# Loop-in Bloom –Davis 345kV line at New NEET proposed Illinois Substation + Loop-in NEET owned Crete- St John 345 kV line at new NEET proposed State Line 345 kV sub

## General Information

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|---|---|
| Proposing entity name | NXTMID |
| Does the entity who is submitting this proposal intend to be the Designated Entity for this proposed project? | Yes |
| Company proposal ID | NEETMA IN Proposal 4 |
| PJM Proposal ID | 335 |
| Project title | Loop-in Bloom –Davis 345kV line at New NEET proposed Illinois Substation + Loop-in NEET owned Crete- St John 345 kV line at new NEET proposed State Line 345 kV sub |
| Project description | Create a new 3-terminal, 345 kV ring bus substation (NEETMA State Line) on ~5-acre property near IN state line. Create a new 3-terminal, 345 kV ring bus substation (NEETMA Illinois) on ~5-acre property where existing Bloom - Davis Creek intersects Crete - St. John. Construct a new 345 kV Transmission Line between the new NEETMA Illinois substation and the new NEETMA State Line substation (approximately 5 miles) Loop in NEETMA owned Crete - St. John 345 kV into NEETMA proposed State Line Substation Loop-in Bloom to Davis 345 kV TL into NEETMA proposed Illinois Sub Replace existing 345 kV switch at St. John Substation (NIPSCO) Reconductor NEETMA IN 6.95 miles of the existing Crete – St John line which goes from IL/IN State Line to St. John with 2x1033 Curlew ACSS. |
| Email | eric.hodges@nexteraenergy.com |
| Project in-service date | 12/2026 |
| Tie-line impact | Yes |
| Interregional project | No |
| Is the proposer offering a binding cap on capital costs? | No |
| Additional benefits | Project addressing reliability 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. Crete To St. John 345 kV Transmission Line Upgrade - NEETMA IN Only
2. Loop-In Crete To St. John 345 kV Line Into NEETMA IN Proposed State Line Sub
3. Loop-In Bloom To Davis Creek 345 kV Transmission Line Into NEET Proposed Illinois Sub - ComED
4. St. John Substation terminal equipment (switch) upgrade to 4000A
5. New 345 kV Transmission Line from NEET Illinois Substation -NEET State Line substation
6. State Line Substation-3 terminal
7. Illinois Substation- 3 Terminal

## Transmission Line Upgrade Component

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|---|---|
| Component title | Crete To St. John 345 kV Transmission Line Upgrade - NEETMA IN Only |
| Project description | 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 reconductored using 2x1033 Curlew ACSS HS. Upgrade is for reconductor only (Tower replacement will be part of NEETMA-2021-01 supplemental project). |
| 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 721 feet MSL. Minor tree or other clearing is anticipated to be required for the project. The existing land use adjacent to the ROW is primarily cultivated crops with some developed lands. |
| **Existing Line Physical Characteristics** | |
| Operating voltage | 345 kV |
| Conductor size and type | Single 1414 kcmil paper expanded ACSR per phase |

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|---|---|
| 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 | Utilize existing shield wire to extent practical |
| Rebuild line length | 6.95 miles |
| Rebuild portion 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 |
| Right of way | Segment 1: This five-mile segment, starting from the Illinois/Indiana state line heading East crosses mostly agricultural and developing residential area to the first turn in the ROW. The right of way varies in width between 100 and 150 feet and crosses nine roadways and two railroads. Segment 2: This 1.9 mile stretch to the NE crosses mostly agricultural land and two roadways. |
| Construction responsibility | ComEd |

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|---|---|
| Benefits/Comments | Resolves reliability issues identified per PJM's Generation Deliverability Process. For Construction responsibility due to the PJM form web, we are unable to select NEET MA IN as the entity responsible for this upgrade, please note, NEET MA IN or its affiliates will be responsible in constructing the transmission upgrade for Crete-St. John line. |

**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 | $5,262,676.00 |
| Component cost (in-service year) | $5,468,930.00 |

## Transmission Line Upgrade Component

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|---|---|
| Component title | Loop-In Crete To St. John 345 kV Line Into NEETMA IN Proposed State Line Sub |
| Project description | Loop-in Crete to St John 345 kV transmission line into NEETMA proposed State Line Sub. |
| 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 |

