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Appendix A

Definitions

CPUC CPCN

California Public Utilities Commission Certificate Of Public Convenience and Necessity.

Category A Contingency

All facilities in service, no contingency.

Category B Contingency

Event resulting in the loss of a single element.

(The CAISO considers the loss of a critical generator followed with redispatch of the remaining system generation and the subsequent loss of any single element as a Category B contingency.)

Category C Contingency

Event resulting in the loss of two or more (multiple) elements.

Category D Contingency

Extreme event resulting in two or more (multiple) elements removed or cascading out of service.

Delivery Network Upgrades

Transmission facilities at or beyond the Point of Interconnection, other than Reliability Network Upgrades, identified in the Interconnection Studies to relieve constraints on the ISO Controlled Grid.

Interconnection Facilities

The Participating TO's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the ISO Controlled Grid. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

Interconnection Customer

Any entity, including a Participating TO or any of its Affiliates or subsidiaries, that proposes to interconnect its Generating Facility with the ISO Controlled Grid.

**Interconnection
Customer's
Interconnection Facilities**

All facilities and equipment, as identified in Part A of the Standard Large Generator Interconnection Agreement, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the ISO Controlled Grid. Interconnection Customer's Interconnection Facilities are sole use facilities.

**Participating TO's
Interconnection Facilities**

All facilities and equipment owned, controlled, or operated by the Participating TO from the Point of Change of Ownership to the Point of Interconnection as identified in Part A to the Standard Large Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Participating TO's Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

Reliability Network Upgrades

The transmission facilities at or beyond the Point of Interconnection necessary to interconnect a Large Generating Facility safely and reliably to the ISO Controlled Grid, which would not have been necessary but for the interconnection of the Large Generating Facility, including Network Upgrades necessary to remedy short circuit or stability problems resulting from the interconnection of the Large Generating Facility to the ISO Controlled Grid. Reliability Network Upgrades also include, consistent with WECC practice, the facilities necessary to mitigate any adverse impact the Large Generating Facility's interconnection may have on a path's WECC rating.

Appendix B

Study Criteria

Study Criteria

The Western Electricity Coordinating Council (WECC) and North American Electric Reliability Council (NERC) planning criteria were used to evaluate the system impact.

Thermal Steady-State Criteria

All power flow analyses are conducted with the General Electric PSLF Version 16 software.

Category A – All Facilities in Service

Category A (N-0) normal overloads are those that exceed 100% of normal ratings that occur with all facilities in service.

Category B – Loss of Single Element

Category B emergency overloads are those that exceed 100% of emergency ratings that occur due to a Category B contingency. A Category B contingency is commonly referred to as an “N-1” event, where there is a loss of a single element. No loss of customer load is allowed for Category B contingencies.

A single transmission circuit outage with one generator already out of service and the system adjusted shall meet the performance requirements of the NERC Planning Standards for Category B contingencies.

Category C – Loss of Multiple Elements

Category C emergency overloads are those that exceed 100% of emergency ratings that occur due to a Category C contingency. A Category C contingency is commonly referred to as an “N-2” event, where there is a loss of two or more elements. Planned (controlled) interruption of customer load and/or generation may occur and contracted firm (non-recalled reserved) transfers may be curtailed.

Short Circuit Breaker Duty Criteria

Short circuit studies are performed to determine the maximum fault currents on various buses in the vicinity of the project. This study assesses the impact of increased fault duty resulting from the interconnection of the project. The Aspen Version 9.0 program is used to conduct the detailed short circuit studies with three line-to-ground (3LG) and single line-to-ground (LG) faults to examine the impact of the project on the system. Equipment that may become overstressed as a result of the added generation will be identified using the criteria in Table 5.1.

Equipment	Disturbance	Criteria
Existing Generator Breakers	LG and 3LG faults	No fault exceeds 100% of the nameplate interrupting rating.
Existing Non-Generator Breakers \leq 230 kV	LG and 3LG faults	No fault exceeds 115% of the nameplate interrupting rating.
Existing Non-Generator Breakers $>$ 230 kV	LG and 3LG faults	No fault exceeds 100% of the nameplate interrupting rating.

Table 5.1: SDG&E Short Circuit Breaker Duty Criteria Summary

Transient Stability Criteria

Transient stability analysis is a time-based simulation that assesses the performance of the power system during (and shortly following) a contingency. Transient stability studies were performed to ensure system stability following critical faults on the system.

The system is considered stable if the following conditions are met:

- A. Machine Synchronism - All machines in the WECC interconnected system must remain in synchronism as demonstrated by relative rotor angles (unless modeling problems are identified and concurrence is reached that a problem does not really exist).
- B. Simulation Time and System Damping
 - a. A stability simulation will be deemed to exhibit positive damping if a line defined by the peaks of the machine relative rotor angle swing curves tends to intersect a second line connecting the valleys of the curves with the passing of time.
 - b. Corresponding lines on bus voltage swing curves will likewise tend to intersect. A stability simulation, which satisfies these conditions, will be defined as stable.
 - c. Duration of a stability simulation run will be twenty seconds unless a longer time is required to ascertain damping.
 - d. The transient performance analysis will start 6 cycles after the fault clearing and conclude at the end of the simulation.
 - e. A case will be defined as marginally stable if it appears to have zero percent damping and the voltage dips are within (or at) the WECC Reliability Criteria limits.

Performance of the transmission system is measured against the WECC Reliability Criteria and the NERC Planning Standards.

Table 5.2 is an excerpt from the NERC/WECC Reliability Criteria. The reliability and performance criteria were applied to the entire WECC transmission system.

NERC/WECC Categories	Transient Voltage Dip Standard	Minimum Transient Frequency Standard
A System normal	Nothing in addition to NERC	
B One element out-of-service	Not to exceed 25% at load buses or 30% at non-load buses. Not to exceed 20% for more than 20 cycles at load buses.	Not below 59.6Hz for 6 cycles or more at a load bus.
C Two or more elements out-of-service	Not to exceed 30% at any bus. Not to exceed 20% for more than 40 cycles at load buses.	Not below 59.0Hz for 6 cycles or more at a load bus.
D Extreme multiple-element outages	Nothing in addition to NERC	

Table 5.2: WECC Disturbance-Performance Table of Allowable Effects on Other Systems

Post-Transient Voltage Criteria

Table 5.3 is an excerpt from the NERC/WECC Planning Standards. The governor power flow is utilized to the post-transient voltage deviation criteria.

Performance Level/Category	Disturbance	Post Transient Voltage Deviation Criteria
B	Generator One Circuit One Transformer PDCI	Not to exceed 5% at any bus.*
C	Two Generators Two Circuits IPPDC	Not to exceed 10% at any bus.
* SCE allows deviation up to 7% on certain buses for N-1		

Table 5.3: WECC Disturbance-Performance Table of Allowable Effects on Other Systems

Reactive Power Deficiency Criteria

Table 5.4 summarizes the voltage support and reactive power criteria in the NERC/WECC Planning Standards.

Performance Level/Category	Disturbance	Reactive Power Deficiency Criteria
B	Generator One Circuit One Transformer PDCI	Governor power flow to reach convergence at 105% of SDG&E load level
C	Two Generators Two Circuits IPPDC	Governor power flow to reach convergence at 102.5% of SDG&E load level

Table 5.4: Reactive Power Deficiency Criteria Summary

Appendix C
Restudy Thermal Analysis Results

Post Processor 08HS MMC OBD Category B MVA1

Monitored Element	Contingency Description	MVA1	MVA2	08ESYNOY Pre0	08ESYNOY Post0	08ESYOOY Pre0	08ESYOOY Post0
LINE HARQUAHA 500kV-DEVERS 500kV ck1	line IV-ML 500kV SPS 6.8A	2338.2	2987.7	1.10	1.10	1.10	1.10
	line IV-ML 500kV SPS 6.8B	2338.2	2987.7	1.11	1.11	1.11	1.11
	line IV-ML 500kV SPS 6.8C	2338.2	2987.7	1.11	1.11	1.11	1.11
	line IV-ML 500kV SPS 6.8D	2338.2	2987.7	1.13	1.13	1.13	1.13
LINE BORREGO 69kV-NARROWS 69kV ck1	line SANTYSBL to CREELMAN 69 ck 1	12.5	14.5	1.02	1.02		1.02
	line WARNERS to SANTYSBL 69 ck 1	12.5	14.5	1.04	1.04		1.04
LINE MAINST51 138kV-SOUTHBAY 138kV ck1	line SOUTHBAY to MAINST50 138 ck 1	150	150	1.14	1.12	1.12	1.10
	line MISSION to GRNT HLL 138 ck 1	150	150	1.02	1.00		
	line GRNT HLL to SOUTHBAY 138 ck 1	150	150	1.04	1.02	1.01	1.00
	line LOSCOCHS to SOUTHBAY 138 ck 1	150	150	1.01			
	line OLD TOWN to KETTNER 69 ck 1	150	150	1.09	1.06	1.08	1.05
	line KETTNER to B 69 ck 1	150	150	1.00			
	tran OLD TOWN 69 to OLD TOWN 230 ck 1	150	150	1.02		1.01	
	tran OLD TOWN 69 to OLD TOWN 230 ck 2	150	150	1.02		1.01	
	tran SOUTHBAY 69 to SOUTHBAY 138 ck 1	150	150	1.09	1.05	1.07	1.02
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	line MELROSE to SANLUSRY 69 ck 1	97	102	1.07	1.07	1.02	1.05
TRAN MIGUEL 230kV-MIGUELMP 500kV ck1	tran MIGUEL 230 to MIGUEL 500 ck 2	1120	1329	1.08	1.08	1.07	1.07
TRAN MIGUEL 500kV-MIGUELMP 500kV ck1	tran MIGUEL 230 to MIGUEL 500 ck 2	1120	1329	1.08	1.07	1.07	1.07
LINE ELCENTRO 230kV-IMPRLVLY 230kV ck1	line IV-ML 500kV SPS 6.8A	215	259	1.35	1.35	1.35	1.35
	line IV-ML 500kV SPS 6.8B	215	259	1.41	1.41	1.40	1.41
	line IV-ML 500kV SPS 6.8C	215	259	1.43	1.43	1.43	1.43
	line IV-ML 500kV SPS 6.8D	215	259	1.49	1.49	1.48	1.49
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	line CREELMAN to LOSCOCHS 69 ck 1	71	71	1.03	1.02	1.03	1.02
LINE SOUTHBAY 69kV-SWEETWTR 69kV ck1	line MONTGMRY to MONTGYTP 69 ck 1	97	136		1.36		1.38
TRAN MIGUEL 230kV-MIGUEL 500kV ck2	tran MIGUEL 230 to MIGUELMP 500 ck 1	1120	1344	1.07	1.07	1.06	1.06
	tran LOSCOCHS 138 to LOSCOCHS 69 ck 1	140	155	1.03	1.03		
TRAN LOSCOCHS 69kV-LOSCOCHS 138kV ck2		140	155	1.03	1.03		
TRAN SOUTHBAY 69kV-SOUTHBAY 138kV ck1	gen SOUTHBY1 15.00	140	143	1.05		1.02	

Post Processor 08HS MMC OBD Category C MVA1

Monitored Element	Contingency Description	MVA1	MVA2	08ESYNOY Pre0	08ESYNOY Post0	08ESYOOY Pre0	08ESYOOY Post0
LINE BORREGO 69kV-NARROWS 69kV ck1	Creelman 69kV E Bus	12.5	14.5	1.02	1.02		1.02
	Santa Ysabel 69kV Bus	12.5	14.5	1.04	1.04		1.04
LINE MAINST51 138kV-SOUTHBAY 138kV ck1	Station B 69kV N Bus	150	150	1.00			
	Miguel 69kV S Bus	150	150	1.02		1.01	
	Sweetwater 69kV Bus	150	150	1.08	1.09	1.06	1.08
	line SY-MI50 & SY-GRNT 138 ck 1	150	150	1.32	1.30	1.29	1.27
	LC-SY+ML-LC 138/69KV	150	150	1.00			
LINE MESAHGTS 69kV-MISSION 69kV ck1	Mission 69kV N Bus	97	136	1.33	1.33	1.34	1.35
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV N Bus	97	102	1.11	1.11	1.05	1.09
	PEN-ES 1/2 230KV	97	102	1.01	1.01		
LINE ESCNDIDO 69kV-SANMRCOS 69kV ck1	SA5W TRIPS SA LOAD	97	129	1.16	1.16	1.21	1.18
	SA5W TRIP TL695	97	129	1.57	1.58	1.62	1.60
TRAN SANLUSRY 138kV-SANLUSRY 69kV ck1	SA5W TRIPS SA LOAD	140	160	1.32	1.31	1.27	1.29
	SA5W TRIPS SM LOAD	140	160	1.51	1.50	1.47	1.49
	SA5W TRIP TL695	140	160	1.76	1.76	1.72	1.74
	PQ-NCW + EA-BQ-PQ 138KV	140	160	1.28	1.24	1.21	1.22
LINE OCNSDETP 69kV-STUARTTP 69kV ck1	TA-SO 1 + 2 230KV	32	32	1.07	1.07	1.07	1.07
LINE STUARTTP 69kV-LASPULGS 69kV ck1	TA-SO 1 + 2 230KV	32	32	1.01	1.01	1.01	1.02
LINE TALEGA 138kV-MARGARTA 138kV ck1	TA-TB + TA-PI 138KV	273	292	1.04	1.04	1.04	1.04
LINE TALEGA 138kV-SANMATEO 138kV ck1	TA-TB + TA-PI 138KV	136	136	1.19	1.19	1.19	1.19
	PI-CP + TA-TB 138KV	136	136	1.06	1.06	1.07	1.07
LINE CAPSTRNO 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	157	157	1.10	1.10	1.10	1.10
LINE TALEGA 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	204	204	1.04	1.04	1.04	1.04
LINE MAINST50 138kV-SOUTHBAY 138kV ck1	line SY-MI50 & SY-GRNT 138 ck 1	150	150	1.03	1.01	1.00	
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	Los Coches 69kV W Bus	71	71	1.03	1.03	1.06	1.03
LINE LOSCOCHS 138kV-SOUTHBAY 138kV ck1	CH-SX-SN+LC-EL 138/69 KV	191	200	1.03	1.03		
LINE SOUTHBAY 69kV-SWEETWTR 69kV ck1	Southbay 69kV S Bus	97	136	1.54	1.70	1.54	1.72
LINE DEL MAR 69kV-PENSQTOS 69kV ck1	Penasquitos 69kV NW Bus	50	50	1.07	1.07		
	PEN-ES 1/2 230KV	50	50	1.01	1.01		
LINE MELROSE 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV S Bus	97	102	1.01	1.01		
LINE ESCNDIDO 69kV-ASH 69kV ck1	Escondido 69kV SW Bus	120	120	1.01	1.01	1.02	1.01
TRAN SOUTHBAY 69kV-SOUTHBAY 138kV ck1	line SY-MI51 & SY-MI50 138 ck 1	140	143	1.21	1.12	1.18	1.07
	line SY-MI50 & SY-GRNT 138 ck 1	140	143	1.12	1.04	1.09	
LINE DEL MAR 69kV-DELMARTP 69kV ck1	Del Mar 69kV E Bus	50	54	1.07	1.07	1.08	1.08
LINE ESCNDIDO 69kV-FELCTATP 69kV ck1	Escondido 69kV SW Bus	102	113			1.00	
LINE MONSRATE 69kV-MNSRATTP 69kV ck1	Lilac 69kV S Bus	77	77	1.00	1.00	1.01	1.01
LINE MIGUEL 69kV-JAMACHA 69kV ck1	Miguel 69kV N Bus	97	136	1.21	1.22		

Monitored Element	Contingency Description	MVA1	MVA2	08ESYNOY Pre0	08ESYNOY Post0	08ESYOOY Pre0	08ESYOOY Post0
LINE MIGUEL 69kV-JAMACHA 69kV ck2	Miguel 69kV S Bus	136	143	1.01			
LINE B 69kV-MAIN ST 69kV ck2	Main St 69kV W Bus	97	111	1.03	1.06	1.02	1.05
LINE SAMPSON 69kV-MAIN ST 69kV ck1	Main St 69kV W Bus	129	129	1.01			
LINE EL CAJON 69kV-LOSCOCHS 69kV ck1	Murray 69kV N Bus	55	59	1.24	1.22	1.03	1.00
LINE GARFIELD 69kV-EL CAJON 69kV ck1	Murray 69kV N Bus	97	102	1.23	1.23	1.24	1.23
LINE GRANITE 69kV-GRANITTP 69kV ck1	Murray 69kV N Bus	97	119	1.20	1.19	1.10	1.08
	ML-JM 1 + 2 69KV	97	119	1.05	1.05		
LINE BERNARDO 69kV-R.CARMEL 69kV ck1	Poway 69kV Bus	68	76	1.53	1.53	1.52	1.53
	POM-SX 1 + 2 69KV	68	76	1.28	1.28	1.28	1.30
LINE R.SNTAFE 69kV-R.SNTATP 69kV ck1	PEN-ES 1/2 230KV	64	64	1.29	1.29	1.01	1.10
LINE POMERADO 69kV-SYCAMORE 69kV ck2	Sycamore 69kV S Bus	97	136	1.39	1.39	1.29	1.34
LINE POWAY 69kV-POMERADO 69kV ck1	PEN-ES 1/2 230KV	97	136	1.33	1.34	1.19	1.27
LINE CALAVRTP 138kV-CANNON 138kV ck1	PQ-NCW + EA-BQ-PQ 138KV	258	258	1.04			
LINE SOUTHBAY 69kV-IMPRLBCH 69kV ck1	Otay 69kV Bus	55	55			1.12	1.12

Post Processor 08HS MMC 0BD Category B MVA 2

Monitored Element	Contingency Description	MVA1	MVA2	08ESYNOY Pre0	08ESYNOY Post0	08ESYOOY Pre0	08ESYOOY Post0
LINE MAINST51 138kV-SOUTHBAY 138kV ck1	line SOUTHBAY to MAINST50 138 ck 1	150	150	1.143	1.119	1.122	1.098
	line MISSION to GRNT HLL 138 ck 1	150	150	1.02	1.004		
	line GRNT HLL to SOUTHBAY 138 ck 1	150	150	1.039	1.023	1.014	1.003
	line LOSCOCHS to SOUTHBAY 138 ck 1	150	150	1.01			
	line OLD TOWN to KETTNER 69 ck 1	150	150	1.092	1.057	1.083	1.048
	line KETTNER to B 69 ck 1	150	150	1.001			
	tran OLD TOWN 69 to OLD TOWN 230 ck 1	150	150	1.02		1.005	
	tran OLD TOWN 69 to OLD TOWN 230 ck 2	150	150	1.02		1.005	
	tran SOUTHBAY 69 to SOUTHBAY 138 ck 1	150	150	1.085	1.045	1.067	1.024
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	line MELROSE to SANLUSRY 69 ck 1	97	102	1.018	1.016		
LINE ELCENTRO 230kV-IMPRLVLY 230kV ck1	line IV-ML 500kV SPS 6.8A	215	259	1.121	1.121	1.119	1.121
	line IV-ML 500kV SPS 6.8B	215	259	1.166	1.166	1.164	1.166
	line IV-ML 500kV SPS 6.8C	215	259	1.187	1.187	1.185	1.187
	line IV-ML 500kV SPS 6.8D	215	259	1.233	1.233	1.231	1.233
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	line CREELMAN to LOSCOCHS 69 ck 1	71	71	1.025	1.024	1.028	1.024
TRAN SOUTHBAY 69kV-SOUTHBAY 138kV ck1	gen SOUTHBAY1 15.00	140	143	1.026			

