Option 2

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-1	13.80	1.826	-33.443	33.493	1.593	-0.066	1.594	29.337	1.629	29.382	-29.732	-1.618	29.776
Bus-2	13.80	1.826	-33.443	33.493	1.593	-0.066	1.594	29.337	1.629	29.382	-29.732	-1.618	29.776
Bus-3	13.80	1.064	-19.497	19.526	0.797	-0.029	0.798	17.074	0.945	17.100	-17.272	-0.940	17.297
MCC-480-01.	0.48	3.863	-41.189	41.370	4.154	-44.288	44.483	35.689	3.349	35.845	33.440	27.267	43.148
MCC-480-02.	0.48	3.756	-41.608	41.777	4.072	-44.605	44.790	36.046	3.255	36.192	-38.259	20.762	43.530
MCC-480-03.	0.48	3.863	-41.189	41.370	4.154	-44.288	44.483	35.689	3.349	35.845	33.440	27.267	43.148
MCC-480-04.	0.48	3.756	-41.608	41.777	4.072	-44.605	44.790	36.046	3.255	36.192	-38.259	20.762	43.530
MCC-480-05.	0.48	4.096	-43.499	43.692	4.331	-46.040	46.243	37.690	3.551	37.857	35.391	27.972	45.110
MCC-480-06.	0.48	3.879	-42.024	42.203	4.166	-44.923	45.116	36.406	3.361	36.561	-38.647	20.748	43.864
MCC-480-07.	0.48	4.096	-43.499	43.692	4.331	-46.040	46.243	37.690	3.551	37.857	35.391	27.972	45.110
MCC-480-08.	0.48	3.879	-42.024	42.203	4.166	-44.923	45.116	36.406	3.361	36.561	-38.647	20.748	43.864
MCC-480-09 A	0.48	4.294	-42.106	42.324	4.482	-44.991	45.214	36.483	3.722	36.673	34.140	27.844	44.055
MCC-480-09 B	0.48	4.479	-43.754	43.983	4.614	-46.226	46.455	37.905	3.881	38.103	35.528	28.359	45.458
MCC-480-10.	0.48	4.294	-42.106	42.324	4.482	-44.991	45.214	36.483	3.722	36.673	34.140	27.844	44.055
MCC-480-11 A	0.48	4.294	-42.106	42.324	4.482	-44.991	45.214	36.483	3.722	36.673	34.140	27.844	44.055
MCC-480-11 B	0.48	4.479	-43.754	43.983	4.614	-46.226	46.455	37.905	3.881	38.103	35.528	28.359	45.458
MCC-480-12.	0.48	4.479	-43.754	43.983	4.614	-46.226	46.455	37.905	3.881	38.103	35.528	28.359	45.458
MCC-480-13 A	0.48	4.294	-42.106	42.324	4.482	-44.991	45.214	36.483	3.722	36.673	34.140	27.844	44.055
MCC-480-13 B	0.48	4.479	-43.754	43.983	4.614	-46.226	46.455	37.905	3.881	38.103	35.528	28.359	45.458
MCC-480-14.	0.48	4.294	-42.106	42.324	4.482	-44.991	45.214	36.483	3.722	36.673	34.140	27.844	44.055
MCC-480-15 A	0.48	4.294	-42.106	42.324	4.482	-44.991	45.214	36.483	3.722	36.673	34.140	27.844	44.055
MCC-480-15 B	0.48	4.479	-43.754	43.983	4.614	-46.226	46.455	37.905	3.881	38.103	35.528	28.359	45.458
MCC-480-16.	0.48	4.479	-43.754	43.983	4.614	-46.226	46.455	37.905	3.881	38.103	35.528	28.359	45.458
MCC-480-17 A	0.48	4.815	-44.886	45.144	4.858	-47.065	47.315	38.889	4.173	39.113	36.445	28.882	46.502
MCC-480-17 B	0.48	4.968	-46.127	46.394	4.960	-47.962	48.218	39.959	4.305	40.190	37.490	29.263	47.559
MCC-480-18 A	0.48	4.815	-44.886	45.144	4.858	-47.065	47.315	38.889	4.173	39.113	36.445	28.882	46.502
MCC-480-18 B	0.48	4.968	-46.127	46.394	4.960	-47.962	48.218	39.959	4.305	40.190	37.490	29.263	47.559
MCC-480-19 A	0.48	4.815	-44.886	45.144	4.858	-47.065	47.315	38.889	4.173	39.113	36.445	28.882	46.502
MCC-480-19 B	0.48	4.968	-46.127	46.394	4.960	-47.962	48.218	39.959	4.305	40.190	37.490	29.263	47.559
MCC-480-20 A	0.48	4.815	-44.886	45.144	4.858	-47.065	47.315	38.889	4.173	39.113	36.445	28.882	46.502
MCC-480-20 B	0.48	4.968	-46.127	46.394	4.960	-47.962	48.218	39.959	4.305	40.190	37.490	29.263	47.559