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|---|---|
| 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 721 feet MSL. Minor tree or other clearing is anticipated to be required for the project. The existing land use adjacent to the ROW is primarily cultivated crops with some developed lands. |

**Existing Line Physical Characteristics**

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|---|---|
| Operating voltage | 345 |
| Conductor size and type | 1033.5 kcmil Curlew ACSS HS: 2C Bundle |
| Hardware plan description | New hardware will be required to cut in existing Crete-St. John to new “State Line Switchyard” |
| Tower line characteristics | Structures will be less than 5 years old. New inset structures will be used and existing structures will be evaluated for structural adequacy. No structure replacements are expected. |

**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 practicable | |
| Rebuild line length | 0.1 miles | |
| Rebuild portion description | 2 new steel monopoles will be installed to support the cut in of the existing Crete-St. John circuit at the “State Line Switchyard”. It is assumed the new poles will be installed in such a manner that the existing conductor, which has been recently replaced as part of a supplemental PJM project, can be caught off and cut into the new structures. New wire will be slacked into the new proposed switchyard. | |
| Right of way | Segment 1: This 0.1-mile segment stays in the agricultural area the existing ROW is already in. There are no crossings or impediments. | |

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| Construction responsibility | ComEd |
| Benefits/Comments | Resolves reliability issues identified per PJM's Generation Deliverability Process. For Construction responsibility due to the PJM form web, we are unable to select NEET MA as the entity responsible for this upgrade, please note, NEET MA IN and its affiliates will be responsible in constructing the transmission upgrade for Loop-in Crete-St. John line. |

**Component Cost Details - In Current Year $**

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|---|---|
| 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 | $2,090,000.00 |
| Component cost (in-service year) | $2,257,200.00 |

## Transmission Line Upgrade Component

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|---|---|
| Component title | Loop-In Bloom To Davis Creek 345 kV Transmission Line Into NEET Proposed Illinois Sub - ComED |
| Project description | Loop-in Bloom to Davis Creek 345 kV transmission line into NEET proposed Illinois Substation |
| Impacted transmission line | Bloom Bus to Davis Creek Bus 345 kV line |
| Point A | Bloom Bus |
| Point B | Davis Creek Bus |
| Point C | Not Applicable |

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|---|---|
| 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 721 feet MSL. Minor tree or other clearing is anticipated to be required for the project. The existing land use adjacent to the ROW is primarily cultivated crops with some developed lands. |

**Existing Line Physical Characteristics**

| | |
|---|---|
| Operating voltage | 345 |
| Conductor size and type | Unknown |
| Hardware plan description | Unknown |
| Tower line characteristics | Unknown |

**Proposed Line Characteristics**

| | **Designed** | **Operating** |
|---|---|---|
| Voltage (kV) | 345.000000 | 345.000000 |
| | **Normal ratings** | **Emergency ratings** |
| Summer (MVA) | 1334.000000 | 1528.000000 |
| Winter (MVA) | 1590.000000 | 1781.000000 |
| Conductor size and type | Unknown | |
| Shield wire size and type | Unknown | |
| Rebuild line length | 0.1 mile | |
| Rebuild portion description | The loop-in portion will be coordinated with the Incumbent (ComEd). It is anticipated that 2 new tower structures will be installed to support the cut in of the existing Bloom-Davis circuit at the proposed substation. | |
| Right of way | Segment 1: This 0.1-mile segment stays in the agricultural area the existing ROW its already in. This loop in will cross the Davis Creek to Burnham 345kV transmission line, leave the COMED owned parcel and enter a privately owned parcel. | |
| Construction responsibility | ComEd | |

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| Benefits/Comments | Resolves 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 | $2,000,000.00 |
| Component cost (in-service year) | $2,164,864.00 |

## Substation Upgrade Component

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| Component title | St. John Substation terminal equipment (switch) upgrade to 4000A |
| Project description | Replace existing 345 kV substation switch at St. John |
| Substation name | St John 345 kV |
| Substation zone | NIPSCO |
| Substation upgrade scope | Replace existing 345 kV substation switch at St. John |

## Transformer Information

None

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|---|---|
| New equipment description | St. John Substation terminal equipment (switch) upgrade to 4000A |

