Proposed Project Catenary Span Review

Row #	From Structure	To Structure	Highest Clearance (feet AGL)	FAA Notification Under 14 CFR, Part 77?	Lighted Markers Potentially Considered?	Discussion
Segment A @ 60 DEG INITIAL						
1	E1A	P02	225.45	Yes	No	As described in the DEIR, this span requires notice to the FAA and would be considered for aerial marking. However, this span is not anticipated to be a candidate for the use of lighted markers as the highest conductor is less than 200 feet AGL.
2	P03	P04	293.12	Yes	Yes	As described in the DEIR, this span requires notice to the FAA and would be considered for aerial marking. This span is considered to be a candidate for lighted markers on the highest conductor because the voltage is grater than 69kV and the conductor height exceeds 200 feet AGL.
3	P06	P07	269.15	Yes	Yes	As described in the DEIR, this span requires notice to the FAA and would be considered for aerial marking. This span is considered to be a candidate for lighted markers on the highest conductor because the voltage is grater than 69kV and the conductor height exceeds 200 feet AGL.
4	P08	P09	289.15	Yes	Yes	As described in the DEIR, this span requires notice to the FAA and would be considered for aerial marking. This span is considered to be a candidate for lighted markers on the highest conductor because the voltage is grater than 69kV and the conductor height exceeds 200 feet AGL.
5	P09	P10	206.79	Yes	No	Based upon the updated review using 72 fiber OPGW, this span now exceeds 200 feet AGL and would require notice to the FAA and would be considered for aerial marking. However, this span is not anticipated to be a candidate for the use of lighted markers as the highest conductor is less than 200 feet AGL.
6	P13	P14	245.92	Yes	Yes	As described in the DEIR, this span requires notice to the FAA and would be considered for aerial marking. This span is considered to be a candidate for lighted markers on the highest conductor because the voltage is grater than 69kV and the conductor height exceeds 200 feet AGL.
7	P14	P15	214.37	Yes	No	As described in the DEIR, this span requires notice to the FAA and would be considered for aerial marking. However, this span is not anticipated to be a candidate for the use of lighted markers as the highest conductor is less than 200 feet AGL.
8	P23	P24	263.56	Yes	Yes	As described in the DEIR, this span requires notice to the FAA and would be considered for aerial marking. This span is considered to be a candidate for lighted markers on the highest conductor because the voltage is grater than 69kV and the conductor height exceeds 200 feet AGL.
9	P25	P26	169.11	No	No	This span may not need to be considered for marking based on the new advisory, which only requires marking one catenary where multiple lines are parallel and within a specified distance. The HWY 15 Crossing is already marked, and additional marking is not anticipated to be installed (existing 23051 is marked, over and under SX-PQ 230kV OPGW along this span).
10	P35	P36	204.65	Yes	No	Based upon the updated review using 72 fiber OPGW, this span now exceeds 200 feet AGL and would require notice to the FAA and would be considered for aerial marking. However, this span is not anticipated to be a candidate for the use of lighted markers as the highest conductor is less than 200 feet AGL.
11	P38	P39	232.09	Yes	No	As described in the DEIR, this span requires notice to the FAA and would be considered for aerial marking. However, this span is not anticipated to be a candidate for the use of lighted markers as the highest conductor is less than 200 feet AGL.
Segment C @ 60 DEG INITIAL						
12	E5	E6	195.69	No	No	This span potentially does not need to be submitted to the FAA for review based on analysis of the latest design using 72 fiber OPGW. This catenary span does not exceed 200 feet AGL, and LiDAR data shows no existing markers on this span.
13	E7	E8	252.24	Yes	Yes	As described in the DEIR, this span requires notice to the FAA and could require aerial marking. Lighted markers are potentially required on the highest conductor because the voltage is grater than 69kV and the conductor height exceeds 200 feet AGL.
Segment D @ 60 DEG INITIAL (230kV CORRIDOR)						
14	P43	E14	181.39	No	No	This span may not need to be marked based on updated review, which shows the highest catenary does not exceed 200 feet. This span was initially flagged for FAA review due to the presence of existing marking on this span.
15	E15	E16	202.52	Yes	No	As described in the DEIR, this span requires notice to the FAA and could require aerial marking. However, this span is not anticipated to require the use of lighted markers as the highest conductor is less than 200 feet AGL.
16	E22	E23	263.49	Yes	Yes	As described in the DEIR, this span requires notice to the FAA and would be considered for aerial marking. This span is considered to be a candidate for lighted markers on the highest conductor because the voltage is grater than 69kV and the conductor height exceeds 200 feet AGL.
17	E23	E24	282.61	Yes	Yes	As described in the DEIR, this span requires notice to the FAA and would be considered for aerial marking. This span is considered to be a candidate for lighted markers on the highest conductor because the voltage is grater than 69kV and the conductor height exceeds 200 feet AGL.
Segment D @ 60 DEG INITIAL (69kV CORRIDOR)						
18	P53	P54	231.45	Yes	Yes	Based upon the updated review, this span would exceed 200 feet AGL, and would require notice to the FAA for the 69kV conductor in accordance with the new advisory. This line does not include a shield wire, and would be lower that the adjacent 230kV span (E22 - E23). However, this span may not need to be marked based on new FAA Advisory, which only requires marking one catenary where multiple lines are parallel and within a specified distance (as stated above, the 230kV line as a higher max clearance and would likely be marked). If marking of this catenary were considered by the FAA, this span would be a candidate for lighted markers on the highest conductor because the voltage is equal to 69kV and the conductor height exceeds 200 feet AGL.

