



**CH2MHILL**

CH2M HILL  
610 Anacapa Street  
Santa Barbara, CA 93101  
Tel 805-568-0650  
Fax 714-424-2016

**DOCKET**

**01-EP-7C**

DATE JAN 16 2009

RECD. JAN 16 2009

January 16, 2009

Mr. Ron Yasny, Compliance Project Manager  
California Energy Commission  
1516 Ninth Street, MS-2000  
Sacramento, CA 95814-5512

Mr. Mathew Trask, Amendment Project Manager  
Energy Facility Siting Division  
California Energy Commission  
1516 Ninth Street  
Sacramento, CA 95814-5512

**Subject: Data Responses Set 1 (Responses to Data Requests 1 through 11)  
GWF Hanford Combined Cycle Power Plant Project (01-EP-7)**

On behalf of the GWF Energy LLC., attached please find six hard copies and three CD copies of the GWF Hanford Data Responses, Set 1, in response to CEC Staff's Data Requests dated December 8, 2008. As part of this submittal, we are also providing two hard copies and five CD copies of the **GWF Hanford System Impact Study (Attachments DR8-1), per CEC Data Request Number 8.**

Please contact me should you have any questions.

Sincerely,

CH2M HILL

Jennifer L. Scholl  
Senior Project Manager/Regulatory Specialist

*Petition for License Amendment*

# **GWF Hanford Combined-Cycle Power Plant**

System Impact Study  
Submitted in Support of  
GWF Hanford Energy Park Peaker (01-EP-7)

Submitted by



With Technical Assistance by

**CH2MHILL**

January 2009

---

# System Impact Study

Generation Interconnection

---

GWF Energy LLC

GWF Hanford Combined Cycle Power Plant

December 10, 2008

## Table of Contents

1.	Executive Summary .....	1
2.	Project and Interconnection Information .....	2
3.	Study Assumptions .....	4
4.	Powerflow Study Base Cases .....	5
5.	Study Criteria Summary .....	7
6.	Steady State Power Flow Study and Results .....	8
7.	Reactive Power Deficiency Analysis.....	11
8.	Transient Stability Results.....	12
9.	Short Circuit Study Results .....	13
10.	Mitigation .....	14
11.	Cost Estimates.....	17
12.	Environmental Evaluation / Permitting .....	17
13.	Study Updates.....	19

## Appendices

- A. Contingency Lists for Outages
- B. Governor Power flow Outages
- C. Steady State Power Flow Results
- D. Steady State Power Flow Plots
- E. Transient Stability Plots
- F. Generator Machine Dynamic Data

## 1. Executive Summary

GWF Energy, LLC (GWF), proposes to interconnect the 25 MW Steam Turbine (Project) to the existing GWF Hanford facility consisting of two 50 MW Combustion Turbines (CT). The interconnection point will be at the 115-kV bus at Pacific Gas & Electric Company's (PG&E) Hanford Switchyard, located on the GWF project site. The planned operation date for the proposed Project is May 1, 2012.

In order for the Project to proceed through the California Energy Commission's (CEC) License Amendment process a system impact study for the Project must be completed. The CEC has stated that it will accept a "third party" impact study and, therefore, GWF has requested that Navigant Consulting Inc. (NCI) perform a System Impact Study (SIS) for the Project. This SIS:

- Identifies the transmission system impacts caused solely by the addition of the proposed Project, using the same model PG&E uses for their studies performed with CAISO.
- Identifies the system reinforcements necessary to mitigate the adverse impacts of the proposed Project under various system conditions, and
- Provides preliminary cost estimates for the above system reinforcements.

To determine the system impacts caused by the addition of the Avenal Project, studies were performed using the following full loop base cases: 1) 2013 Summer Peak, 2) 2013 Summer Off-Peak, and 3) 2013 Spring Peak. The studies performed included:

- Steady State Power Flow
- Governor Power Flow
- Dynamic Stability Analysis
- Short Circuit Analysis
- Reactive Margin Analysis

This evaluation, which was performed using data provided by PG&E and in a manner similar to that used by PG&E in performing generation interconnection system impact studies in accordance with existing CAISO/PG&E tariff rules, concludes that the addition of the Project would cause a number of pre-existing normal and/or emergency overloads to increase and would result in some new normal and emergency overloads. These new overloads include:

- One (1) Spring Peak Category "B" overload,
- Three (3) Summer Off-Peak Category "C" overloads.

The power flow analysis also indicated that the Project causes no reactive power deficiencies.

Dynamic Stability Study and Reactive Margin Study results indicated that the transmission system's performance, relative to the applicable reliability guidelines, would not be impacted by the GWF Project following selected disturbances.

The preliminary cost estimate of the Interconnection Facilities<sup>1</sup> to interconnect the Project is approximately **\$3.6 million**, exclusive of ITCC<sup>2</sup>.

## 2. Project and Interconnection Information

As discussed above the Project will be located at the existing Hanford Switchyard. Figure 2-1 provides a map of the Project area and of the transmission facilities in the proximity of the Project.

The Project will be an addition of a steam turbine generator, along with the steam turbines associated generator step-up transformer (GSU), to the existing two combustion turbine generators which will establish a combined cycle power plant. Specific information regarding the Project Expansion configuration is as follows:

- Steam turbine generator - 27 MW (gross)
- Auxiliary load – 2.0 MW
- Total maximum net output of 25 MW
- STG step-up transformer – Rated at 13.8/115-kV and 35 MVA.

---

<sup>1</sup> The transmission facilities necessary to physically and electrically interconnect the Project to the CAISO Controlled Grid, including system upgrades.

<sup>2</sup> Income Tax Component of Contribution.

