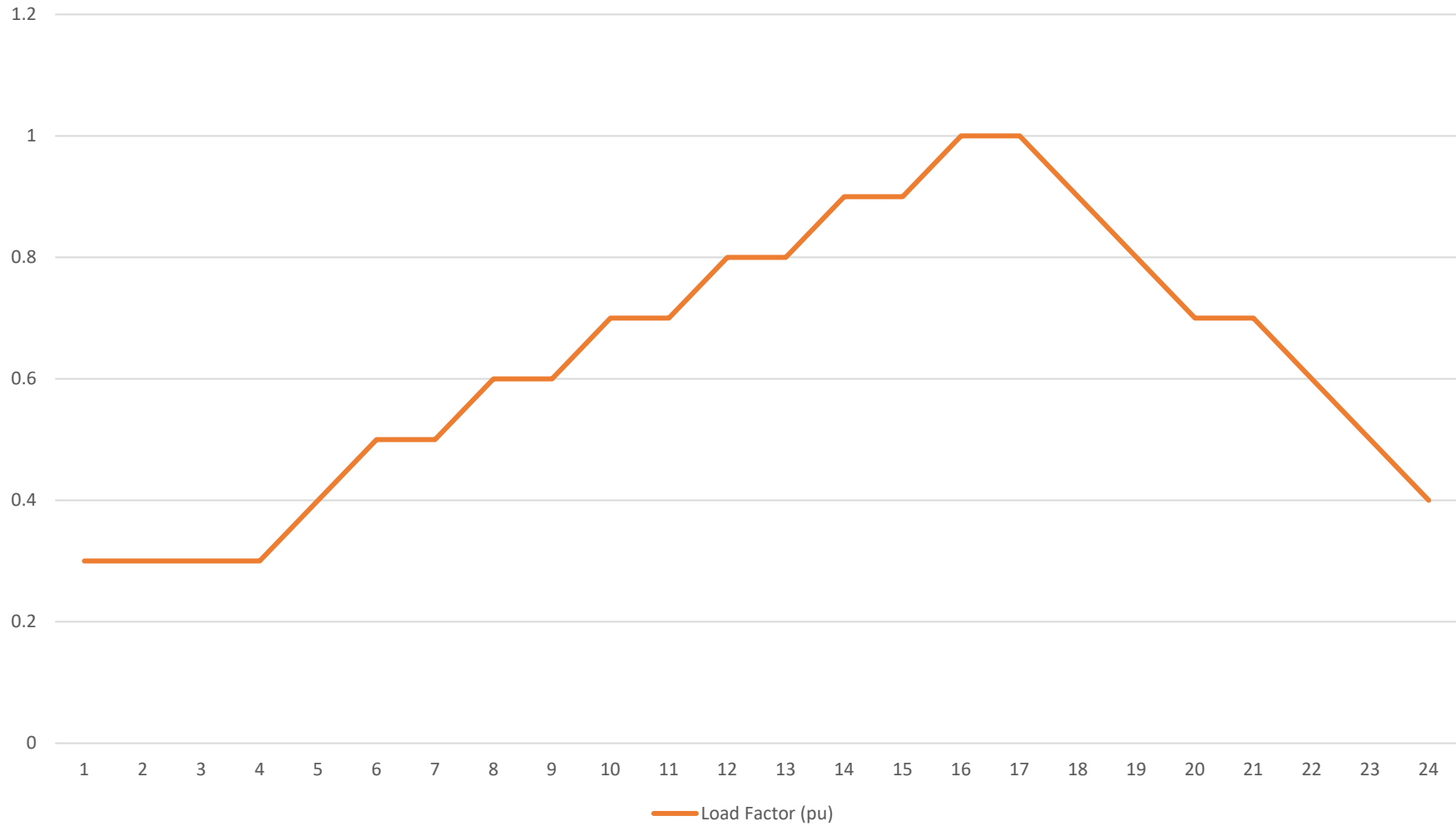
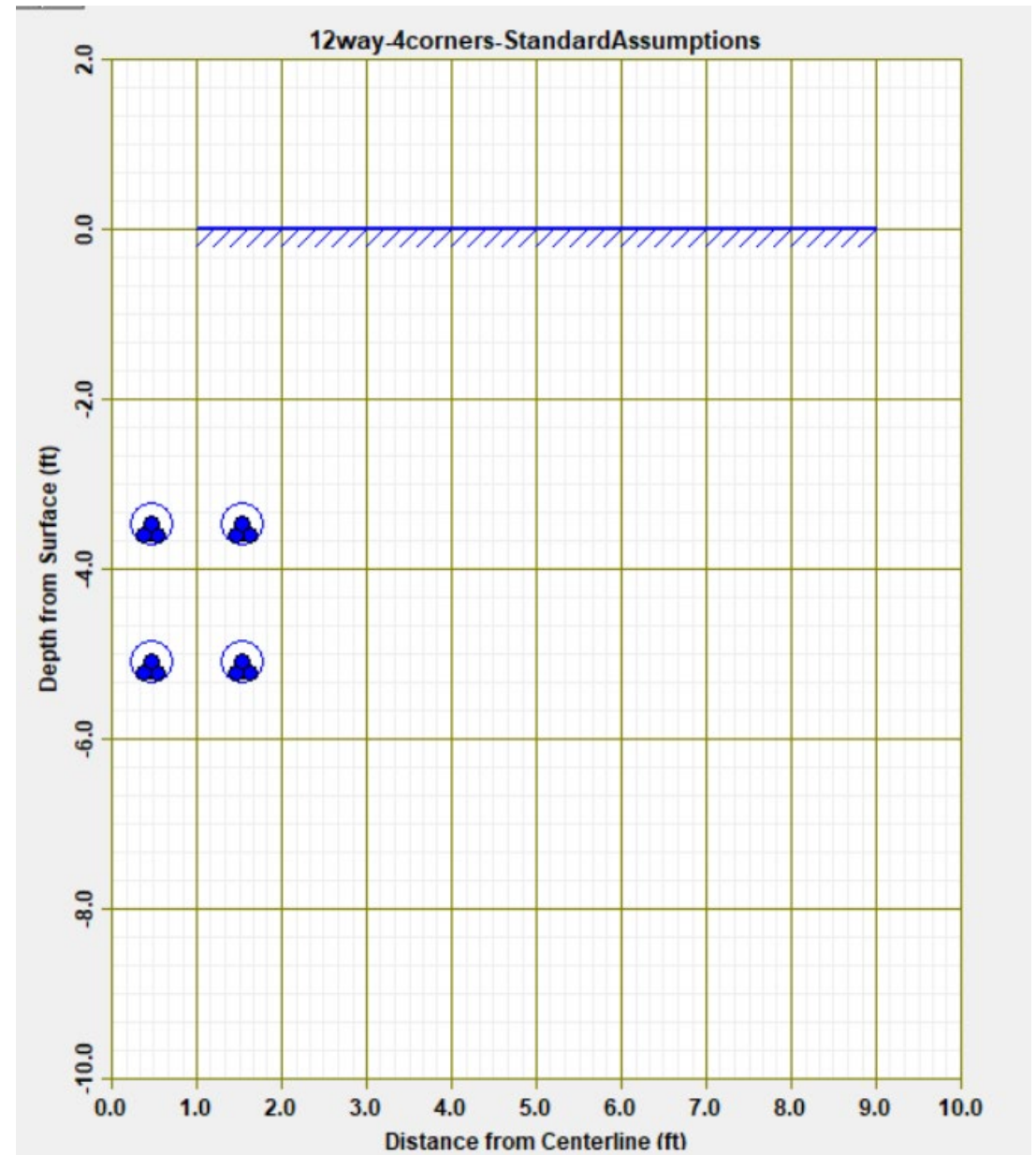