Option 2

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.
MCC-480-21.	0.48	4.815	-44.886	45.144	4.858	-47.065	47.315	38.889	4.173	39.113	36.445	28.882	46.502
MCC-480-22.	0.48	4.968	-46.127	46.394	4.960	-47.962	48.218	39.959	4.305	40.190	37.490	29.263	47.559
OFFSITES A	0.48	7.515	-40.477	41.168	7.392	-40.739	41.404	35.071	6.514	35.671	31.440	26.993	41.438
OFFSITES B	0.48	7.515	-40.477	41.168	7.392	-40.739	41.404	35.071	6.514	35.671	31.440	26.993	41.438
PDC-480-01-A	0.48	3.863	-41.189	41.370	4.154	-44.288	44.483	35.689	3.349	35.845	33.440	27.267	43.148
PDC-480-01-B	0.48	3.756	-41.608	41.777	4.072	-44.605	44.790	36.046	3.255	36.192	-38.259	20.762	43.530
PDC-480-02-A	0.48	4.096	-43.499	43.692	4.331	-46.040	46.243	37.690	3.551	37.857	35.391	27.972	45.110
PDC-480-02-B	0.48	3.879	-42.024	42.203	4.166	-44.923	45.116	36.406	3.361	36.561	-38.647	20.748	43.864
PDC-480-03-A	0.48	4.294	-42.106	42.324	4.482	-44.991	45.214	36.483	3.722	36.673	34.140	27.844	44.055
PDC-480-03-B	0.48	4.479	-43.754	43.983	4.614	-46.226	46.455	37.905	3.881	38.103	35.528	28.359	45.458
PDC-480-04-A	0.48	4.294	-42.106	42.324	4.482	-44.991	45.214	36.483	3.722	36.673	34.140	27.844	44.055
PDC-480-04-B	0.48	4.479	-43.754	43.983	4.614	-46.226	46.455	37.905	3.881	38.103	35.528	28.359	45.458
PDC-480-05A	0.48	4.815	-44.886	45.144	4.858	-47.065	47.315	38.889	4.173	39.113	36.445	28.882	46.502
PDC-480-05B	0.48	4.968	-46.127	46.394	4.960	-47.962	48.218	39.959	4.305	40.190	37.490	29.263	47.559
PDC-4160-01-A	4.16	1.133	-14.664	14.708	0.399	-0.010	0.399	12.723	0.985	12.761	-12.823	-0.984	12.860
PDC-4160-01-B	4.16	1.216	-16.072	16.118	0.399	-0.010	0.399	13.937	1.057	13.977	-14.036	-1.055	14.076
PDC-4160-02-A	4.16	1.178	-14.528	14.575	0.399	-0.011	0.399	12.605	1.024	12.646	-12.704	-1.023	12.746
PDC-4160-02-B	4.16	1.305	-15.765	15.819	0.399	-0.010	0.399	13.671	1.133	13.718	-13.771	-1.132	13.817
PDC-4160-03-A	4.16	1.195	-15.810	15.855	0.399	-0.010	0.399	13.716	1.039	13.755	-13.815	-1.038	13.854
PDC-4160-03-B	4.16	1.314	-16.973	17.024	0.399	-0.010	0.399	14.717	1.141	14.761	-14.817	-1.140	14.861
SW-13800-01-A	13.80	1.497	-17.219	17.284	0.788	-0.037	0.789	15.053	1.325	15.111	-15.249	-1.319	15.306
SW-13800-01-B	13.80	2.913	-26.721	26.880	1.558	-0.095	1.561	23.368	2.579	23.510	-23.757	-2.564	23.894
Tren A - BUS A	4.16	3.701	-17.782	18.163	3.928	-17.941	18.366	15.423	3.217	15.755	-17.483	5.809	18.423
Tren A - BUS B	4.16	3.701	-17.782	18.163	3.928	-17.941	18.366	15.423	3.217	15.755	-17.483	5.809	18.423
Tren B - BUS A	4.16	1.770	-16.972	17.064	1.744	-17.578	17.664	14.723	1.538	14.803	13.866	10.618	17.464
Tren B - BUS B	4.16	1.770	-16.972	17.064	1.744	-17.578	17.664	14.723	1.538	14.803	13.866	10.618	17.464