19	P54	P55	243.62	Yes	Yes	Based upon the updated review, this span would exceed 200 feet AGL, and would require notice to the FAA for the 69kV conductor in accordance with the new advisory. This line does not include a shield wire, and would be lower that the adjacent 230kV span (E23 - E24). However, this span may not need to be marked based on new FAA Advisory, which only requires marking one catenary where multiple lines are parallel and within a specified distance (as stated above, the 230kV line as a higher max clearance and would likely be marked). If marking of this catenary were considered by the FAA, this span would be a candidate for lighted markers on the highest conductor because the voltage is equal to 69kV and the conductor height exceeds 200 feet AGL.

Note: If lighted markers were to be installed on energized conductor wires, the associated support structures (poles or towers) may need to be redesigned to account for changes in tension, wire clearance, and other design factors. Potential design revisions resulting from the addition of lighted markers on the highest conductor include taller structures, larger foundations, increased requirement for Deadend structures, and the potential need to replace existing structures.

DEIR Alternative 5 Catenary Span Review

Row #	From Structure	To Structure	Highest Clearance (feet AGL)	FAA Notification Under 14 CFR, Part 77?	Lighted Markers Potentially Considered?	Discussion
Segment A @ 60 DEG INITIAL						
1	E1A	P02	225.45	Yes	No	This span requires notice to the FAA and would be considered for aerial marking. (note that this span would be the same under all alternatives). However, this span is not anticipated to be a candidate for the use of lighted markers as the highest conductor is less than 200 feet AGL.
2	P03	P04	293.12	Yes	Yes	This span requires notice to the FAA and would be considered for aerial marking. (note that this span would be the same under all alternatives). This span is considered to be a candidate for lighted markers on the highest conductor because the voltage is grater than 69kV and the conductor height exceeds 200 feet AGL.
New Segment B @ 60 DEG INITIAL						
3	I-15 CP1	I-15 CP2	Unknown	N/A	N/A	Based on preliminary information, this span will potentially need marker balls on the OPGW. This will be further analyzed upon receipt of LiDAR data.
New Segment C @ 60 DEG INITIAL						
4	E42	E43	243.95	Yes	Yes	Based upon the review of existing LiDAR data, this span now exceeds 200 feet AGL and would require notice to the FAA and would be considered for aerial marking. This span is considered to be a candidate for lighted markers on the highest conductor because the voltage is grater than 69kV and the conductor height exceeds 200 feet AGL.
5	E47	E48	212.83	Yes	No	Based upon the review of existing LiDAR data, this span now exceeds 200 feet AGL and would require notice to the FAA and would be considered for aerial marking. However, this span is not anticipated to be a candidate for the use of lighted markers as the highest conductor is less than 200 feet AGL.

