

Project:	ETAP	Page:	1
Location:	22.0.1E	Date:	04-13-2023
Contract:		SN:	IASTATEPL
Engineer:	Study Case: LF	Revision:	Base
Filename: sd_etap_sim_v2		Config.:	Normal

LOAD FLOW REPORT

Bus		Voltage		Generation		Load		Load Flow				XFMR	
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus 1	34.500	99.927	-0.1	0.000	0.000	0.000	0.000	Bus 4	59.118	4.216	992.6	99.7	
								Node 1	-59.118	-4.216	992.6	99.7	
Bus 2	34.500	99.914	-0.1	0.000	0.000	0.000	0.000	Bus 4	0.000	0.000	0.0	0.0	
								Node 2	0.000	0.000	0.0	0.0	
Bus 3	34.500	99.914	-0.1	0.000	0.000	0.000	0.000	Bus 4	0.000	0.000	0.0	0.0	
								Node 3	0.000	0.000	0.0	0.0	
Bus 4	34.500	99.914	-0.1	0.000	0.000	0.000	0.000	Bus 1	-59.110	-4.213	992.6	99.7	
								Bus 2	0.000	0.000	0.0	0.0	
								Bus 3	0.000	0.000	0.0	0.0	
								XFORMER LV	59.110	4.213	992.6	99.7	
*Node 1	34.500	100.000	0.0	59.157	4.274	0.000	0.000	Bus 1	59.157	4.274	992.6	99.7	
Node 2	34.500	99.914	-0.1	0.000	0.000	0.000	0.000	Bus 2	0.000	0.000	0.0	0.0	
Node 3	34.500	99.914	-0.1	0.000	0.000	0.000	0.000	Bus 3	0.000	0.000	0.0	0.0	
Node 4	115.000	99.496	-3.3	0.000	0.000	0.000	0.000	Node 5	59.006	0.888	297.8	100.0	
								XFORMER HV	-59.006	-0.888	297.8	100.0	
Node 5	115.000	98.852	-4.1	0.000	0.000	58.631	0.000	Node 4	-58.631	0.000	297.8	100.0	
XFORMER HV	115.000	99.496	-3.3	0.000	0.000	0.000	0.000	Node 4	59.006	0.888	297.8	100.0	
								XFORMER LV	-59.006	-0.888	297.8	100.0	
XFORMER LV	34.500	99.902	-0.1	0.000	0.000	0.000	0.000	Bus 4	-59.103	-4.209	992.6	99.7	
								XFORMER HV	59.103	4.209	992.6	99.7	

* Indicates a voltage regulated bus (voltage controlled or swing type machine connected to it)
 # Indicates a bus with a load mismatch of more than 0.1 MVA

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Short-Circuit Summary Report

1/2 Cycle - 3-Phase, LG, LL, & LLG Fault Currents

Prefault Voltage = 100 % of the Bus Nominal Voltage

Bus		3-Phase Fault			Line-to-Ground Fault			Line-to-Line Fault			*Line-to-Line-to-Ground		
ID	kV	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.	Real	Imag.	Mag.
Bus 4	34.500	0.306	-5.697	5.706	0.716	-7.305	7.340	5.048	0.415	5.065	-5.444	4.453	7.033
XFORMER HV	115.000	0.063	-1.293	1.294	0.114	-1.757	1.760	1.140	0.079	1.142	1.081	1.360	1.737
XFORMER LV	34.500	0.310	-5.695	5.703	0.726	-7.293	7.329	5.045	0.418	5.063	-5.455	4.434	7.030

All fault currents are symmetrical (1/2 Cycle network) values in rms kA.
* LLG fault current is the larger of the two faulted line currents.

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Sequence Impedance Summary Report

Bus		Positive Seq. Imp. (ohm)			Negative Seq. Imp. (ohm)			Zero Seq. Imp. (ohm)			Fault Zf (ohm)		
ID	kV	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance
Bus 4	34.500	0.18752	3.48595	3.49099	0.37063	3.30284	3.32357	0.23599	1.31397	1.33499	0.00000	0.00000	0.00000
XFORMER HV	115.000	2.47678	51.23170	51.29153	4.51139	49.19708	49.40350	0.36613	12.48491	12.49028	0.00000	0.00000	0.00000
XFORMER LV	34.500	0.18996	3.48721	3.49238	0.37307	3.30410	3.32509	0.24507	1.32137	1.34390	0.00000	0.00000	0.00000