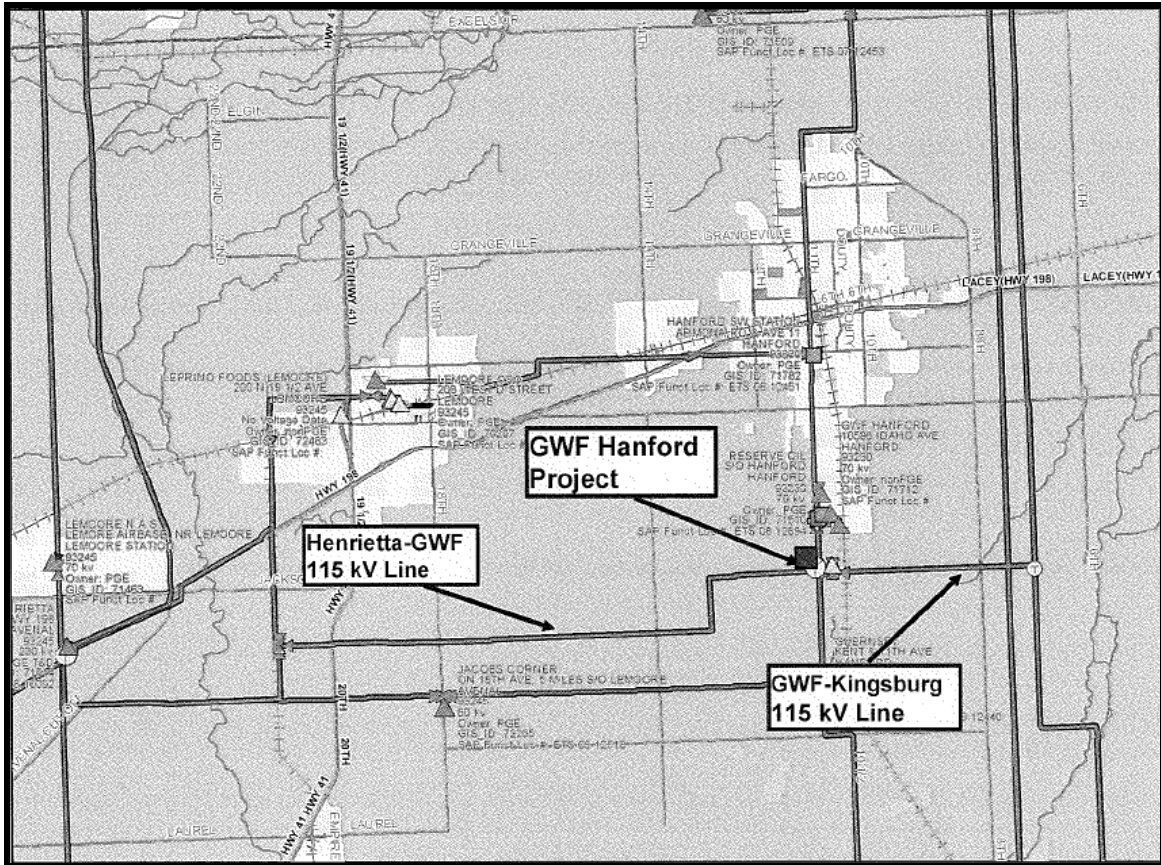
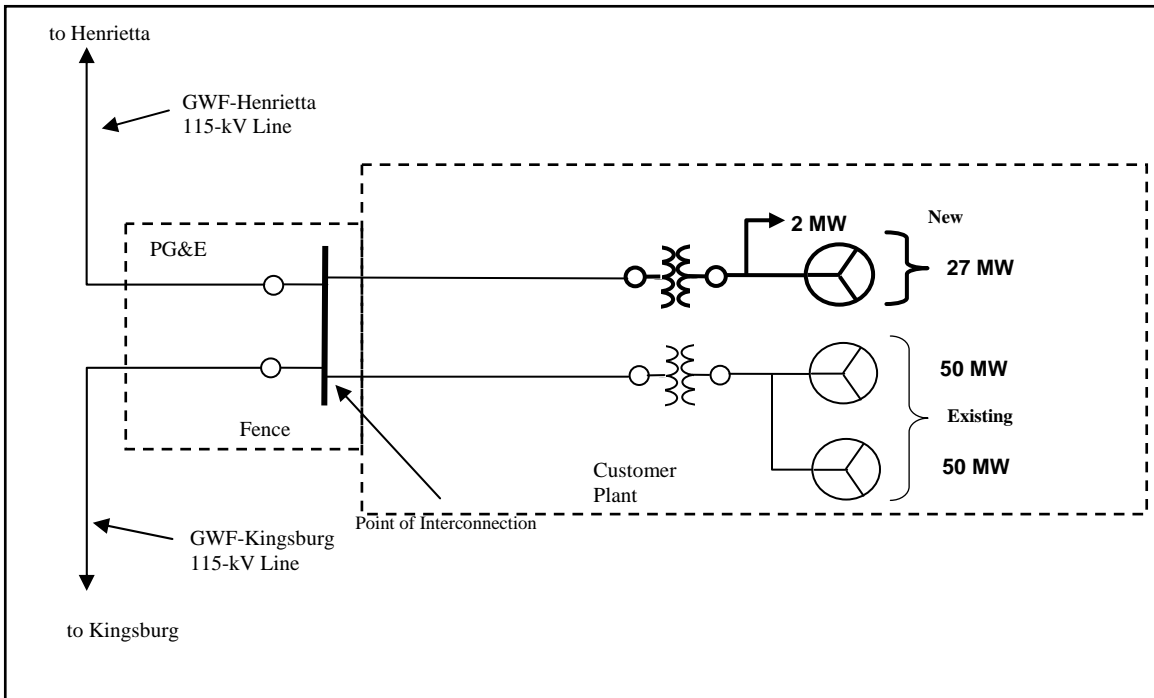


Figure 2-1: Project Location Map

Figure 2-2 is a conceptual one-line diagram for the Project and the related interconnection facilities.





**Figure 2-2: Conceptual One-Line Diagram**

### 3. Study Assumptions

NCI conducted this SIS using the following assumptions:

1. The Project will be a steam turbine generator rated for 27 MW. The maximum total gross output from the Project is 27 MW with an expected total plant load of 2.0 MW. Therefore, the maximum net output to the grid will be 25 MW.
2. The expected commercial operation date is May 2012.
3. The step-up transformer for the STG, will be a three-phase, 13.8/115-kV delta/wye grounded transformer, rated at 35 MVA @ 65 degree C rise with an impedance of 9% @ 35 MVA base.
4. The generator will tie into the existing Hanford Switchyard.
5. The planned generating facilities in PG&E's Greater Fresno service area whose schedules are concurrent with or precede the Project's schedule will be modeled on-line.

