

Criteria	NESC Standard	CSA Standard	OESC Standard	IESO Market Rules	Minimum Proposed Criteria
Cable Tension	NESC Heavy, Initial, 60% RBS 15 Deg C, Initial, 35% RBS 15 Deg C, Final, 25% RBS	CSA Heavy, Initial, 60% RBS 20% RBS at 15 Deg C 2000 meter Catenary at January Average Temp, Conductor Only	Not Applicable	Not Applicable	CSA Heavy, Initial, 60% RBS 15 Deg C, 35% RBS, Initial 20% RBS at 15 Deg C 2000 meter Catenary at January Average Temp, Initial, Conductor Only
Cable & Conductor Sagging	Note 1				
Structure Loading - Tangent Structures	NESC Heavy, 12.7mm Ice, -17 Deg C, 191.52 Pa Wind Extreme Wind, 15.6 Deg C, 992.843 Pa Wind Concurrent Wind/Ice, 25.4 mm Ice, -9.4 Deg C, 191.52 Pa Wind	CSA Deterministic Heavy, 12.5mm Ice, -20 Deg C, 400 Pa Wind CSA Reliability High Wind Avg Min Temp, 3 Deg C, 619.89 Pa Wind CSA Reliability Reduce Wind Min Low Temp, -19 Deg C, 223.16 Pa Wind CSA Reliability Ice, 45 mm Ice, -5 Deg C CSA Reliability High Ice Low Wind, 45 mm Ice, -5 Deg C, 99.18 Pa Wind CSA Reliability Low Ice High Wind, 18 mm Ice, -5 Deg C, 223.16 Pa Wind	Not Applicable	Not Applicable	CSA Deterministic Heavy, 12.5mm Ice, -20 Deg C, 400 Pa Wind Extreme Wind, 15.6 Deg C, 992.843 Pa Wind Concurrent Wind/Ice, 25.4 mm Ice, -9.4 Deg C, 191.52 Pa Wind CSA Reliability High Wind Avg Min Temp, 3 Deg C, 619.89 Pa Wind CSA Reliability Reduce Wind Min Low Temp, -19 Deg C, 223.16 Pa Wind CSA Reliability Ice, 45 mm Ice, -5 Deg C CSA Reliability High Ice Low Wind, 45 mm Ice, -5 Deg C, 99.18 Pa Wind CSA Reliability Low Ice High Wind, 18 mm Ice, -5 Deg C, 223.16 Pa Wind
Structure Loading - Deadend Structures	NESC Heavy, 12.7mm Ice, -17 Deg C, 191.52 Pa Wind NESC Heavy DeadEnd, 12.7mm Ice, -17 Deg C, 191.52 Pa Wind Extreme Wind, 15.6 Deg C, 992.843 Pa Wind Concurrent Wind/Ice, 25.4 mm Ice, -9.4 Deg C, 191.52 Pa Wind	CSA Deterministic Heavy, 12.5mm Ice, -20 Deg C, 400 Pa Wind CSA Deterministic Heavy DeadEnd, 12.5mm Ice, -20 Deg C, 400 Pa Wind CSA Reliability High Wind Avg Min Temp, 3 Deg C, 619.89 Pa Wind CSA Reliability Reduce Wind Min Low Temp, -19 Deg C, 223.16 Pa Wind CSA Reliability Ice, 45 mm Ice, -5 Deg C CSA Reliability High Ice Low Wind, 45 mm Ice, -5 Deg C, 99.18 Pa Wind CSA Reliability Low Ice High Wind, 18 mm Ice, -5 Deg C, 223.16 Pa Wind	Not Applicable	Not Applicable	CSA Deterministic Heavy, 12.5mm Ice, -20 Deg C, 400 Pa Wind CSA Deterministic Heavy DeadEnd, 12.5mm Ice, -20 Deg C, 400 Pa Wind Extreme Wind, 15.6 Deg C, 992.843 Pa Wind Concurrent Wind/Ice, 25.4 mm Ice, -9.4 Deg C, 191.52 Pa Wind CSA Reliability High Wind Avg Min Temp, 3 Deg C, 619.89 Pa Wind CSA Reliability Reduce Wind Min Low Temp, -19 Deg C, 223.16 Pa Wind CSA Reliability Ice, 45 mm Ice, -5 Deg C CSA Reliability High Ice Low Wind, 45 mm Ice, -5 Deg C, 99.18 Pa Wind CSA Reliability Low Ice High Wind, 18 mm Ice, -5 Deg C, 223.16 Pa Wind
