Belmont - Harrison 500 kV Line

General Information

Proposing entity name	Confidential Information
Does the entity who is submitting this proposal intend to be the Designated Entity for this proposed project?	Confidential Information
Company proposal ID	Confidential Information
PJM Proposal ID	977
Project title	Belmont - Harrison 500 kV Line
Project description	Construct a new Belmont - Harrison 500 kV Line (approximately 56 miles).
Email	Confidential Information
Project in-service date	12/2029
Tie-line impact	No
Interregional project	No
Is the proposer offering a binding cap on capital costs?	Yes
Additional benefits	Confidential Information

Project Components

1. Belmont - Harrison 500 kV Line
2. Belmont Substation - New 500 kV line terminal
3. Harrison Substation - New 500 kV line terminal

Greenfield Transmission Line Component

Component title	Belmont - Harrison 500 kV Line

Project description	Confidential Information
Point A	Belmont
Point B	Harrison
Point C	

	Normal ratings	Emergency ratings
Summer (MVA)	3972.000000	4985.000000
Winter (MVA)	5221.000000	5983.000000

Conductor size and type	3 x 1113 kcmil 54/19 ACSS
Nominal voltage	AC
Nominal voltage	500 kV
Line construction type	Overhead
General route description	The new Belmont - Harrison 500 kV Line will be constructed parallel to the existing Belmont - Flint Run and Flint Run - Harrison 500 kV Lines.
Terrain description	The terrain is flat/hilly, crossing major roads a total of 7 times, minor roads a total of 43 times, railroads a total of 2 times, and rivers and other bodies of water a total of 20 times. The line crosses through approximately 1.1 total miles of Riverine and Freshwater Forested/Shrub Wetland.
Right-of-way width by segment	The new line will parallel the right-of-way of the existing Belmont - Flint Run and Flint Run - Harrison 500 kV Lines. Approximately 56 miles of new right-of-way will be required to widen the existing transmission line corridor.
Electrical transmission infrastructure crossings	The line crosses existing transmission lines a total of four times.
Civil infrastructure/major waterway facility crossing plan	Traffic control, crossing permits, and flagging will be required.
Environmental impacts	It is assumed that environmental permitting can be obtained in one year with no restrictions on construction from an environmental species perspective. Road Bonds are required. Environmental Filming (Documentation of Existing roads are required). Environmental Access and Road Crossing Permit Fees is required. Environmental Development of Permit Binder is required. Environmental Cultural Resource Consultation is required. Environmental Construction walk down is required. No tree clearing restrictions.

Tower characteristics	The new line will be constructed on single-circuit 500 kV tubular steel monopole structures with an average height of 175 ft and an average span length of 1200 ft. Due to the increased max operating temperature (MOT) all new insulator clamps will need to be high-temp and all new dead-end clamps will need to be compression fittings.
Construction responsibility	Confidential Information
Benefits/Comments	Confidential Information
Component Cost Details - In Current Year $	
Engineering & design	Confidential Information
Permitting / routing / siting	Confidential Information
ROW / land acquisition	Confidential Information
Materials & equipment	Confidential Information
Construction & commissioning	Confidential Information
Construction management	Confidential Information
Overheads & miscellaneous costs	Confidential Information
Contingency	Confidential Information
Total component cost	$277,408,474.00
Component cost (in-service year)	$313,492,928.00

Substation Upgrade Component

Component title	Belmont Substation - New 500 kV line terminal
Project description	Confidential Information
Substation name	Belmont
Substation zone	201

Substation upgrade scope	Install (1) 500 kV, 5000 A, 63 kAIC circuit breaker. Install (3) 500 kV MOAB disconnect switches. Install (3) 500 kV surge arresters. Install (3) 500 kV CVTs. Install (1) lot of cables, grounding, steel structures and fittings for new equipment. Relaying & Control: Install (1) standard line relaying panel. Install (1) lot of control cables, SEL cables, and fiber.

Transformer Information

None

New equipment description	All new equipment to be rated at 5000 A.
Substation assumptions	- Existing AC/DC systems, fiber patch panel and SCADA RTU are adequate. - There is adequate space in the yard for the new equipment. - There is adequate space in the control house for the new panel. - Fiber communication is needed.
Real-estate description	No real estate acquisition is required.
Construction responsibility	Confidential Information
Benefits/Comments	Confidential Information
Component Cost Details - In Current Year $	
Engineering & design	Confidential Information
Permitting / routing / siting	Confidential Information
ROW / land acquisition	Confidential Information
Materials & equipment	Confidential Information
Construction & commissioning	Confidential Information
Construction management	Confidential Information
Overheads & miscellaneous costs	Confidential Information
Contingency	Confidential Information
Total component cost	$.00
Component cost (in-service year)	$.00

Substation Upgrade Component

Component title	Harrison Substation - New 500 kV line terminal
Project description	Confidential Information
Substation name	Harrison
Substation zone	201
Substation upgrade scope	Install (1) 500 kV, 5000 A, 63 kAIC circuit breaker. Install (2) 500 kV MOAB disconnect switches. Install (3) 500 kV surge arresters. Install (3) 500 kV CVTs. Install (1) lot of cables, grounding, steel structures and fittings for new equipment. Relaying & Control: Install (1) standard line relaying panel. Install (1) lot of control cables, SEL cables, and fiber.

