Brewster Area Reliability Project

General Information

Proposing entity name	NXTMID
Company proposal ID	NEETMidAtlantic_2020W4-02
PJM Proposal ID	862
Project title	Brewster Area Reliability Project
Project description	NextEra Energy Transmission MidAtlantic, Inc.’s (NEET MidAtlantic) proposed solution will provide a secondary feed to Brewster 69 kV by tapping the existing Cloverdale – E. Wooster 138 kV line, and connecting it to Brewster 69 kV station via a greenfield 138/69 kV substation (Fine Fork Station) and a new 5-mile 69 kV line between the greenfield tap location and the Brewster 69 kV station. See Appendix 4, Appendix 5, and Appendix 8 for more details.
Project in-service date	01/2024
Tie-line impact	Yes
Interregional project	No
Is the proposer offering a binding cap on capital costs?	Yes
Additional benefits	Because the NEET MidAtlantic proposal is originating the proposed 69 kV line from a new 138 kV tap, it also provides an alternate 138 kV source that is different to the 138 kV source currently serving the Harmon – Brewster 69 kV line. Therefore, in addition to addressing the radial line criteria violation NEET MidAtlantic’s proposal will increase operational flexibility and system resiliency by allowing Brewster substation to stay online during a 138 kV or 69 kV bus outage at Harmon.

Project Components

1. Brewster Station Work
2. Fine Fork – Brewster 69 kV line
3. Fine Fork Station Work

Substation Upgrade Component

Component title	Brewster Station Work
Substation name	Brewster 69 kV Station
Substation zone	FE-MASS (1234)
Substation upgrade scope	Re-terminate existing Brewster – Harmon 69 kV line to a new line position and connect proposed 69 kV line to the existing 69 kV line position. Install one (1) 69 kV 40 kA circuit breaker and associated P&C equipment at available bay position.

Transformer Information

None

New equipment description	New transformer installation will not be required as part of the proposal.
Substation assumptions	Brewster substation has enough space provisions to accommodate a new 69 kV line, associated circuit breakers, and P&C equipment without expanding current site. No Control House expansion is needed. Assumption includes one existing 69kV breaker at the substation for the Harmon to Brewster 69kV line. Current substation design can accommodate additional 69kV line termination with minimal upgrades required. (Build-out existing H-frame structure). Binding Cost Cap is not applicable as work performed will be by incumbent.
Real-estate description	No substation fence expansion needed as part of the proposal.
Construction responsibility	AMPT
Additional comments	See Appendix 4, Appendix 5, and Appendix 8 for more details. Please note all Appendices are Confidential.

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	$1,200,000.00
Component cost (in-service year)	$1,320,000.00

Greenfield Transmission Line Component

Component title	Fine Fork – Brewster 69 kV line
Point A	Fine Fork (Greenfield Station)
Point B	Brewster 69 kV
Point C	

	Normal ratings	Emergency ratings
Summer (MVA)	106.000000	135.000000
Winter (MVA)	119.000000	149.000000

Conductor size and type	556 Dove ACSR
Nominal voltage	AC
Nominal voltage	69
Line construction type	Overhead
General route description	New 69 kV line will require new 75 ft ROW to accommodate a 4.25-mile segment going south, and a 0.75-mile segment going west.

Terrain description	The NEET MidAtlantic proposed transmission line alignment traverses approximately five miles through a largely rural/agricultural area of northeastern Ohio. The area is characterized by rolling plains associated the Glaciated Alleghany Plateaus. Small fragments of forested wetlands associated with riparian corridors along streams intersect the farm fields throughout the study area. Unique or sensitive terrain is not located within the NEET MidAtlantic proposed transmission line. See Appendix 5 for more information.
Right-of-way width by segment	NEET MidAtlantic has identified approximately 60 private landowners and 14 public crossings. Once the project design has been approved, public outreach will occur to acquire option agreements from the private landowners for the 75ft wide ROW. Once the project permits have been approved, NEET MidAtlantic will negotiate easement rights for the transmission line. Temporary access roads for constructability will be identified and acquired at that time. After construction, remediation and construction damages will be paid and processed. See Appendix 11-ROW Execution Plan.
Electrical transmission infrastructure crossings	Harmon – Brewster 69 kV circuit, Harmon – Star 345 kV circuit, South Canton – Apple Creek 138 kV circuit, South Canton – Star 345 kV circuit
Civil infrastructure/major waterway facility crossing plan	Approximately 14 permits have been identified, 1 of which is the Wheeling & Lake Erie Railway Company. Once preliminary design is completed, NEET MidAtlantic will engage these agencies to start the permitting process. NEET MidAtlantic will work closely the agencies requirements and coordinate with engineering to acquire the appropriate permits.
Environmental impacts	Fatal flaws have not been identified for the NEET MidAtlantic proposed transmission line. Environmental constraints identified are manageable through implementation of NEET MidAtlantic's environmental avoidance, minimization and mitigation strategy incorporated at the beginning of the routing process. Small fragments of forested wetlands associated with the riparian corridors of streams will require tree-clearing in order to remain in compliance with overhead transmission regulations for fire safety; this activity will be permitted accordingly. Temporary impacts to herbaceous wetlands during construction will be permitted. Seven creeks are crossed by the proposed alignment. Permanent impacts to wetlands will be avoided and minimized to the extent possible with design, engineering and structure placement. Environmental permitting will be required for unavoidable impacts to wetlands. The ephemeral designation of each of the seven streams crossed with overhead and with temporary construction stream crossings will be determined and permitted accordingly. Seasonal restrictions for instream work will be adhered to in order to avoid and minimize impacts to aquatic species. The project intends to adhere to tree-clearing 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 in streams for the protection of aquatic species and to avoid water quality impacts. A Cultural Resource Assessment Survey will be performed to determine the presence of archeological or culturally sensitive areas and implement NEET MidAtlantic's avoidance strategy. There are no unique or sensitive environmental concerns or impacts with the NEET MidAtlantic proposed transmission line. See Appendix 5 for more information.