Post Processor 08HS MMC OBD Category C MVA2

Monitored Element	Contingency Description	MVA1	MVA2	08ESYNOY Pre0	08ESYNOY Post0	08ESYOOY Pre0	08ESYOOY Post0
LINE MAINST51 138kV-SOUTHBAY 138kV ck1	Station B 69kV N Bus	150	150	1.002			
	Miguel 69kV S Bus	150	150	1.023		1.009	
	Sweetwater 69kV Bus	150	150	1.077	1.088	1.064	1.078
	line SY-MI50 & SY-GRNT 138 ck 1	150	150	1.318	1.299	1.287	1.273
	LC-SY+ML-LC 138/69KV	150	150	1.004			
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV N Bus	97	102	1.055	1.052	1.003	1.035
LINE ESCNDIDO 69kV-SANMRCOS 69kV ck1	SA5W TRIP TL695	97	129	1.182	1.188	1.219	1.202
TRAN SANLUSRY 138kV-SANLUSRY 69kV ck1	SA5W TRIPS SA LOAD	140	160	1.151	1.144	1.113	1.132
	SA5W TRIPS SM LOAD	140	160	1.32	1.314	1.283	1.302
	SA5W TRIP TL695	140	160	1.543	1.537	1.503	1.524
	PQ-NCW + EA-BQ-PQ 138KV	140	160	1.121	1.085	1.059	1.063
LINE OCNSDETP 69kV-STUARTTP 69kV ck1	TA-SO 1 + 2 230KV	32	32	1.068	1.067	1.067	1.071
LINE STUARTTP 69kV-LASPULGS 69kV ck1	TA-SO 1 + 2 230KV	32	32	1.013	1.012	1.013	1.017
LINE TALEGA 138kV-SANMATEO 138kV ck1	TA-TB + TA-PI 138KV	136	136	1.186	1.186	1.188	1.188
	PI-CP + TA-TB 138KV	136	136	1.063	1.063	1.065	1.065
LINE CAPSTRNO 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	157	157	1.102	1.102	1.104	1.104
LINE TALEGA 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	204	204	1.037	1.037	1.039	1.039
LINE MAINST50 138kV-SOUTHBAY 138kV ck1	line SY-MI50 & SY-GRNT 138 ck 1	150	150	1.028	1.012	1.004	
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	Los Coches 69kV W Bus	71	71	1.034	1.034	1.06	1.032
LINE SOUTHBAY 69kV-SWEETWTR 69kV ck1	Southbay 69kV S Bus	97	136	1.097	1.209	1.095	1.228
LINE DEL MAR 69kV-PENSQTOS 69kV ck1	Penasquitos 69kV NW Bus	50	50	1.072	1.072		
	PEN-ES 1/2 230KV	50	50	1.013	1.013		
LINE ESCNDIDO 69kV-ASH 69kV ck1	Escondido 69kV SW Bus	120	120	1.007	1.006	1.023	1.005
TRAN SOUTHBAY 69kV-SOUTHBAY 138kV ck1	line SY-MI51 & SY-MI50 138 ck 1	140	143	1.188	1.097	1.157	1.043
	line SY-MI50 & SY-GRNT 138 ck 1	140	143	1.097	1.017	1.062	
LINE MONSRATE 69kV-MNSRATTP 69kV ck1	Lilac 69kV S Bus	77	77	1.003	1.003	1.006	1.006
LINE SAMPSON 69kV-MAIN ST 69kV ck1	Main St 69kV W Bus	129	129	1.01			
LINE EL CAJON 69kV-LOSCOCHS 69kV ck1	Murray 69kV N Bus	55	59	1.156	1.134		
LINE GARFIELD 69kV-EL CAJON 69kV ck1	Murray 69kV N Bus	97	102	1.171	1.171	1.181	1.168
LINE BERNARDO 69kV-R.CARMEL 69kV ck1	Poway 69kV Bus	68	76	1.369	1.369	1.364	1.367
	POM-SX 1 + 2 69KV	68	76	1.141	1.142	1.142	1.159
LINE R.SNTAFE 69kV-R.SNTATP 69kV ck1	PEN-ES 1/2 230KV	64	64	1.29	1.289	1.006	1.102

Monitored Element	Contingency Description	MVA1	MVA2	08ESYNOY Pre0	08ESYNOY Post0	08ESYOOY Pre0	08ESYOOY Post0
LINE CALAVRTP 138kV-CANNON 138kV ck1	PQ-NCW + EA-BQ-PQ 138KV	258	258	1.035			
LINE SOUTHBAY 69kV-IMPRLBCH 69kV ck1	Otay 69kV Bus	55	55			1.116	1.119

Post Processor 08HS MMC 3BD Category B MVA1

Monitored Element	Contingency Description	MVA1	MVA2	08ESYNOY Pre3	08ESYNOY Post3	08ESYOOY Pre3	08ESYOOY Post3
LINE HARQUAHA 500kV-DEVERS 500kV ck1	line IV-ML 500kV SPS 6.8A	2338.2	2987.7	1.10	1.10	1.10	1.10
	line IV-ML 500kV SPS 6.8B	2338.2	2987.7	1.11	1.11	1.11	1.11
	line IV-ML 500kV SPS 6.8C	2338.2	2987.7	1.11	1.11	1.11	1.11
	line IV-ML 500kV SPS 6.8D	2338.2	2987.7	1.13	1.13	1.13	1.13
LINE BORREGO 69kV-NARROWS 69kV ck1	line SANTYSBL to CREELMAN 69 ck 1	12.5	14.5	1.02	1.02		1.02
	line WARNERS to SANTYSBL 69 ck 1	12.5	14.5	1.04	1.04		1.04
LINE MAINST51 138kV-SOUTHBAY 138kV ck1	line SOUTHBAY to MAINST50 138 ck 1	150	150	1.07	1.06	1.07	1.05
LINE SANYSURO 69kV-OTAYLKTP 69kV ck1	line MIGUEL to BORDER 69 ck 1	50	50	1.42	1.46	1.46	1.47
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	line MELROSE to SANLUSRY 69 ck 1	97	102	1.07	1.06		1.03
TRAN MIGUEL 230kV-MIGUELMP 500kV ck1	tran MIGUEL 230 to MIGUEL 500 ck 2	1120	1329	1.07	1.07	1.07	1.07
TRAN MIGUEL 500kV-MIGUELMP 500kV ck1	tran MIGUEL 230 to MIGUEL 500 ck 2	1120	1329	1.07	1.07	1.07	1.06
LINE ELCENTRO 230kV-IMPRLVLY 230kV ck1	line IV-ML 500kV SPS 6.8A	215	259	1.35	1.35	1.35	1.35
	line IV-ML 500kV SPS 6.8B	215	259	1.41	1.41	1.40	1.41
	line IV-ML 500kV SPS 6.8C	215	259	1.43	1.43	1.43	1.43
	line IV-ML 500kV SPS 6.8D	215	259	1.49	1.49	1.48	1.49
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	line CREELMAN to LOSCOCHS 69 ck 1	71	71	1.02	1.02	1.02	1.02
LINE SOUTHBAY 69kV-SWEETWTR 69kV ck1	line MONTGMRY to MONTGYTP 69 ck 1	97	136	1.41	1.62	1.43	1.64
LINE SWEETWTR 69kV-MONTGYTP 69kV ck1	line SOUTHBAY to SWEETWTR 69 ck 1	157	157		1.08		1.09
LINE BORDER 69kV-BORDERTP 69kV ck1	line MIGUEL to BORDER 69 ck 1	103	103	1.24	1.24	1.24	1.24
LINE OTAYLKTP 69kV-BORDERTP 69kV ck1	line MIGUEL to BORDER 69 ck 1	97	136	1.28	1.28	1.28	1.28
LINE TL649 69kV-OTAYLKTP 69kV ck1	line MIGUEL to BORDER 69 ck 1	50	50	1.27	1.26	1.23	1.22
LINE POMERADO 69kV-SYCAMORE 69kV ck2	line POMERADO to SYCAMORE 69 ck 1	97	136	1.20	1.20		
LINE POMERADO 69kV-SYCAMORE 69kV ck1	line POMERADO to SYCAMORE 69 ck 2	97	136	1.19	1.20		
TRAN MIGUEL 230kV-MIGUEL 500kV ck2	tran MIGUEL 230 to MIGUELMP 500 ck 1	1120	1344	1.06	1.06	1.06	1.05

Post Processor 08HS MMC 3BD Category C MVA1

Monitored Element	Contingency Description	MVA1	MVA2	08ESYNOY Pre3	08ESYNOY Post3	08ESYOOY Pre3	08ESYOOY Post3
LINE BORREGO 69kV-NARROWS 69kV ck1	Creelman 69kV E Bus	12.5	14.5	1.02	1.02		1.02
	Santa Ysabel 69kV Bus	12.5	14.5	1.04	1.04		1.04
LINE MAINST51 138kV-SOUTHBAY 138kV ck1	Sweetwater 69kV Bus	150	150	1.07	1.10	1.08	1.10
	line SY-MI50 & SY-GRNT 138 ck 1	150	150	1.25	1.25	1.26	1.25
LINE SANYSYRO 69kV-OTAYLKTP 69kV ck1	Otay 69kV W Bus	50	50	1.19	1.19		
	Otay 69kV E Bus	50	50	1.09	1.20		
	Miguel 69kV S Bus	50	50	1.42	1.45	1.46	1.47
	Otay 69kV Bus	50	50			1.16	1.16
LINE MESAHGTS 69kV-MISSION 69kV ck1	Mission 69kV N Bus	97	136	1.34	1.35	1.36	1.37
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV N Bus	97	102	1.11	1.09	1.03	1.07
	PEN-ES 1/2 230KV	97	102	1.00			
LINE ESCNDIDO 69kV-SANMRCOS 69kV ck1	SA5W TRIPS SA LOAD	97	129	1.16	1.20	1.28	1.25
	SA5W TRIP TL695	97	129	1.58	1.62	1.70	1.67
LINE TALEGA 69kV-TALEGATP 69kV ck1	SA5W TRIPS SM LOAD	24	24		1.02	1.03	1.04
TRAN SANLUSRY 138kV-SANLUSRY 69kV ck1	SA5W TRIPS SA LOAD	140	160	1.31	1.26	1.20	1.22
	SA5W TRIPS SM LOAD	140	160	1.50	1.46	1.39	1.41
	SA5W TRIP TL695	140	160	1.76	1.72	1.65	1.67
	PQ-NCW + EA-BQ-PQ 138KV	140	160	1.21	1.03		
LINE OCNSDETP 69kV-STUARTTP 69kV ck1	TA-SO 1 + 2 230KV	32	32	1.07	1.06	1.05	1.06
LINE STUARTTP 69kV-LASPULGS 69kV ck1	TA-SO 1 + 2 230KV	32	32	1.02	1.01		1.00
LINE TALEGA 138kV-MARGARTA 138kV ck1	TA-TB + TA-PI 138KV	273	292	1.04	1.04	1.04	1.04
LINE TALEGA 138kV-SANMATEO 138kV ck1	TA-TB + TA-PI 138KV	136	136	1.19	1.19	1.19	1.19
	PI-CP + TA-TB 138KV	136	136	1.06	1.06	1.07	1.07
LINE CAPSTRNO 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	157	157	1.10	1.10	1.10	1.10
LINE TALEGA 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	204	204	1.04	1.04	1.04	1.04
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	Los Coches 69kV W Bus	71	71	1.04	1.03	1.06	1.03
LINE LOSCOCHS 138kV-SOUTHBAY 138kV ck1	CH-SX-SN+LC-EL 138/69 KV	191	200	1.00	1.01		
LINE SOUTHBAY 69kV-SWEETWTR 69kV ck1	Southbay 69kV S Bus	97	136	1.74	1.94	1.76	1.97
LINE SWEETWTR 69kV-MONTGYTP 69kV ck1	Southbay 69kV N Bus	157	157		1.08		1.09
LINE DEL MAR 69kV-PENSQTOS 69kV ck1	Penasquitos 69kV NW Bus	50	50	1.08	1.07		
	PEN-ES 1/2 230KV	50	50	1.01	1.01		
LINE MELROSE 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV S Bus	97	102	1.01	1.00		
LINE ESCNDIDO 69kV-ASH 69kV ck1	Escondido 69kV SW Bus	120	120	1.00	1.00	1.02	1.01

Monitored Element	Contingency Description	MVA1	MVA2	08ESYNOY Pre3	08ESYNOY Post3	08ESYOOY Pre3	08ESYOOY Post3
LINE BORDER 69kV-BORDERTP 69kV ck1	Miguel 69kV S Bus	103	103	1.24	1.24	1.24	1.24
LINE OTAYLKTP 69kV-BORDERTP 69kV ck1	Miguel 69kV S Bus	97	136	1.28	1.28	1.28	1.28
LINE TL649 69kV-OTAYLKTP 69kV ck1	Miguel 69kV S Bus	50	50	1.26	1.26	1.22	1.21
LINE POMERADO 69kV-SYCAMORE 69kV ck2	Sycamore 69kV S Bus	97	136	1.40	1.40	1.31	1.35
LINE DEL MAR 69kV-DELMARTP 69kV ck1	Del Mar 69kV E Bus	50	54	1.07	1.07	1.08	1.08
LINE ESCNDIDO 69kV-FELCTATP 69kV ck1	Escondido 69kV SW Bus	102	113			1.00	
LINE MIGUEL 69kV-JAMACHA 69kV ck1	Jamacha 69kV N Bus	97	136		1.21		
	Miguel 69kV N Bus	97	136	1.31	1.32	1.26	1.26
LINE MONSRATE 69kV-MNSRATTP 69kV ck1	Lilac 69kV S Bus	77	77	1.00	1.00	1.01	1.01
LINE B 69kV-MAIN ST 69kV ck2	Main St 69kV W Bus	97	111	1.10	1.15	1.13	1.16
LINE EL CAJON 69kV-LOSCOCHS 69kV ck1	Murray 69kV N Bus	55	59	1.13	1.11		
LINE GARFIELD 69kV-EL CAJON 69kV ck1	Murray 69kV N Bus	97	102	1.23	1.23	1.24	1.23
LINE GRANITE 69kV-GRANITTP 69kV ck1	Murray 69kV N Bus	97	119	1.18	1.18	1.08	1.06
	ML-JM 1 + 2 69KV	97	119	1.08	1.08		
LINE BERNARDO 69kV-R.CARMEL 69kV ck1	Poway 69kV Bus	68	76	1.53	1.53	1.52	1.53
	POM-SX 1 + 2 69KV	68	76	1.28	1.28	1.28	1.30
LINE R.SNTAFE 69kV-R.SNTATP 69kV ck1	PEN-ES 1/2 230KV	64	64	1.29	1.28		1.08
LINE POWAY 69kV-POMERADO 69kV ck1	PEN-ES 1/2 230KV	97	136	1.34	1.35	1.21	1.29
TRAN SOUTHBAY 69kV-SOUTHBAY 138kV ck1	line SY-MI51 & SY-MI50 138 ck 1	140	143	1.01			
LINE CHOLLAS 69kV-SPRNGVLY 69kV ck1	ML-JM 1 + 2 69KV	97	136	1.21	1.25		
LINE PENSQTOS 69kV-DELMARTP 69kV ck1	Penasquitos 69kV SE Bus	97	129	1.13			

Post Processor 08HS MMC 3BDCatagory B MVA2

Monitored Element	Contingency Description	MVA1	MVA2	08ESYNOY Pre3	08ESYNOY Post3	08ESYOOY Pre3	08ESYOOY Post3
LINE MAINST51 138kV-SOUTHBAY 138kV ck1	line SOUTHBAY to MAINST50 138 ck 1	150	150	1.071	1.058	1.072	1.048
LINE SANYSYRO 69kV-OTAYLKTP 69kV ck1	line MIGUEL to BORDER 69 ck 1	50	50	1.416	1.455	1.462	1.466
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	line MELROSE to SANLUSRY 69 ck 1	97	102	1.018	1.004		
LINE ELCENTRO 230kV-IMPRLVLY 230kV ck1	line IV-ML 500kV SPS 6.8A	215	259	1.121	1.121	1.119	1.121
	line IV-ML 500kV SPS 6.8B	215	259	1.166	1.166	1.164	1.166
	line IV-ML 500kV SPS 6.8C	215	259	1.187	1.187	1.185	1.187
	line IV-ML 500kV SPS 6.8D	215	259	1.233	1.233	1.231	1.233
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	line CREELMAN to LOSCOCHS 69 ck 1	71	71	1.021	1.019	1.022	1.018
LINE SOUTHBAY 69kV-SWEETWTR 69kV ck1	line MONTGMRY to MONTGYTP 69 ck 1	97	136	1.007	1.158	1.019	1.169
LINE SWEETWTR 69kV-MONTGYTP 69kV ck1	line SOUTHBAY to SWEETWTR 69 ck 1	157	157		1.084		1.094
LINE BORDER 69kV-BORDERTP 69kV ck1	line MIGUEL to BORDER 69 ck 1	103	103	1.242	1.242	1.242	1.241
LINE TL649 69kV-OTAYLKTP 69kV ck1	line MIGUEL to BORDER 69 ck 1	50	50	1.266	1.258	1.229	1.219

Post Processor 08HS MMC 3BD Category C MVA2

Monitored Element	Contingency Description	MVA1	MVA2	08ESYNOY Pre3	08ESYNOY Post3	08ESYOOY Pre3	08ESYOOY Post3
LINE MAINST51 138kV-SOUTHBAY 138kV ck1	Sweetwater 69kV Bus	150	150	1.071	1.095	1.082	1.097
	line SY-MI50 & SY-GRNT 138 ck 1	150	150	1.25	1.25	1.26	1.245
LINE SANYSYRO 69kV-OTAYLKTP 69kV ck1	Otay 69kV W Bus	50	50	1.192	1.192		
	Otay 69kV E Bus	50	50	1.094	1.203		
	Miguel 69kV S Bus	50	50	1.416	1.452	1.462	1.466
	Otay 69kV Bus	50	50			1.155	1.155
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV N Bus	97	102	1.054	1.04		1.014
LINE ESCNDIDO 69kV-SANMRCOS 69kV ck1	SA5W TRIP TL695	97	129	1.188	1.22	1.276	1.259
LINE TALEGA 69kV-TALEGATP 69kV ck1	SA5W TRIPS SM LOAD	24	24		1.018	1.026	1.039
TRAN SANLUSRY 138kV-SANLUSRY 69kV ck1	SA5W TRIPS SA LOAD	140	160	1.143	1.106	1.046	1.065
	SA5W TRIPS SM LOAD	140	160	1.313	1.276	1.218	1.236
	SA5W TRIP TL695	140	160	1.535	1.502	1.443	1.463
	PQ-NCW + EA-BQ-PQ 138KV	140	160	1.061			
LINE OCNSDETP 69kV-STUARTTP 69kV ck1	TA-SO 1 + 2 230KV	32	32	1.07	1.061	1.054	1.059
LINE STUARTTP 69kV-LASPULGS 69kV ck1	TA-SO 1 + 2 230KV	32	32	1.016	1.006		1.004
LINE TALEGA 138kV-SANMATEO 138kV ck1	TA-TB + TA-PI 138KV	136	136	1.186	1.186	1.188	1.188
	PI-CP + TA-TB 138KV	136	136	1.063	1.063	1.065	1.065
LINE CAPSTRNO 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	157	157	1.102	1.102	1.104	1.104
LINE TALEGA 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	204	204	1.037	1.037	1.039	1.039
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	Los Coches 69kV W Bus	71	71	1.035	1.033	1.059	1.03
LINE SOUTHBAY 69kV-SWEETWTR 69kV ck1	Southbay 69kV S Bus	97	136	1.242	1.38	1.258	1.401
LINE SWEETWTR 69kV-MONTGYTP 69kV ck1	Southbay 69kV N Bus	157	157		1.078		1.088
LINE DEL MAR 69kV-PENSQTOS 69kV ck1	Penasquitos 69kV NW Bus	50	50	1.077	1.065		
	PEN-ES 1/2 230KV	50	50	1.013	1.008		
LINE ESCNDIDO 69kV-ASH 69kV ck1	Escondido 69kV SW Bus	120	120	1.001	1.004	1.023	1.005
LINE BORDER 69kV-BORDERTP 69kV ck1	Miguel 69kV S Bus	103	103	1.241	1.241	1.241	1.241
LINE TL649 69kV-OTAYLKTP 69kV ck1	Miguel 69kV S Bus	50	50	1.261	1.256	1.22	1.214
LINE POMERADO 69kV-SYCAMORE 69kV ck2	Sycamore 69kV S Bus	97	136		1.001		
LINE MONSRATE 69kV-MNSRATTP 69kV ck1	Lilac 69kV S Bus	77	77	1.003	1.003	1.005	1.005
LINE B 69kV-MAIN ST 69kV ck2	Main St 69kV W Bus	97	111		1.004		1.009
LINE EL CAJON 69kV-LOSCOCHS 69kV ck1	Murray 69kV N Bus	55	59	1.056	1.031		
LINE GARFIELD 69kV-EL CAJON 69kV ck1	Murray 69kV N Bus	97	102	1.172	1.173	1.182	1.168
LINE BERNARDO 69kV-R.CARMEL 69kV ck1	Poway 69kV Bus	68	76	1.368	1.368	1.364	1.367

