

Rebuild 345 kV Lines 6607/6608 East Frankfort - Crete and 94507/97008 Crete - St. John

General Information

Proposing entity name	COMED
Does the entity who is submitting this proposal intend to be the Designated Entity for this proposed project?	Yes
Company proposal ID	For internal use only
PJM Proposal ID	253
Project title	Rebuild 345 kV Lines 6607/6608 East Frankfort - Crete and 94507/97008 Crete - St. John
Project description	Rebuild 345 kV double circuit lines 6607/6608/97008 East Frankfort - University Park North - Crete and 94507/97008 Crete - St. John (ComEd portion) with twin bundled 1277 ACAR conductor. Upgrade terminal equipment at East Frankfort and St. John. This project is coordinated with and meant to be combined with NextEra Energy Transmission's (NEET) proposal to rebuild their portion of these lines in Indiana (submitted separately). Modeling files include combined rating and impedance information from both ComEd and NEET. Expected summer ratings for line 94507 are 1679/2058/2107/2280 N/E/STE/LD. Expected winter ratings for line 94507 are 2091/2381/2390/2390 N/E/STE/LD. Expected summer ratings for line 6607 are 1679/2058/2107/2280 N/E/STE/LD. Expected winter ratings for line 6607 are 2091/2381/2445/2648 N/E/STE/LD. Expected summer ratings for line 6608 are 1679/2058/2107/2280 N/E/STE/LD. Expected winter ratings for line 6608 are 2091/2381/2445/2648 N/E/STE/LD. Overall ratings for line 97008 will not change.
Email	For PJM contact information only
Project in-service date	12/2026
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 Proprietary information

Project Components

1. Rebuild 5 miles of 345 kV double circuit in Illinois with twin bundled 1277 ACAR conductor
2. Upgrade St. John Terminal Equipment
3. Rebuild 12.7 miles of 345 kV double circuit with twin bundled 1277 ACAR conductor
4. Replace East Frankfort 345 kV CB 9-14

Transmission Line Upgrade Component

Component title Rebuild 5 miles of 345 kV double circuit in Illinois with twin bundled 1277 ACAR conductor

Project description

Impacted transmission line 94507 & 97008

Point A Crete

Point B St. John

Point C
Terrain description Existing right-of-way on mostly flat terrain through farmland and some residential areas.

Existing Line Physical Characteristics

Operating voltage 345

Conductor size and type 1414 ACSR Paper Expanded

Hardware plan description New line hardware will be used.

Tower line characteristics

The existing steel lattice structures were built in 1958.

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	Twin bundled 1277 ACAR	
Shield wire size and type	TBD	
Rebuild line length	5 Miles	
Rebuild portion description	5 miles of double circuit will be rebuilt using double circuit corten steel towers.	
Right of way	Existing ROW will be used.	
Construction responsibility	ComEd	
Benefits/Comments	Proprietary information	
Component Cost Details - In Current Year \$		
Engineering & design	Proprietary information	
Permitting / routing / siting	Proprietary information	
ROW / land acquisition	Proprietary information	
Materials & equipment	Proprietary information	
Construction & commissioning	Proprietary information	
Construction management	Proprietary information	

Overheads & miscellaneous costs	Proprietary information
Contingency	Proprietary information
Total component cost	\$16,644,952.00
Component cost (in-service year)	\$18,734,040.00

Substation Upgrade Component

Component title	Upgrade St. John Terminal Equipment
Project description	
Substation name	St. John
Substation zone	NIPSCO
Substation upgrade scope	Replace 345 kV line disconnect switch. ComEd will reimburse NIPSCO for this work.

Transformer Information

None	
New equipment description	New disconnect will be rated 1961 MVA summer normal and 4000A, 2390 MVA for all other ratings.
Substation assumptions	N/A
Real-estate description	N/A
Construction responsibility	Proprietary information
Benefits/Comments	

Component Cost Details - In Current Year \$

Engineering & design	Proprietary information
Permitting / routing / siting	Proprietary information
ROW / land acquisition	Proprietary information
Materials & equipment	Proprietary information

Construction & commissioning	Proprietary information
Construction management	Proprietary information
Overheads & miscellaneous costs	Proprietary information
Contingency	Proprietary information
Total component cost	\$485,392.00
Component cost (in-service year)	\$546,313.00

Transmission Line Upgrade Component

Component title	Rebuild 12.7 miles of 345 kV double circuit with twin bundled 1277 ACAR conductor
Project description	
Impacted transmission line	6607 & 6608 & 97008
Point A	East Frankfort
Point B	Crete
Point C	
Terrain description	Existing right of way on mostly flat terrain through farmland and some residential and industrial areas.

Existing Line Physical Characteristics

Operating voltage	345
Conductor size and type	1414 ACSR Paper Expanded
Hardware plan description	New line hardware will be used.
Tower line characteristics	The existing steel lattice structures were built in 1958.

Proposed Line Characteristics

Designed **Operating**

Voltage (kV)	345.000000	345.000000
	Normal ratings	Emergency ratings
Summer (MVA)	1679.000000	2011.000000
Winter (MVA)	2091.000000	2339.000000
Conductor size and type	Twin bundled 1277 ACAR	
Shield wire size and type	TBD	
Rebuild line length	12.7 Miles	
Rebuild portion description	12.7 miles of double circuit will be rebuilt using double circuit corten steel towers.	
Right of way	Existing ROW will be used.	
Construction responsibility	ComEd	
Benefits/Comments		
Component Cost Details - In Current Year \$		
Engineering & design	Proprietary information	
Permitting / routing / siting	Proprietary information	
ROW / land acquisition	Proprietary information	
Materials & equipment	Proprietary information	
Construction & commissioning	Proprietary information	
Construction management	Proprietary information	
Overheads & miscellaneous costs	Proprietary information	
Contingency	Proprietary information	
Total component cost	\$42,278,180.00	
Component cost (in-service year)	\$47,584,464.00	

Substation Upgrade Component

Component title	Replace East Frankfort 345 kV CB 9-14
Project description	
Substation name	East Frankfort
Substation zone	ComEd
Substation upgrade scope	Replace 345 kV CB 9-14 with a 3150A CB.

Transformer Information

None	
New equipment description	345 kV CB 9-14 to be replaced with a 3150A SF6 CB. New equipment ratings: Summer: 1961/2112/2524/3015MVA N/LTE/STE/LD Winter: 2324/2457/2895/3439MVA N/LTE/STE/LD Interrupting capability: 63kA
Substation assumptions	N/A
Real-estate description	
Construction responsibility	ComEd
Benefits/Comments	Proprietary information

Component Cost Details - In Current Year \$

Engineering & design	Proprietary information
Permitting / routing / siting	Proprietary information
ROW / land acquisition	Proprietary information
Materials & equipment	Proprietary information
Construction & commissioning	Proprietary information
Construction management	Proprietary information
Overheads & miscellaneous costs	Proprietary information

Contingency	Proprietary information
Total component cost	\$3,268,882.00
Component cost (in-service year)	\$3,679,155.00

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
GD-W2-259	270728	E FRANKFO; B	274750	CRETE EC ;BP	1	345	222	Winter Gen Deliv	Excluded
GD-W2-258	270728	E FRANKFO; B	274750	CRETE EC ;BP	1	345	222	Winter Gen Deliv	Excluded

New Flowgates

None

Financial Information

Capital spend start date	01/2023
Construction start date	01/2025
Project Duration (In Months)	47

Additional Comments

None