Clean Energy Gateway - Solution A Light

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	294
Project title	Clean Energy Gateway - Solution A Light
Project description	See BPU Supplemental Attachment
Email	Confidential Information
Project in-service date	01/2030
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. Lighthouse - Gateway 500kV Transmission Line #1
2. Lighthouse Substation
3. Gateway Substation
4. Well's Landing Substation
5. Midpoint Substation
6. Gateway - Well's Landing 500kV Transmission Line #1

7. Trenton - Devils Brook 230kV Transmission Interconnection
8. Gilbert - Springfield - Terminal Equipment Upgrades
9. Deans - East Windsor 500kV Transmission Interconnection
10. Lighthouse - Gateway 500kV Transmission Line #2
11. Lighthouse - Gateway 500kV Transmission Line #3
12. Lighthouse - Gateway 500kV Transmission Line #4
13. Trenton - Hunters Glen 230kV Transmission Interconnection
14. Gateway - Well's Landing 500kV Transmission Line #2

Greenfield Transmission Line Component

Component title	Lighthouse - Gateway 500kV Transmission Line #1
Project description	Confidential Information
Point A	Lighthouse Substation
Point B	Gateway Substation
Point C	

	Normal ratings	**Emergency ratings**
Summer (MVA)	1125.000000	1609.000000
Winter (MVA)	1229.000000	1758.000000

Conductor size and type	2500mm^2 - XLPE Copper Milliken Shape
Nominal voltage	AC
Nominal voltage	500kV
Line construction type	Underground
General route description	See BPU Supplemental Attachment Section VI and Section VII
Terrain description	See BPU Supplemental Attachment Section VI and Section VII

Right-of-way width by segment	See BPU Supplemental Attachment Section VI and Section VII, specifically Attachment 6-3.
Electrical transmission infrastructure crossings	See BPU Supplemental Attachment 6-3.
Civil infrastructure/major waterway facility crossing plan	See Attachment 6-3 and Attachment 6-6 of the BPU Supplemental Attachment.
Environmental impacts	See BPU Supplemental Attachment Section VI and Section VII
Tower characteristics	Cables will be contained within buried duct banks. See Attachment 3-5 of the BPU Submittal Form.
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	$246,198,809.64
Component cost (in-service year)	$280,150,892.13

Greenfield Substation Component

Component title	Lighthouse Substation
Project description	Confidential Information
Substation name	Lighthouse Substation

Substation description	The Lighthouse Substation will connect submarine cables directly from wind farms or Option 2 proposals. The Lighthouse substation can accommodate up to fifteen (15) submarine cables. Cables can be either 275kV or 345kV. The substation will have four (4) power transformers to step the voltage up to 500kV. The 500kV yard will have four (4) connections to the Gateway 500kV substation and has been designed with space for dynamic reactive support devices and harmonic filter banks necessary for offshore generators to meet power factor and harmonic mitigation requirements. Shunt reactor sizes to connect offshore generators will be determined once offshore wind farm locations are determined.
Nominal voltage	AC
Nominal voltage	500 / 345 kV or 275kV

Transformer Information

	Name	**Capacity (MVA)**	
Transformer	Transformer #1	1640 / 2050	
	High Side	**Low Side**	**Tertiary**
Voltage (kV)	500	345 or 275	
	Name	**Capacity (MVA)**	
Transformer	Transformer #2	1640 / 2050	
	High Side	**Low Side**	**Tertiary**
Voltage (kV)	500	345 or 275	
	Name	**Capacity (MVA)**	
Transformer	Transformer #3	1640 / 2050	
	High Side	**Low Side**	**Tertiary**
Voltage (kV)	500	345 or 275	

	Name	Capacity (MVA)	
Transformer	Transformer #4	1640 / 2050	
	High Side	**Low Side**	**Tertiary**
Voltage (kV)	500	345 or 275	
Major equipment description	See BPU Supplemental Attachment.		
	Normal ratings	**Emergency ratings**	
Summer (MVA)	6600.000000	6600.000000	
Winter (MVA)	6600.000000	6600.000000	
Environmental assessment	See BPU Supplemental Attachment Section VI & VII		
Outreach plan	See BPU Supplemental Attachment Section VI & VII		
Land acquisition plan	See BPU Supplemental Attachment Section VI & VII		
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	$198,499,572.00
Component cost (in-service year)	$231,911,585.00