#### 4. Powerflow Study Base Cases

Six power flow base cases (three pre-Project and three post-Project) were used to evaluate the transmission system impacts of the Project. While it is impossible to study all combinations of system load and generation levels during all seasons and at all times of the day, these base cases will represent extreme loading and generation conditions for the study area. However, there is no guarantee that:

- The Project can operate at maximum rated output 24 hours a day, year round, without system impacts, or
- The Project will not cause system impacts during the times and seasons not studied in this SIS.

The power flow analysis was performed using the following WECC full-loop base cases (all in General Electric Power Flow format).

- A 2013 Summer Peak Base Case which was developed from PG&E's 2007 base case series and has a 1-in-10 year extreme weather load level for the Greater Fresno Area.
- A 2013 Spring Peak Base Case which was developed to evaluate potential transmission congestion with typical Spring season load conditions and very high hydro-generation levels (as is typical during the Spring season).
- A 2013 Summer Off-Peak Base Case which was developed to evaluate potential transmission congestion during off-peak system conditions. The load in the Greater Fresno area was modeled at 50% of the summer peak load level and two units at Helms PGP (620 MW total) were assumed in pumping mode.

Table 4-1 summarizes information regarding critical path flows and northern California area loads and generation for each of the above cases.

The above base cases were provided by PG&E and developed for the GWF Henrietta SIS. These cases according to the Henrietta IFS study plan model all approved CAISO transmission reliability projects that will be operational by 2013. The cases were then modified for this Project to model proposed generation projects that are ahead of it in the CAISO queue.

The major queued generation projects in the southern portion of the PG&E system modeled in the above base cases are summarized in Table 4-2.

**Table 4-1: Key Base Case Parameters**

	Powerflow Case		
	Summer Peak	Spring Peak	Summer Off-Peak
Critical Path Flows (North-to-South, MW)			
Path 15 (Los Banos - Midway)	(1968)	(966)	(5,000)
Path 26 (Midway-Vincent)	3,945	2,889	(591)
Path 65 (PDCI)	2,500	3,091	(1,846)
Path 66 (COI)	4,742	4,501	(3,647)
Northern California Data (MW)			
Area Loads	28,155	22,833	14027
Area Losses	1,244	1,012	721
Area Generation	28,518	22,170	18,651

**Table 4-2: Modeling of Queued Projects in GWF SIS**

Queue Position	Interconnection Point	Capacity (MW)
9	Morro Bay 230-kV bus	1,200
16	Lompoc area 115-kV lines	120
42	McCall 115-kV bus	300
52	Panoche 230-kV bus	401
54	Panoche 115-kV bus	120
60	Kern Oil 115-kV bus	94
128	McCall 230-kV bus	565
152	Mesa-Divide #1 and #2 115-kV lines	105
166	Morro Bay-Midway 230-kV line	210
194	230-kV lines near Carrizo Plains sub.	190
196	Borden 230-kV bus	508
238	Temblor-San Luis Obispo 115-kV line	45
239	Morro Bay-Midway 230-kV line	250
242	Morro Bay-Midway 230-kV line	390
253	Cabrillo substation	40
254	Gates Substation 230-kV Bus	600
261	Mendota-San Joaquin-Helm 70-kV Line	5
272	Henrietta 70-kV Bus	27
282	Dairyland-Mendota 115-kV	29
283	Gates Substation 230-kV Bus	107
293	Helm-Kerman 70-kV	5.2
299	Hanford Switchyard 115-kV	27

## 5. Study Criteria Summary

### 5.1 Powerflow Studies

Criteria applied during the powerflow analysis were as follows:

- Normal (Category A) conditions:
  - All line and transformer loadings shall be below normal rating.
  - Bus voltages will not exceed the minimum or maximum limits established.
- Contingency (Category B and C) conditions:
  - No transmission element will be loaded above the emergency rating.
  - Bus voltage deviations shall not exceed 5% for Category B and 10% for Category C outages.
  - There will be no loss of load for Category B outages.

### 5.2 Transient Stability Analysis

Transient stability studies were performed to assess the impact of the Project on the system. Each contingency was simulated for 20 seconds in order to demonstrate that it complies with NERC/WECC Planning criteria.

Criteria applied in these studies will be as follows:

- All machines in the system shall remain in synchronism as demonstrated by their relative rotor angles.
- System stability is evaluated based on the damping of the relative rotor angles and the damping of the voltage magnitude swings.
- Transient voltage dips and frequency dips must meet the WECC Reliability Criteria summarized in Table 5-1.

**Table 5-1: WECC Reliability Criteria**

Performance Level	Disturbance	Transient Voltage Dip Criteria	Transient Frequency Dip Criteria	Post Transient Voltage Deviation
B	N-1 (Single Contingency)	Max V Dip at Load Buses- 25% Max Duration of V Dip > 20% - 20 cycles	Duration of Frequency Below 59.6 Hz - 6 cycles	Not to exceed 5%
C	N-2 (Double Contingency)	Max V Dip - 30% Max Duration of V Dip > 20% - 40 cycles	Duration of Frequency Below 59.4 Hz - 6 cycles	Not to exceed 10%

### 5.3 Reactive Margin Analysis

In order to meet planning standards, the system must have positive reactive margin with the Path flow increased by 5% for Category B outages and increased by 2.5% for Category C outages. Positive reactive margin with rated Path flows is all that is required for outages involving two nuclear units at the Palo Verde, San Onofre, or Diablo Canyon nuclear plants.

## 6. Steady State Power Flow Study and Results

This SIS investigated the Project’s impact on the CAISO Controlled Grid. The study utilized three seasonal base cases to simulate the impact of interconnecting the Project during normal operating conditions as well as during Category B and Category C contingency conditions (described below in section 6.1).

### 6.1 Contingencies

The Category “B” and “C” contingencies used in this analysis are provided in Appendix A. The single (Category “B”) and selected multiple (Category “C”) contingencies include the following outages:

#### 6.1.1 Category “B”

- All single (60 – 500-kV) generator outages within the study area
- All single (60 – 500-kV) transmission circuit outages within the study area
- All single (60 – 500-kV) transformer outages within the study area
- Selected overlapping single generator and transmission circuit outages for the transmission lines and generators within the study area
- 500-kV facility outages were simulated using a governor power flow program.