Monitored Element	Contingency Description	MVA1	MVA2	08ESYNOY Pre3	08ESYNOY Post3	08ESYOOY Pre3	08ESYOOY Post3
	POM-SX 1 + 2 69KV	68	76	1.146	1.144	1.141	1.158
LINE R.SNTAFE 69kV-R.SNTATP 69kV ck1	PEN-ES 1/2 230KV	64	64	1.291	1.277		1.077

Post Processor 10HS MMC EXISTING SY 0BD Category B MVA1

Monitored Element	Contingency Description	MVA1	MVA2	10ESYNOY Pre0	10ESYNOY Post0	10ESYOOY Pre0	10ESYOOY Post0
LINE MESAHGTS 69kV-MISSION 69kV ck1	line KEARNY to MISSION 69 ck 1	97	136	1.27	1.29	1.22	1.23
LINE SYCAMORE 69kV-SCRIPPS 69kV ck1	line PENSQTOS to MESA RIM 69 ck 1	102	130	1.14	1.16	1.14	1.16
	tran PENSQTOS 230 to PENSQTOS 69 ck 1	102	130		1.09		1.09
	tran PENSQTOS 230 to PENSQTOS 69 ck 2	102	130		1.10		1.09
LINE TALEGA 230kV-S.ONOFRE 230kV ck1	line TALEGA to S.ONOFRE 230 ck 1	456	577	1.55	1.61	1.55	1.61
LINE TALEGA 230kV-S.ONOFRE 230kV ck2	line TALEGA to S.ONOFRE 230 ck 2	456	577	1.55	1.61	1.55	1.61
TRAN SYCAMORE 230kV-SYCAMORE 69kV ck1	tran SYCAMORE 230 to SYCAMORE 69 ck 2	224	285	1.19	1.21	1.19	1.20
TRAN SOUTHBAY 69kV-SOUTHBAY 138kV ck1	line MIGUEL to BORDER 69 ck 1	140	143	1.10	1.02	1.09	1.02
	line MISSION to GRNT HLL 138 ck 1	140	143	1.35	1.29	1.33	1.29
	line GRNT HLL to SOUTHBAY 138 ck 1	140	143	1.38	1.32	1.36	1.32
	line CARLTNHS-SANTEE 138	140	143	1.00			
	line LOSCOCHS to SOUTHBAY 138 ck 1	140	143	1.23	1.16	1.22	1.16
	line OLD TOWN to KETTNER 69 ck 1	140	143	1.12	1.05	1.11	1.04
	line CHOLLAS to SWEETWTR 69 ck 1	140	143	1.01			
	line EL CAJON to JAMACHA 69 ck 1	140	143	1.00			
	line SAMPSON to DIVISION 69 ck 1	140	143	1.02		1.00	
	tran MIGUEL 69 to MIGUEL 230 ck 1	140	143	1.20	1.12	1.18	1.12
	tran MIGUEL 69 to MIGUEL 230 ck 2	140	143	1.20	1.12	1.18	1.12
	tran OLD TOWN 69 to OLD TOWN 230 ck 1	140	143	1.10	1.03	1.09	1.03
	tran OLD TOWN 69 to OLD TOWN 230 ck 2	140	143	1.10	1.03	1.09	1.03
	tran SYCAMORE 230 to SYCAMORE 138 ck 1	140	143	1.02		1.01	
	tran LOSCOCHS 138 to LOSCOCHS 69 ck 1	140	143	1.09	1.02	1.08	1.01
	tran LOSCOCHS 69 to LOSCOCHS 138 ck 2	140	143	1.09	1.02	1.07	1.01
	gen OTAY_49 13.80	140	143	1.15		1.13	
	gen SOUTHBY1 15.00	140	143	1.36	1.29	1.35	1.28
	gen DIVISION 69.00	140	143	1.10	1.03	1.09	1.02
	gen OTAY_46A 13.80	140	143		1.07		1.06
gen OTAY_46B 13.80	140	143		1.07		1.06	
line KETTNER to B 69 ck 1	140	143	1.08		1.07		
LINE SOUTHBAY 69kV-IMPRLBCH 69kV ck1	line MIGUEL to BORDER 69 ck 1	55	55			1.01	
LINE TL649 69kV-OTAYLKTP 69kV ck1	line IMPRLBCH to OTAY TP 69 ck 1	50	50	1.01	1.12		1.05
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	line CREELMAN to LOSCOCHS 69 ck 1	71	71	1.12	1.12	1.12	1.12
LINE SHADOWR 138kV-ESCND050 138kV ck1	line CANNON-SANLUSRY-SHADOWR 138	63	73	1.17	1.18	1.17	1.18
TRAN ESCND050 138kV-ESCNDIDO 69kV ck2	line CANNON-SANLUSRY-SHADOWR 138	63	73	1.10	1.10	1.10	1.10

Monitored Element	Contingency Description	MVA1	MVA2	10ESYNOY Pre0	10ESYNOY Post0	10ESYOOY Pre0	10ESYOOY Post0
LINE LOSCOCHS 138kV-SOUTHBAY 138kV ck1	line MISSION to GRNT HLL 138 ck 1	204.1	204.1	1.03	1.07	1.04	1.07
	line GRNT HLL to SOUTHBAY 138 ck 1	204.1	204.1	1.06	1.10	1.07	1.10
	line CARLTNHS-SANTEE 138	204.1	204.1	1.03	1.04	1.04	1.04
LINE SOUTHBAY 69kV-SWEETWTR 69kV ck1	line MONTGMRY to MONTGYTP 69 ck 1	97	136	1.37	1.58	1.39	1.61
LINE SWEETWTR 69kV-MONTGYTP 69kV ck1	line SOUTHBAY to SWEETWTR 69 ck 1	157	157		1.05		1.07
LINE PENSQTOS 69kV-DELMARTP 69kV ck1	line PENSQTOS to TOREYPNS 69 ck 1	97	129		1.13		1.13
LINE KEARNY 69kV-MISSION 69kV ck1	line MESAHGTS to MISSION 69 ck 1	97	129	1.20	1.22	1.14	1.16
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	line MELROSE to SANLUSRY 69 ck 1	97	102	1.12	1.14	1.12	1.14
LINE POMERADO 69kV-SYCAMORE 69kV ck2	line POMERADO to SYCAMORE 69 ck 1	97	136	1.33	1.36	1.33	1.35
LINE POMERADO 69kV-SYCAMORE 69kV ck1	line POMERADO to SYCAMORE 69 ck 2	97	136	1.33	1.36	1.33	1.35
TRAN SYCAMORE 230kV-SYCAMORE 69kV ck2	tran SYCAMORE 230 to SYCAMORE 69 ck 1	224	269	1.17	1.19	1.17	1.19
TRAN LOSCOCHS 69kV-LOSCOCHS 138kV ck2	tran LOSCOCHS 138 to LOSCOCHS 69 ck 1	140	155	1.15	1.15	1.15	1.15
TRAN LOSCOCHS 138kV-LOSCOCHS 69kV ck1	tran LOSCOCHS 69 to LOSCOCHS 138 ck 2	150	180	1.09	1.08	1.08	1.08
LINE TL6929 69kV-TL6929MN 69kV ck1	tran SOUTHBAY 69 to SOUTHBAY 138 ck 1	64	64				1.44
	gen SOUTHBY1 15.00	64	64				1.44
LINE CLAIMNT 69kV-MISSION 69kV ck1	line MESAHGTS to MISSION 69 ck 1	50	50			1.03	1.05

Post Processor 10HS MMC EXISTING SY 0BD Category C MVA1

Monitored Element	Contingency Description	MVA1	MVA2	10ESYNOY Pre0	10ESYNOY Post0	10ESYOOY Pre0	10ESYOOY Post0
LINE MESAHGTS 69kV-MISSION 69kV ck1	Mission 69kV N Bus	97	136			1.49	1.51
	Kearny 69kV E Bus	97	136	1.27	1.29	1.22	1.23
LINE POWAY 69kV-POMERADO 69kV ck1	SX-PEN + PEN-EA-SA 230KV	97	136		1.20		
	PEN-ES 1/2 230KV	97	136	1.38	1.39	1.38	1.36
	SX-PEN 230KV + BE-AR 69KV	97	136		1.20		
	SX-PEN 230KV + AR-SX 69KV	97	136	1.23	1.30	1.24	1.27
LINE SYCAMORE 69kV-SCRIPPS 69kV ck1	line POMERADO-SYCAMORE 69 ck 1/2	102	130	1.10	1.14	1.10	1.13
	Penasquitos 69kV SE Bus	102	130	1.13	1.15	1.13	1.15
	POM-SX 1 + 2 69KV	102	130	1.10	1.13	1.10	1.12
	MR-PQ 69KV + PQ-MRM 69KV	102	130	1.45	1.47	1.45	1.46
LINE TALEGA 230kV-S.ONOFRE 230kV ck1	PEN-ES 1/2 230KV	456	577	1.20	1.22	1.20	1.21
LINE TALEGA 230kV-S.ONOFRE 230kV ck2	PEN-ES 1/2 230KV	456	577	1.20	1.22	1.20	1.21
TRAN SOUTHBAY 69kV-SOUTHBAY 138kV ck1	Otay 69kV W Bus	140	143	1.10	1.11		
	Otay 69kV E Bus	140	143	1.02			
	ML BK71 & Miguel - Mission #1 230 kV	140	143	1.22	1.15	1.20	1.14
	El Cajon 69kV S Bus	140	143	1.00			
	Jamacha 69kV S Bus	140	143	1.02		1.01	
	Los Coches 69kV E Bus	140	143	1.09	1.03	1.08	1.02
	Los Coches 69kV W Bus	140	143	1.12	1.05	1.10	1.04
	Miguel 69kV N Bus	140	143	1.01			
	Miguel 69kV S Bus	140	143	1.32	1.23	1.31	1.23
	Murray 69kV N Bus	140	143	1.13	1.06	1.11	1.05
	CH-SX-SN 138KV + SAN VCNT-EL 69KV	140	143	1.00			
	LC-SY + SY-TC 138KV	140	143	1.36	1.29	1.35	1.28
	LC-SY+ML-LC 138/69KV	140	143	1.21	1.14	1.20	1.13
	PV-TC + LC-SY 138KV	140	143	1.23	1.16	1.22	1.15
	Station B 69kV N Bus	140	143	1.08		1.07	
	Otay 69kV Bus	140	143				1.06
	El Cajon 69kV N Bus	140	143			1.07	
LINE SOUTHBAY 69kV-IMPRLBCH 69kV ck1	Miguel 69kV S Bus	55	55			1.01	
	Sweetwater 69kV Bus	55	55			1.10	1.11
	Southbay 69kV S Bus	55	55			1.09	
	Otay 69kV Bus	55	55			1.33	1.33
LINE TL649 69kV-OTAYLKTP 69kV ck1	Otay 69kV E Bus	50	50		1.10		

Monitored Element	Contingency Description	MVA1	MVA2	10ESYNOY Pre0	10ESYNOY Post0	10ESYOOY Pre0	10ESYOOY Post0
	Sweetwater 69kV Bus	50	50	1.13	1.33		1.15
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	Creelman 69kV E Bus	71	71	1.09	1.09	1.09	1.09
	Los Coches 69kV W Bus	71	71	1.13	1.14	1.13	1.13
LINE CALAVRTP 138kV-SHADOWR 138kV ck1	PEN-ES 1/2 230KV	112	112	1.19	1.14	1.18	1.13
LINE TALEGA 138kV-MARGARTA 138kV ck1	TA-TB + TA-PI 138KV	273	292	1.14	1.14	1.14	1.14
LINE TALEGA 138kV-SANMATEO 138kV ck1	TA-TB + TA-PI 138KV	136	136	1.27	1.27	1.27	1.27
	PI-CP + TA-TB 138KV	136	136	1.13	1.13	1.13	1.13
LINE SHADOWR 138kV-ESCND050 138kV ck1	PEN-ES 1/2 230KV	63	73	1.12	1.04	1.11	1.02
	CAN-SA-SH + EA-CAN 138KV	63	73	1.17	1.18	1.17	1.18
TRAN ESCND050 138kV-ESCNDIDO 69kV ck2	PEN-ES 1/2 230KV	63	73	1.12	1.04	1.11	1.02
	CAN-SA-SH + EA-CAN 138KV	63	73	1.10	1.10	1.10	1.10
LINE CAPSTRNO 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	157	157	1.17	1.17	1.17	1.17
LINE TALEGA 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	204	204	1.11	1.11	1.11	1.11
LINE LOSCOCHS 138kV-SOUTHBAY 138kV ck1	CH-SX-SN 138KV + SAN VCNT-EL 69KV	204.1	204.1	1.03	1.04	1.04	1.04
	CH-SX-SN+LC-EL 138/69 KV	204.1	204.1	1.07	1.07	1.07	1.08
LINE EL CAJON 69kV-LOSCOCHS 69kV ck1	Murray 69kV N Bus	55	59	1.30	1.27	1.30	1.28
LINE SOUTHBAY 69kV-SWEETWTR 69kV ck1	Southbay 69kV S Bus	97	136	1.73	1.93	1.75	1.97
LINE SWEETWTR 69kV-MONTGYTP 69kV ck1	Southbay 69kV N Bus	157	157		1.07		1.08
LINE PENSQTOS 69kV-DELMARTP 69kV ck1	Del Mar 69kV E Bus	97	129	1.13	1.14	1.13	1.14
	Penasquitos 69kV SE Bus	97	129	1.14	1.14	1.14	1.14
LINE PENSQTOS 69kV-MIRAMRTP 69kV ck1	Miramar 69kV E Bus	97	102	1.00			
	Penasquitos 69kV SE Bus	97	102	1.13	1.10	1.10	1.08
	MR-PQ 69KV + PQ-MRM 69KV	97	102	1.30	1.27	1.28	1.26
LINE KEARNY 69kV-MISSION 69kV ck1	Mission 69kV S Bus	97	129	1.21	1.23	1.16	1.17
LINE MELROSE 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV S Bus	97	102	1.05	1.07	1.05	1.07
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV N Bus	97	102	1.15	1.17	1.15	1.18
LINE POMERADO 69kV-SYCAMORE 69kV ck2	Sycamore 69kV S Bus	97	136	1.57	1.61	1.57	1.59
TRAN LOSCOCHS 69kV-LOSCOCHS 138kV ck2	Los Coches 69kV W Bus	140	155	1.04	1.04	1.04	1.04
TRAN LOSCOCHS 138kV-LOSCOCHS 69kV ck1	Los Coches 69kV E Bus	150	180	1.07	1.06	1.07	1.06
LINE DEL MAR 69kV-DELMARTP 69kV ck1	Del Mar 69kV E Bus	50	54	1.11	1.11	1.11	1.11
LINE MONSRATE 69kV-MNSRATTP 69kV ck1	Lilac 69kV S Bus	77	77	1.01	1.01	1.01	1.01
LINE MIGUEL 69kV-JAMACHA 69kV ck1	Miguel 69kV N Bus	97	136	1.20	1.23	1.20	1.22
LINE MIGUEL 69kV-JAMACHA 69kV ck2	Miguel 69kV S Bus	136	143	1.03	1.02	1.03	1.03
LINE B 69kV-MAIN ST 69kV ck2	Main St 69kV W Bus	97	111	1.02	1.06	1.02	1.05

Monitored Element	Contingency Description	MVA1	MVA2	10ESYNOY Pre0	10ESYNOY Post0	10ESYOOY Pre0	10ESYOOY Post0
LINE GARFIELD 69kV-EL CAJON 69kV ck1	Murray 69kV N Bus	97	102	1.26	1.26	1.26	1.27
LINE GRANITE 69kV-GRANITTP 69kV ck1	Murray 69kV N Bus	97.5	136.8	1.21	1.21	1.22	1.22
LINE MURRAY 69kV-GARFIELD 69kV ck1	Murray 69kV N Bus	97	103				1.00
LINE BERNARDO 69kV-R.CARMEL 69kV ck1	Poway 69kV Bus	68	76	1.53	1.53	1.53	1.54
	POM-SX 1 + 2 69KV	68	76	1.34	1.35	1.34	1.34
LINE SANYSYRO 69kV-OTAY TP 69kV ck1	Sweetwater 69kV Bus	50	50				1.04
LINE R.SNTAFE 69kV-R.SNTATP 69kV ck1	PEN-ES 1/2 230KV	64	64	1.00		1.01	
LINE SANMATEO 138kV-LAGNA NL 138kV ck1	TA-TB + TA-PI 138KV	136	136	1.02	1.02	1.02	1.02
LINE CHOLLAS 69kV-SPRNGVLY 69kV ck1	ML-JM 1 + 2 69KV	97	136		1.20		1.20
LINE STUART 69kV-STUARTTP 69kV ck1	Penasquitos 69kV SE Bus	4	4	2.17			
	Descanso 69kV Bus	4	4				1.93
LINE TL6929 69kV-TL6929MN 69kV ck1	Miguel 69kV S Bus	64	64				1.45
LINE CLAIMNT 69kV-MISSION 69kV ck1	Mission 69kV S Bus	50	50			1.05	1.07