Greenfield Substation Component

Component title	Gateway Substation
Project description	Confidential Information
Substation name	Gateway Substation
Substation description	The Gateway Substation will interconnect four (4) circuits from the Lighthouse substation and two (2) circuits from the Well's Landing Substation. Gateway will have twelve (12) 500kV Gas-Insulated Circuit Breakers.
Nominal voltage	AC
Nominal voltage	500kV

Transformer Information

None

Major equipment description	Four (4) 215MVAR Shunt Reactors - 500kV Two (2) 115MVAR Shunt Reactors - 500kV Twelve (12) 500kV Gas-Insulated Circuit Breakers One (1) - +/-450MVAR STATCOM

	Normal ratings	**Emergency ratings**
Summer (MVA)	5190.000000	5190.000000
Winter (MVA)	5190.000000	5190.000000

Environmental assessment	See BPU Supplemental Attachment Section VI and VII.
Outreach plan	See BPU Supplemental Attachment Section VI and VII.
Land acquisition plan	See BPU Supplemental Attachment Section VI and VII.
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	$109,840,489.00
Component cost (in-service year)	$129,185,793.00

Greenfield Substation Component

Component title	Well's Landing Substation
Project description	Confidential Information
Substation name	Well's Landing Substation
Substation description	500 / 230kV Gas-Insulated Substation. Two (2) 500kV underground cables connect from the Lighthouse substation and are transformed to 230kV. The 230kV substation will have eight (8) circuit breakers and will interconnect the Trenton - Devils Brook and Trenton - Hunters Glen 230kV transmission lines with the two (2) 500kV underground cables.
Nominal voltage	AC
Nominal voltage	500 / 230kV

Transformer Information

	Name	Capacity (MVA)	
Transformer	Transformer #1	1050 / 1300	
	High Side	**Low Side**	**Tertiary**
Voltage (kV)	500	230	
	Name	**Capacity (MVA)**	
Transformer	Transformer #2	1050 / 1300	
	High Side	**Low Side**	**Tertiary**
Voltage (kV)	500	230	

Major equipment description	Two (2) 500kV GIS circuit breakers Two (2) 150MVAR shunt reactors Two (2) 1050 MVA auto transformers Eight (8) 230kV GIS circuit breakers

	Normal ratings	Emergency ratings
Summer (MVA)	2387.000000	2387.000000
Winter (MVA)	2387.000000	2387.000000

Environmental assessment	See BPU Supplemental Attachment Section VI and VII
Outreach plan	See BPU Supplemental Attachment Section VI and VII
Land acquisition plan	See BPU Supplemental Attachment Section VI and VII
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	$59,249,240.38
Component cost (in-service year)	$71,949,251.00

Greenfield Substation Component

Component title	Midpoint Substation
Project description	Confidential Information
Substation name	Midpoint Reactor Substation
Substation description	Eight (8) 215MVAR shunt reactors - 500kV to compensate for underground cable charging current.
Nominal voltage	AC
Nominal voltage	500

Transformer Information

None

Major equipment description: Eight (8) 215MVAR shunt reactors

	Normal ratings	Emergency ratings
Summer (MVA)	1125.000000	1609.000000
Winter (MVA)	1229.000000	1758.000000

Environmental assessment	See BPU Supplemental Attachment Section VI and VII.
Outreach plan	See BPU Supplemental Attachment Section VI and VII.
Land acquisition plan	See BPU Supplemental Attachment Section VI and VII.
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	$42,665,649.00
Component cost (in-service year)	$49,983,711.00

Greenfield Transmission Line Component

Component title	Gateway - Well's Landing 500kV Transmission Line #1
Project description	Confidential Information
Point A	Gateway Substation
Point B	Well's Landing Substation
Point C	