### **6.1.2 Category “C”**

- Selected bus (60-230-kV) outages within the study area
- Selected outages caused by selected breaker failures (excluding bus tie and sectionalizing breakers) at the same above bus section
- Selected combination of any two-generator/transmission line/transformer outages (except ones included above in Category “B”) within the study area
- Selected outages of double circuit tower lines (60-500-kV) within the study area.
- 500-kV facility outages were simulated using a governor power flow program. Path 15 Internal Remedial Action Scheme (IRAS) was also simulated for the relevant outages during the Summer Off-Peak base case in which there are high south-to-north flows across Path 15.

## **6.2 Power Flow Study Results**

Appendix A provides a list of the contingencies studied. Appendix B provides the switching sequences for those 500-kV outages simulated with the governor power flow program. Appendix C shows the power flow analysis results. Appendix D includes power flow plots of those new overloads and overloads that had the most significant increase due to the Project coming on-line.

### **6.2.1 Normal Overloads (CAISO Category A)**

The Project causes no new normal overloads. It did result in slight increases in existing overloads on eighteen (18) facilities during the 2013 Summer Peak, four (4) facilities during the 2013 Summer Off-Peak, and twelve (12) facilities during the 2013 Spring Peak. The mitigation of these overloads is the responsibility of projects earlier in the CAISO Generation Queue.

### **6.2.2 Emergency Overloads (CAISO Category B)**

The Project results in new Category B overloads occurring on three (3) facilities during the 2013 Summer Peak, four (4) facilities during the 2013 Summer Off-Peak, and six (6) facilities during the 2013 Spring Peak conditions. However, only one of the facilities experienced a greater overload than occurred during the pre-Project cases studied. Therefore, the mitigation of those pre-Project overloads is the responsibility of projects earlier in the CAISO Generator Queue. Table 6-1 summarizes the impacted facility that did not overload under any pre-Project scenarios and are a result of the addition of the Project.

In addition, the Project exacerbated existing overloads on twenty-eight (28) facilities during the 2013 Summer Peak, sixteen (16) facilities during the 2013 Summer Off-Peak, and twenty-one (21) facilities during the 2013 Spring Peak. The mitigation of those pre-Project overloads is the responsibility of projects earlier in the CAISO Generator Queue..

All facility overloads are shown in Appendix C with the pre-Project overloads shown as shaded in the table.

**Table 6-1: New Category “B” Facility Overload**

Season	Overloaded Facility	Outage	Rating (Amps)	Pre-Project		Post-Project		% Change
				Loading (Amps/ % Loading)	Loading (Amps/ % Loading)	Loading (Amps/ % Loading)	Loading (Amps/ % Loading)	
Spring Peak	Chowchilla-Certainteed Jct 1 15-kV	L-1/G-1 (Wilson – Borden #1 230-kV Line and Exchequer PH)	397	396	99.8	400	100.8	1

### 6.2.3 Emergency Overloads (CAISO Category C)

The Project results in new Category C overloads occurring on four (4), facilities during the 2013 Summer Peak, nine (9) facilities during the 2013 Summer Off-Peak, and six (6) facilities during 2013 Spring Peak conditions. However, only three of the facilities experienced a greater overload than occurred during the pre-Project cases studied. Therefore, the mitigation of those pre-Project overloads is the responsibility of projects earlier in the CAISO Generator Queue. Table 6-2 below summarizes the three impacted facilities that did not overload for any of the pre-Project scenarios and are a result of the addition of the Project.

In addition, the Project exacerbated existing overloads on fifty-eight (58) facilities during the 2013 Summer Peak, twenty-six (26) facilities during the Summer Off-Peak, and fifty-three (53) facilities during the 2013 Spring Peak. The mitigation of those pre-Project overloads is the responsibility of projects earlier in the CAISO Generator Queue

All facility overloads are shown in Appendix C with the pre-Project overloads shown as shaded in the table.

**Table 6-2: New Category “C” Facility Overloads**

Season	Overloaded Facility	Outage	Rating (Amps)	Pre-Project		Post-Project		% Change
				Loading (Amps/ % Loading)		Loading (Amps/ % Loading)		
Summer Off-Peak	River Rock-Cassidy 70-kV	Sanger 115-kV Bus Outage	437.1	436.4	99.8	439.7	100.6	0.8
Summer Off-Peak	McCall-Sanger #1 115-kV	Helm - McCall and Gates - McCall 230 kV Lines	1125	1115	99.2	1129.4	100.4	1.3
Summer Off-Peak	McCall-Sanger #2 115-kV	Helm - McCall and Gates - McCall 230 kV Lines	1125	1115	99.2	1129.4	100.4	1.3

## 7. Reactive Power Deficiency Analysis

The power flow studies of Category “B” and “C” contingencies indicated that the Project did not cause voltage drops of 5% or more from the pre-Project levels, or cause the PG&E system to fail to meet applicable voltage criteria.

Post-transient reactive margin studies were performed on the Summer Off-Peak base cases because of the high south-to-north flow conditions on the Los Banos-North Path modeled in these cases. Reactive Margins were calculated for the following outages:

### Category B

- Diablo-Midway 500-kV
- Gates-Midway 500-kV
- Los Banos-Gates #1 500-kV
- Los Banos-Gates #3 500-kV
- Los Banos-Midway 500-kV
- Moss Landing-Los Banos 500-kV
- Tracy-Los Banos 500-kV
- Tesla-Los Banos 500-kV

### Category C

- Diablo-Midway #1 & #2 500-kV DLO
- Los Banos-Tesla & Los Banos-Tracy 500-kV DLO w/ Path 15 IRAS
- Los Banos-Midway & Los Banos-Gates 500-kV DLO w/ Path 15 IRAS
- Midway-Gates & Midway-Los Banos 500-kV DLO w/ Path 15 IRAS



## 2-Nuclear Unit Trip

- Diablo 2-Unit Trip

As shown in Table 7-1 below, the addition of the Project has no significant negative impact to the reactive margins on the system.