All fault currents are symmetrical momentary (1/2 Cycle network) values in rms kA

* LLG fault current is the larger of the two faulted line currents

Short-Circuit Summary Report

Bus		Positive Sequence Imp. (ohm)			Negative Sequence Imp. (ohm)			Zero Sequence Imp. (ohm)		
ID	kV	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance
Bus-1	13.800	0.01297	0.23753	0.23788	0.01306	0.23141	0.23178	14.95318	0.15202	14.95395
Bus-2	13.800	0.01297	0.23753	0.23788	0.01306	0.23141	0.23178	14.95318	0.15202	14.95395
Bus-3	13.800	0.02223	0.40744	0.40805	0.02237	0.39832	0.39895	29.90363	0.30225	29.90516
MCC-480-01.	0.480	0.00063	0.00667	0.00670	0.00063	0.00666	0.00669	0.00049	0.00528	0.00530
MCC-480-02.	0.480	0.00060	0.00661	0.00663	0.00060	0.00660	0.00663	0.00049	0.00528	0.00530
MCC-480-03.	0.480	0.00063	0.00667	0.00670	0.00063	0.00666	0.00669	0.00049	0.00528	0.00530
MCC-480-04.	0.480	0.00060	0.00661	0.00663	0.00060	0.00660	0.00663	0.00049	0.00528	0.00530
MCC-480-05.	0.480	0.00059	0.00631	0.00634	0.00059	0.00631	0.00634	0.00049	0.00528	0.00530
MCC-480-06.	0.480	0.00060	0.00654	0.00657	0.00060	0.00653	0.00656	0.00049	0.00528	0.00530
MCC-480-07.	0.480	0.00059	0.00631	0.00634	0.00059	0.00631	0.00634	0.00049	0.00528	0.00530
MCC-480-08.	0.480	0.00060	0.00654	0.00657	0.00060	0.00653	0.00656	0.00049	0.00528	0.00530
MCC-480-09 A	0.480	0.00066	0.00651	0.00655	0.00066	0.00651	0.00654	0.00049	0.00528	0.00530
MCC-480-09 B	0.480	0.00064	0.00627	0.00630	0.00064	0.00626	0.00630	0.00049	0.00528	0.00530
MCC-480-10.	0.480	0.00066	0.00651	0.00655	0.00066	0.00651	0.00654	0.00049	0.00528	0.00530
MCC-480-11 A	0.480	0.00066	0.00651	0.00655	0.00066	0.00651	0.00654	0.00049	0.00528	0.00530
MCC-480-11 B	0.480	0.00064	0.00627	0.00630	0.00064	0.00626	0.00630	0.00049	0.00528	0.00530
MCC-480-12.	0.480	0.00064	0.00627	0.00630	0.00064	0.00626	0.00630	0.00049	0.00528	0.00530
MCC-480-13 A	0.480	0.00066	0.00651	0.00655	0.00066	0.00651	0.00654	0.00049	0.00528	0.00530
MCC-480-13 B	0.480	0.00064	0.00627	0.00630	0.00064	0.00626	0.00630	0.00049	0.00528	0.00530
MCC-480-14.	0.480	0.00066	0.00651	0.00655	0.00066	0.00651	0.00654	0.00049	0.00528	0.00530
MCC-480-15 A	0.480	0.00066	0.00651	0.00655	0.00066	0.00651	0.00654	0.00049	0.00528	0.00530
MCC-480-15 B	0.480	0.00064	0.00627	0.00630	0.00064	0.00626	0.00630	0.00049	0.00528	0.00530
MCC-480-16.	0.480	0.00064	0.00627	0.00630	0.00064	0.00626	0.00630	0.00049	0.00528	0.00530
MCC-480-17 A	0.480	0.00065	0.00610	0.00614	0.00065	0.00610	0.00613	0.00049	0.00528	0.00530
MCC-480-17 B	0.480	0.00064	0.00594	0.00597	0.00064	0.00594	0.00597	0.00049	0.00528	0.00530
MCC-480-18 A	0.480	0.00065	0.00610	0.00614	0.00065	0.00610	0.00613	0.00049	0.00528	0.00530
MCC-480-18 B	0.480	0.00064	0.00594	0.00597	0.00064	0.00594	0.00597	0.00049	0.00528	0.00530
MCC-480-19 A	0.480	0.00065	0.00610	0.00614	0.00065	0.00610	0.00613	0.00049	0.00528	0.00530
MCC-480-19 B	0.480	0.00064	0.00594	0.00597	0.00064	0.00594	0.00597	0.00049	0.00528	0.00530
MCC-480-20 A	0.480	0.00065	0.00610	0.00614	0.00065	0.00610	0.00613	0.00049	0.00528	0.00530
MCC-480-20 B	0.480	0.00064	0.00594	0.00597	0.00064	0.00594	0.00597	0.00049	0.00528	0.00530
MCC-480-21.	0.480	0.00065	0.00610	0.00614	0.00065	0.00610	0.00613	0.00049	0.00528	0.00530
MCC-480-22.	0.480	0.00064	0.00594	0.00597	0.00064	0.00594	0.00597	0.00049	0.00528	0.00530
OFFSITES A	0.480	0.00123	0.00662	0.00673	0.00123	0.00661	0.00672	0.00113	0.00653	0.00662
OFFSITES B	0.480	0.00123	0.00662	0.00673	0.00123	0.00661	0.00672	0.00113	0.00653	0.00662