	Normal ratings	Emergency ratings
Summer (MVA)	1229.000000	1758.000000
Winter (MVA)	1342.000000	1919.000000
Conductor size and type	2500mm^2 - XLPE Copper Milliken Shape	
Nominal voltage	AC	
Nominal voltage	500	
Line construction type	Underground	
General route description	See BPU Supplemental Attachment Section VI & VII	
Terrain description	See BPU Supplemental Attachment Section VI & VII	
Right-of-way width by segment	See BPU Supplemental Attachment Section VI & VII	
Electrical transmission infrastructure crossings	See BPU Supplemental Attachment Section VI & VII	
Civil infrastructure/major waterway facility crossing plan	See BPU Supplemental Attachment Section VI & VII	
Environmental impacts	See BPU Supplemental Attachment VII	
Tower characteristics	Cables will be contained within buried duct banks. See Attachment 3-5 of the BPU Submittal Attachment.	
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	$72,789,862.57
Component cost (in-service year)	$88,965,937.82

Transmission Line Upgrade Component

Component title	Trenton - Devils Brook 230kV Transmission Interconnection
Project description	Confidential Information
Impacted transmission line	Trenton - Devils Brook 230kV
Point A	Trenton
Point B	Devils Brook
Point C	
Terrain description	N/A

Existing Line Physical Characteristics

Operating voltage	230kV
Conductor size and type	N/A
Hardware plan description	N/A
Tower line characteristics	N/A

Proposed Line Characteristics

	Designed	Operating
Voltage (kV)	230.000000	230.000000

	Normal ratings	Emergency ratings
Summer (MVA)	731.000000	887.000000
Winter (MVA)	823.000000	980.000000
Conductor size and type	N/A	
Shield wire size and type	N/A	
Rebuild line length	N/A	
Rebuild portion description	N/A	
Right of way	N/A	
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	$671,013.00	
Component cost (in-service year)	$763,651.00	

Transmission Line Upgrade Component

Component title	Gilbert - Springfield - Terminal Equipment Upgrades
Project description	Confidential Information
Impacted transmission line	Gilbert - Springfield
Point A	Gilbert
Point B	Springfield
Point C	
Terrain description	N/A

Existing Line Physical Characteristics

Operating voltage	230
Conductor size and type	N/A
Hardware plan description	N/A
Tower line characteristics	N/A

Proposed Line Characteristics

	Designed	**Operating**
Voltage (kV)	230.000000	230.000000
	Normal ratings	**Emergency ratings**
Summer (MVA)	0.000000	0.000000
Winter (MVA)	805.000000	1031.000000
Conductor size and type	N/A	
Shield wire size and type	N/A	

Rebuild line length	N/A
Rebuild portion description	N/A
Right of way	N/A
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	$99,750.00
Component cost (in-service year)	$110,559.00

Transmission Line Upgrade Component

Component title	Deans - East Windsor 500kV Transmission Interconnection
Project description	Confidential Information
Impacted transmission line	Deans - East Windsor 500kV Transmission Line
Point A	Deans
Point B	Windsor

Point C		
Terrain description	N/A	
Existing Line Physical Characteristics		
Operating voltage	500kV	
Conductor size and type	N/A	
Hardware plan description	N/A	
Tower line characteristics	N/A	
Proposed Line Characteristics		
	Designed	**Operating**
Voltage (kV)	500.000000	500.000000
	Normal ratings	**Emergency ratings**
Summer (MVA)	2656.000000	2983.000000
Winter (MVA)	2931.000000	2983.000000
Conductor size and type	N/A	
Shield wire size and type	N/A	
Rebuild line length	N/A	
Rebuild portion description	N/A	
Right of way	N/A	
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	$1,282,050.00
Component cost (in-service year)	$1,410,014.00

Greenfield Transmission Line Component

Component title	Lighthouse - Gateway 500kV Transmission Line #2
Project description	Confidential Information
Point A	Lighthouse Substation
Point B	Gateway Substation
Point C	

	Normal ratings	Emergency ratings
Summer (MVA)	1125.000000	1609.000000
Winter (MVA)	1229.000000	1758.000000