**Table 7-1: Reactive Margin Results**

Contingency	Bus with smallest Reactive Margin	Reactive Margin (MVAR) 2013 Summer Off-Peak Case		
		Pre-Project	Post-Project	Difference
<b>Category B – Path 15 Flows Increased by 5%</b>				
Diablo-Midway 500-kV	Arco 230-kV	527	527	0
Gates-Midway 500-kV	Arco 230-kV	505	504	-1
Los Banos-Gates #1 500-kV	Arco 230-kV	507	507	0
Los Banos-Gates #3 500-kV	Arco 230-kV	518	518	0
Los Banos - Midway 500-kV	Arco 230-kV	497	496	-1
Moss Landing-Los Banos 500-kV	Arco 230-kV	517	517	0
Tracy-Los Banos 500-kV	Arco 230-kV	510	509	-1
Tesla-Los Banos 500-kV	Arco 230-kV	509	509	0
<b>Category C – Path 15 Flows Increased by 2.5%</b>				
Diablo-Midway #1 & #2 500-kV DLO	Arco 230-kV	516	515	-1
Los Banos-Tesla & Los Banos-Tracy 500-kV DLO w/ Path 15 RAS	Arco 230-kV	499	498	-1
Los Banos-Midway & Los Banos-Gates 500-kV DLO w/ Path 15 RAS	Arco 230-kV	472	471	-1
Midway-Gates & Midway-Los Banos 500-kV DLO w/ Path 15 RAS	Arco 230-kV	495	494	-1
<b>Two Unit Outage – No Increase in Path 15 Flows</b>				
Diablo 2-Unit Trip	Arco 230-kV	591	590	-1

## **8. Transient Stability Results**

Transient stability simulations were performed on the 2013 Summer Peak base case for a period of 20 seconds to determine whether the addition of the Project would create any system instability during the following line and generator outages.

### **8.1 CAISO Category “B”**

- Full load rejection (127 MW) of the proposed Project.
- A three-phase close-in fault on the GWF Hanford Switchyard-Henrietta 115-kV

line at the GWF Hanford Switchyard 115-kV bus with normal clearing time followed by the loss of the GWF Hanford Switchyard-Henrietta 115-kV line.

- A three-phase close-in fault on the GWF Hanford Switchyard-Kingsburg 115-kV line at the GWF Hanford Switchyard 115-kV bus with normal clearing time followed by the loss of the GWF Hanford Switchyard- Kingsburg 115-kV line.
- A three-phase close-in fault on the Henrietta 230/115-kV Transformer #3 at the Henrietta 115-kV bus with normal clearing time followed by the loss of the Henrietta 230/115-kV Transformer #3.

## 8.2 CAISO Category “C”

- A three-phase fault on the Gates-Gregg and Gates-McCall 230-kV lines at the Henrietta 230-kV bus with normal clearing time followed by the loss of the Gates-Gregg and Gates-McCall 230-kV lines.

These dynamic stability studies indicated that there would be no system performance issues caused by the GWF Project. Transient stability plots are given in Appendix E.

## 9. Short Circuit Study Results

Short circuit studies were performed to determine the impact of adding the Project to the transmission system. The 3-phase fault duties at busses in the proximity of the Project were calculated before and after the Project. The dynamic data supplied by GWF and summarized in Appendix F was used in the analysis of these short circuit studies. The Project step-up transformer was modeled as follows in these studies.

STG: One, three-phase, 13.8/115-kV and rated for 35 MVA at 65 degree C temperature rise with 9.0% impedance at 35 MVA base.

### 9.1 Results

Table 9-1 lists the available pre- and post-Project short circuit duty at the buses electrically adjacent to the Project. As shown in Table 9-1 the only appreciable increase in short circuit duty due to the addition of the Project occurred at the GWF Hanford Switchyard 115kV bus, the Contadina 115-kV Bus, and the Leprino Food 115-kV Bus.

**Table 9-1: Short Circuit Study Results (Amps)**

Fault Location	Pre-Project	Post-Project	% Increase
	3Ø	3Ø	
Henrietta 230-KV Bus	14702	14732	0.2%
Henrietta 115-KV Bus	9499	9603	1.1%
GWF Hanford Switchyard 115-kV	10179	10728	5.4%
Contadina 115-kV	9903	10383	4.9%
Leprino Foods 115-kV	8482	8668	2.2%
Kingsburg 115-kV	14963	15075	0.7%

## 10. Mitigation

As described in the sub-section below the Project did not create any new overloads that hadn't already been overloaded for under pre-Project conditions.

### 10.1 Category "A" Normal Overload Mitigation

The power flow results indicated that the Project caused no new Category "A" normal overloads and only slightly increased overloads that existed on the Pre-Project case. Therefore, there is no mitigation needed for Category "A" conditions.

### 10.2 Category "B" Emergency Overload Mitigation

The power flow results indicated that one new facility overloaded that hadn't overloaded under other pre-Project outages. Table 10-1 lists the line experiencing the new Category "B" emergency overload

The proposed mitigation is to re-rate the Chowchilla-Certainteed 115-kV section of line to a higher wind-speed rating. This line is approximately 16 miles from the Wilson-Merced 115-kV lines which, according to PG&E's 2006 Expansion Plan Appendix 1, were re-rated to a 4 feet-per-second (fps) rating prior to 2002. Using similar re-rate values on the Chowchilla-Certainteed Jct line, the emergency rating could potentially increase to 471 amps at 4 fps. This new rating would be sufficient to eliminate the emergency overload. Table 10-2 below summarizes the Wilson-Merced #1 and #2 115-kV line rating before and after the re-rate. Using the same ratio of re-rate increase as the Wilson-Merced 115-kV lines, Table 10-3 summarizes the potential re-rate of the Chowchilla-Certainteed 115-kV line section.

In the event a re-rate is not a viable option, Table 10-1 summarizes the recommended minimum new conductor size and its associated cost estimate (a total of approximately \$0.5 Million) for reconductoring.

Also included in Table 10-1 is information on the maximum Project output that could be delivered to the system without exceeding the thermal limit of the non-reconductored lines. In this case the pre-Project loading is at the thermal limit of the facility and any output of the Project would exceed its capability.