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| Substation assumptions | The upgrade will leverage the substation in its existing form with no additional assumptions. Upgrade only consists of replacing the terminal equipment to a 4000A switch. |
| Real-estate description | The upgrade will leverage the substation in its existing form with no additional assumptions. Upgrade only consists of replacing the terminal equipment to a 4000A switch. |
| Construction responsibility | NIPSCO |
| Benefits/Comments | Resolves 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 | $500,000.00 |
| Component cost (in-service year) | $541,216.00 |

## Greenfield Transmission Line Component

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| Component title | New 345 kV Transmission Line from NEET Illinois Substation -NEET State Line substation |
| Project description | Construct New 345 kV line from new NEET Illinois Substation to new NEET State Line substation using 2x1033 Curlew ACSS. |
| Point A | NEETMA Illinois Bus |
| Point B | NEETMA State Line Indiana Bus |

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|---|---|---|
| Point C | Not Applicable | |
| | **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 | |
| Nominal voltage | AC | |
| Nominal voltage | 345 | |
| Line construction type | Overhead | |
| General route description | The transmission line will commence at the new proposed Illinois substation and head east approximately 5 miles for interconnection into the proposed State Line substation. Final routing will be determined at a later date. | |
| 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 721 feet MSL. Minor tree or other clearing is anticipated to be required for the project. The existing land use adjacent to the ROW is primarily cultivated crops with some developed lands. | |
| Right-of-way width by segment | Segment 1: This segment will travel 3.5 miles leaving the proposed NEET Illinois substation in agricultural land, heading eastwardly using mostly existing transmission ROW that has a width between 100 and 150 ft. This segment will stay mostly in agricultural lands, winding around a couple houses, crossing 4 roads and two wetlands. The segment will end at State Line Rd.<br>Segment 2: This segment will travel 1.5 miles, starting at State Line Rd and ending at the proposed NEET State Line substation in Hanover Township, IN. This segment of the ROW travels through mostly agricultural lands, parallels a local road, and crosses 4 roads before ending at the proposed NEET State Line substation. | |
| Electrical transmission infrastructure crossings | The proposed NEET Illinois to NEET State Line 345kV transmission line will cross two existing electrical transmission lines; St Johns to Crete Energy Park 345kV and PPL University Park to Olive 345kV, each three times. | |
| Civil infrastructure/major waterway facility crossing plan | The proposed NEET Illinois to NEET State Line transmission line will cross a small number of civil infrastructure features: Calumet Expressway, South Stoney Island Avenue, and Black Opal Lane. The proposed line will cross Plum Creek and a small number (4) of riverine freshwater emergent wetlands. The proposed line will also cross two electrical distribution lines. | |

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| Environmental impacts | Potential environmental impacts assessment (i.e., environmental impact study requirements, permitting, sediment, and erosion control issues). No fatal flaws have been identified for the NEET MA proposed Illinois to State Line transmission line. Environmental constraints identified are manageable using NEET MA's environmental avoidance, minimization, and mitigation strategy during initial routing. Tree clearing in forested wetlands will convert some wetlands from forested to herbaceous to maintain compliance with overhead transmission regulations for fire safety. This requires a Corps of Engineers Nationwide 57 Permit (NWP 57), a Pre-Construction Notification, and an Individual 401 water quality certification from the Illinois EPA. Temporary wetland impacts will be included in the NW57. Three wetlands and four streams with associated floodplains are crossed by the proposed alignment. Permanent impacts to wetlands will be avoided and minimized to the extent possible through site specific design, engineering, and structure placement. The designation of each of the streams crossed with overhead infrastructure, with temporary construction mats, or bridging will be determined and permitted accordingly. Seasonal restrictions for instream work and tree removal will be followed to avoid and minimize impacts to aquatic species, 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 in streams, to protect 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. |
| Tower characteristics | The new line will consist of 345kV monopole structures. The line will be designed as a single circuit line. Delta Tangent structures will be developed utilizing direct embedded spun cast pre-tension concrete poles and will utilize 345kV braced post insulators. Deadend structures will be guyed steel direct embedded structures or self-support steel monopoles on drilled concrete pier foundations dependent on available easement. |
| Construction responsibility | Proposer |
| Benefits/Comments | Resolves reliability issues identified per PJM's Generation Deliverability Process |

