

Environments
library tab

Environments
library and
definitions

Environments

Clearances

View

Report

Library

Help

Q Search

Environments

Name	Description	Wire Temp (°C)	Ambient Temp (°C)	Conditions					Load Factors					Strength	Elasticity	Behavior			Account For			Enabled				
				Wind		Ice/Snow	Cables	Fc	Gc	Wn	Gs	Creep	Preload			Is	Pole	Plant	Construction							
				Pressure (Pa)	Gust Factor															Height Factor	Radial Thickness (mm)		Density (kg/m³)			
survey	Survey	S - stringing	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Services	Prim	✓	✓	None	None	None	None	None	None	None	None
LSL I - UI	Line Security Level I - Max Wind - Downdraft	C - 15	W - wire	1090	1090	None	N -	0	916.7	1.25	1	1.25	1	1.1	Strength	Prim	✓	✓	M+W	M+W	None	None	None	None	None	None
LSL II - UI	Line Security Level II - Max Wind - Downdraft	C - 15	W - wire	1180	1180	None	N -	0	916.7	1.25	1	1.25	1	1.1	Strength	Prim	✓	✓	M+W	M+W	None	None	None	None	None	None
LSL III - UI	Line Security Level III - Max Wind - Downdraft	C - 15	W - wire	1260	1260	None	N -	0	916.7	1.25	1	1.25	1	1.1	Strength	Prim	✓	✓	M+W	M+W	None	None	None	None	None	None
Sustained	Sustained	C - 5	W - wire	0	0	None	N -	0	916.7	1.1	1	1.25	1	1.1	Services	Prim	✓	✓	M+W	M+W	None	None	None	None	None	None
Uplift - T15	Uplift - Serviceability	C - 15	W - wire	500	500	None	N -	0	916.7	1.1	1	1.25	1	0.9	Services	Prim	✓	✓	M+W	M+W	None	None	None	None	None	None
Everyday	Everyday	C - 18	W - wire	0	0	None	N -	0	916.7	1.1	1	1.25	1	1.1	Services	Prim	✓	✓	M+W	M+W	None	None	None	None	None	None
Serviceabl	Serviceability (Damage)	C - 15	W - wire	500	500	None	N -	0	916.7	1	1	1.1	1	1.1	Services	Prim	✓	✓	M+W	M+W	None	None	None	None	None	None
Failure Co	Broken Wire	C - 15	W - wire	300	300	None	N -	0	916.7	1.25	1	1.25	1	1.1	Services	Prim	✓	✓	M+W	M+W	None	None	None	None	None	None
Constructi	Construction	C - 15	W - wire	100	100	None	N -	0	916.7	1.5	1	1.5	1	1.1	Services	Prim	✓	✓	M+W	M+W	M+W	None	None	None	None	None
Maintenan	Maintenance	C - 15	W - wire	100	100	None	N -	0	916.7	1.5	1	1.5	1	1.1	Services	Prim	✓	✓	M+W	M+W	M+W	None	None	None	None	None
Max. Temp	Maximum Operating Temperature - 33kV / 66kV / 132kV (ACSR - New I	C - 120	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Services	Prim	✓	✓	None	None	None	None	None	None	None	None
Max. Temp	Maximum Operating Temperature - 33kV / 66kV / 132kV (non-ACSR - N	C - 100	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Services	Prim	✓	✓	None	None	None	None	None	None	None	None
Max. Temp	Maximum Operating Temperature - 33kV / 66kV / 132kV (Legacy Feede	C - 85	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Services	Prim	✓	✓	None	None	None	None	None	None	None	None
Max. Temp	Maximum Operating Temperature - 11kV (CCT, CCSX)	C - 80	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Services	Prim	✓	✓	None	None	None	None	None	None	None	None
Max. Temp	Maximum Operating Temperature - 11kV (Bare Conductor)	C - 75	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Services	Prim	✓	✓	None	None	None	None	None	None	None	None
Max. Temp	Maximum Operating Temperature - LV ABC	C - 80	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Services	Prim	✓	✓	None	None	None	None	None	None	None	None
Max. Temp	Maximum Operating Temperature - LV (Bare - New Installations)	C - 75	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Services	Prim	✓	✓	None	None	None	None	None	None	None	None
Max. Temp	Maximum Operating Temperature - LV (Bare - Legacy Feeders)	C - 50	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Services	Prim	✓	✓	None	None	None	None	None	None	None	None
Max. Temp	Maximum Operating Temperature - OHEW and OPGW	C - 30	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Services	Prim	✓	✓	None	None	None	None	None	None	None	None
Max. Temp	Maximum Operating Temperature - ADSS	C - 40	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Services	Prim	✓	✓	None	None	None	None	None	None	None	None
Blowout -	Blowout	C - 40	W - wire	500	500	None	N -	0	916.7	1	1	1	1	1	Services	Prim	✓	✓	None	None	None	None	None	None	None	None
Electrical C	Midspan Separation Clearance	C - 50	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Services	Prim	✓	✓	None	None	None	None	None	None	None	None
Electrical C	Subcircuit Separation Clearance	C - 15	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Services	Prim	✓	✓	None	None	None	None	None	None	None	None
Electrical C	Low Wind Separation Clearance	C - 35	W - wire	100	100	None	N -	0	916.7	1	1	1	1	1	Services	Prim	✓	✓	None	None	None	None	None	None	None	None
Electrical C	High Wind Separation Clearance	C - 35	W - wire	500	500	None	N -	0	916.7	1	1	1	1	1	Services	Prim	✓	✓	None	None	None	None	None	None	None	None
MAXOP	MAXOP	M - max	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Services	Prim	✓	✓	None	None	None	None	None	None	None	None
Uplift - T5	Uplift Cold	C - 5	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Services	Prim	✓	✓	M+W	M+W	M+W	None	None	None	None	None