**Table 10-1: Mitigation of Category “A” and “B” Overloads**

Over Loaded Component	Worst Case	Existing Conductor			Post-Project Loading	Proposed Conductor			Cost Estimates (\$)	Maximum Generation Output to Mitigate Overload
		Size	Ratings (Amps)		N/E (Amps)	Size	Ratings (Amps)			
			N	E			N	E		
<b>Category A: Mitigation</b>										
None	--	--	--	--	--	--	--	--	--	--
<b>Category B: Mitigation</b>										
Chowchilla-Certainteed Jct 1 15-kV (<1 mile)	Spring Peak	266.8 AAL	341	396.6	397.7	397.5 AAC	440	514	\$0.5 m	0 MW (Pre-Project loading is at 99%)

**Table 10-2: Historical re-rates of the Wilson-Merced #1 and #2 115-kV Lines**

Facility	In-service Date	Original Normal Capacity (Amps)	Original Emergency Capacity (Amps)	Re-rated Normal Capacity (Amps)	Re-Rated Emergency Capacity (Amps)
Wilson-Merced #1 115-kV	Prior 2002	343	399	411	474
Wilson-Merced #2 115-kV	Prior 2002	343	399	411	474

**Table 10-3: Potential 4 fps Re-rate of Chowchilla-Certainteed Jct 115-kV line.**

Facility	Original Normal Capacity (Amps)	Original Emergency Capacity (Amps)	Potential Re-rated Normal Capacity (Amps)	Potential Re-Rated Emergency Capacity (Amps)
Chowchilla-Certainteed Jct 115-kV	341	397	397	471

### 10.3 Category “C” Emergency Overload Mitigation

The power flow results indicated that three new facilities overloaded that hadn’t overloaded under other Pre-Project outages. A Special Protection Scheme (SPS), which would curtail the Project generation to mitigate the overloads listed in Table 10-4, could be used as a customarily accepted alternative mitigation for the following contingencies for which the overloads occurred.

- Sanger 115-kV Bus Outage
- Helm-McCall and Gates-McCall 230-kV Lines outage

Along with the Category “C” emergency overloads, Table 10-4 lists the recommended minimum new conductor sizes and their associated cost estimates (a total of approximately \$11 Million) for reconductoring of these line if required. Also included in Table 10-4 is information on the maximum Project output that could be delivered to the system without exceeding the thermal limit of the non-reconductored lines. In these cases the pre-Project loading is at the thermal limit of the facility and any output of the Project would exceed its capability.

**Table 10-4: Mitigation of Category “C” Overloads**

Over Loaded Component	Worst Case	Existing Conductor			Post-Project Loading N/E (Amps)	Proposed Conductor			Cost Estimates (\$)	Maximum Generation Output to Mitigate Overload
		Size	Ratings (Amps)			Size	Ratings (Amps)			
			N	E			N	E		
<b>Category C: Mitigation</b>										
River Rock-Cassidy 70-kV (4.5 miles)	Summer Off-Peak	266.8 AAL	379	437	436.4	715 AAL	632	743	\$2.25 m	0 MW (Pre-Project Loading is at 100%)
McCall-Sanger #1 115-kV (9 miles)	Summer Off-Peak	477 SSAC	1125	1125	1129.4	795 SSAC	1541	1541	\$4.5 m	0 MW (Pre-Project loading is at 99%)
McCall-Sanger #2 115-kV (9 miles)	Summer Off-Peak	477 SSAC	1125	1125	1129.4	795 SSAC	1541	1541	\$4.5 m	0 MW (Pre-Project loading is at 99%)

## 11. Cost Estimates

The preliminary cost estimate for the Project interconnection to the CAISO Controlled Grid is **\$3.6 million**, exclusive of ITCC. The cost responsibility breakdown is provided below.

### Substation Work

Provide general support at generation site \$1,000,000

**Subtotal Substation Work \$1,000,000**

### Building & Land Work

Land engineering support and permitting activities \$100,000

**Subtotal Building & Land Work \$100,000**

**Total Interconnection Facilities Cost before ITCC <sup>3</sup> \$1,100,000**

### 11.1 Network Upgrades Costs

Table 11-1 shows the Network Upgrades required for the Project to be interconnected to the CAISO Controlled Grid.

<sup>3</sup> Based on information in the Project IFS

**Table 11-1: Network Upgrades Cost Estimates**

<b>Transmission Line Work *</b>	
Reconductor lines (See Section 10 for reconductoring scope and cost estimates – assumes use of SPS for Category “C” contingencies)	\$500,000
<i>Subtotal Transmission Line Work</i>	* \$500,000
<b>Plant Work</b>	
Install Special Protection Systems (SPS) for Category “C” emergency overload mitigation	\$2,000,000
<i>Subtotal Plant Work <sup>6</sup></i>	<b>\$2,000,000</b>
<b>Total Network Upgrades Interconnection Cost</b>	<b>\$2,500,000</b>

\* Cost would not be incurred if the line rerate option is completed.

## 12. Environmental Evaluation / Permitting

### 12.1 CPUC General Order 131-D

As discussed in the Interconnection Feasibility Study (IFS), Pacific Gas and Electric Company (PG&E) is subject to the jurisdiction of the California Public Utilities Commission (CPUC) and must comply with CPUC General Order 131-D (Order) on the construction, modification, alteration, or addition of all electric transmission facilities (i.e., lines, substations, etc.). This includes facilities to be constructed by others and deeded to PG&E. The Order exempts PG&E from obtaining a formal permit from the CPUC on facilities over 200-kV provided the planned facilities involve the replacement of existing facilities or supporting structures with equivalent facilities or structures, the minor relocation of existing facilities, the conversion of existing facilities to underground or the placing of new or additional conductors, insulators, or their accessories on or replacement of structures already built. These exemptions do not apply under certain circumstances when significant environmental impacts may be caused by the work. If the project does not qualify for an exemption, PG&E will need to seek formal approval from the CPUC (i.e., Certificate of Public Convenience and Necessity) taking as much as 18 months or more since the CPUC may decide to conduct its own environmental evaluation (i.e., Negative Declaration or Environmental Impact Report).

For cases where PG&E can claim a valid exemption, PG&E would file an Advice Letter with the CPUC and publish public notice of the proposed construction of the facilities. The noticing process takes about 90 days if no protests are filed, but should be done as early as possible so that a protest does not delay construction. PG&E has no control over the time it takes the CPUC to respond when issues arise. If the

protest is granted, PG&E will then need to apply for a formal permit to construct the project (i.e., Certificate of Public Convenience and Necessity).

Facilities built or modified under this procedure must also be designed to include electric and magnetic field (EMF) mitigation measures pursuant to PG&E “EMF Design Guidelines of New Electrical Facilities: Transmission, Substation and Distribution”.