Conductor size and type	2500mm^2 - XLPE Copper Milliken Shape
Nominal voltage	AC
Nominal voltage	500kV

Line construction type	Underground
General route description	See BPU Supplemental Attachment Section VI and Section VII
Terrain description	See BPU Supplemental Attachment Section VI and Section VII
Right-of-way width by segment	See BPU Supplemental Attachment Section VI and Section VII, specifically Attachment 6-3.
Electrical transmission infrastructure crossings	See BPU Supplemental Attachment 6-3.
Civil infrastructure/major waterway facility crossing plan	See Attachment 6-3 and Attachment 6-6 of the BPU Supplemental Attachment.
Environmental impacts	See BPU Supplemental Attachment Section VI and Section VII
Tower characteristics	Cables will be contained within buried duct banks. See Attachment 3-5 of the BPU Submittal Form.
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	$246,198,809.64
Component cost (in-service year)	$280,150,892.13

Greenfield Transmission Line Component

Component title	Lighthouse - Gateway 500kV Transmission Line #3	
Project description	Confidential Information	
Point A	Lighthouse Substation	
Point B	Gateway Substation	
Point C		
	Normal ratings	**Emergency ratings**
Summer (MVA)	1125.000000	1609.000000
Winter (MVA)	1229.000000	1758.000000
Conductor size and type	2500mm^2 - XLPE Copper Milliken Shape	
Nominal voltage	AC	
Nominal voltage	500kV	
Line construction type	Underground	
General route description	See BPU Supplemental Attachment Section VI and Section VII	
Terrain description	See BPU Supplemental Attachment Section VI and Section VII	
Right-of-way width by segment	See BPU Supplemental Attachment Section VI and Section VII, specifically Attachment 6-3.	
Electrical transmission infrastructure crossings	See BPU Supplemental Attachment 6-3.	
Civil infrastructure/major waterway facility crossing plan	See Attachment 6-3 and Attachment 6-6 of the BPU Supplemental Attachment.	
Environmental impacts	See BPU Supplemental Attachment Section VI and Section VII	
Tower characteristics	Cables will be contained within buried duct banks. See Attachment 3-5 of the BPU Submittal Form.	
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	$247,072,934.64
Component cost (in-service year)	$286,514,823.02

Greenfield Transmission Line Component

Component title	Lighthouse - Gateway 500kV Transmission Line #4
Project description	Confidential Information
Point A	Lighthouse Substation
Point B	Gateway Substation
Point C	

	Normal ratings	Emergency ratings
Summer (MVA)	1125.000000	1609.000000
Winter (MVA)	1229.000000	1758.000000

Conductor size and type	2500mm^2 - XLPE Copper Milliken Shape
Nominal voltage	AC
Nominal voltage	500kV
Line construction type	Underground
General route description	See BPU Supplemental Attachment Section VI and Section VII
Terrain description	See BPU Supplemental Attachment Section VI and Section VII
Right-of-way width by segment	See BPU Supplemental Attachment Section VI and Section VII, specifically Attachment 6-3.
Electrical transmission infrastructure crossings	See BPU Supplemental Attachment 6-3.
Civil infrastructure/major waterway facility crossing plan	See Attachment 6-3 and Attachment 6-6 of the BPU Supplemental Attachment.
Environmental impacts	See BPU Supplemental Attachment Section VI and Section VII
Tower characteristics	Cables will be contained within buried duct banks. See Attachment 3-5 of the BPU Submittal Form.
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	$247,072,934.64
Component cost (in-service year)	$286,514,823.02

Transmission Line Upgrade Component

Component title	Trenton - Hunters Glen 230kV Transmission Interconnection
Project description	Confidential Information
Impacted transmission line	Trenton - Hunters Glen 230kV
Point A	Trenton
Point B	Hunters Glen
Point C	
Terrain description	N/A

Existing Line Physical Characteristics

Operating voltage	230kV
Conductor size and type	N/A
Hardware plan description	N/A
Tower line characteristics	N/A

