Bus Loading Summary Report

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
Bus18	0.460										0.015	87.5	18.5	
Bus19	0.460													
Bus1	34.500										0.053	89.5	0.9	
Bus2	0.460										0.051	91.2	66.4	
Bus3	0.460										0.051	91.3	66.4	
Bus4	0.460										0.051	91.3	66.4	
Bus5	0.460										0.010	84.9	13.2	
Bus6	0.230										0.010	85.0	26.4	
Bus7	0.460		0.017	0.011							0.020	85.0	26.3	
Bus8	0.460		0.013								0.013	100.0	17.0	
Bus9	0.230										0.009	85.0	23.9	
Bus10	0.230				0.008	0.005					0.009	85.0	23.9	
Bus12	34.500										0.053	89.5	0.9	
Bus14	0.460										0.051	91.3	66.4	
Bus15	0.460										0.009	84.9	11.9	
Bus17	0.230		0.008	0.005							0.010	85.0	26.4	

* Indicates operating load of a bus exceeds the bus critical limit (100.0% of the Continuous Ampere rating).
# Indicates operating load of a bus exceeds the bus marginal limit (95.0% of the Continuous Ampere rating).

Branch Loading Summary Report

CKT / Branch		Cable & Reactor			Transformer				
						Loading (input)		Loading (output)	
ID	Type	Ampacity (Amp)	Loading Amp	%	Capability (MVA)	MVA	%	MVA	%
Cable1	Cable	302.68	0.89	0.29					
Cable2	Cable	302.68	66.45	21.95					
Cable3	Cable	138.93	66.44	47.83					
Cable4	Cable	138.93	13.20	9.50					
Cable5	Cable	166.19	26.40	15.89					
Cable6	Cable	138.93	26.29	18.93					
Cable7	Cable	91.38	16.96	18.56					
Cable8	Cable	138.93	11.94	8.59					
Cable9	Cable	91.38	23.87	26.13					
T1	Transformer				0.065	0.053	81.4	0.051	77.9
T2	Transformer				0.113	0.010	8.9	0.010	8.9
T3	Transformer				0.075	0.009	12.1	0.009	12.1

* Indicates a branch with operating load exceeding the branch capability.

Branch Losses Summary Report

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop
	MW	Mvar	MW	Mvar	kW	kvar	From	To	in Vmag
Cable1	-0.047	-0.024	0.047	0.024	0.0	0.0	100.0	100.0	0.00
T1	0.047	0.024	-0.046	-0.021	1.2	2.9	100.0	95.7	4.35
Cable2	0.046	0.021	-0.046	-0.021	0.0	0.1	95.7	95.5	0.13
Cable3	0.046	0.021	-0.046	-0.021	0.0	0.0	95.5	95.5	0.05
Cable4	0.009	0.005	-0.009	-0.005	0.0	0.0	95.5	95.4	0.03
Cable6	0.017	0.011	-0.017	-0.011	0.0	0.0	95.5	95.5	0.01
Cable7	0.013	0.000	-0.013	0.000	0.0	0.0	95.5	95.5	0.01
Cable8	0.008	0.005	-0.008	-0.005	0.0	0.0	95.5	95.5	0.01
T2	0.009	0.005	-0.009	-0.005	0.0	0.0	95.4	95.2	0.28
Cable5	0.009	0.005	-0.008	-0.005	0.0	0.0	95.2	95.1	0.10
Cable9	0.008	0.005	-0.008	-0.005	0.0	0.0	95.2	95.1	0.06
T3	-0.008	-0.005	0.008	0.005	0.0	0.0	95.2	95.5	0.28
					1.3	3.1			

Alert Summary Report

	% Alert Settings	
	Critical	Marginal
Loading		
Bus	100.0	95.0
Cable	100.0	95.0
Reactor	100.0	95.0
Line	100.0	95.0
Transformer	100.0	95.0
Panel	100.0	95.0
Protective Device	100.0	95.0
Generator	100.0	95.0
Inverter/Charger	100.0	95.0
Bus Voltage		
OverVoltage	105.0	102.0
UnderVoltage	95.0	98.0
Generator Excitation		
OverExcited (Q Max.)	100.0	95.0
UnderExcited (Q Min.)	100.0	

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
VFD1	VFD	Overload	14.039	Amp	16.963	120.8	3-Phase

Marginal Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus10	Bus	Under Voltage	0.230	kV	0.219	95.1	3-Phase
Bus14	Bus	Under Voltage	0.460	kV	0.44	95.5	3-Phase
Bus15	Bus	Under Voltage	0.460	kV	0.44	95.5	3-Phase
Bus17	Bus	Under Voltage	0.230	kV	0.22	95.1	3-Phase
Bus2	Bus	Under Voltage	0.460	kV	0.44	95.7	3-Phase
Bus3	Bus	Under Voltage	0.460	kV	0.44	95.5	3-Phase
Bus4	Bus	Under Voltage	0.460	kV	0.44	95.5	3-Phase
Bus5	Bus	Under Voltage	0.460	kV	0.44	95.4	3-Phase
Bus6	Bus	Under Voltage	0.230	kV	0.22	95.2	3-Phase
Bus7	Bus	Under Voltage	0.460	kV	0.44	95.5	3-Phase
Bus8	Bus	Under Voltage	0.460	kV	0.44	95.5	3-Phase

Marginal Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus9	Bus	Under Voltage	0.230	kV	0.219	95.2	3-Phase

SUMMARY OF TOTAL GENERATION, LOADING & DEMAND

	MW	Mvar	MVA	% PF
Source (Swing Buses):	0.047	0.024	0.053	89.48 Lagging
Source (Non-Swing Buses):	0.000	0.000	0.000	
Total Demand:	0.047	0.024	0.053	89.48 Lagging
Total Motor Load:	0.038	0.023	0.045	85.85 Lagging
Total Static Load:	0.008	0.005	0.009	85.00 Lagging
Total Constant I Load:	0.000	0.000	0.000	
Total Generic Load:	0.000	0.000	0.000	
Apparent Losses:	0.001	-0.004		
System Mismatch:	0.000	0.000		

Number of Iterations: 2