Note: If lighted markers were to be installed on energized conductor wires, the associated support structures (poles or towers) may need to be redesigned to account for changes in tension, wire clearance, and other design factors. Potential design revisions resulting from the addition of lighted markers on the highest conductor include taller structures, larger foundations, increased requirement for Deadend structures, and the potential need to replace existing structures.

DEIR Alternative 3/4 Catenary Span Review

Row #	From Structure	To Structure	Highest Clearance (feet AGL)	FAA Notification Under 14 CFR, Part 77?	Lighted Markers Potentially Considered?	Discussion
Segment A @ 60 DEG INITIAL						
1	E1A	P02	225.45	Yes	No	This span requires notice to the FAA and would be considered for aerial marking. (note that this span would be the same under all alternatives). However, this span is not anticipated to be a candidate for the use of lighted markers as the highest conductor is less than 200 feet AGL.
2	P03	P04	293.12	Yes	Yes	This span requires notice to the FAA and would be considered for aerial marking. (note that this span would be the same under all alternatives). This span is considered to be a candidate for lighted markers on the highest conductor because the voltage is grater than 69kV and the conductor height exceeds 200 feet AGL.
3	P06	P07	269.15	Yes	Yes	This span requires notice to the FAA and would be considered for aerial marking. (note that this span would be the same under the Proposed Project). This span is considered to be a candidate for lighted markers on the highest conductor because the voltage is grater than 69kV and the conductor height exceeds 200 feet AGL.
4	P08	P09	289.15	Yes	Yes	This span requires notice to the FAA and would be considered for aerial marking. (note that this span would be the same under the Proposed Project). This span is considered to be a candidate for lighted markers on the highest conductor because the voltage is grater than 69kV and the conductor height exceeds 200 feet AGL.
5	P09	P10	206.79	Yes	No	Based upon the updated review, this span now exceeds 200 feet AGL and would require notice to the FAA and would be considered for aerial marking. However, this span is not anticipated to be a candidate for the use of lighted markers as the highest conductor is less than 200 feet AGL.
6	P13	P14	245.92	Yes	Yes	This span requires notice to the FAA and would be considered for aerial marking. (note that this span would be the same under the Proposed Project). This span is considered to be a candidate for lighted markers on the highest conductor because the voltage is grater than 69kV and the conductor height exceeds 200 feet AGL.
7	P14	P15	214.37	Yes	No	This span requires notice to the FAA and would be considered for aerial marking. (note that this span would be the same under all alternatives). However, this span is not anticipated to be a candidate for the use of lighted markers as the highest conductor is less than 200 feet AGL.
Segment D @ 60 DEG INITIAL						
8A	P43	E14	181.39	No	No	This span may not need notice to the FAA based on updated review, which shows the highest catenary does not exceed 200 feet AGL. This span was initially flagged (under the Proposed Project) due to existing marking on this span. Applies to Alternative 4 only.
8B	P43CP	E14	186.09	No	No	This span may not need notice to the FAA based on updated review, which shows the highest catenary does not exceed 200 feet AGL. This span was initially flagged (under the Proposed Project) due to existing marking on this span. Applies to Alternative 3 and the Alternative 3/4 combo only.
9	E15	E16	202.52	Yes	No	This span requires notice to the FAA and would be considered for aerial marking. (note that this span would be the same under all alternatives). However, this span is not anticipated to be a candidate for the use of lighted markers as the highest conductor is less than 200 feet AGL.
10	E22	E23	263.49	Yes	Yes	This span requires notice to the FAA and would be considered for aerial marking. (note that this span would be the same under the Proposed Project). This span is considered to be a candidate for lighted markers on the highest conductor because the voltage is grater than 69kV and the conductor height exceeds 200 feet AGL.
11	E23	E24	282.61	Yes	Yes	This span requires notice to the FAA and would be considered for aerial marking. (note that this span would be the same under the Proposed Project). This span is considered to be a candidate for lighted markers on the highest conductor because the voltage is grater than 69kV and the conductor height exceeds 200 feet AGL.

Note: If lighted markers were to be installed on energized conductor wires, the associated support structures (poles or towers) may need to be redesigned to account for changes in tension, wire clearance, and other design factors. Potential design revisions resulting from the addition of lighted markers on the highest conductor include taller structures, larger foundations, increased requirement for Deadend structures, and the potential need to replace existing structures.