE EC ;BP	1	345	222	Winter Gen Deliv	Included

New Flowgates

None

Financial Information

Capital spend start date	01/2023
Construction start date	12/2025
Project Duration (In Months)	58

Additional Comments

None