Post Processor 10HS MMC EXISTING SY 0BD Category B MVA2

Monitored Element	Contingency Description	MVA1	MVA2	10ESYNOY Pre0	10ESYNOY Post0	10ESYOOY Pre0	10ESYOOY Post0
LINE TALEGA 230kV-S.ONOFRE 230kV ck1	line TALEGA to S.ONOFRE 230 ck 1	456	577	1.225	1.275	1.227	1.272
LINE TALEGA 230kV-S.ONOFRE 230kV ck2	line TALEGA to S.ONOFRE 230 ck 2	456	577	1.225	1.275	1.227	1.272
TRAN SOUTHBAY 69kV-SOUTHBAY 138kV ck1	line MIGUEL to BORDER 69 ck 1	140	143	1.073		1.069	
	line MISSION to GRNT HLL 138 ck 1	140	143	1.319	1.266	1.305	1.258
	line GRNT HLL to SOUTHBAY 138 ck 1	140	143	1.349	1.296	1.335	1.288
	line LOSCOCHS to SOUTHBAY 138 ck 1	140	143	1.203	1.138	1.19	1.13
	line OLD TOWN to KETTNER 69 ck 1	140	143	1.1	1.024	1.088	1.018
	tran MIGUEL 69 to MIGUEL 230 ck 1	140	143	1.17	1.099	1.158	1.094
	tran MIGUEL 69 to MIGUEL 230 ck 2	140	143	1.17	1.099	1.158	1.094
	tran OLD TOWN 69 to OLD TOWN 230 ck 1	140	143	1.08	1.012	1.067	1.004
	tran OLD TOWN 69 to OLD TOWN 230 ck 2	140	143	1.08	1.012	1.067	1.004
	tran LOSCOCHS 138 to LOSCOCHS 69 ck 1	140	143	1.066		1.052	
	tran LOSCOCHS 69 to LOSCOCHS 138 ck 2	140	143	1.065		1.051	
	gen OTAY_49 13.80	140	143	1.123		1.11	
	gen SOUTHBAY1 15.00	140	143	1.33	1.258	1.317	1.251
	gen DIVISION 69.00	140	143	1.076	1.009	1.063	1.001
	gen OTAY_46A 13.80	140	143		1.046		1.038
	gen OTAY_46B 13.80	140	143		1.046		1.038
line KETTNER to B 69 ck 1	140	143	1.055		1.043		
LINE SOUTHBAY 69kV-IMPRLBCH 69kV ck1	line MIGUEL to BORDER 69 ck 1	55	55			1.005	
LINE TL649 69kV-OTAYLKTP 69kV ck1	line IMPRLBCH to OTAY TP 69 ck 1	50	50	1.006	1.12		1.052
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	line CREELMAN to LOSCOCHS 69 ck 1	71	71	1.116	1.12	1.117	1.119
LINE SHADOWR 138kV-ESCND050 138kV ck1	line CANNON-SANLUSRY-SHADOWR 138	63	73	1.013	1.015	1.013	1.015
LINE LOSCOCHS 138kV-SOUTHBAY 138kV ck1	line MISSION to GRNT HLL 138 ck 1	204.1	204.1	1.033	1.067	1.036	1.07
	line GRNT HLL to SOUTHBAY 138 ck 1	204.1	204.1	1.062	1.096	1.065	1.099
	line CARLTNHS-SANTEE 138	204.1	204.1	1.034	1.042	1.036	1.044
LINE SOUTHBAY 69kV-SWEETWTR 69kV ck1	line MONTGMRY to MONTGYTP 69 ck 1	97	136		1.128		1.15
LINE SWEETWTR 69kV-MONTGYTP 69kV ck1	line SOUTHBAY to SWEETWTR 69 ck 1	157	157		1.049		1.07
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	line MELROSE to SANLUSRY 69 ck 1	97	102	1.066	1.08	1.065	1.086
TRAN LOSCOCHS 69kV-LOSCHS 138kV ck2	tran LOSCOCHS 138 to LOSCOCHS 69 ck 1	140	155	1.042	1.036	1.041	1.035
LINE TL6929 69kV-TL6929MN 69kV ck1	tran SOUTHBAY 69 to SOUTHBAY 138 ck 1	64	64				1.44
	gen SOUTHBAY1 15.00	64	64				1.442
LINE CLAIMNT 69kV-MISSION 69kV ck1	line MESAHTGS to MISSION 69 ck 1	50	50			1.032	1.052

Post Processor 10HS MMC EXISTING SY 0BD Category C MVA2

Monitored Element	Contingency Description	MVA1	MVA2	10ESYNOY Pre0	10ESYNOY Post0	10ESYOOY Pre0	10ESYOOY Post0
LINE MESAHGTS 69kV-MISSION 69kV ck1	Mission 69kV N Bus	97	136			1.065	1.078
LINE SYCAMORE 69kV-SCRIPPS 69kV ck1	MR-PQ 69KV + PQ-MRM 69KV	102	130	1.135	1.152	1.134	1.149
TRAN SOUTHBAY 69kV-SOUTHBAY 138kV ck1	Otay 69kV W Bus	140	143	1.077	1.088		
	ML BK71 & Miguel - Mission #1 230 kV	140	143	1.191	1.121	1.178	1.115
	Los Coches 69kV E Bus	140	143	1.071	1.003	1.058	
	Los Coches 69kV W Bus	140	143	1.094	1.025	1.081	1.018
	Miguel 69kV S Bus	140	143	1.289	1.2	1.284	1.207
	Murray 69kV N Bus	140	143	1.104	1.034	1.091	1.027
	LC-SY + SY-TC 138KV	140	143	1.333	1.265	1.32	1.257
	LC-SY+ML-LC 138/69KV	140	143	1.183	1.117	1.17	1.11
	PV-TC + LC-SY 138KV	140	143	1.205	1.139	1.19	1.129
	Station B 69kV N Bus	140	143	1.057		1.045	
	Otay 69kV Bus	140	143				1.04
	El Cajon 69kV N Bus	140	143			1.048	
LINE SOUTHBAY 69kV-IMPRLBCH 69kV ck1	Miguel 69kV S Bus	55	55			1.008	
	Sweetwater 69kV Bus	55	55			1.104	1.112
	Southbay 69kV S Bus	55	55			1.089	
	Otay 69kV Bus	55	55			1.332	1.326
LINE TL649 69kV-OTAYLKTP 69kV ck1	Otay 69kV E Bus	50	50		1.096		
	Sweetwater 69kV Bus	50	50	1.13	1.326		1.151
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	Creelman 69kV E Bus	71	71	1.091	1.094	1.091	1.094
	Los Coches 69kV W Bus	71	71	1.129	1.135	1.13	1.133
LINE CALAVRTP 138kV-SHADOWR 138kV ck1	PEN-ES 1/2 230KV	112	112	1.187	1.138	1.181	1.127
LINE TALEGA 138kV-MARGARTA 138kV ck1	TA-TB + TA-PI 138KV	273	292	1.066	1.066	1.066	1.065
LINE TALEGA 138kV-SANMATEO 138kV ck1	TA-TB + TA-PI 138KV	136	136	1.274	1.273	1.274	1.273
	PI-CP + TA-TB 138KV	136	136	1.132	1.131	1.132	1.131
LINE SHADOWR 138kV-ESCND050 138kV ck1	CAN-SA-SH + EA-CAN 138KV	63	73	1.013	1.015	1.013	1.015
LINE CAPSTRNO 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	157	157	1.168	1.167	1.168	1.167
LINE TALEGA 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	204	204	1.111	1.111	1.112	1.111
LINE LOSCOCHS 138kV-SOUTHBAY 138kV ck1	CH-SX-SN 138KV + SAN VCNT-EL 69KV	204.1	204.1	1.034	1.042	1.036	1.044
	CH-SX-SN+LC-EL 138/69 KV	204.1	204.1	1.068	1.074	1.07	1.077
LINE EL CAJON 69kV-LOSOCOCHS 69kV ck1	Murray 69kV N Bus	55	59	1.209	1.182	1.214	1.194
LINE SOUTHBAY 69kV-SWEETWTR 69kV ck1	Southbay 69kV S Bus	97	136	1.233	1.376	1.251	1.404

Monitored Element	Contingency Description	MVA1	MVA2	10ESYNOY Pre0	10ESYNOY Post0	10ESYOOY Pre0	10ESYOOY Post0
LINE SWEETWTR 69kV-MONTGYTP 69kV ck1	Southbay 69kV N Bus	157	157		1.067		1.077
LINE PENSQTOS 69kV-MIRAMRTP 69kV ck1	Penasquitos 69kV SE Bus	97	102	1.071	1.043	1.046	1.029
	MR-PQ 69KV + PQ-MRM 69KV	97	102	1.233	1.209	1.218	1.202
LINE MELROSE 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV S Bus	97	102	1.001	1.012		1.017
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV N Bus	97	102	1.097	1.111	1.096	1.117
LINE POMERADO 69kV-SYCAMORE 69kV ck2	Sycamore 69kV S Bus	97	136	1.117	1.147	1.119	1.135
LINE DEL MAR 69kV-DELMARTP 69kV ck1	Del Mar 69kV E Bus	50	54	1.023	1.028	1.024	1.029
LINE MONSRATE 69kV-MNSRATTP 69kV ck1	Lilac 69kV S Bus	77	77	1.01	1.011	1.01	1.011
LINE GARFIELD 69kV-EL CAJON 69kV ck1	Murray 69kV N Bus	97	102	1.195	1.2	1.198	1.204
LINE BERNARDO 69kV-R.CARMEL 69kV ck1	Poway 69kV Bus	68	76	1.369	1.373	1.37	1.373
	POM-SX 1 + 2 69KV	68	76	1.195	1.206	1.197	1.201
LINE SANYSYRO 69kV-OTAY TP 69kV ck1	Sweetwater 69kV Bus	50	50				1.043
LINE R.SNTAFE 69kV-R.SNTATP 69kV ck1	PEN-ES 1/2 230KV	64	64	1.004		1.008	
LINE SANMATEO 138kV-LAGNA NL 138kV ck1	TA-TB + TA-PI 138KV	136	136	1.015	1.015	1.015	1.015
LINE STUART 69kV-STUARTTP 69kV ck1	Penasquitos 69kV SE Bus	4	4	2.168			
	Descanso 69kV Bus	4	4				1.931
LINE TL6929 69kV-TL6929MN 69kV ck1	Miguel 69kV S Bus	64	64				1.445
LINE CLAIMNT 69kV-MISSION 69kV ck1	Mission 69kV S Bus	50	50			1.048	1.066

Post Processor 10HS MMC EXISTING SY 3BD Category B MVA1

Monitored Element	Contingency Description	MVA1	MVA2	10ESYNOY Pre3	10ESYNOY Post3	10ESYOOY Pre3	10ESYOOY Post3
LINE MESAHGTS 69kV-MISSION 69kV ck1	line KEARNY to MISSION 69 ck 1	97	136	1.28	1.29	1.22	1.24
LINE SOUTHBAY 69kV-SWEETWTR 69kV ck1	line MONTGMRY to MONTGYTP 69 ck 1	97	136	1.65	1.87	1.66	1.88
LINE SYCAMORE 69kV-SCRIPPS 69kV ck1	line PENSQTOS to MESA RIM 69 ck 1	102	130	1.14	1.16	1.13	1.16
	tran PENSQTOS 230 to PENSQTOS 69 ck 1	102	130		1.09		1.09
	tran PENSQTOS 230 to PENSQTOS 69 ck 2	102	130		1.10		1.09
LINE TALEGA 230kV-S.ONOFRE 230kV ck1	line TALEGA to S.ONOFRE 230 ck 1	456	577	1.55	1.61	1.55	1.62
LINE TALEGA 230kV-S.ONOFRE 230kV ck2	line TALEGA to S.ONOFRE 230 ck 2	456	577	1.55	1.61	1.55	1.62
TRAN SYCAMORE 230kV-SYCAMORE 69kV ck1	tran SYCAMORE 230 to SYCAMORE 69 ck 2	224	285	1.18	1.20	1.18	1.20
LINE SANYSYRO 69kV-OTAYLKTP 69kV ck1	line MIGUEL to BORDER 69 ck 1	50	50	1.13	1.16	1.14	1.14
TRAN SOUTHBAY 69kV-SOUTHBAY 138kV ck1	line MIGUEL to BORDER 69 ck 1	140	143	1.09	1.01	1.10	1.02
	line MISSION to GRNT HLL 138 ck 1	140	143	1.21	1.15	1.20	1.15
	line GRNT HLL to SOUTHBAY 138 ck 1	140	143	1.24	1.18	1.23	1.18
	line LOSCOCHS to SOUTHBAY 138 ck 1	140	143	1.07	1.01	1.07	1.01
	tran MIGUEL 69 to MIGUEL 230 ck 1	140	143	1.02		1.01	
	tran MIGUEL 69 to MIGUEL 230 ck 2	140	143	1.02		1.01	
	gen SOUTHBAY1 15.00	140	143	1.20	1.13	1.20	1.13
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	line CREELMAN to LOSCOCHS 69 ck 1	71	71	1.11	1.11	1.11	1.11
LINE SHADOWR 138kV-ESCND050 138kV ck1	line CANNON-SANLUSRY-SHADOWR 138	63	73	1.17	1.18	1.17	1.18
TRAN ESCND050 138kV-ESCNDIDO 69kV ck2	line CANNON-SANLUSRY-SHADOWR 138	63	73	1.10	1.10	1.10	1.10
LINE SWEETWTR 69kV-MONTGYTP 69kV ck1	line SOUTHBAY to SWEETWTR 69 ck 1	157	157	1.10	1.24	1.10	1.25
LINE LOSCOCHS 138kV-SOUTHBAY 138kV ck1	line MISSION to GRNT HLL 138 ck 1	204.1	204.1	1.07	1.10	1.06	1.10
	line GRNT HLL to SOUTHBAY 138 ck 1	204.1	204.1	1.09	1.13	1.09	1.13
	line CARLTNHS-SANTEE 138	204.1	204.1	1.03	1.04	1.03	1.03
LINE PENSQTOS 69kV-DELMARTP 69kV ck1	line PENSQTOS to TOREYPNS 69 ck 1	97	129		1.13		1.13
LINE KEARNY 69kV-MISSION 69kV ck1	line MESAHGTS to MISSION 69 ck 1	97	129	1.21	1.22	1.15	1.17
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	line MELROSE to SANLUSRY 69 ck 1	97	102	1.12	1.14	1.12	1.14
LINE POMERADO 69kV-SYCAMORE 69kV ck2	line POMERADO to SYCAMORE 69 ck 1	97	136	1.33	1.37	1.33	1.37
LINE POMERADO 69kV-SYCAMORE 69kV ck1	line POMERADO to SYCAMORE 69 ck 2	97	136	1.33	1.36	1.33	1.37
TRAN SYCAMORE 230kV-SYCAMORE 69kV ck2	tran SYCAMORE 230 to SYCAMORE 69 ck 1	224	269	1.16	1.18	1.16	1.18
TRAN LOSCOCHS 69kV-LOSCOCHS 138kV ck2	tran LOSCOCHS 138 to LOSCOCHS 69 ck 1	140	155	1.12	1.12	1.12	1.12
TRAN LOSCOCHS 138kV-LOSCOCHS 69kV ck1	tran LOSCOCHS 69 to LOSCOCHS 138 ck 2	150	180	1.06	1.05	1.06	1.05
LINE TL6929 69kV-TL6929MN 69kV ck1	tran SOUTHBAY 69 to SOUTHBAY 138 ck 1	64	64				1.43

Monitored Element	Contingency Description	MVA1	MVA2	10ESYNOY Pre3	10ESYNOY Post3	10ESYOOY Pre3	10ESYOOY Post3
	gen SOUTHBY1 15.00	64	64				1.44
LINE SOUTHBAY 69kV-IMPRLBCH 69kV ck1	line MIGUEL to BORDER 69 ck 1	55	55			1.01	
LINE CLAIMNT 69kV-MISSION 69kV ck1	line PACFCBCH to OLD TOWN 69 ck 1	50	50				1.01
	line MESAHGTS to MISSION 69 ck 1	50	50			1.04	1.07

Post Processor 10HS MMC EXISTING SY 3BD Category C MVA1

Monitored Element	Contingency Description	MVA1	MVA2	10ESYNOY Pre3	10ESYNOY Post3	10ESYOOY Pre3	10ESYOOY Post3
LINE MESAHGTS 69kV-MISSION 69kV ck1	Mission 69kV N Bus	97	136			1.50	1.52
	Kearny 69kV E Bus	97	136	1.28	1.29	1.22	1.24
LINE POWAY 69kV-POMERADO 69kV ck1	SX-PEN + PEN-EA-SA 230KV	97	136		1.20		1.20
	PEN-ES 1/2 230KV	97	136	1.38	1.39	1.38	1.39
	SX-PEN 230KV + BE-AR 69KV	97	136		1.20		1.20
	SX-PEN 230KV + AR-SX 69KV	97	136	1.24	1.30	1.24	1.31
LINE SOUTHBAY 69kV-SWEETWTR 69kV ck1	Southbay 69kV S Bus	97	136	1.99	2.20	2.01	2.22
LINE SYCAMORE 69kV-SCRIPPS 69kV ck1	line POMERADO-SYCAMORE 69 ck 1/2	102	130	1.11	1.13	1.10	1.13
	Penasquitos 69kV SE Bus	102	130	1.13	1.15	1.12	1.15
	POM-SX 1 + 2 69KV	102	130	1.10	1.13	1.10	1.13
	MR-PQ 69KV + PQ-MRM 69KV	102	130	1.45	1.47	1.44	1.46
LINE TALEGA 230kV-S.ONOFRE 230kV ck1	PEN-ES 1/2 230KV	456	577	1.20	1.21	1.20	1.22
LINE TALEGA 230kV-S.ONOFRE 230kV ck2	PEN-ES 1/2 230KV	456	577	1.20	1.21	1.20	1.22
LINE SANYSRO 69kV-OTAYLKTP 69kV ck1	Otay 69kV E Bus	50	50		1.08		
	Miguel 69kV S Bus	50	50	1.13	1.16	1.14	1.14
TRAN SOUTHBAY 69kV-SOUTHBAY 138kV ck1	ML BK71 & Miguel - Mission #1 230 kV	140	143	1.04		1.03	
	Miguel 69kV S Bus	140	143	1.01		1.01	
	LC-SY + SY-TC 138KV	140	143	1.22	1.15	1.21	1.15
	LC-SY+ML-LC 138/69KV	140	143	1.05		1.05	
	PV-TC + LC-SY 138KV	140	143	1.09	1.02	1.08	1.02
LINE CALAVRTP 138kV-SHADOWR 138kV ck1	PEN-ES 1/2 230KV	112	112	1.18	1.14	1.18	1.14
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	Creelman 69kV E Bus	71	71	1.09	1.09	1.09	1.09
	Los Coches 69kV W Bus	71	71	1.13	1.13	1.13	1.13
LINE TALEGA 138kV-MARGARTA 138kV ck1	TA-TB + TA-PI 138KV	273	292	1.14	1.14	1.14	1.14
LINE TALEGA 138kV-SANMATEO 138kV ck1	TA-TB + TA-PI 138KV	136	136	1.27	1.27	1.27	1.27
	PI-CP + TA-TB 138KV	136	136	1.13	1.13	1.13	1.13
LINE SHADOWR 138kV-ESCND050 138kV ck1	PEN-ES 1/2 230KV	63	73	1.11	1.04	1.11	1.04
	CAN-SA-SH + EA-CAN 138KV	63	73	1.17	1.18	1.17	1.18
TRAN ESCND050 138kV-ESCNDIDO 69kV ck2	PEN-ES 1/2 230KV	63	73	1.11	1.04	1.11	1.04
	CAN-SA-SH + EA-CAN 138KV	63	73	1.10	1.10	1.10	1.10
LINE CAPSTRNO 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	157	157	1.17	1.17	1.17	1.17
LINE TALEGA 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	204	204	1.11	1.11	1.11	1.11
LINE SWEETWTR 69kV-MONTGYTP 69kV ck1	Miguel 69kV S Bus	157	157		1.01		1.01
	Southbay 69kV N Bus	157	157	1.10	1.24	1.11	1.25