Load & Strength Factors	NESC Heavy: 1.5 Vertical, 2.5 Transverse, 1.65 Longitudinal OLF All Load Cases: Guys 0.9 Strength Factor All Load Cases: Steel Poles 1.0 Strength Factor All Load Cases: Wood Poles 0.65 Strength Factor All Load Cases: Insulators 1/2 of Ultimate Strength Factor	CSA Deterministic Heavy: 2.7 Vertical, 1.5 Transverse, 1.5 Longitudinal w/ Tension Change OLF (Old Version) CSA Reliability Low Ice High Wind: 1.0 Vertical, 1.0 Transverse, 1.0 Longitudinal OLF CSA Reliability High Ice Low Wind: 1.0 Vertical, 1.0 Transverse, 1.0 Longitudinal OLF CSA Deterministic Heavy (Wood): 1.5 Vertical, 1.3 Transverse, 1.3 Longitudinal OLF CSA Deterministic Heavy (Steel): 1.15 Vertical, 1.1 Transverse, 1.1 Longitudinal OLF CSA Deterministic Heavy (Conc.): 1.3 Vertical, 1.2 Transverse, 1.2 Longitudinal OLF CSA Deterministic Heavy (Guys): 1.0 Vertical, 1.6 Transverse, 1.6 Longitudinal OLF All Load Cases: Wood Poles 0.8 Strength Factor All Load Cases: Insulators 1/2 of Ultimate Strength Factor	Not Applicable	Not Applicable	CSA Deterministic Heavy: 2.7 Vertical, 1.5 Transverse, 1.5 Longitudinal w/ Tension Change OLF NESC Heavy: 1.5 Vertical, 2.5 Transverse, 1.65 Longitudinal OLF CSA Reliability Low Ice High Wind: 1.0 Vertical, 1.0 Transverse, 1.0 Longitudinal OLF CSA Reliability High Ice Low Wind: 1.0 Vertical, 1.0 Transverse, 1.0 Longitudinal OLF CSA Deterministic Heavy: 2.7 Vertical, 1.5 Transverse, 1.5 Longitudinal w/ Tension Change OLF CSA Deterministic Heavy: 2.7 Vertical, 1.5 Transverse, 1.5 Longitudinal w/ Tension Change OLF CSA Deterministic Heavy: 2.7 Vertical, 1.5 Transverse, 1.5 Longitudinal w/ Tension Change OLF CSA Deterministic Heavy (Guys): 1.0 Vertical, 1.6 Transverse, 1.6 Longitudinal OLF All Load Cases: Steel Poles 1.0 Strength Factor All Load Cases: Wood Poles 0.8 Strength Factor All Load Cases: Insulators 1/2 of Ultimate Strength Factor
Vertical Clearance Over Ground Traversed by Vehicles	6.84 m	6.1 m	Not Applicable	Not Applicable	6.1 m
Vertical Clearance Over Water Areas - No Sailing	6.44 m	7.3 m			7.3 m
Horizontal Clearance to Lightning, Tramic, or Other Line Support, w/ 287.28 Pa Wind	2.64 m	3.24 m			3.24 m
Horizontal Clearance to Accessible Bridges, w/ 287.28 Pa Wind	2.64 m	3.04 m			3.04 m
Galloping	Note 2	Note 2			Note 2

Notes:

1. Cable and conductor sagging criteria is not explicitly outlined in the code and is determined by the cable tension criteria
2. Galloping Criteria is not explicitly outlined in the code. Galloping is analyzed using the PLS Cadd Software with single loop ellipses for spans up to 600' and double loop ellipses for spans 600' and above. The line is designed so that no galloping ellipses overlap