Representative Load Curve - 63% Load Factor



Cable Rating Example



<i>FOUR CORNERS OF 12-WAY BANK</i>	SN				Total SN	% Reduction in Total Capacity	Worst case single feeder SN reduction (A)	Worst case single feeder SN reduction (MW)	Worst case single feeder SN reduction %
	W1	W2	W3	W4					
<i>All at 63% (standard assumption)</i>	539	539	514	514	2106				
W1 at 100%	500	522	501	504	2027	4%	39	0.9	7%
W2 at 100%	522	500	504	501	2027	4%	39	0.9	7%
W3 at 100%	528	531	474	496	2029	4%	40	1.0	8%
W4 at 100%	531	528	496	474	2029	4%	40	1.0	8%
W1-W2 at 100%	485	485	492	492	1954	7%	54	1.3	10%
W1-W3 at 100%	490	515	462	486	1953	7%	52	1.2	10%
W1-W4 at 100%	492	512	483	465	1952	7%	49	1.2	10%
W3-W4 at 100%	520	520	458	458	1956	7%	56	1.3	11%
W1-W2-W3 at 100%	476	478	454	475	1883	11%	63	1.5	12%
W1-W3-W4 at 100%	483	505	447	450	1885	10%	67	1.6	13%
All at 100%	470	470	439	439	1818	14%	75	1.8	15%

Substation Transformer Example

TWO WINDING TRANSFORMER RATINGS PROGRAM

Test Reports and Nameplate Data Can Be Found Here:
\\manbrapp19\Equipment_Scans_NES for NE
\\manbrapp19\Equipment_Scans_NYS for NY

Transformer Data

Transformer ID :

Insulation Temperature Rating :

Type of Cooling :

Winding Hot Spot Rise Over Ambient at Rated Load (°C) :

Difference between Avg CU and Hotspot CU Temps. If Unknown Leave as 0 (°C) :

Weight of Transformer Core and Coils (lbs) :

Weight of Transformer Tank (lbs) :

Oil in Transformer (Gallons) :

Total Transformer Losses at Full Load (Watts) :

Ratio of Load Loss at Rated Load to No Load Losses :