Monitored Element	Contingency Description	MVA1	MVA2	10ESYNOY Pre3	10ESYNOY Post3	10ESYOOY Pre3	10ESYOOY Post3
LINE LOSCOCHS 138kV-SOUTHBAY 138kV ck1	CH-SX-SN 138KV + SAN VCNT-EL 69KV	204.1	204.1	1.03	1.04	1.03	1.03
	CH-SX-SN+LC-EL 138/69 KV	204.1	204.1	1.06	1.06	1.06	1.06
LINE PENSQTOS 69kV-DELMARTP 69kV ck1	Del Mar 69kV E Bus	97	129	1.13	1.14	1.13	1.14
	Penasquitos 69kV SE Bus	97	129	1.14	1.14	1.14	1.14
LINE DEL MAR 69kV-PENSQTOS 69kV ck1	Penasquitos 69kV NW Bus	50	50				1.00
LINE PENSQTOS 69kV-MIRAMRTP 69kV ck1	Penasquitos 69kV SE Bus	97	102	1.11	1.08	1.08	1.06
	MR-PQ 69KV + PQ-MRM 69KV	97	102	1.28	1.26	1.27	1.25
LINE KEARNY 69kV-MISSION 69kV ck1	Mission 69kV S Bus	97	129	1.22	1.23	1.16	1.18
LINE MELROSE 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV S Bus	97	102	1.05	1.07	1.05	1.06
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV N Bus	97	102	1.15	1.17	1.15	1.17
LINE POMERADO 69kV-SYCAMORE 69kV ck2	Sycamore 69kV S Bus	97	136	1.57	1.61	1.57	1.61
TRAN LOSCOCHS 69kV-LOSCOCHS 138kV ck2	Los Coches 69kV W Bus	140	155	1.04	1.04	1.04	1.04
TRAN LOSCOCHS 138kV-LOSCOCHS 69kV ck1	Los Coches 69kV E Bus	150	180	1.05	1.05	1.05	1.05
LINE DEL MAR 69kV-DELMARTP 69kV ck1	Del Mar 69kV E Bus	50	54	1.11	1.11	1.11	1.11
LINE MIGUEL 69kV-JAMACHA 69kV ck1	Jamacha 69kV N Bus	97	136	1.20	1.23	1.19	1.22
	Miguel 69kV N Bus	97	136	1.31	1.33	1.30	1.33
LINE MONSRATE 69kV-MNSRATTP 69kV ck1	Lilac 69kV S Bus	77	77	1.01	1.01	1.01	1.01
LINE B 69kV-MAIN ST 69kV ck2	Main St 69kV W Bus	97	111	1.09	1.13	1.09	1.13
LINE EL CAJON 69kV-LOSCOCHS 69kV ck1	Murray 69kV N Bus	55	59	1.19	1.16	1.19	1.17
LINE GARFIELD 69kV-EL CAJON 69kV ck1	Murray 69kV N Bus	97	102	1.26	1.26	1.26	1.26
LINE GRANITE 69kV-GRANITTP 69kV ck1	Murray 69kV N Bus	97.5	136.8	1.20	1.20	1.20	1.20
LINE MURRAY 69kV-GARFIELD 69kV ck1	Murray 69kV N Bus	97	103		1.00		1.00
LINE BERNARDO 69kV-R.CARMEL 69kV ck1	Poway 69kV Bus	68	76	1.53	1.54	1.53	1.54
	POM-SX 1 + 2 69KV	68	76	1.34	1.35	1.34	1.35
LINE R.SNTAFE 69kV-R.SNTATP 69kV ck1	PEN-ES 1/2 230KV	64	64	1.01		1.01	
LINE SANMATEO 138kV-LAGNA NL 138kV ck1	TA-TB + TA-PI 138KV	136	136	1.02	1.02	1.02	1.02
LINE GRNT HLL 138kV-SOUTHBAY 138kV ck1	LC-SY + SY-TC 138KV	310	434		1.23		1.23
LINE CHOLLAS 69kV-SPRNGVLY 69kV ck1	ML-JM 1 + 2 69KV	97	136	1.24	1.27	1.23	1.27
LINE TL6929 69kV-TL6929MN 69kV ck1	Miguel 69kV S Bus	64	64				1.44
LINE CLAIMNT 69kV-MISSION 69kV ck1	Mission 69kV S Bus	50	50			1.06	1.08

Post Processor 10HS MMC EXISTING SY 3BD Category B MVA2

Monitored Element	Contingency Description	MVA1	MVA2	10ESYNOY Pre3	10ESYNOY Post3	10ESYOOY Pre3	10ESYOOY Post3
LINE SOUTHBAY 69kV-SWEETWTR 69kV ck1	line MONTGMRY to MONTGYTP 69 ck 1	97	136	1.177	1.333	1.183	1.342
LINE TALEGA 230kV-S.ONOFRE 230kV ck1	line TALEGA to S.ONOFRE 230 ck 1	456	577	1.228	1.276	1.226	1.276
LINE TALEGA 230kV-S.ONOFRE 230kV ck2	line TALEGA to S.ONOFRE 230 ck 2	456	577	1.228	1.276	1.226	1.276
LINE SANYSYRO 69kV-OTAYLKTP 69kV ck1	line MIGUEL to BORDER 69 ck 1	50	50	1.129	1.164	1.137	1.141
TRAN SOUTHBAY 69kV-SOUTHBAY 138kV ck1	line MIGUEL to BORDER 69 ck 1	140	143	1.069		1.074	
	line MISSION to GRNT HLL 138 ck 1	140	143	1.18	1.129	1.176	1.125
	line GRNT HLL to SOUTHBAY 138 ck 1	140	143	1.209	1.158	1.206	1.154
	line LOSCOCHS to SOUTHBAY 138 ck 1	140	143	1.05		1.047	
	gen SOUTHBY1 15.00	140	143	1.178	1.11	1.174	1.105
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	line CREELMAN to LOSCOCHS 69 ck 1	71	71	1.108	1.111	1.107	1.111
LINE SHADOWR 138kV-ESCND050 138kV ck1	line CANNON-SANLUSRY-SHADOWR 138	63	73	1.013	1.015	1.013	1.015
LINE SWEETWTR 69kV-MONTGYTP 69kV ck1	line SOUTHBAY to SWEETWTR 69 ck 1	157	157	1.095	1.242	1.1	1.25
LINE LOSCOCHS 138kV-SOUTHBAY 138kV ck1	line MISSION to GRNT HLL 138 ck 1	204.1	204.1	1.065	1.097	1.064	1.096
	line GRNT HLL to SOUTHBAY 138 ck 1	204.1	204.1	1.094	1.126	1.093	1.126
	line CARLTNHS-SANTEE 138	204.1	204.1	1.027	1.035	1.026	1.034
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	line MELROSE to SANLUSRY 69 ck 1	97	102	1.065	1.081	1.065	1.08
TRAN LOSCOCHS 69kV-LOSCHS 138kV ck2	tran LOSCOCHS 138 to LOSCOCHS 69 ck 1	140	155	1.014	1.009	1.013	1.008
LINE TL6929 69kV-TL6929MN 69kV ck1	tran SOUTHBAY 69 to SOUTHBAY 138 ck 1	64	64				1.433
	gen SOUTHBY1 15.00	64	64				1.437
LINE SOUTHBAY 69kV-IMPRLBCH 69kV ck1	line MIGUEL to BORDER 69 ck 1	55	55			1.005	
LINE CLAIMNT 69kV-MISSION 69kV ck1	line PACFCBCH to OLD TOWN 69 ck 1	50	50				1.005
	line MESAHTS to MISSION 69 ck 1	50	50			1.043	1.065

Post Processor 10HS MMC EXISTING SY 3BD Category C MVA2

Monitored Element	Contingency Description	MVA1	MVA2	10ESYNOY Pre3	10ESYNOY Post3	10ESYOOY Pre3	10ESYOOY Post3
LINE MESAHGTS 69kV-MISSION 69kV ck1	Mission 69kV N Bus	97	136			1.07	1.085
LINE SOUTHBAY 69kV-SWEETWTR 69kV ck1	Southbay 69kV S Bus	97	136	1.421	1.566	1.431	1.582
LINE SYCAMORE 69kV-SCRIPPS 69kV ck1	MR-PQ 69KV + PQ-MRM 69KV	102	130	1.136	1.151	1.132	1.147
LINE SANYSYRO 69kV-OTAYLKTP 69kV ck1	Otay 69kV E Bus	50	50		1.083		
	Miguel 69kV S Bus	50	50	1.128	1.161	1.137	1.141
TRAN SOUTHBAY 69kV-SOUTHBAY 138kV ck1	ML BK71 & Miguel - Mission #1 230 kV	140	143	1.015		1.012	
	LC-SY + SY-TC 138KV	140	143	1.19	1.125	1.188	1.123
	LC-SY+ML-LC 138/69KV	140	143	1.027		1.024	
	PV-TC + LC-SY 138KV	140	143	1.063	1.002	1.061	
LINE CALAVRTP 138kV-SHADOWR 138kV ck1	PEN-ES 1/2 230KV	112	112	1.181	1.138	1.18	1.139
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	Creelman 69kV E Bus	71	71	1.091	1.094	1.091	1.094
	Los Coches 69kV W Bus	71	71	1.127	1.131	1.126	1.132
LINE TALEGA 138kV-MARGARTA 138kV ck1	TA-TB + TA-PI 138KV	273	292	1.066	1.066	1.066	1.066
LINE TALEGA 138kV-SANMATEO 138kV ck1	TA-TB + TA-PI 138KV	136	136	1.274	1.273	1.274	1.273
	PI-CP + TA-TB 138KV	136	136	1.132	1.131	1.132	1.131
LINE SHADOWR 138kV-ESCND050 138kV ck1	CAN-SA-SH + EA-CAN 138KV	63	73	1.013	1.015	1.013	1.015
LINE CAPSTRNO 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	157	157	1.168	1.167	1.168	1.167
LINE TALEGA 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	204	204	1.112	1.111	1.111	1.111
LINE SWEETWTR 69kV-MONTGYTP 69kV ck1	Miguel 69kV S Bus	157	157		1.011		1.01
	Southbay 69kV N Bus	157	157	1.103	1.24	1.106	1.245
LINE LOSCOCHS 138kV-SOUTHBAY 138kV ck1	CH-SX-SN 138KV + SAN VCNT-EL 69KV	204.1	204.1	1.027	1.035	1.026	1.034
	CH-SX-SN+LC-EL 138/69 KV	204.1	204.1	1.057	1.063	1.057	1.063
LINE DEL MAR 69kV-PENSQTOS 69kV ck1	Penasquitos 69kV NW Bus	50	50				1.002
LINE PENSQTOS 69kV-MIRAMRTP 69kV ck1	Penasquitos 69kV SE Bus	97	102	1.054	1.03	1.03	1.006
	MR-PQ 69KV + PQ-MRM 69KV	97	102	1.221	1.201	1.207	1.186
LINE MELROSE 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV S Bus	97	102		1.013		1.012
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV N Bus	97	102	1.096	1.112	1.096	1.111
LINE POMERADO 69kV-SYCAMORE 69kV ck2	Sycamore 69kV S Bus	97	136	1.119	1.146	1.118	1.147
LINE DEL MAR 69kV-DELMARTP 69kV ck1	Del Mar 69kV E Bus	50	54	1.024	1.029	1.023	1.028
LINE MONSRATE 69kV-MNSRATTP 69kV ck1	Lilac 69kV S Bus	77	77	1.01	1.011	1.009	1.011
LINE EL CAJON 69kV-LOSCOCHS 69kV ck1	Murray 69kV N Bus	55	59	1.11	1.085	1.11	1.087

Monitored Element	Contingency Description	MVA1	MVA2	10ESYNOY Pre3	10ESYNOY Post3	10ESYOOY Pre3	10ESYOOY Post3
LINE GARFIELD 69kV-EL CAJON 69kV ck1	Murray 69kV N Bus	97	102	1.197	1.202	1.197	1.202
LINE BERNARDO 69kV-R.CARMEL 69kV ck1	Poway 69kV Bus	68	76	1.369	1.373	1.369	1.373
	POM-SX 1 + 2 69KV	68	76	1.197	1.207	1.197	1.208
LINE R.SNTAFE 69kV-R.SNTATP 69kV ck1	PEN-ES 1/2 230KV	64	64	1.006		1.01	
LINE SANMATEO 138kV-LAGNA NL 138kV ck1	TA-TB + TA-PI 138KV	136	136	1.015	1.015	1.015	1.015
LINE TL6929 69kV-TL6929MN 69kV ck1	Miguel 69kV S Bus	64	64				1.439
LINE CLAIMNT 69kV-MISSION 69kV ck1	Mission 69kV S Bus	50	50			1.057	1.078

Post Processor 10HS MMC SY230 OBD Category B MVA1

Monitored Element	Contingency Description	MVA1	MVA2	10SY230NOY Pre0	10SY230NOY Post0	10SY230OOY Pre0	10SY230OOY Post0
LINE SYCAMORE 69kV-SCRIPPS 69kV ck1	line PENSQTOS to MESA RIM 69 ck 1	102	130	1.17	1.17	1.17	1.17
	tran PENSQTOS 230 to PENSQTOS 69 ck 1	102	130	1.10	1.09	1.10	1.09
	tran PENSQTOS 230 to PENSQTOS 69 ck 2	102	130	1.10	1.10	1.10	1.10
LINE TALEGA 230kV-S.ONOFRE 230kV ck1	line TALEGA to S.ONOFRE 230 ck 1	456	577	1.55	1.55	1.55	1.54
LINE TALEGA 230kV-S.ONOFRE 230kV ck2	line TALEGA to S.ONOFRE 230 ck 2	456	577	1.55	1.55	1.55	1.54
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	line CREELMAN to LOSCOCHS 69 ck 1	71	71	1.12	1.11	1.12	1.11
LINE SOUTHBAY 69kV-IMPRLBCH 69kV ck1	line MIGUEL to BORDER 69 ck 1	55	55			1.02	
LINE TL649 69kV-OTAYLKTP 69kV ck1	line IMPRLBCH to OTAY TP 69 ck 1	50	50		1.00		
LINE SHADOWR 138kV-ESCND050 138kV ck1	line CANNON-SANLUSRY-SHADOWR 138	63	73	1.18	1.18	1.18	1.18
TRAN ESCND050 138kV-ESCNDIDO 69kV ck2	line CANNON-SANLUSRY-SHADOWR 138	63	73	1.10	1.10	1.10	1.10
LINE PENSQTOS 69kV-MIRAMRTP 69kV ck1	line PENSQTOS to MESA RIM 69 ck 1	97	102	1.03	1.03	1.03	1.03
	line SYCAMORE to SCRIPPS 69 ck 1	97	102	1.03	1.02	1.02	1.02
LINE EL CAJON 69kV-LOSCOCHS 69kV ck1	line GRANITE to GRANITTP 69 ck 1	55	59	1.21	1.19	1.21	1.19
LINE MESAHGTS 69kV-MISSION 69kV ck1	line KEARNY to MISSION 69 ck 1	97	136	1.23	1.24	1.23	1.24
LINE KEARNY 69kV-MISSION 69kV ck1	line MESAHGTS to MISSION 69 ck 1	97	129	1.16	1.17	1.16	1.17
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	line MELROSE to SANLUSRY 69 ck 1	97	102	1.12	1.12	1.12	1.12
LINE POMERADO 69kV-SYCAMORE 69kV ck2	line POMERADO to SYCAMORE 69 ck 1	97	136	1.28	1.28	1.28	1.28
LINE POMERADO 69kV-SYCAMORE 69kV ck1	line POMERADO to SYCAMORE 69 ck 2	97	136	1.27	1.27	1.27	1.27
TRAN SYCAMORE 230kV- SYCAMORE 69kV ck2	tran SYCAMORE 230 to SYCAMORE 69 ck 1	224	269	1.18	1.18	1.19	1.18
TRAN SYCAMORE 230kV- SYCAMORE 69kV ck1	tran SYCAMORE 230 to SYCAMORE 69 ck 2	224	285	1.20	1.19	1.20	1.19
LINE STUART 69kV-STUARTTP 69kV ck1	line BOLVRDTP to CAMERON 69 ck 1	4	4	2.07			

Post Processor 10HS MMC SY230 OBD Category C MVA1

Monitored Element	Contingency Description	MVA1	MVA2	10SY230NOY Pre0	10SY230NOY Post0	10SY230OOY Pre0	10SY230OOY Post0
LINE GRANITE 69kV-GRANITTP 69kV ck1	Murray 69kV N Bus	97.5	136.8	1.27	1.27	1.27	1.27
LINE SYCAMORE 69kV-SCRIPPS 69kV ck1	line POMERADO-SYCAMORE 69 ck 1/2	102	130	1.13	1.12	1.13	1.12
	Penasquitos 69kV SE Bus	102	130	1.16	1.15	1.16	1.16
	Sycamore 69kV S Bus	102	130	1.09	1.09	1.10	1.09
	EA-BQ-PQ 138KV + MR-PQ 69KV	102	130	1.09	1.09	1.09	1.09
	POM-SX 1 + 2 69KV	102	130	1.12	1.12	1.13	1.12
	MR-PQ 69KV + PQ-MRM 69KV	102	130	1.48	1.48	1.48	1.48
LINE TALEGA 230kV-S.ONOFRE 230kV ck1	PEN-ES 1/2 230KV	456	577	1.21	1.20	1.21	1.20
LINE TALEGA 230kV-S.ONOFRE 230kV ck2	PEN-ES 1/2 230KV	456	577	1.21	1.20	1.21	1.20
LINE TL6929 69kV-OTAY_93 69kV ck1	Miguel 69kV S Bus	64	64		1.46		
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	Creelman 69kV E Bus	71	71	1.10	1.10	1.10	1.10
	Los Coches 69kV W Bus	71	71	1.10	1.10	1.10	1.10
	CH-SX-SN+LC-EL 138/69 KV	71	71	1.01		1.01	
LINE SOUTHBAY 69kV-IMPRLBCH 69kV ck1	Miguel 69kV S Bus	55	55			1.03	
	Southbay 69kV S Bus	55	55			1.02	
LINE CALAVRTP 138kV-SHADOWR 138kV ck1	PEN-ES 1/2 230KV	112	112	1.21	1.21	1.20	1.20
LINE TALEGA 138kV-MARGARTA 138kV ck1	TA-TB + TA-PI 138KV	273	292	1.14	1.14	1.14	1.14
LINE TALEGA 138kV-SANMATEO 138kV ck1	TA-TB + TA-PI 138KV	136	136	1.28	1.27	1.28	1.27
	PI-CP + TA-TB 138KV	136	136	1.13	1.13	1.13	1.13
LINE SHADOWR 138kV-ESCND050 138kV ck1	PEN-ES 1/2 230KV	63	73	1.15	1.15	1.13	1.14
	CAN-SA-SH + EA-CAN 138KV	63	73	1.18	1.18	1.18	1.18
TRAN ESCND050 138kV-ESCNDIDO 69kV ck2	PEN-ES 1/2 230KV	63	73	1.15	1.14	1.12	1.13
	CAN-SA-SH + EA-CAN 138KV	63	73	1.10	1.10	1.10	1.10
LINE CAPSTRNO 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	157	157	1.17	1.17	1.17	1.17
LINE TALEGA 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	204	204	1.11	1.11	1.11	1.11
LINE PENSQTOS 69kV-MIRAMRTP 69kV ck1	Miramar 69kV E Bus	97	102	1.07	1.07	1.07	1.07
	Penasquitos 69kV SE Bus	97	102	1.22	1.21	1.21	1.21
	MR-PQ 69KV + PQ-MRM 69KV	97	102	1.36	1.35	1.35	1.35
LINE EL CAJON 69kV-LOSCOCHS 69kV ck1	El Cajon 69kV S Bus	55	59	1.01	1.01	1.01	1.01
	Murray 69kV N Bus	55	59	1.51	1.49	1.51	1.49
	ML-JM 1 + 2 69KV	55	59	1.05	1.04	1.05	1.04