Add Environment

Export to CSV

Import from CSV

Replace from CSV

Paste to/from Excel

Strength States

Title	Wood	Steel	Concrete	Composite	Other	Shear/Moment Capacity	Stays / Guys	Conductors	Fixed Insulators	Non Fixed Insulators	Ground	Displacement Limit	Timber Pole	Timber Xarm	Steel Pole	Steel Xarm	Composite Fibre Pole	CompFibre Xarm PUPI	CompFibre Xarm Wagners	Titan FC Pole	Linear Conductors	Non-Linear Conductors	ABC Max % CBL	CCT Max % CBL	Polymeric Line Post Insulator	Polymeric Susp. & Strain Insulator	Glass & Porcelain Insulator	Fittings_Cast	Fittings Forged & Fabricated	
Serviceability (LS)	1	1	0.3	1	1	Capacity 1	0.8	1	1	1	1	0.04	0.34	0.48	0.9	0.9	0.3	0.3	0.34	0.9	0.5	0.5	0.18	0.15	0.4	0.4	0.8	0.7	0.8	BY USAS
Strength (LS)	1	1	0.9	1	1	Capacity 1	0.8	1	1	1	1	0.04	0.6	0.85	0.9	0.9	0.75	0.75	0.79	0.9	0.5	0.7	0.28	0.5	0.9	0.7	0.8	0.7	0.8	BY USAS

Add Strength State

Derating Factors

Name	Factor	Match Tags
Timber Pole	variable	timber_pole
Timber Xarm	variable	timber_xarm
Steel Pole	variable	steel_pole
Steel Xarm	variable	steel_xarm
Composite Fibre I	variable	cf_pole
CompFibre Xarm	variable	cf_xarm_pupi
CompFibre Xarm	variable	cf_xarm_wagners
Titan FC Pole	variable	titan_fibre_cement_pole
Linear Conductor	variable	linear_cond
Non-Linear Cond	variable	non_linear_cond
ABC Max % CBL	variable	abc_conductor
CCT Max % CBL	variable	cct_conductor
Polymeric Line_P	variable	synthetic_comp_line_post_insulator
Polymeric Susp. I	variable	synthetic_composite_strain_suspension_insulator
Glass & Porcelain	variable	porcelain_glass_insulator
Fittings_Cast	variable	fittings_cast
Fittings Forged_&	variable	fittings_forged_fabricated