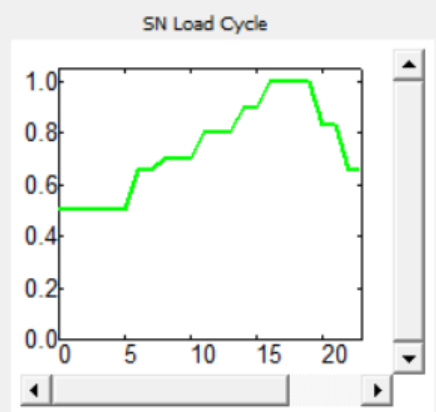
Full Load Top Oil Rise Over Ambient (°C) :

Transformer Nameplate Rating (MVA) :

Load Cycle Data (Use EMS Data if Available)

	SN	SE	WN	WE
00:00 :	0.50	0.50	0.65	0.65
01:00 :	0.50	0.50	0.65	0.65
02:00 :	0.50	0.50	0.50	0.65
03:00 :	0.50	0.50	0.65	0.65
04:00 :	0.50	0.50	0.65	0.65
05:00 :	0.50	0.50	0.77	0.77
06:00 :	0.66	0.66	0.77	0.77
07:00 :	0.66	0.66	1.00	1.00
08:00 :	0.70	0.88	1.00	1.00
09:00 :	0.70	0.88	1.00	1.00
10:00 :	0.70	0.88	1.00	1.00
11:00 :	0.80	1.00	1.00	1.00
12:00 :	0.80	1.00	0.95	0.95
13:00 :	0.80	1.00	0.95	0.95
14:00 :	0.90	1.00	0.95	0.95
15:00 :	0.90	0.90	0.95	0.95
16:00 :	1.00	0.90	0.95	0.95
17:00 :	1.00	0.90	1.00	1.00
18:00 :	1.00	0.83	1.00	1.00
19:00 :	1.00	0.83	0.90	0.90
20:00 :	0.83	0.83	0.90	0.90
21:00 :	0.83	0.83	0.90	0.90
22:00 :	0.66	0.66	0.75	0.75
23:00 :	0.66	0.66	0.75	0.75

UPDATE LOAD CYCLE GRAPHS



Summer Normal Rating :

APPLY DEFAULT LOAD CYCLES

Close OK

TWO WINDING TRANSFORMER RATINGS PROGRAM

Test Reports and Nameplate Data Can Be Found Here:

\\manbrapp19\Equipment_Scans_NES for NE

\\manbrapp19\Equipment_Scans_NYS for NY

Transformer Data

Transformer ID :

Insulation Temperature Rating :

Type of Cooling :

Winding Hot Spot Rise Over Ambient at Rated Load (°C) :

Difference between Avg CU and Hotspot CU Temps. If Unknown Leave as 0 (°C) :

Weight of Transformer Core and Coils (lbs) :

Weight of Transformer Tank (lbs) :

Oil in Transformer (Gallons) :

Total Transformer Losses at Full Load (Watts) :

Ratio of Load Loss at Rated Load to No Load Losses :

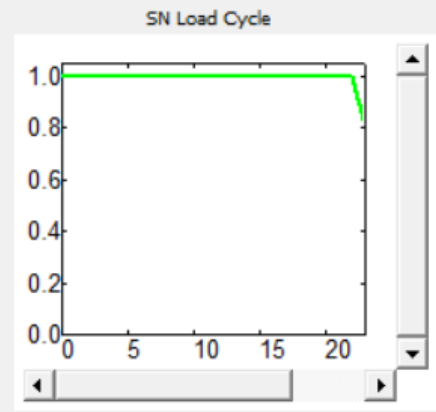
Full Load Top Oil Rise Over Ambient (°C) :

Transformer Nameplate Rating (MVA) :

Load Cycle Data (Use EMS Data if Available)

	SN	SE	WN	WE
00:00 :	1.00	0.50	0.65	0.65
01:00 :	1.00	0.50	0.65	0.65
02:00 :	1.00	0.50	0.50	0.65
03:00 :	1.00	0.50	0.65	0.65
04:00 :	1.00	0.50	0.65	0.65
05:00 :	1.00	0.50	0.77	0.77
06:00 :	1.00	0.66	0.77	0.77
07:00 :	1.00	0.66	1.00	1.00
08:00 :	1.00	0.88	1.00	1.00
09:00 :	1.00	0.88	1.00	1.00
10:00 :	1.00	0.88	1.00	1.00
11:00 :	1.00	1.00	1.00	1.00
12:00 :	1.00	1.00	0.95	0.95
13:00 :	1.00	1.00	0.95	0.95
14:00 :	1.00	1.00	0.95	0.95
15:00 :	1.00	0.90	0.95	0.95
16:00 :	1.00	0.90	0.95	0.95
17:00 :	1.00	0.90	1.00	1.00
18:00 :	1.00	0.83	1.00	1.00
19:00 :	1.00	0.83	0.90	0.90
20:00 :	1.00	0.83	0.90	0.90
21:00 :	1.00	0.83	0.90	0.90
22:00 :	1.00	0.66	0.75	0.75
23:00 :	0.80	0.66	0.75	0.75

UPDATE LOAD CYCLE GRAPHS



Summer Normal Rating :

APPLY DEFAULT LOAD CYCLES

Close OK