Monitored Element	Contingency Description	MVA1	MVA2	10SY230NOY Pre0	10SY230NOY Post0	10SY230OOY Pre0	10SY230OOY Post0
LINE MESAHGTS 69kV-MISSION 69kV ck1	Kearny 69kV E Bus	97	136	1.23	1.24	1.23	1.24
LINE KEARNY 69kV-MISSION 69kV ck1	Mission 69kV S Bus	97	129	1.17	1.17	1.17	1.17
LINE MELROSE 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV S Bus	97	102	1.05	1.06	1.05	1.06
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV N Bus	97	102	1.15	1.16	1.15	1.16
LINE POMERADO 69kV-SYCAMORE 69kV ck2	Sycamore 69kV S Bus	97	136	1.51	1.51	1.51	1.51
LINE DEL MAR 69kV-DELMARTP 69kV ck1	Del Mar 69kV E Bus	50	54	1.11	1.12	1.11	1.12
LINE PENSQTOS 69kV-DELMARTP 69kV ck1	Del Mar 69kV E Bus	97	129	1.14	1.14	1.14	1.14
	Penasquitos 69kV SE Bus	97	129		1.13		1.13
LINE MONSRATE 69kV-MNSRATTP 69kV ck1	Lilac 69kV S Bus	77	77	1.01	1.01	1.01	1.01
LINE PALA 69kV-MNSRATTP 69kV ck1	Lilac 69kV S Bus	68	68		1.00		1.00
LINE DIVISION 69kV-NAVSTMTR 69kV ck1	Miguel 69kV S Bus	97	100	1.02		1.03	
LINE MIGUEL 69kV-JAMACHA 69kV ck2	Miguel 69kV S Bus	136	143	1.06	1.04	1.06	1.05
LINE GARFIELD 69kV-EL CAJON 69kV ck1	Murray 69kV N Bus	97	102	1.28	1.28	1.28	1.28
LINE MURRAY 69kV-GARFIELD 69kV ck1	Murray 69kV N Bus	97	103	1.01	1.01	1.01	1.01
LINE BERNARDO 69kV-R.CARMEL 69kV ck1	Poway 69kV Bus	68	76	1.54	1.54	1.54	1.54
	POM-SX 1 + 2 69KV	68	76	1.31	1.31	1.31	1.31
LINE SOUTHBAY 69kV-SWEETWTR 69kV ck1	Southbay 69kV S Bus	97	136	1.26	1.41	1.28	1.44
LINE POWAY 69kV-POMERADO 69kV ck1	PEN-ES 1/2 230KV	97	136	1.33	1.33	1.34	1.33
LINE SANMATEO 138kV-LAGNA NL 138kV ck1	TA-TB + TA-PI 138KV	136	136	1.02	1.02	1.02	1.02

Post Processor 10HS MMC SY230 0BD Category B MVA2

Monitored Element	Contingency Description	MVA1	MVA2	10SY230NOY Pre0	10SY230NOY Post0	10SY230OOY Pre0	10SY230OOY Post0
LINE TALEGA 230kV-S.ONOFRE 230kV ck1	line TALEGA to S.ONOFRE 230 ck 1	456	577	1.223	1.223	1.221	1.218
LINE TALEGA 230kV-S.ONOFRE 230kV ck2	line TALEGA to S.ONOFRE 230 ck 2	456	577	1.223	1.223	1.221	1.218
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	line CREELMAN to LOSCOCHS 69 ck 1	71	71	1.116	1.111	1.117	1.112
LINE SOUTHBAY 69kV-IMPRLBCH 69kV ck1	line MIGUEL to BORDER 69 ck 1	55	55			1.017	
LINE TL649 69kV-OTAYLKTP 69kV ck1	line IMPRLBCH to OTAY TP 69 ck 1	50	50		1.003		
LINE SHADOWR 138kV-ESCND050 138kV ck1	line CANNON-SANLUSRY-SHADOWR 138	63	73	1.016	1.017	1.016	1.017
LINE EL CAJON 69kV-LOSCOCHS 69kV ck1	line GRANITE to GRANITTP 69 ck 1	55	59	1.127	1.105	1.127	1.109
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	line MELROSE to SANLUSRY 69 ck 1	97	102	1.062	1.069	1.061	1.068
LINE STUART 69kV-STUARTTP 69kV ck1	line BOLVRDTP to CAMERON 69 ck 1	4	4	2.074			

Post Processor 10HS MMC SY230 OBD Category C MVA2

Monitored Element	Contingency Description	MVA1	MVA2	10SY230NOY Pre0	10SY230NOY Post0	10SY230OOY Pre0	10SY230OOY Post0
LINE SYCAMORE 69kV-SCRIPPS 69kV ck1	MR-PQ 69KV + PQ-MRM 69KV	102	130	1.16	1.16	1.162	1.161
LINE TL6929 69kV-OTAY_93 69kV ck1	Miguel 69kV S Bus	64	64		1.46		
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	Creelman 69kV E Bus	71	71	1.095	1.096	1.095	1.096
	Los Coches 69kV W Bus	71	71	1.104	1.099	1.104	1.1
	CH-SX-SN+LC-EL 138/69 KV	71	71	1.006		1.006	
LINE SOUTHBAY 69kV-IMPRLBCH 69kV ck1	Miguel 69kV S Bus	55	55			1.025	
	Southbay 69kV S Bus	55	55			1.022	
LINE CALAVRTP 138kV-SHADOWR 138kV ck1	PEN-ES 1/2 230KV	112	112	1.208	1.207	1.195	1.203
LINE TALEGA 138kV-MARGARTA 138kV ck1	TA-TB + TA-PI 138KV	273	292	1.067	1.066	1.067	1.066
LINE TALEGA 138kV-SANMATEO 138kV ck1	TA-TB + TA-PI 138KV	136	136	1.275	1.274	1.275	1.274
	PI-CP + TA-TB 138KV	136	136	1.133	1.132	1.132	1.132
LINE SHADOWR 138kV-ESCND050 138kV ck1	CAN-SA-SH + EA-CAN 138KV	63	73	1.016	1.017	1.016	1.017
LINE CAPSTRNO 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	157	157	1.169	1.168	1.169	1.168
LINE TALEGA 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	204	204	1.112	1.112	1.112	1.112
LINE PENSQTOS 69kV-MIRAMRTP 69kV ck1	Miramar 69kV E Bus	97	102	1.017	1.013	1.014	1.013
	Penasquitos 69kV SE Bus	97	102	1.156	1.151	1.151	1.15
	MR-PQ 69KV + PQ-MRM 69KV	97	102	1.289	1.287	1.284	1.287
LINE EL CAJON 69kV-LOSCOCHS 69kV ck1	Murray 69kV N Bus	55	59	1.409	1.385	1.411	1.391
LINE MELROSE 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV S Bus	97	102		1.004		1.003
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV N Bus	97	102	1.093	1.1	1.092	1.099
LINE POMERADO 69kV-SYCAMORE 69kV ck2	Sycamore 69kV S Bus	97	136	1.079	1.078	1.08	1.079
LINE DEL MAR 69kV-DELMARTP 69kV ck1	Del Mar 69kV E Bus	50	54	1.03	1.033	1.03	1.033
LINE MONSRATE 69kV-MNSRATTP 69kV ck1	Lilac 69kV S Bus	77	77	1.013	1.013	1.013	1.014
LINE PALA 69kV-MNSRATTP 69kV ck1	Lilac 69kV S Bus	68	68		1.001		1.001
LINE MIGUEL 69kV-JAMACHA 69kV ck2	Miguel 69kV S Bus	136	143	1.009		1.01	
LINE GARFIELD 69kV-EL CAJON 69kV ck1	Murray 69kV N Bus	97	102	1.214	1.215	1.215	1.217
LINE BERNARDO 69kV-R.CARMEL 69kV ck1	Poway 69kV Bus	68	76	1.376	1.377	1.376	1.378
	POM-SX 1 + 2 69KV	68	76	1.172	1.173	1.172	1.173
LINE SOUTHBAY 69kV-SWEETWTR 69kV ck1	Southbay 69kV S Bus	97	136		1.005		1.024
LINE SANMATEO 138kV-LAGNA NL 138kV ck1	TA-TB + TA-PI 138KV	136	136	1.016	1.015	1.016	1.016

Post Processor 10HS MMC SY230 3BD Category B MVA1

Monitored Element	Contingency Description	MVA1	MVA2	10SY230NOY Pre3	10SY230NOY Post3	10SY230OOY Pre3	10SY230OOY Post3
LINE SYCAMORE 69kV-SCRIPPS 69kV ck1	line PENSQTOS to MESA RIM 69 ck 1	102	130	1.18	1.18	1.17	1.16
	line MIRAMAR to PENSQTOS 69 ck 1	102	130	1.09			
	tran PENSQTOS 230 to PENSQTOS 69 ck 1	102	130	1.11	1.11	1.09	1.09
	tran PENSQTOS 230 to PENSQTOS 69 ck 2	102	130	1.11	1.11	1.10	1.09
LINE TALEGA 230kV-S.ONOFRE 230kV ck1	line TALEGA to S.ONOFRE 230 ck 1	456	577	1.55	1.56	1.55	1.56
LINE TALEGA 230kV-S.ONOFRE 230kV ck2	line TALEGA to S.ONOFRE 230 ck 2	456	577	1.55	1.56	1.55	1.56
TRAN SYCAMORE 230kV-SYCAMORE 69kV ck1	tran SYCAMORE 230 to SYCAMORE 69 ck 2	224	285	1.20	1.19	1.19	1.18
LINE SWEETWTR 69kV-MONTGYTP 69kV ck1	Silvergate-South Bay 230KV	157	157		1.04		
LINE SANYSRO 69kV-OTAYLKTP 69kV ck1	line MIGUEL to BORDER 69 ck 1	50	50	1.13	1.16	1.14	1.14
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	line CREELMAN to LOSCOCHS 69 ck 1	71	71	1.11	1.11	1.11	1.10
LINE SHADOWR 138kV-ESCND050 138kV ck1	line CANNON-SANLUSRY-SHADOWR 138	63	73	1.18	1.18	1.18	1.18
TRAN ESCND050 138kV-ESCNDIDO 69kV ck2	line CANNON-SANLUSRY-SHADOWR 138	63	73	1.10	1.10	1.10	1.10
LINE PENSQTOS 69kV-MIRAMRTP 69kV ck1	line PENSQTOS to MESA RIM 69 ck 1	97	102	1.00		1.02	1.02
	line SYCAMORE to SCRIPPS 69 ck 1	97	102	1.00		1.01	1.01
LINE EL CAJON 69kV-LOSCOCHS 69kV ck1	line GRANITE to GRANITTP 69 ck 1	55	59	1.11	1.09	1.12	1.10
LINE SOUTHBAY 69kV-SWEETWTR 69kV ck1	line MONTGMRY to MONTGYTP 69 ck 1	97	136		1.27		1.25
LINE MESAHGTS 69kV-MISSION 69kV ck1	line KEARNY to MISSION 69 ck 1	97	136	1.25	1.25	1.24	1.24
LINE KEARNY 69kV-MISSION 69kV ck1	line MESAHGTS to MISSION 69 ck 1	97	129	1.17	1.18	1.17	1.17
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	line MELROSE to SANLUSRY 69 ck 1	97	102	1.11	1.12	1.12	1.12
LINE POMERADO 69kV-SYCAMORE 69kV ck2	line POMERADO to SYCAMORE 69 ck 1	97	136	1.29	1.29	1.28	1.28
LINE POMERADO 69kV-SYCAMORE 69kV ck1	line POMERADO to SYCAMORE 69 ck 2	97	136	1.29	1.29	1.28	1.28
TRAN SYCAMORE 230kV-SYCAMORE 69kV ck2	tran SYCAMORE 230 to SYCAMORE 69 ck 1	224	269	1.19	1.18	1.17	1.17
LINE SOUTHBAY 69kV-IMPRLBCH 69kV ck1	line MIGUEL to BORDER 69 ck 1	55	55			1.02	
LINE BOLDRCRK 69kV-BLDCRKTP 69kV ck1	line BLDCRKTP to DESCANSO 69 ck 1	32	32				5.52
LINE STUART 69kV-STUARTTP 69kV ck1	line ENCNITAS to PENSQTOS 69 ck 1	4	4			2.06	

Post Processor 10HS MMC SY230 3BD Category C MVA1

Monitored Element	Contingency Description	MVA1	MVA2	10SY230NOY Pre3	10SY230NOY Post3	10SY230OOY Pre3	10SY230OOY Post3
LINE GRANITE 69kV-GRANITTP 69kV ck1	Murray 69kV N Bus	97.5	136.8	1.25	1.25	1.25	1.25
LINE SYCAMORE 69kV-SCRIPPS 69kV ck1	line POMERADO-SYCAMORE 69 ck 1/2	102	130	1.14	1.14	1.13	1.12
	Penasquitos 69kV SE Bus	102	130	1.17	1.17	1.16	1.15
	Sycamore 69kV S Bus	102	130	1.10	1.10	1.09	
	EA-BQ-PQ 138KV + MR-PQ 69KV	102	130	1.10	1.10	1.09	1.08
	POM-SX 1 + 2 69KV	102	130	1.14	1.13	1.12	1.12
	MR-PQ 69KV + PQ-MRM 69KV	102	130	1.49	1.49	1.48	1.48
LINE TALEGA 230kV-S.ONOFRE 230kV ck1	PEN-ES 1/2 230KV	456	577	1.21	1.21	1.21	1.21
LINE TALEGA 230kV-S.ONOFRE 230kV ck2	PEN-ES 1/2 230KV	456	577	1.21	1.21	1.21	1.21
LINE SANYSRO 69kV-OTAYLKTP 69kV ck1	Otay 69kV W Bus	50	50	1.02	1.02		
	Otay 69kV E Bus	50	50	1.01	1.11		
	Miguel 69kV S Bus	50	50	1.13	1.15	1.14	1.14
LINE CALAVRTP 138kV-SHADOWR 138kV ck1	PEN-ES 1/2 230KV	112	112	1.17	1.17	1.20	1.21
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	Creelman 69kV E Bus	71	71	1.10	1.10	1.09	1.10
	Los Coches 69kV W Bus	71	71	1.10	1.10	1.10	1.10
LINE TALEGA 138kV-MARGARTA 138kV ck1	TA-TB + TA-PI 138KV	273	292	1.14	1.14	1.14	1.14
LINE TALEGA 138kV-SANMATEO 138kV ck1	TA-TB + TA-PI 138KV	136	136	1.28	1.27	1.27	1.27
	PI-CP + TA-TB 138KV	136	136	1.13	1.13	1.13	1.13
LINE SHADOWR 138kV-ESCND050 138kV ck1	PEN-ES 1/2 230KV	63	73	1.09	1.09	1.13	1.15
	CAN-SA-SH + EA-CAN 138KV	63	73	1.18	1.18	1.18	1.18
TRAN ESCND050 138kV-ESCNDIDO 69kV ck2	PEN-ES 1/2 230KV	63	73	1.08	1.08	1.13	1.14
	CAN-SA-SH + EA-CAN 138KV	63	73	1.10	1.10	1.10	1.10
LINE CAPSTRNO 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	157	157	1.17	1.17	1.17	1.17
LINE TALEGA 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	204	204	1.11	1.11	1.11	1.11
LINE PENSQTOS 69kV-MIRAMRTP 69kV ck1	Miramar 69kV E Bus	97	102	1.05	1.04	1.06	1.05
	Penasquitos 69kV SE Bus	97	102	1.18	1.17	1.20	1.19
	MR-PQ 69KV + PQ-MRM 69KV	97	102	1.32	1.32	1.34	1.34
LINE EL CAJON 69kV-LOSCOCHS 69kV ck1	El Cajon 69kV S Bus	55	59	1.03	1.04	1.03	1.03
	Murray 69kV N Bus	55	59	1.39	1.37	1.40	1.38
	ML-JM 1 + 2 69KV	55	59	1.01		1.02	1.00
LINE SOUTHBAY 69kV-SWEETWTR 69kV ck1	Southbay 69kV S Bus	97	136	1.42	1.57	1.39	1.55
LINE MESAHTGS 69kV-MISSION 69kV ck1	Kearny 69kV E Bus	97	136	1.25	1.25	1.24	1.24
LINE KEARNY 69kV-MISSION 69kV ck1	Mission 69kV S Bus	97	129	1.18	1.18	1.17	1.17

Monitored Element	Contingency Description	MVA1	MVA2	10SY230NOY Pre3	10SY230NOY Post3	10SY230OOY Pre3	10SY230OOY Post3
LINE MELROSE 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV S Bus	97	102	1.04	1.05	1.05	1.06
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV N Bus	97	102	1.14	1.15	1.15	1.16
LINE POMERADO 69kV-SYCAMORE 69kV ck2	Sycamore 69kV S Bus	97	136	1.53	1.53	1.51	1.51
LINE DEL MAR 69kV-DELMARTP 69kV ck1	Del Mar 69kV E Bus	50	54	1.11	1.12	1.11	1.12
LINE PENSQTOS 69kV-DELMARTP 69kV ck1	Del Mar 69kV E Bus	97	129	1.14	1.14	1.14	1.14
	Penasquitos 69kV SE Bus	97	129		1.13		1.13
LINE MONSRATE 69kV-MNSRATTP 69kV ck1	Lilac 69kV S Bus	77	77	1.01	1.01	1.01	1.01
LINE PALA 69kV-MNSRATTP 69kV ck1	Lilac 69kV S Bus	68	68		1.00		
LINE MIGUEL 69kV-JAMACHA 69kV ck1	Miguel 69kV N Bus	97	136	1.26	1.27	1.26	1.27
LINE MIGUEL 69kV-JAMACHA 69kV ck2	Miguel 69kV S Bus	136	143	1.02	1.01	1.02	1.00
LINE B 69kV-MAIN ST 69kV ck2	Main St 69kV W Bus	97	111		1.01		1.00
LINE GARFIELD 69kV-EL CAJON 69kV ck1	Murray 69kV N Bus	97	102	1.27	1.28	1.27	1.28
LINE MURRAY 69kV-GARFIELD 69kV ck1	Murray 69kV N Bus	97	103	1.01	1.01	1.01	1.01
LINE BERNARDO 69kV-R.CARMEL 69kV ck1	Poway 69kV Bus	68	76	1.54	1.54	1.54	1.54
	POM-SX 1 + 2 69KV	68	76	1.31	1.32	1.31	1.31
LINE POWAY 69kV-POMERADO 69kV ck1	PEN-ES 1/2 230KV	97	136	1.35	1.35	1.34	1.33
LINE SANMATEO 138kV-LAGNA NL 138kV ck1	TA-TB + TA-PI 138KV	136	136	1.02	1.02	1.02	1.02