Please see Section III, B.1 (f) in General Order 131-D. This document can be found in the CPUC’s web page at:

[http://www.cpuc.ca.gov/PUBLISHED/GENERAL\\_ORDER/589.htm](http://www.cpuc.ca.gov/PUBLISHED/GENERAL_ORDER/589.htm)

## **12.2 CPUC Section 851**

In addition, and as noted in the IFS, Pacific Gas and Electric Company (PG&E) is subject to the jurisdiction of the California Public Utilities Commission (CPUC) and must comply with Public Utilities Code Section 851, which among other things requires CPUC approval of leases and licenses to use PG&E property. This includes rights-of-way granted to third parties for interconnection facilities. Obtaining CPUC approval for a Section 851 application can take several months, and requires compliance with the California Environmental Quality Act (CEQA). PG&E recommends that Section 851 issues be identified as early as possible so that the necessary application can be prepared and processed.

## **13. Study Updates**

This SIS was performed according to the assumptions shown in the Sections titled “[Study Assumptions](#)” and “[Power Flow Study Base Cases](#)”. If these assumptions are changed, an updated study may be required to re-evaluate the project’s impact on the CAISO Controlled Grid. Examples of changes that might prompt such a study are:

- Change in interconnection date
- Change in Interconnection Queue position
- Change in Project’s MW size beyond the provisions set forth in the LGIP
- Change in interconnection plan
- Withdrawal of a higher queued project from the CAISO queue



# Appendix A

## Category B and C Contingency Lists

### Table of Content

Summer Peak Category B Contingencies .....	1
Summer Peak Category C Contingencies .....	66
Summer Off-Peak Category B Contingencies .....	88
Summer Off-Peak Category C Contingencies .....	154
Spring Peak Category B Contingencies .....	177
Spring Peak Category C Contingencies .....	242

# Summer Peak Category B Contingencies

```
# Q299 2013 sumpk category b contingency list
# Yosemite and Fresno Divisions Zones 313 and 314
#
# 2013 sumpk category b contingency list
# Yosemite Zone 313
#
# (1) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30515 30800 "1 " 0 # line from WARNERVL 230.00 BRKR to BRKR WILSON
230.00
0
#
#
# (2) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30670 30765 "1 " 0 # line from WESTLEY 230.00 BRKR to BRKR LOSBANOS
230.00
0
#
#
# (3) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30750 30790 "1 " 0 # line from MOSSLND2 230.00 BRKR to BRKR PANOCHE
230.00
0
#
#
# (4) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30760 30790 "1 " 0 # line from COBURN 230.00 BRKR to BRKR PANOCHE
230.00
0
#
#
# (5) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30765 30790 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR PANOCHE
230.00
0
#
#
# (6) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30765 30790 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR PANOCHE
230.00
0
#
#
# (7) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30765 38615 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR DS AMIGO
230.00
0
#
#
# (8) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30765 38625 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
0
#
#
# (9) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
```

```

1 30765 38625 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
0
#
#
# (10) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30790 30793 "1 " 0 # line from PANOCHE 230.00 BRKR to (3) PANO_EC
230.00
2 30793 34326 "1 " 0 # TRAN from PANO_EC 230.00 (3) to (1) PANO_BS1
13.80
2 30793 34327 "1 " 0 # TRAN from PANO_EC 230.00 (3) to (1) PANO_BS2
13.80
4 34326 0 "ss" 0 # LOAD-DROP PANO_BS1 13.80 LOAD==4.50(2.49)
4 34327 0 "ss" 0 # LOAD-DROP PANO_BS2 13.80 LOAD==4.50(2.49)
3 34326 0 "1 " 0 # GEN-DROP PANO_BS1 13.80 GEN==102.50(20.25)
3 34326 0 "2 " 0 # GEN-DROP PANO_BS1 13.80 GEN==102.50(20.25)
3 34327 0 "3 " 0 # GEN-DROP PANO_BS2 13.80 GEN==102.50(20.25)
3 34327 0 "4 " 0 # GEN-DROP PANO_BS2 13.80 GEN==102.50(20.25)
0
#
#
# (11) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30790 30825 "1 " 0 # line from PANOCHE 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
0
#
#
# (12) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30790 30873 "1 " 0 # line from PANOCHE 230.00 BRKR to BRKR HELM
230.00
0
#
#
# (13) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30790 30900 "1 " 0 # line from PANOCHE 230.00 BRKR to BRKR GATES
230.00
0
#
#
# (14) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30790 30900 "2 " 0 # line from PANOCHE 230.00 BRKR to BRKR GATES
230.00
0
#
#
# (15) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30795 30805 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR BORDEN
230.00
1 30795 30800 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR WILSON
230.00
4 30795 0 "2 " 0 # LOAD-DROP STOREY 2 230.00 LOAD==33.89(6.88)
0
#
#
# (16) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30796 30800 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR WILSON
230.00
1 30796 30805 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR BORDEN
230.00
4 30796 0 "1 " 0 # LOAD-DROP STOREY 1 230.00 LOAD==37.87(7.69)

```

```

0
#
#
# (17) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30805 30806 "1 " 0 # line from BORDEN 230.00 BRKR to BRKR Q196
230.00
0
#
#
# (18) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30805 30806 "2 " 0 # line from BORDEN 230.00 BRKR to BRKR Q196
230.00
0
#
#
# (19) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30805 30810 "1 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden line
0
#
#
# (20) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30805 30810 "2 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden #2 line
0
#
#
# (21) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34017 34010 "1 " 0 # line from CRWS LDG 60.00 (1) to (3) CRWS LDJ
60.00
1 34010 34006 "1 " 0 # line from CRWS LDJ 60.00 (3) to BRKR PATTERNS
60.00
1 34010 34012 "1 " 0 # line from CRWS LDJ 60.00 (3) to (2) GUSTN JT
60.00
1 34012 34014 "1 " 0 # line from GUSTN JT 60.00 (2) to BRKR NEWMAN
60.00
4 34017 0 "1 " 0 # LOAD-DROP CRWS LDG 60.00 LOAD==3.73(0.17)
1 34016 34017 "1 " 1 # Switches in Crows Landing SW 57 to transfer load
4 34017 0 "***" 1 # Restore Load at Crows Landing
0
#
#
# (22) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34100 34101 "1 " 0 # line from CHWCHLLA 115.00 BRKR to (3) CERTAN T
115.00
1 34101 34116 "1 " 0 # line from CERTAN T 115.00 (3) to BRKR LE GRAND
115.00
1 34101 34107 "1 " 0 # line from CERTAN T 115.00 (3) to (2) CERTANJ2
115.00
1 34107 34103 "1 " 0 # line from CERTANJ2 115.00 (2) to (3) CHWCGNJ2
115.00
1 34103 34102 "1 " 0 # line from CHWCGNJ2 115.00 (3) to (1) CERTTEED
115.00
1 34103 34109 "1 " 0 # line from CHWCGNJ2 115.00 (3) to (3) CHWCGN
115.00
1 34109 34111 "1 " 0 # line from CHWCGN 115.00 (3) to (2) CHWCHLA2
115.00
2 34109 34301 "1 " 0 # TRAN from CHWCGN 115.00 (3) to (1) CHOWCOGN
13.80
2 34111 34305 "1 " 0 # TRAN from CHWCHLA2 115.00 (2) to (1) CHWCHLA2
13.80
4 34102 0 "1 " 0 # LOAD-DROP CERTTEED 115.00 LOAD==9.94(6.94)