Tower characteristics	Proposed transmission structures will be directly embedded steel monopoles; where required, guyed structures will be used. At locations where physical loads require guying and space is not available, self-supporting steel poles on cast in place concrete caissons will be used. Structures will be framed vertically using polymer post insulators. Single Dove 556 ACSR conductor will be used for the 69 kV transmission circuit and electrical shielding will be provided by a 48 count OPGW.
Construction responsibility	Proposer
Additional comments	Additional comments contains 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	$9,358,631.00
Component cost (in-service year)	$9,768,630.00

Greenfield Substation Component

Component title	Fine Fork Station Work
Substation name	Fine Fork Station (zone: FE-MASS (1234))
Substation description	Construct a new 138 kV 3000 Amps ring bus with three (3) 3000 A 40 kA circuit breakers Proposed station will be named Fine Fork station Extend Cloverdale – E. Wooster 138 kV line and connect to Fine Fork station via in and out loop
Nominal voltage	AC

Nominal voltage	138/69 kV

Transformer Information

	Name	Capacity (MVA)	
Transformer	Fine Fork Transformer	165/167/257	
	High Side	**Low Side**	**Tertiary**
Voltage (kV)	138	69	13.2

Major equipment description	Install a new 138/69 kV 165/167/257 MVA transformer with associated low side 69 kV 3000 A 40 kA circuit breaker. A three-breaker ring bus configuration will be used to connect the 138kV circuits, and single breaker for the 69kV Fine Fork-Brewster transmission line. All line terminations include motorized disconnects.

	Normal ratings	Emergency ratings
Summer (MVA)	165.000000	167.000000
Winter (MVA)	197.000000	205.000000

Environmental assessment	The NEET MidAtlantic substation location is currently used for livestock. The parcel is bordered by two highways, US-30 and CR 241. Two transmission lines currently traverse the parcel. Tree-clearing impacts will be minimal and will adhere to season restrictions to protect birds and bats. Wetland delineation and Cultural Resource Assessment will help influence Civil design to avoid impacts to wetlands and cultural resources (if any). Impacts will be permitted accordingly. Stormwater best management practices and Erosion controls will ensure protection of nearby streams. There are no unique or sensitive environmental concerns or impacts with the NEET MidAtlantic substation location. Environmental impact, study and permitting will be routine and minimal. See Appendix 5 for more information.
Outreach plan	NEET MidAtlantic would conduct community and landowner outreach by holding at least one public, informational meeting in the project area no more than 90 days in advance of filing a siting application with the OPSB, as required by O.A.C. § 4906-3-03. NEET MidAtlantic also would meet with county and local officials to discuss the Project and would obtain any necessary local approvals.

Land acquisition plan	NEET MidAtlantic will communicate and engage the private landowner to purchase area identified by engineering for the substation, once design and area footprint has been approved and completed. NEET MidAtlantic will acquire an option agreement for the future substation property identified. Once all permits have been approved, NEET MidAtlantic will exercise the agreement and finalize the purchase of the property. The private landowner that has been identified for this purchase is currently Winesburg Group Ltd.
Construction responsibility	Proposer
Additional comments	Additional comments contains 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	$7,107,459.00
Component cost (in-service year)	$7,897,458.00

Congestion Drivers

None

Existing Flowgates

FG #	From Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type
AMPT-O1	239767	02BREWSTR	239355	02HARMON	1	69	202	FERC 715

New Flowgates

None

Financial Information

Capital spend start date	07/2021
Construction start date	04/2023
Project Duration (In Months)	30

Cost Containment Commitment

Cost cap (in current year)	Detailed cost breakdown is business confidential information.
Cost cap (in-service year)	Detailed cost breakdown is business confidential information.

Components covered by cost containment

1. Fine Fork – Brewster 69 kV line - Proposer
2. Fine Fork Station Work - Proposer

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	Additional comments contains business 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?	Yes
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	Additional comments contains business confidential information.
Is the proposer offering a Debt to Equity Ratio cap?	Yes
Additional cost containment measures not covered above	Additional comments contains business confidential information.

Additional comments

Due to the Planning Center-Competitive Planner site having upload issue, NEET MidAtlantic is unable to upload the Project Analysis zip files to the site. As per recommended by PJM Helpdesk today (4/2/2021 at 8:47pm), we will be uploading the following appendices (Appendix 1, 2, 3, 6, 7, and 8) via PJM Secured Shared site. All appendices contains business confidential information.