Component
Strength States &
Strength Factors -
refer to NS220
Table 7

Derating Factors
definition and
tags

Neara QRG

Environment Definitions



Environments

General		Conditions							Load Factors					Behavior							Enabled		
Name	Description	Wire Temp (°C)	Ambient Temp (°C)	Wind			Ice/Snow		Cables			Structure		Strength	Elasticity	Apply		Is preload	Account For				
				Pressure (Pa)	Gust Factor	Height Factor	Radial Thickness (mm)	Density (kg/m³)	Ft Longitudinal	Fc Transverse	Gc Vertical	Wn Wind	Gs Self-Load			Creep	Preload		Pole	Plant	Construction		
survey	Survey	S - stringing	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Service	Prim	✓			None	None	None	
LSL I - Ult	Line Security Level I - Max Wind - Downdraft	C - 15	W - wire	1090	1090	None	N -	0	916.7	1.25	1	1.25	1	1.1	Strength	Prim	✓			M+W	M+W	None	
LSL II - Ult	Line Security Level II - Max Wind - Downdraft	C - 15	W - wire	1180	1180	None	N -	0	916.7	1.25	1	1.25	1	1.1	Strength	Prim	✓			M+W	M+W	None	
LSL III - UI	Line Security Level III - Max Wind - Downdraft	C - 15	W - wire	1260	1260	None	N -	0	916.7	1.25	1	1.25	1	1.1	Strength	Prim	✓			M+W	M+W	None	
Sustained	Sustained	C - 5	W - wire	0	0	None	N -	0	916.7	1.1	1	1.25	1	1.1	Service	Prim	✓			M+W	M+W	None	
Uplift - T1E	Uplift - Serviceability	C - 15	W - wire	500	500	None	N -	0	916.7	1.1	1	1.25	1	0.9	Service	Prim	✓			M+W	M+W	None	
Everyday - Everyday	Everyday	C - 18	W - wire	0	0	None	N -	0	916.7	1.1	1	1.25	1	1.1	Service	Prim	✓			M+W	M+W	None	
Serviceabi	Serviceability (Damage)	C - 15	W - wire	500	500	None	N -	0	916.7	1	1	1.1	1	1.1	Service	Prim	✓			M+W	M+W	None	
Failure Co	Broken Wire	C - 15	W - wire	300	300	None	N -	0	916.7	1.25	1	1.25	1	1.1	Service	Prim	✓			M+W	M+W	None	
Constructi	Construction	C - 15	W - wire	100	100	None	N -	0	916.7	1.5	1	1.5	1	1.1	Service	Prim	✓			M+W	M+W	M+W	
Maintenan	Maintenance	C - 15	W - wire	100	100	None	N -	0	916.7	1.5	1	1.5	1	1.1	Service	Prim	✓			M+W	M+W	M+W	
Max. Temp	Maximum Operating Temperature - 33kV / 66kV / 132kV (ACSR - New I	C - 120	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Service	Prim	✓			None	None	None	
Max. Temp	Maximum Operating Temperature - 33kV / 66kV / 132kV (non-ACSR - N	C - 100	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Service	Prim	✓			None	None	None	
Max. Temp	Maximum Operating Temperature - 33kV / 66kV / 132kV (Legacy Feede	C - 85	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Service	Prim	✓			None	None	None	
Max. Temp	Maximum Operating Temperature - 11kV (CCT, CCSX)	C - 80	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Service	Prim	✓			None	None	None	
Max. Temp	Maximum Operating Temperature - 11kV (Bare Conductor)	C - 75	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Service	Prim	✓			None	None	None	
Max. Temp	Maximum Operating Temperature - LV ABC	C - 80	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Service	Prim	✓			None	None	None	
Max. Temp	Maximum Operating Temperature - LV (Bare - New Installations)	C - 75	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Service	Prim	✓			None	None	None	
Max. Temp	Maximum Operating Temperature - LV (Bare - Legacy Feeders)	C - 50	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Service	Prim	✓			None	None	None	
Max. Temp	Maximum Operating Temperature - OHEW and OPGW	C - 30	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Service	Prim	✓			None	None	None	
Max. Temp	Maximum Operating Temperature - ADSS	C - 40	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Service	Prim	✓			None	None	None	
Blowout - 1	Blowout	C - 40	W - wire	500	500	None	N -	0	916.7	1	1	1	1	1	Service	Prim	✓			None	None	None	
Electrical C	Midspan Separation Clearance	C - 50	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Service	Prim	✓			None	None	None	
Electrical C	Subcircuit Separation Clearance	C - 15	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Service	Prim	✓			None	None	None	
Electrical C	Low Wind Separation Clearance	C - 35	W - wire	100	100	None	N -	0	916.7	1	1	1	1	1	Service	Prim	✓			None	None	None	
Electrical C	High Wind Separation Clearance	C - 35	W - wire	500	500	None	N -	0	916.7	1	1	1	1	1	Service	Prim	✓			None	None	None	
MAXOP	MAXOP	M - max	W - wire	0	0	None	N -	0	916.7	1	1	1	1	1	Service	Prim	✓			None	None	None	
Add Environment																		Export to CSV	Import from CSV	Replace from CSV	Paste to/fn		

Add Environment

Export to CSV Import from CSV Replace from CSV Paste to/fri

'Survey' - Neara definition based on LiDAR-defined temperature

Load case conditions - refer to NS220 Table 2

Line temperature conditions - refer to NS220 Table 5

'MAXOP' - Neara definition based on conductor and voltage