Transformer Information

None

New equipment description	All new equipment to be rated at 5000 A.
Substation assumptions	- Existing AC/DC systems, fiber patch panel and SCADA RTU are adequate. - There is adequate space in the yard for the new equipment. - There is adequate space in the control house for the new panel. - Fiber communication is needed.
Real-estate description	No real estate acquisition is required.
Construction responsibility	Confidential Information
Benefits/Comments	Confidential Information

Component Cost Details - In Current Year $

Engineering & design	Confidential Information
Permitting / routing / siting	Confidential Information
ROW / land acquisition	Confidential Information
Materials & equipment	Confidential Information
Construction & commissioning	Confidential Information

Construction management	Confidential Information
Overheads & miscellaneous costs	Confidential Information
Contingency	Confidential Information
Total component cost	$.00
Component cost (in-service year)	$.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
2024W1-GD-S344	242925	05KAMMER	235117	01KAMMER	1	765/500	201/205	Summer Gen Deliv	Included
2024W1-GD-S349	235117	01KAMMER	235111	01 502 J	1	500	201	Summer Gen Deliv	Included
2024W1-GD-S342	235117	01KAMMER	235111	01 502 J	1	500	201	Summer Gen Deliv	Included
2024W1-GD-S333	242925	05KAMMER	235117	01KAMMER	1	765/500	201/205	Summer Gen Deliv	Included
2024W1-GD-S346	235117	01KAMMER	235111	01 502 J	1	500	201	Summer Gen Deliv	Included
2024W1-GD-S356	235117	01KAMMER	235111	01 502 J	1	500	201	Summer Gen Deliv	Included
2024W1N1SVM71	235111	01 502 J	235111	01 502 J	1	500	201	Summer Voltage Magnitude	Included
2024W1-GD-S338	242925	05KAMMER	235117	01KAMMER	1	765/500	201/205	Summer Gen Deliv	Included
2024W1-32GD-S12	235117	01KAMMER	235111	01 502 J	1	500	201	2032 Summer Gen Deliv	Included
2024W1N1SVM72	235111	01 502 J	235111	01 502 J	1	500	201	Summer Voltage Magnitude	Included
2024W1-32GD-S11	235117	01KAMMER	235111	01 502 J	1	500	201	2032 Summer Gen Deliv	Included
2024W1N1SVM69	235111	01 502 J	235111	01 502 J	1	500	201	Summer Voltage Magnitude	Included
2024W1-GD-S337	242925	05KAMMER	235117	01KAMMER	1	765/500	201/205	Summer Gen Deliv	Included
2024W1-32GD-S10	235117	01KAMMER	235111	01 502 J	1	500	201	2032 Summer Gen Deliv	Included
2024W1N1SVM70	235111	01 502 J	235111	01 502 J	1	500	201	Summer Voltage Magnitude	Included
2024W1-GD-S339	242925	05KAMMER	235117	01KAMMER	1	765/500	201/205	Summer Gen Deliv	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2024W1-GD-S350	235117	01KAMMER	235111	01 502 J	1	500	201	Summer Gen Deliv	Included
2024W1N1SVM75	235111	01 502 J	235111	01 502 J	1	500	201	Summer Voltage Magnitude	Included
2024W1N1SVM73	235111	01 502 J	235111	01 502 J	1	500	201	Summer Voltage Magnitude	Included
2024W1-32GD-S14	235117	01KAMMER	235111	01 502 J	1	500	201	2032 Summer Gen Deliv	Included
2024W1N1SVM74	235111	01 502 J	235111	01 502 J	1	500	201	Summer Voltage Magnitude	Included
2024W1-32GD-S13	235117	01KAMMER	235111	01 502 J	1	500	201	2032 Summer Gen Deliv	Included

New Flowgates

Confidential Information

Financial Information

Capital spend start date	01/2025
Construction start date	07/2028
Project Duration (In Months)	59

Cost Containment Commitment

Cost cap (in current year)	Confidential Information
Cost cap (in-service year)	Confidential Information

Components covered by cost containment

1. Belmont - Harrison 500 kV Line - TRAILCo

Cost elements covered by cost containment

Engineering & design	Yes
Permitting / routing / siting	No
ROW / land acquisition	No

Materials & equipment	No
Construction & commissioning	No
Construction management	No
Overheads & miscellaneous costs	No
Taxes	No
AFUDC	No
Escalation	No
Additional Information	Confidential Information
Is the proposer offering a binding cap on ROE?	Yes
Would this ROE cap apply to the determination of AFUDC?	No
Would the proposer seek to increase the proposed ROE if FERC finds that a higher ROE would not be unreasonable?	No
Is the proposer offering a Debt to Equity Ratio cap?	Confidential Information

Additional Comments

Please call or email with any questions.