Post Processor 10HS MMC SY230 3BD Category B MVA2

Monitored Element	Contingency Description	MVA1	MVA2	10SY230NOY Pre3	10SY230NOY Post3	10SY230OOY Pre3	10SY230OOY Post3
LINE TALEGA 230kV-S.ONOFRE 230kV ck1	line TALEGA to S.ONOFRE 230 ck 1	456	577	1.223	1.231	1.223	1.231
LINE TALEGA 230kV-S.ONOFRE 230kV ck2	line TALEGA to S.ONOFRE 230 ck 2	456	577	1.223	1.231	1.223	1.231
LINE SWEETWTR 69kV-MONTGYTP 69kV ck1	Silvergate-South Bay 230KV	157	157		1.036		
LINE SANYSYRO 69kV-OTAYLKTP 69kV ck1	line MIGUEL to BORDER 69 ck 1	50	50	1.127	1.157	1.138	1.142
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	line CREELMAN to LOSCOCHS 69 ck 1	71	71	1.111	1.106	1.109	1.104
LINE SHADOWR 138kV-ESCND050 138kV ck1	line CANNON-SANLUSRY-SHADOWR 138	63	73	1.016	1.017	1.016	1.017
LINE EL CAJON 69kV-LOSCOCHS 69kV ck1	line GRANITE to GRANITTP 69 ck 1	55	59	1.035	1.014	1.042	1.023
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	line MELROSE to SANLUSRY 69 ck 1	97	102	1.054	1.06	1.061	1.068
LINE SOUTHBAY 69kV-IMPRLBCH 69kV ck1	line MIGUEL to BORDER 69 ck 1	55	55			1.017	
LINE BOLDRCRK 69kV-BLDCRKTP 69kV ck1	line BLDCRKTP to DESCANSO 69 ck 1	32	32				5.524
LINE STUART 69kV-STUARTTP 69kV ck1	line ENCNITAS to PENSQTOS 69 ck 1	4	4			2.063	

Post Processor 10HS MMC SY230 3BD Category C MVA2

Monitored Element	Contingency Description	MVA1	MVA2	10SY230NOY Pre3	10SY230NOY Post3	10SY230OOY Pre3	10SY230OOY Post3
LINE SYCAMORE 69kV-SCRIPPS 69kV ck1	MR-PQ 69KV + PQ-MRM 69KV	102	130	1.165	1.165	1.158	1.157
LINE SANYSYRO 69kV-OTAYLKTP 69kV ck1	Otay 69kV W Bus	50	50	1.02	1.021		
	Otay 69kV E Bus	50	50	1.01	1.114		
	Miguel 69kV S Bus	50	50	1.127	1.154	1.14	1.144
LINE CALAVRTP 138kV-SHADOWR 138kV ck1	PEN-ES 1/2 230KV	112	112	1.168	1.171	1.195	1.205
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	Creelman 69kV E Bus	71	71	1.095	1.096	1.094	1.095
	Los Coches 69kV W Bus	71	71	1.104	1.1	1.101	1.097
LINE TALEGA 138kV-MARGARTA 138kV ck1	TA-TB + TA-PI 138KV	273	292	1.067	1.066	1.066	1.066
LINE TALEGA 138kV-SANMATEO 138kV ck1	TA-TB + TA-PI 138KV	136	136	1.275	1.274	1.274	1.274
	PI-CP + TA-TB 138KV	136	136	1.132	1.132	1.132	1.132
LINE SHADOWR 138kV-ESCND050 138kV ck1	CAN-SA-SH + EA-CAN 138KV	63	73	1.016	1.017	1.015	1.016
LINE CAPSTRNO 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	157	157	1.168	1.168	1.168	1.168
LINE TALEGA 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	204	204	1.112	1.112	1.112	1.112
LINE PENSQTOS 69kV-MIRAMRTP 69kV ck1	Miramar 69kV E Bus	97	102			1.004	1.003
	Penasquitos 69kV SE Bus	97	102	1.119	1.114	1.136	1.136
	MR-PQ 69KV + PQ-MRM 69KV	97	102	1.259	1.258	1.275	1.277
LINE EL CAJON 69kV-LOSCOCHS 69kV ck1	Murray 69kV N Bus	55	59	1.297	1.274	1.305	1.285
LINE SOUTHBAY 69kV-SWEETWTR 69kV ck1	Southbay 69kV S Bus	97	136	1.01	1.121		1.106
LINE MELROSE 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV S Bus	97	102				1.003
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV N Bus	97	102	1.085	1.091	1.092	1.099
LINE POMERADO 69kV-SYCAMORE 69kV ck2	Sycamore 69kV S Bus	97	136	1.091	1.093	1.079	1.079
LINE DEL MAR 69kV-DELMARTP 69kV ck1	Del Mar 69kV E Bus	50	54	1.03	1.033	1.029	1.032
LINE MONSRATE 69kV-MNSRATTP 69kV ck1	Lilac 69kV S Bus	77	77	1.012	1.013	1.012	1.013
LINE PALA 69kV-MNSRATTP 69kV ck1	Lilac 69kV S Bus	68	68		1.001		
LINE GARFIELD 69kV-EL CAJON 69kV ck1	Murray 69kV N Bus	97	102	1.212	1.214	1.211	1.213
LINE BERNARDO 69kV-R.CARMEL 69kV ck1	Poway 69kV Bus	68	76	1.375	1.377	1.374	1.376
	POM-SX 1 + 2 69KV	68	76	1.176	1.178	1.172	1.174
LINE SANMATEO 138kV-LAGNA NL 138kV ck1	TA-TB + TA-PI 138KV	136	136	1.016	1.016	1.016	1.016

Post Processor MMC Worst Case Updated With Projects1 Category B MVA1

Monitored Element	Contingency Description	MVA1	MVA2	10ESYNOY Pre31	10ESYNOY Post31	10ESYNOY Post31p
LINE MESAHGTS 69kV-MISSION 69kV ck1	line KEARNY to MISSION 69 ck 1	97	136	1.29	1.31	1.31
LINE SOUTHBAY 69kV-SWEETWTR 69kV ck1	line MONTGMRY to MONTGYTP 69 ck 1	97	136	1.75	1.97	
LINE SYCAMORE 69kV-SCRIPPS 69kV ck1	line PENSQTOS to MESA RIM 69 ck 1	102	130	1.14	1.16	1.16
	tran PENSQTOS 230 to PENSQTOS 69 ck 1	102	130		1.09	1.09
	tran PENSQTOS 230 to PENSQTOS 69 ck 2	102	130		1.10	1.10
LINE TALEGA 230kV-S.ONOFRE 230kV ck1	line TALEGA to S.ONOFRE 230 ck 1	456	577	1.55	1.62	1.61
LINE TALEGA 230kV-S.ONOFRE 230kV ck2	line TALEGA to S.ONOFRE 230 ck 2	456	577	1.55	1.62	1.61
TRAN SOUTHBAY 69kV-SOUTHBAY 138kV ck1	line MIGUEL to BORDER 69 ck 1	140	143	1.19	1.12	1.12
	line ML-MS&ML-SX 230kV SPS6.3	140	143	1.08	1.03	1.02
	line ML-MS 1/2 230 kV SPS6.4	140	143	1.08	1.03	1.02
	line MISSION to GRNT HLL 138 ck 1	140	143	1.33	1.29	1.29
	line GRNT HLL to SOUTHBAY 138 ck 1	140	143	1.36	1.31	1.31
	line TELECYN to SOUTHBAY 138 ck 1	140	143	1.08	1.02	1.02
	line SOUTHBAY to MIGUEL61 138 ck 1	140	143	1.05		
	line MIGUEL61 to LOSCOCHS 138 ck 1	140	143	1.09	1.03	1.03
	line OLD TOWN to KETTNER 69 ck 1	140	143	1.06		
	line LONESTAR to BORDERTP 69 ck 1	140	143	1.07	1.00	1.00
	tran MIGUEL 69 to MIGUEL 230 ck 1	140	143	1.12	1.06	1.05
	tran MIGUEL 69 to MIGUEL 230 ck 2	140	143	1.12	1.06	1.05
	tran OLD TOWN 69 to OLD TOWN 230 ck 1	140	143	1.06		
	tran OLD TOWN 69 to OLD TOWN 230 ck 2	140	143	1.06		
	gen CALPK_BD 13.80	140	143	1.05		
	gen LRKSP_BD 13.80	140	143	1.05		
	gen OTAY_49 13.80	140	143	1.09		
	gen SOUTHBY1 15.00	140	143	1.30	1.24	1.24
	gen DIVISION 69.00	140	143	1.05		
	gen OTAY_46A 13.80	140	143		1.03	1.03
gen OTAY_46B 13.80	140	143		1.03	1.03	
LINE SANYSYRO 69kV-OTAYLKTP 69kV ck1	line MIGUEL to BORDER 69 ck 1	50	50	1.13	1.16	1.14
LINE SWEETWTR 69kV-MONTGYTP 69kV ck1	line GRNT HLL to SOUTHBAY 138 ck 1	157	157		1.00	
	line SOUTHBAY to SWEETWTR 69 ck 1	157	157	1.16	1.32	
		200	205			1.03
LINE NATNLCTY 69kV-SWTWTRTP 69kV ck1	line SAMPSON to DIVISION 69 ck 1	71	71	1.14	1.35	1.35

Monitored Element	Contingency Description	MVA1	MVA2	10ESYNOY Pre31	10ESYNOY Post31	10ESYNOY Post31p
LINE SHADOWR 138kV-ESCND050 138kV ck1	line CANNON-SANLUSRY-SHADOWR 138	63	73	1.17	1.18	1.18
TRAN ESCND050 138kV-ESCNDIDO 69kV ck2	line CANNON-SANLUSRY-SHADOWR 138	63	73	1.10	1.10	1.10
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	line CREELMAN to LOSCOCHS 69 ck 1	71	71	1.09	1.09	1.09
LINE EL CAJON 69kV-LOSCOCHS 69kV ck1	line GRANITE to GRANITTP 69 ck 1	55	59	1.09	1.08	1.08
LINE PENSQTOS 69kV-DELMARTP 69kV ck1	line PENSQTOS to TOREYPNS 69 ck 1	97	129		1.13	1.13
LINE KEARNY 69kV-MISSION 69kV ck1	line MESAHGTS to MISSION 69 ck 1	97	129	1.22	1.24	1.24
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	line MELROSE to SANLUSRY 69 ck 1	97	102	1.12	1.14	1.14
LINE POMERADO 69kV-SYCAMORE 69kV ck2	line POMERADO to SYCAMORE 69 ck 1	97	136	1.34	1.37	1.37
LINE POMERADO 69kV-SYCAMORE 69kV ck1	line POMERADO to SYCAMORE 69 ck 2	97	136	1.34	1.37	1.37
TRAN SYCAMORE 230kV-SYCAMORE 69kV ck2	tran SYCAMORE 230 to SYCAMORE 69 ck 1	224	269	1.14	1.16	1.16
TRAN SYCAMORE 230kV-SYCAMORE 69kV ck1	tran SYCAMORE 230 to SYCAMORE 69 ck 2	224	285	1.15	1.17	1.17

Post Processor MMC Worst Case Updated With Projects1 Category C MVA1

Monitored Element	Contingency Description	MVA1	MVA2	10ESYNOY Pre31	10ESYNOY Post31	10ESYNOY Post31p
LINE GRANITE 69kV-GRANITTP 69kV ck1	Murray 69kV N Bus	97.5	136.8	1.23	1.23	1.23
LINE MESAHGTS 69kV-MISSION 69kV ck1	Kearny 69kV E Bus	97	136	1.29	1.31	1.31
LINE POWAY 69kV-POMERADO 69kV ck1	SX-PEN + PEN-EA-SA 230KV	97	136		1.20	1.20
	PEN-ES 1/2 230KV	97	136	1.39	1.39	1.39
	SX-PEN 230KV + BE-AR 69KV	97	136		1.20	1.20
	SX-PEN 230KV + AR-SX 69KV	97	136	1.24	1.31	1.31
LINE SOUTHBAY 69kV-SWEETWTR 69kV ck1	Miguel 69kV S Bus	97	136		1.21	
	Southbay 69kV S Bus	97	136	2.09	2.30	
		200	205			1.11
LINE SYCAMORE 69kV-SCRIPPS 69kV ck1	line POMERADO-SYCAMORE 69 ck 1/2	102	130	1.11	1.14	1.14
	Penasquitos 69kV SE Bus	102	130	1.13	1.15	1.15
	POM-SX 1 + 2 69KV	102	130	1.10	1.13	1.13
	MR-PQ 69KV + PQ-MRM 69KV	102	130	1.45	1.47	1.47
LINE TALEGA 230kV-S.ONOFRE 230kV ck1	PEN-ES 1/2 230KV	456	577	1.20	1.21	1.21
LINE TALEGA 230kV-S.ONOFRE 230kV ck2	PEN-ES 1/2 230KV	456	577	1.20	1.21	1.21
LINE GRNT HLL 138kV-SOUTHBAY 138kV ck1	SY-ML61 + SY-TC 138KV	310	434		1.21	1.22
TRAN SOUTHBAY 69kV-SOUTHBAY 138kV ck1	Otay 69kV W Bus	140	143	1.06	1.08	1.08
	ML BK71 & Miguel - Mission #1 230 kV	140	143	1.15	1.09	1.09
	Los Coches 69kV W Bus	140	143	1.06		
	Miguel 69kV S Bus	140	143	1.10	1.03	1.03
	Murray 69kV N Bus	140	143	1.07	1.01	1.01
	ML-MS1+ ML-MS2 230KV	140	143	1.08	1.03	1.02
	SY-ML61 + SY-TC 138KV	140	143	1.23	1.17	1.17
	ML61-LC+ML-LC 138/69KV	140	143	1.07	1.01	1.01
	PV-TC + SY-ML61 138KV	140	143	1.10	1.04	1.04
LINE SANYSYRO 69kV-OTAYLKTP 69kV ck1	Otay 69kV E Bus	50	50		1.08	1.08
	Miguel 69kV S Bus	50	50	1.13	1.16	1.14
LINE SWEETWTR 69kV-MONTGYTP 69kV ck1	Miguel 69kV S Bus	157	157		1.06	
	Southbay 69kV N Bus	157	157	1.17	1.31	
		200	205			1.03
LINE CALAVRTP 138kV-SHADOWR 138kV ck1	PEN-ES 1/2 230KV	112	112	1.18	1.14	1.14
LINE TALEGA 138kV-MARGARTA 138kV ck1	TA-TB + TA-PI 138KV	273	292	1.14	1.14	1.14
LINE TALEGA 138kV-SANMATEO 138kV ck1	TA-TB + TA-PI 138KV	136	136	1.27	1.27	1.27
	PI-CP + TA-TB 138KV	136	136	1.13	1.13	1.13

Monitored Element	Contingency Description	MVA1	MVA2	10ESYNOY Pre31	10ESYNOY Post31	10ESYNOY Post31p
LINE SHADOWR 138kV-ESCND050 138kV ck1	PEN-ES 1/2 230KV	63	73	1.11	1.04	1.04
	CAN-SA-SH + EA-CAN 138KV	63	73	1.17	1.18	1.18
TRAN ESCND050 138kV-ESCNDIDO 69kV ck2	PEN-ES 1/2 230KV	63	73	1.11	1.04	1.03
	CAN-SA-SH + EA-CAN 138KV	63	73	1.10	1.10	1.10
LINE CAPSTRNO 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	157	157	1.17	1.17	1.17
LINE TALEGA 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	204	204	1.11	1.11	1.11
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	Creelman 69kV E Bus	71	71	1.09	1.09	1.09
	Los Coches 69kV W Bus	71	71	1.08	1.08	1.08
LINE EL CAJON 69kV-LOSCOCHS 69kV ck1	El Cajon 69kV S Bus	55	59	1.04	1.06	1.06
	Murray 69kV N Bus	55	59	1.34	1.32	1.32
LINE PENSQTOS 69kV-DELMARTP 69kV ck1	Del Mar 69kV E Bus	97	129	1.13	1.14	1.14
	Penasquitos 69kV SE Bus	97	129	1.14	1.14	1.14
LINE DEL MAR 69kV-PENSQTOS 69kV ck1	Penasquitos 69kV NW Bus	50	50		1.00	
LINE PENSQTOS 69kV-MIRAMRTP 69kV ck1	Penasquitos 69kV SE Bus	97	102	1.10	1.07	1.07
	MR-PQ 69KV + PQ-MRM 69KV	97	102	1.28	1.25	1.25
LINE KEARNY 69kV-MISSION 69kV ck1	Mission 69kV S Bus	97	129	1.23	1.24	1.24
LINE MELROSE 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV S Bus	97	102	1.05	1.07	1.07
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV N Bus	97	102	1.15	1.17	1.17
LINE POMERADO 69kV-SYCAMORE 69kV ck2	Sycamore 69kV S Bus	97	136	1.57	1.61	1.61
LINE DEL MAR 69kV-DELMARTP 69kV ck1	Del Mar 69kV E Bus	50	54	1.11	1.11	1.11
LINE MONSRATE 69kV-MNSRATTP 69kV ck1	Lilac 69kV S Bus	77	77	1.01	1.01	1.01
LINE MIGUEL 69kV-JAMACHA 69kV ck1	Miguel 69kV N Bus	97	136	1.24	1.27	1.27
LINE B 69kV-MAIN ST 69kV ck2	Main St 69kV W Bus	97	111	1.10	1.15	1.15
LINE GARFIELD 69kV-EL CAJON 69kV ck1	Murray 69kV N Bus	97	102	1.26	1.27	1.27
LINE MURRAY 69kV-GARFIELD 69kV ck1	Murray 69kV N Bus	97	103		1.00	1.00
LINE BERNARDO 69kV-R.CARMEL 69kV ck1	Poway 69kV Bus	68	76	1.53	1.54	1.54
	POM-SX 1 + 2 69KV	68	76	1.34	1.35	1.35
LINE R.SNTAFE 69kV-R.SNTATP 69kV ck1	PEN-ES 1/2 230KV	64	64	1.01		
LINE SANMATEO 138kV-LAGNA NL 138kV ck1	TA-TB + TA-PI 138KV	136	136	1.02	1.02	1.02
LINE CHOLLAS 69kV-SPRNGVLY 69kV ck1	ML-JM 1 + 2 69KV	97	136		1.22	1.22