Proposed Line Characteristics

	Designed	**Operating**
Voltage (kV)	230.000000	230.000000
	Normal ratings	**Emergency ratings**
Summer (MVA)	731.000000	885.000000
Winter (MVA)	823.000000	980.000000

Conductor size and type	N/A
Shield wire size and type	N/A
Rebuild line length	N/A
Rebuild portion description	N/A
Right of way	N/A
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	$671,013.00
Component cost (in-service year)	$763,708.00

Greenfield Transmission Line Component

Component title	Gateway - Well's Landing 500kV Transmission Line #2
Project description	Confidential Information
Point A	Gateway Substation

Point B	Well's Landing Substation	
Point C		
	Normal ratings	**Emergency ratings**
Summer (MVA)	1229.000000	1758.000000
Winter (MVA)	1342.000000	1919.000000
Conductor size and type	2500mm^2 - XLPE Copper Milliken Shape	
Nominal voltage	AC	
Nominal voltage	500	
Line construction type	Underground	
General route description	See BPU Supplemental Attachment Section VI & VII	
Terrain description	See BPU Supplemental Attachment Section VI & VII	
Right-of-way width by segment	See BPU Supplemental Attachment Section VI & VII	
Electrical transmission infrastructure crossings	See BPU Supplemental Attachment Section VI & VII	
Civil infrastructure/major waterway facility crossing plan	See BPU Supplemental Attachment Section VI & VII	
Environmental impacts	See BPU Supplemental Attachment VII	
Tower characteristics	Cables will be contained within buried duct banks. See Attachment 3-5 of the BPU Submittal Attachment.	
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	$72,789,862.57
Component cost (in-service year)	$88,965,937.82

Congestion Drivers

None

Existing Flowgates

FG #	From Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
28-GD-S2-W9	232012	HOPE CREEK	232014	LSPWR CABLE	1	230	225	Gen Deliv (winter)	Included
28-GD-S2-W9	232012	HOPE CREEK	232014	LSPWR CABLE	2	230	225	Gen Deliv (winter)	Included
28-GD-S2-W9	232014	LSPWR CABLE	232013	SILVER RUN	1	230	225	Gen Deliv (winter)	Included
28-GD-S2-S8	206302	28OYSTER C	206297	28MANITOU	1	230	228	Gen Deliv (Summer)	Included
28-GD-S2-S9	206302	28OYSTER C	206297	28MANITOU	1	230	228	Gen Deliv (Summer)	Included
28-GD-S2-S1	206302	28OYSTER C	206297	28MANITOU	2	230	228	Gen Deliv (Summer)	Included
28-GD-W18	206236	28GILBERT	208091	SFLD	1	230	228/229	Gen Deliv (winter)	Included
35-GD-S2-W1	206236	28GILBERT	208091	SFLD	1	230/230	228/229	Gen Deliv (winter)	Included
28-GD-S66	206316	28WINDSOR	219752	CLRKSVLL_1	1	230	228/231	Gen Deliv (Summer)	Included
28-GD-S2-S3	206316	28WINDSOR	219752	CLRKSVLL_1	1	230	228/231	Gen Deliv (Summer)	Included
28-GD-S72	219104	CLRKSVLL_2	217150	LAWRENCE	1	230	231	Gen Deliv (Summer)	Included
28-GD-L14	218306	DEANS	218304	BRUNSWCK	1	230	231	Light Load - Gen Deliv	Included