**Component Cost Details - In Current Year $**

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|---|---|
| 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. |

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| 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 | $14,155,876.00 |
| Component cost (in-service year) | $14,851,111.00 |

## Greenfield Substation Component

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| Component title | State Line Substation-3 terminal |
| Project description | Create a new 3-terminal, 345 kV ring bus switchyard on ~5-acre property near IL/IN state line. Loop in Crete - St. John 345 kV and terminate a new 345 kV line. |
| Substation name | State Line Substation |
| Substation description | Create a new 3-terminal, 345 kV ring bus switchyard on ~5-acre property near IL/IN state line. Loop in Crete - St. John 345 kV and terminate a new 345 kV line. |
| Nominal voltage | AC |
| Nominal voltage | 345 |

## Transformer Information

None

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|---|---|
| Major equipment description | AC Substation: New – ring bus Three 4000A breaker |

| | **Normal ratings** | **Emergency ratings** |
|---|---|---|
| Summer (MVA) | 4000.000000 | 4000.000000 |
| Winter (MVA) | 4000.000000 | 4000.000000 |

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|---|---|
| Environmental assessment | Potential environmental impacts assessment (i.e. environmental impact study requirements, environmental permitting, sediment, and erosion control issues). 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 at the proposed station, a slight shift in the location may avoid wetland impacts, and if not an alternative location to the east without wetlands is available. 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. |

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|---|---|
| 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 | Proposer |
| Benefits/Comments | Substation is a switchyard with no voltage transformation. |

**Component Cost Details - In Current Year $**

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|---|---|
| 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 | $11,076,584.00 |
| Component cost (in-service year) | $11,620,587.00 |

## Greenfield Substation Component

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|---|---|
| Component title | Illinois Substation- 3 Terminal |
| Project description | Create a new 3-terminal, 345 kV ring bus switchyard on ~5-acre property where existing Bloom - Davis Creek intersects Crete - St. John. Loop-in Bloom to Davis Creek 345kV line and the New NEET Illinois Substation -NEET Indiana 345 kV transmission line |
| Substation name | Illinois Substation |
| Substation description | Create a new 3-terminal, 345 kV ring bus switchyard on ~5-acre property where existing Bloom - Davis Creek intersects Crete - St. John. Loop-in Bloom to Davis Creek 345kV line and the New NEET Illinois Substation -NEET Indiana 345 kV transmission line |
| Nominal voltage | AC |
| Nominal voltage | 345 |

## Transformer Information

None

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|---|---|
| Major equipment description | AC Substation: New – ring bus Three 4000A breaker |

| | **Normal ratings** | **Emergency ratings** |
|---|---|---|
| Summer (MVA) | 4000.000000 | 4000.000000 |
| Winter (MVA) | 4000.000000 | 4000.000000 |

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|---|---|
| Environmental assessment | Potential environmental impacts assessment (i.e., environmental impact study requirements, permitting, sediment, and erosion control issues). No fatal flaws have been identified for the NEET MA proposed Illinois substation. Environmental constraints identified are manageable using NEET MA's environmental avoidance, minimization, and mitigation strategy during initial routing. While there are no NWI (National Wetland Inventory) wetlands mapped at the proposed station, any temporary impacts in the area will be included in a 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. |

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|---|---|
| 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 | Proposer |
| Benefits/Comments | Substation is a switchyard with no voltage transformation. |

**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 | $12,038,271.00 |
| Component cost (in-service year) | $12,628,843.00 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| GD-W2-W5 | 274750 | CRETE EC ;BP | 255112 | 17STJOHN | 1 | 345 | 217/222 | Winter Gen Deliv | Included |
| GD-W2-W6 | 274750 | CRETE EC ;BP | 255112 | 17STJOHN | 1 | 345 | 217/222 | Winter Gen Deliv | Included |

## New Flowgates

None

## Financial Information

| | |
|---|---|
| Capital spend start date | 01/2023 |
| Construction start date | 12/2026 |
| Project Duration (In Months) | 47 |

## Additional Comments

All attachments for NEETMA IN - Proposal 4 are Confidential.