Option 2

Bus		Positive Sequence Imp. (ohm)			Negative Sequence Imp. (ohm)			Zero Sequence Imp. (ohm)		
ID	kV	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance	Resistance	Reactance	Impedance
PDC-480-01-A	0.480	0.00063	0.00667	0.00670	0.00063	0.00666	0.00669	0.00049	0.00528	0.00530
PDC-480-01-B	0.480	0.00060	0.00661	0.00663	0.00060	0.00660	0.00663	0.00049	0.00528	0.00530
PDC-480-02-A	0.480	0.00059	0.00631	0.00634	0.00059	0.00631	0.00634	0.00049	0.00528	0.00530
PDC-480-02-B	0.480	0.00060	0.00654	0.00657	0.00060	0.00653	0.00656	0.00049	0.00528	0.00530
PDC-480-03-A	0.480	0.00066	0.00651	0.00655	0.00066	0.00651	0.00654	0.00049	0.00528	0.00530
PDC-480-03-B	0.480	0.00064	0.00627	0.00630	0.00064	0.00626	0.00630	0.00049	0.00528	0.00530
PDC-480-04-A	0.480	0.00066	0.00651	0.00655	0.00066	0.00651	0.00654	0.00049	0.00528	0.00530
PDC-480-04-B	0.480	0.00064	0.00627	0.00630	0.00064	0.00626	0.00630	0.00049	0.00528	0.00530
PDC-480-05A	0.480	0.00065	0.00610	0.00614	0.00065	0.00610	0.00613	0.00049	0.00528	0.00530
PDC-480-05B	0.480	0.00064	0.00594	0.00597	0.00064	0.00594	0.00597	0.00049	0.00528	0.00530
PDC-4160-01-A	4.160	0.01258	0.16282	0.16330	0.01259	0.16221	0.16269	18.02384	0.14961	18.02446
PDC-4160-01-B	4.160	0.01125	0.14859	0.14902	0.01126	0.14820	0.14862	18.02384	0.14961	18.02446
PDC-4160-02-A	4.160	0.01332	0.16424	0.16478	0.01332	0.16363	0.16417	18.02384	0.14961	18.02446
PDC-4160-02-B	4.160	0.01252	0.15131	0.15183	0.01253	0.15090	0.15142	18.02384	0.14961	18.02446
PDC-4160-03-A	4.160	0.01142	0.15105	0.15149	0.01143	0.15052	0.15095	18.02384	0.14961	18.02446
PDC-4160-03-B	4.160	0.01089	0.14066	0.14109	0.01090	0.14031	0.14073	18.02384	0.14961	18.02446
SW-13800-01-A	13.800	0.03993	0.45925	0.46098	0.04014	0.45045	0.45223	30.16867	0.49443	30.17273
SW-13800-01-B	13.800	0.03212	0.29466	0.29641	0.03227	0.28877	0.29057	15.21822	0.34419	15.22211
Tren A - BUS A	4.160	0.02694	0.12946	0.13223	0.02697	0.12902	0.13181	0.03001	0.12476	0.12832
Tren A - BUS B	4.160	0.02694	0.12946	0.13223	0.02697	0.12902	0.13181	0.03001	0.12476	0.12832
Tren B - BUS A	4.160	0.01460	0.13999	0.14075	0.01461	0.13950	0.14026	0.01108	0.12642	0.12691
Tren B - BUS B	4.160	0.01460	0.13999	0.14075	0.01461	0.13950	0.14026	0.01108	0.12642	0.12691