FG #	From Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
35-GD-L14	218306	DEANS	218304	BRUNSWCK	1	230	231	Light Load - Gen Deliv	Included
28-GD-S64	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (Summer)	Included
28-GD-S65	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (Summer)	Included
28-GD-W109	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (winter)	Included
28-GD-W108	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (winter)	Included
28-GD-W3	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (winter)	Included
28-GD-W8	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (winter)	Included
28-GD-W6	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (winter)	Included
28-GD-S2-S1	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (Summer)	Included
28-GD-S2-S2	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (Summer)	Included
28-GD-S2-W7	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (winter)	Included
28-GD-S2-W6	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (winter)	Included
28-GD-S2-W9	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (winter)	Included
28-GD-S2-W8	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (winter)	Included
28-GD-S2-W4	218306	DEANS	218304	BRUNSWCK	1	230	231	Gen Deliv (winter)	Included
35-GD-S2-W1	218306	DEANS	218304	BRUNSWCK	1	230/230	231/231	Gen Deliv (winter)	Included
35-GD-S2-W1	218306	DEANS	218304	BRUNSWCK	1	230/230	231/231	Gen Deliv (winter)	Included
35-GD-S2-W1	218306	DEANS	218304	BRUNSWCK	1	230/230	231/231	Gen Deliv (winter)	Included
35-GD-W4	218306	DEANS	218304	BRUNSWCK	1	230/230	231/231	Gen Deliv (winter)	Included
35-GD-W7	218306	DEANS	218304	BRUNSWCK	1	230/230	231/231	Gen Deliv (winter)	Included
35-GD-W9	218306	DEANS	218304	BRUNSWCK	1	230/230	231/231	Gen Deliv (winter)	Included
35-GD-S2-S2	218306	DEANS	218304	BRUNSWCK	1	230/230	231/231	Gen Deliv (Summer)	Included
28-GD-S73	200006	DEANS C	218306	DEANS	3	500/230	231	Gen Deliv (Summer)	Included
28-GD-S2-S13	227900	CARDIFF C	219100	NEWFRDM	1	230	231/234	Gen Deliv (Summer)	Included
28-GD-S2-W12	227900	CARDIFF C	219100	NEWFRDM	1	230	231/234	Gen Deliv (winter)	Included
28-GD-S2-W12	227900	CARDIFF C	219100	NEWFRDM	1	230	231/234	Gen Deliv (winter)	Included
28-GD-S2-W13	227900	CARDIFF C	219100	NEWFRDM	1	230	231/234	Gen Deliv (winter)	Included
28-GD-S2-W14	227900	CARDIFF C	219100	NEWFRDM	1	230	231/234	Gen Deliv (winter)	Included

FG #	From Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
35-GD-S2-S8A	227900	CARDIFF C	219100	NEWFRDM	1	230/230	234/231	Gen Deliv (Summer)	Included
35-GD-S2-W7	227900	CARDIFF C	219100	NEWFRDM	1	230/230	234/231	Gen Deliv (winter)	Included
35-GD-S2-W3	227900	CARDIFF C	219100	NEWFRDM	1	230/230	234/231	Gen Deliv (winter)	Included
35-GD-S2-W10	227900	CARDIFF C	219100	NEWFRDM	1	230/230	234/231	Gen Deliv (winter)	Included
35-GD-S2-W9	227900	CARDIFF C	219100	NEWFRDM	1	230/230	234/231	Gen Deliv (winter)	Included
28-GD-S2-S13	227934	CARDIFF2	227945	LEWIS #2	1	138	234	Gen Deliv (Summer)	Included
28-GD-S2-S13	227945	LEWIS #2	227902	LEWIS #1	1	138	234	Gen Deliv (Summer)	Included

New Flowgates

Confidential Information

Financial Information

Capital spend start date	08/2022
Construction start date	09/2026
Project Duration (In Months)	89

Cost Containment Commitment

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

Components covered by cost containment

1. Lighthouse - Gateway 500kV Transmission Line #1 - Proposer
2. Lighthouse Substation - Proposer
3. Gateway Substation - Proposer
4. Well's Landing Substation - Proposer
5. Midpoint Substation - Proposer

6. Gateway - Well's Landing 500kV Transmission Line #1 - Proposer
7. Lighthouse - Gateway 500kV Transmission Line #2 - Proposer
8. Lighthouse - Gateway 500kV Transmission Line #3 - Proposer
9. Lighthouse - Gateway 500kV Transmission Line #4 - Proposer
10. Gateway - Well's Landing 500kV Transmission Line #2 - 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	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?	No
Is the proposer offering a Debt to Equity Ratio cap?	Confidential Information
Additional cost containment measures not covered above	Confidential Information

Additional Comments

None