Post Processor MMC Worst Case Updated With Projects1 Category B MVA2

Monitored Element	Contingency Description	MVA1	MVA2	10ESYNOY Pre31	10ESYNOY Post31	10ESYNOY Post31p
LINE SOUTHBAY 69kV-SWEETWTR 69kV ck1	line MONTGMRY to MONTGYTP 69 ck 1	97	136	1.245	1.408	
LINE TALEGA 230kV-S.ONOFRE 230kV ck1	line TALEGA to S.ONOFRE 230 ck 1	456	577	1.228	1.276	1.269
LINE TALEGA 230kV-S.ONOFRE 230kV ck2	line TALEGA to S.ONOFRE 230 ck 2	456	577	1.228	1.276	1.269
TRAN SOUTHBAY 69kV-SOUTHBAY 138kV ck1	line MIGUEL to BORDER 69 ck 1	140	143	1.166	1.095	1.093
	line ML-MS&ML-SX 230kV SPS6.3	140	143	1.057	1.005	1.003
	line ML-MS 1/2 230 kV SPS6.4	140	143	1.057	1.005	1.003
	line MISSION to GRNT HLL 138 ck 1	140	143	1.306	1.261	1.259
	line GRNT HLL to SOUTHBAY 138 ck 1	140	143	1.332	1.287	1.285
	line TELECYN to SOUTHBAY 138 ck 1	140	143	1.062	1.003	1.001
	line SOUTHBAY to MIGUEL61 138 ck 1	140	143	1.029		
	line MIGUEL61 to LOSCOCHS 138 ck 1	140	143	1.069	1.012	1.01
	line OLD TOWN to KETTNER 69 ck 1	140	143	1.042		
	line LONESTAR to BORDERTP 69 ck 1	140	143	1.049		
	tran MIGUEL 69 to MIGUEL 230 ck 1	140	143	1.093	1.033	1.032
	tran MIGUEL 69 to MIGUEL 230 ck 2	140	143	1.093	1.033	1.032
	tran OLD TOWN 69 to OLD TOWN 230 ck 1	140	143	1.038		
	tran OLD TOWN 69 to OLD TOWN 230 ck 2	140	143	1.038		
	gen CALPK_BD 13.80	140	143	1.029		
	gen LRKSP_BD 13.80	140	143	1.031		
	gen OTAY_49 13.80	140	143	1.071		
	gen SOUTHBY1 15.00	140	143	1.274	1.212	1.211
	gen DIVISION 69.00	140	143	1.032		
	gen OTAY_46A 13.80	140	143		1.005	1.003
gen OTAY_46B 13.80	140	143		1.005	1.003	
LINE SANYSYRO 69kV-OTAYLKTP 69kV ck1	line MIGUEL to BORDER 69 ck 1	50	50	1.129	1.164	1.14
LINE SWEETWTR 69kV-MONTGYTP 69kV ck1	line GRNT HLL to SOUTHBAY 138 ck 1	157	157		1.001	
	line SOUTHBAY to SWEETWTR 69 ck 1	157	157	1.162	1.315	
		200	205			1.007
LINE NATNLCTY 69kV-SWTWTRTP 69kV ck1	line SAMPSON to DIVISION 69 ck 1	71	71	1.136	1.354	1.354
LINE SHADOWR 138kV-ESCND050 138kV ck1	line CANNON-SANLUSRY-SHADOWR 138	63	73	1.014	1.015	1.015
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	line CREELMAN to LOSCOCHS 69 ck 1	71	71	1.085	1.089	1.089
LINE EL CAJON 69kV-LOSCOCHS 69kV ck1	line GRANITE to GRANITTP 69 ck 1	55	59	1.014	1.003	1.003
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	line MELROSE to SANLUSRY 69 ck 1	97	102	1.065	1.08	1.08

Post Processor MMC Worst Case Updated With Projects1 Category C MVA2

Monitored Element	Contingency Description	MVA1	MVA2	10ESYNOY Pre31	10ESYNOY Post31	10ESYNOY Post31p
LINE SOUTHBAY 69kV-SWEETWTR 69kV ck1	Southbay 69kV S Bus	97	136	1.487	1.638	
		200	205			1.079
LINE SYCAMORE 69kV-SCRIPPS 69kV ck1	MR-PQ 69KV + PQ-MRM 69KV	102	130	1.136	1.151	1.151
TRAN SOUTHBAY 69kV-SOUTHBAY 138kV ck1	Otay 69kV W Bus	140	143	1.041	1.056	1.055
	ML BK71 & Miguel - Mission #1 230 kV	140	143	1.129	1.071	1.069
	Los Coches 69kV W Bus	140	143	1.034		
	Miguel 69kV S Bus	140	143	1.074	1.006	1.004
	Murray 69kV N Bus	140	143	1.045		
	ML-MS1+ ML-MS2 230KV	140	143	1.057	1.005	1.003
	SY-ML61 + SY-TC 138KV	140	143	1.203	1.143	1.142
	ML61-LC+ML-LC 138/69KV	140	143	1.05		
LINE SANYSURO 69kV-OTAYLKTP 69kV ck1	PV-TC + SY-ML61 138KV	140	143	1.074	1.017	1.016
	Otay 69kV E Bus	50	50		1.076	1.076
LINE SWEETWTR 69kV-MONTGYTP 69kV ck1	Miguel 69kV S Bus	50	50	1.128	1.162	1.138
	Miguel 69kV S Bus	157	157		1.055	
	Southbay 69kV N Bus	157	157	1.17	1.313	
		200	205			1.006
LINE CALAVRTP 138kV-SHADOWR 138kV ck1	PEN-ES 1/2 230KV	112	112	1.181	1.138	1.137
LINE TALEGA 138kV-MARGARTA 138kV ck1	TA-TB + TA-PI 138KV	273	292	1.066	1.066	1.066
LINE TALEGA 138kV-SANMATEO 138kV ck1	TA-TB + TA-PI 138KV	136	136	1.274	1.273	1.273
	PI-CP + TA-TB 138KV	136	136	1.132	1.131	1.131
LINE SHADOWR 138kV-ESCND050 138kV ck1	CAN-SA-SH + EA-CAN 138KV	63	73	1.013	1.015	1.015
LINE CAPSTRNO 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	157	157	1.168	1.167	1.167
LINE TALEGA 138kV-PICO 138kV ck1	TA-TB + LNL-SMO 138KV	204	204	1.112	1.111	1.111
LINE CREELMAN 69kV-SYCAMORE 69kV ck1	Creelman 69kV E Bus	71	71	1.092	1.094	1.094
	Los Coches 69kV W Bus	71	71	1.077	1.081	1.081
LINE EL CAJON 69kV-LOSCOCHS 69kV ck1	Murray 69kV N Bus	55	59	1.251	1.229	1.23
LINE DEL MAR 69kV-PENSQTOS 69kV ck1	Penasquitos 69kV NW Bus	50	50		1.001	
LINE PENSQTOS 69kV-MIRAMRTP 69kV ck1	Penasquitos 69kV SE Bus	97	102	1.042	1.018	1.018
	MR-PQ 69KV + PQ-MRM 69KV	97	102	1.213	1.192	1.192
LINE MELROSE 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV S Bus	97	102		1.013	1.012

Monitored Element	Contingency Description	MVA1	MVA2	10ESYNOY Pre31	10ESYNOY Post31	10ESYNOY Post31p
LINE MELRSETP 69kV-SANLUSRY 69kV ck1	San Luis Rey 69kV N Bus	97	102	1.096	1.112	1.111
LINE POMERADO 69kV-SYCAMORE 69kV ck2	Sycamore 69kV S Bus	97	136	1.121	1.148	1.148
LINE DEL MAR 69kV-DELMARTP 69kV ck1	Del Mar 69kV E Bus	50	54	1.024	1.029	1.029
LINE MONSRATE 69kV-MNSRATTP 69kV ck1	Lilac 69kV S Bus	77	77	1.01	1.012	1.011
LINE B 69kV-MAIN ST 69kV ck2	Main St 69kV W Bus	97	111		1.005	1.004
LINE GARFIELD 69kV-EL CAJON 69kV ck1	Murray 69kV N Bus	97	102	1.199	1.204	1.204
LINE BERNARDO 69kV-R.CARMEL 69kV ck1	Poway 69kV Bus	68	76	1.37	1.374	1.374
	POM-SX 1 + 2 69KV	68	76	1.199	1.209	1.209
LINE R.SNTAFE 69kV-R.SNTATP 69kV ck1	PEN-ES 1/2 230KV	64	64	1.008		
LINE SANMATEO 138kV-LAGNA NL 138kV ck1	TA-TB + TA-PI 138KV	136	136	1.016	1.015	1.015

Appendix D
Load and Resource Summary Table

Table D1. Dispatch Stack for 2010HS W/ Existing South Bay and 3 Border Generating Units On

	kV	2010HS Pre (MW)	2010HS Post (MW)
QF Generation (Always On)			
ASH	69	0.9	0.9
CABRILLO	69	2.9	2.9
CAPSTRNO	138	3.3	3.3
CARLTNHS	138	2.6	2.6
DIVISION	69	47	47
EASTGATE	69	1	1
GOALLINE	69	48.1	48.1
MESAHGTS	69	3.1	3.1
MURRAY	69	0.2	0.2
NOISLMTR	69	33	33
OTAY	69	2.8	2.8
POINTLMA	69	24.3	24.3
R.SNTAFE	69	0.7	0.7
SAMPSON	12.5	11	11
SANMRCOS	69	1.1	1.1
SHADOWR	138	0.1	0.1
Subtotal		182.1	182.1
Priority One			
SOUTHBY1	15	145	143
SOUTHBY2	15	144	145
SOUTHBY3	20	174	174
SOUTHBY4	20	221	221
CALPK_BD	13.8	42	42
LRKSPBD1	13.8	46	46
LRKSPBD2	13.8	46	46
Subtotal		818	817
Priority Two			
CAMPOGEN	0.69	10	10
ELSNORE1	16	150	250
ELSNORE2	16	150	250
ENCINA 1	14.4	80	75
ENCINA 2	14.4	80	75
ENCINA 3	14.4	80	75
ENCINA 4	22	150	75
ENCINA 5	24	150	75
IV GEN1	21	155	155
IV GEN2	18	113	116
IV GEN3	18	113	116
LkHodG1	13.8	20	20
LkHodG2	13.8	20	20
OTAYMGT1	18	150	100

OTAYMGT2	18	150	100
OTAYMST1	16	3.2	68.7
OTAY_49	13.8	49.5	46.5
OTAY_60	13.8	0	46.5
PEN_CT1	18	100	100
PEN_CT2	18	100	100
PEN_ST	18	200	100
SXCC-U1	16	115	140
SXCC-U2	16	115	135
SXCC-U3	21	200	200
SXCC-U4	16	125	135
BARRETT	69	0	0
CALPK_EC	13.8	0	0
CALPK_ES	13.8	0	0
CW117MWG	34.5	0	0
CW36MWG	34.5	0	0
ELCAJNGT	12.5	0	0
ENCINAGT	12.5	0	0
INTBCT	16	0	0
INTBST	18	0	0
KEARN2AB	12.5	0	0
KEARN2AB	12.5	0	0
KEARN2CD	12.5	0	0
KEARN2CD	12.5	0	0
KEARN3AB	12.5	0	0
KEARN3AB	12.5	0	0
KEARN3CD	12.5	0	0
KEARN3CD	12.5	0	0
KEARNGT1	12.5	0	0
MEF	13.8	0	0
MIRAMRGT	12.5	0	0
MIRAMRGT	12.5	0	0
PFC-AVC	0.6	0	0
RAMCO_ES	13.8	0	0
SOLAR1_A	230	0	0
SOUTHBGT	12.5	0	0
TALEGA	3.2	0	0
TULEG	34.5	0	0
TULEG	34.5	0	0
Subtotal		2578.7	2583.7
TOTAL		3578.8	3582.8

Appendix E
IFAS Restudy Short Circuit Results

Table E1. Short Circuit Results for Future Year 2010HS W/ Existing 138/69kV South Bay Configuration

BREAKER	Data	FY Pre	FY Post
CS614	Percent Duty	96.5	97.1
	Breaker Capacity	21000	21000
CS622	Percent Duty	96.5	97.1
	Breaker Capacity	21000	21000
CS640	Percent Duty	96.5	97.1
	Breaker Capacity	21000	21000
CW69	Percent Duty	8.6	8.6
	Breaker Capacity	32000	32000
DI606	Percent Duty	103.1	104
	Breaker Capacity	44000	44000
DI658	Percent Duty	165.4	166.9
	Breaker Capacity	27000	27000
DI6901	Percent Duty	108.6	109.6
	Breaker Capacity	40000	40000
EC624	Percent Duty	107.6	107.8
	Breaker Capacity	21000	21000
EL636	Percent Duty	112.9	112.9
	Breaker Capacity	21000	21000
EL671	Percent Duty	112.9	112.9
	Breaker Capacity	21000	21000
ES30	Percent Duty	114.1	114.1
	Breaker Capacity	40000	40000
ES31	Percent Duty	114.1	114.1
	Breaker Capacity	40000	40000
ES32	Percent Duty	114.1	114.1
	Breaker Capacity	40000	40000
ES50	Percent Duty	114.1	114.1
	Breaker Capacity	40000	40000
ES679	Percent Duty	114.1	114.1
	Breaker Capacity	40000	40000
ES684	Percent Duty	114.1	114.1
	Breaker Capacity	40000	40000
ES688	Percent Duty	114.1	114.1
	Breaker Capacity	40000	40000
ES689	Percent Duty	114.1	114.1
	Breaker Capacity	40000	40000
ES6908	Percent Duty	114.1	114.1
	Breaker Capacity	40000	40000
ES6930	Percent Duty	113.5	113.5
	Breaker Capacity	40000	40000
ES696	Percent Duty	114.1	114.1
	Breaker Capacity	40000	40000
ES70	Percent Duty	114.1	114.1
	Breaker Capacity	40000	40000
ES71	Percent Duty	114.1	114.1
	Breaker Capacity	40000	40000

BREAKER	Data	FY Pre	FY Post
ES72	Percent Duty	113.5	113.5
	Breaker Capacity	40000	40000
GE31	Percent Duty	98.2	98.2
	Breaker Capacity	26000	26000
GE665	Percent Duty	98.2	98.2
	Breaker Capacity	26000	26000
GE6905	Percent Duty	98.2	98.2
	Breaker Capacity	26000	26000
KY30	Percent Duty	101.9	101.9
	Breaker Capacity	29000	29000
KY31	Percent Duty	109.5	109.5
	Breaker Capacity	27000	27000
KY32	Percent Duty	109.5	109.5
	Breaker Capacity	27000	27000
KY663	Percent Duty	101.9	101.9
	Breaker Capacity	29000	29000
LCEAST31	Percent Duty	109.2	109.3
	Breaker Capacity	21000	21000
LCEASTBT	Percent Duty	95.5	95.6
	Breaker Capacity	24000	24000
LCWEST32	Percent Duty	109.3	109.4
	Breaker Capacity	21000	21000
LCWESTBT	Percent Duty	95.6	95.7
	Breaker Capacity	24000	24000
ME32	Percent Duty	108.1	108.1
	Breaker Capacity	12500	12500
ME33	Percent Duty	108.1	108.1
	Breaker Capacity	12500	12500
MG30	Percent Duty	105.7	109.6
	Breaker Capacity	29000	29000
MG31	Percent Duty	105.7	109.6
	Breaker Capacity	29000	29000
MG641	Percent Duty	114.2	117.7
	Breaker Capacity	27000	27000
MG642	Percent Duty	114.2	117.7
	Breaker Capacity	27000	27000
MI602	Percent Duty	101.4	102
	Breaker Capacity	40000	40000
MI605	Percent Duty		95.4
	Breaker Capacity		42000
MI652	Percent Duty		95.4
	Breaker Capacity		42000
MI656	Percent Duty		95.4
	Breaker Capacity		42000
MI657	Percent Duty	96.6	97.1
	Breaker Capacity	42000	42000
MI699	Percent Duty	98.6	99.1

BREAKER	Data	FY Pre	FY Post
	Breaker Capacity	42000	42000
MS30	Percent Duty	119.1	119.2
	Breaker Capacity	40000	40000
MS31	Percent Duty	119.1	119.2
	Breaker Capacity	40000	40000
MS32	Percent Duty	119.1	119.2
	Breaker Capacity	40000	40000
MS33	Percent Duty	119.1	119.2
	Breaker Capacity	40000	40000
MS50	Percent Duty	116.2	116.3
	Breaker Capacity	41000	41000
MS51	Percent Duty	116.2	116.3
	Breaker Capacity	41000	41000
MS52	Percent Duty	116.2	116.3
	Breaker Capacity	41000	41000
MS618	Percent Duty	113.4	113.5
	Breaker Capacity	42000	42000
MS619	Percent Duty	119.1	119.2
	Breaker Capacity	40000	40000
MS653	Percent Duty	119.1	119.2
	Breaker Capacity	40000	40000
MS654	Percent Duty	119.1	119.2
	Breaker Capacity	40000	40000
MS663	Percent Duty	113.4	113.5
	Breaker Capacity	42000	42000
MS670	Percent Duty	113.4	113.5
	Breaker Capacity	42000	42000
MS671	Percent Duty	119.1	119.2
	Breaker Capacity	40000	40000
MS676	Percent Duty	119.1	119.2
	Breaker Capacity	40000	40000
MS70	Percent Duty	119.1	119.2
	Breaker Capacity	40000	40000
PQ13810	Percent Duty	138.6	138.7
	Breaker Capacity	21000	21000
PQ50	Percent Duty	247.5	247.6
	Breaker Capacity	63000	63000
PQ51	Percent Duty	128.1	128.2
	Breaker Capacity	38000	38000
PQ52	Percent Duty	128.1	128.2
	Breaker Capacity	38000	38000
PQ610	Percent Duty	110.8	110.9
	Breaker Capacity	42000	42000
PQ661	Percent Duty	108.9	108.9
	Breaker Capacity	42000	42000
PQ662	Percent Duty	108.9	108.9
	Breaker Capacity	42000	42000

BREAKER	Data	FY Pre	FY Post
PQ664	Percent Duty	122.5	122.6
	Breaker Capacity	38000	38000
PQ665	Percent Duty	116.4	116.4
	Breaker Capacity	40000	40000
PQ666	Percent Duty	116.4	116.4
	Breaker Capacity	40000	40000
PQ667	Percent Duty	116.4	116.4
	Breaker Capacity	40000	40000
PQ674	Percent Duty	108.9	108.9
	Breaker Capacity	42000	42000
PQ675	Percent Duty	108.9	108.9
	Breaker Capacity	42000	42000
PQ6905	Percent Duty	108.9	108.9
	Breaker Capacity	42000	42000
PQ6906	Percent Duty	122.5	122.6
	Breaker Capacity	38000	38000
PQ70	Percent Duty	116.4	116.4
	Breaker Capacity	40000	40000
PQ71	Percent Duty	128.1	128.2
	Breaker Capacity	38000	38000
RN617	Percent Duty	116.1	116.2
	Breaker Capacity	21000	21000
RN661	Percent Duty	116.1	116.2
	Breaker Capacity	21000	21000
RN6927	Percent Duty	116.1	116.2
	Breaker Capacity	21000	21000
SA34	Percent Duty	160.2	160.2
	Breaker Capacity	27000	27000
SA35	Percent Duty	160.2	160.2
	Breaker Capacity	27000	27000
SA51	Percent Duty	109.1	109.1
	Breaker Capacity	38000	38000
SA680	Percent Duty	160.2	160.2
	Breaker Capacity	27000	27000
SA690	Percent Duty	108.1	108.1
	Breaker Capacity	40000	40000
SA6912	Percent Duty	160.2	160.2
	Breaker Capacity	27000	27000
SA693	Percent Duty	160.2	160.2
	Breaker Capacity	27000	27000
SA694	Percent Duty	137.3	137.3
	Breaker Capacity	31500	31500
SA697	Percent Duty	160.2	160.2
	Breaker Capacity	27000	27000
SF616	Percent Duty	114.2	114.2
	Breaker Capacity	13000	13000
SO23007	Percent Duty	118.1	118.2

BREAKER	Data	FY Pre	FY Post
	Breaker Capacity	50000	50000
SY1	Percent Duty	167.7	174.5
	Breaker Capacity	29000	29000
SY50	Percent Duty	215	219.9
	Breaker Capacity	79000	79000
SY641	Percent Duty	115.8	120.5
	Breaker Capacity	42000	42000
SY642	Percent Duty	127.2	132.5
	Breaker Capacity	38000	38000
SY644	Percent Duty	115.8	120.5
	Breaker Capacity	42000	42000
SY645	Percent Duty	115.8	120.5
	Breaker Capacity	42000	42000
SY646	Percent Duty	115.8	120.5
	Breaker Capacity	42000	42000
SY647	Percent Duty	115.1	119.9
	Breaker Capacity	42000	42000
SYGT1	Percent Duty	115.8	120.5
	Breaker Capacity	42000	42000
WA651	Percent Duty	97.3	97.9
	Breaker Capacity	21000	21000
WA652	Percent Duty	97.3	97.9
	Breaker Capacity	21000	21000