```

```

4 34305      0 "ss"    0      # LOAD-DROP   CHWCHLA2  13.80  LOAD==2.00(1.11)
3 34301      0 "1 "    0      # GEN-DROP    CHOWCOGN  13.80  GEN==50.00(4.33)
3 34305      0 "1 "    0      # GEN-DROP    CHWCHLA2  13.80  GEN==12.50(7.30)
0
#
#
# (23) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34104 34106 "1 "    0      # line from  ATWATER  115.00  BRKR to (2)  CASTLE
115.00
1 34106 34138 "1 "    0      # line from  CASTLE    115.00  (2) to BRKR  EL CAPTN
115.00
0
#
#
# (24) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34104 34108 "1 "    0      # line from  ATWATER  115.00  BRKR to (3)  CRESEY T
115.00
1 34108 34110 "1 "    0      # line from  CRESEY T  115.00  BRKR to (1)  ATWATR J
115.00
1 34108 34114 "1 "    0      # line from  CRESEY T  115.00  (3) to (3)  JRWD GEN
115.00
1 34114 34124 "1 "    0      # line from  JRWD GEN  115.00  (3) to (2)  JR WOOD
115.00
2 34114 34332 "1 "    0      # TRAN from  JRWD GEN  115.00  (3) to (1)  JRWCOGEN
9.11
1 34124 34140 "1 "    0      # line from  JR WOOD   115.00  (2) to (1)  CRESSEY
115.00
4 34124      0 "1 "    0      # LOAD-DROP   JR WOOD   115.00  LOAD==11.70(10.32)
4 34140      0 "1 "    0      # LOAD-DROP   CRESSEY   115.00  LOAD==19.02(3.86)
3 34332      0 "1 "    0      # GEN-DROP    JRWCOGEN   9.11  GEN==3.80(5.40)
0
#
#
# (25) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34105 34100 "1 "    0      # line from  CERTANJ1  115.00  (2) to BRKR  CHWCHLLA
115.00
1 34105 34121 "1 "    0      # line from  CERTANJ1  115.00  (2) to (3)  SHARON T
115.00
1 34121 34120 "1 "    0      # line from  SHARON T  115.00  (3) to (1)  SHARON
115.00
1 34121 34128 "1 "    0      # line from  SHARON T  115.00  (3) to (3)  OAKH_JCT
115.00
1 34128 34126 "1 "    0      # line from  OAKH_JCT  115.00  (3) to (2)  CORSGOLD
115.00
1 34128 34123 "1 "    0      # line from  OAKH_JCT  115.00  (3) to (2)  K1-JCT
115.00
1 34126 34122 "1 "    0      # line from  CORSGOLD  115.00  (2) to (1)  OAKHURST
115.00
1 34123 34358 "2 "    0      # line from  K1-JCT    115.00  (2) to BRKR  KERCKHF2
115.00
4 34120      0 "1 "    0      # LOAD-DROP   SHARON    115.00  LOAD==7.10(4.96)
4 34126      0 "1 "    0      # LOAD-DROP   CORSGOLD  115.00  LOAD==2.21(0.45)
4 34126      0 "2 "    0      # LOAD-DROP   CORSGOLD  115.00  LOAD==26.19(5.32)
4 34122      0 "1 "    0      # LOAD-DROP   OAKHURST  115.00  LOAD==11.68(2.37)
4 34122      0 "2 "    0      # LOAD-DROP   OAKHURST  115.00  LOAD==15.01(3.05)
0
#
#
# (26) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34108 34110 "1 "    0      # line from  CRESEY T  115.00  BRKR to (3)  ATWATR J
115.00
1 34110 34130 "1 "    0      # line from  ATWATR J  115.00  (3) to (2)  LIVNGSTN
115.00
1 34110 34144 "1 "    0      # line from  ATWATR J  115.00  (3) to BRKR  MERCED
115.00

```

```

1 34130 34132 "1 " 0 # line from LIVNGSTN 115.00 (2) to (1) GALLO
115.00
4 34130 0 "3 " 0 # LOAD-DROP LIVNGSTN 115.00 LOAD==24.58(5.00)
4 34132 0 "1 " 0 # LOAD-DROP GALLO 115.00 LOAD==4.30(3.68)
0
#
#
# (27) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34112 34116 "1 " 0 # line from EXCHEQUR 115.00 BRKR to BRKR LE GRAND
115.00
3 34306 0 "1 " 0 # Exchequer Unit will trip for this outage
4 34228 0 "***" 0 # Mariposa Loads will drop if bus is below 64 kV, this is
anticipate
0
#
#
# (28) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34116 34134 "1 " 0 # line from LE GRAND 115.00 BRKR to BRKR WILSON A
115.00
0
#
#
# (29) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34116 34154 "1 " 0 # line from LE GRAND 115.00 BRKR to BRKR DAIRYLND
115.00
0
#
#
# (30) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34118 34136 "1 " 0 # line from LE GRNDJ 115.00 (2) to BRKR WILSON B
115.00
1 34118 34168 "1 " 0 # line from LE GRNDJ 115.00 (2) to (2) EL NIDO
115.00
1 34168 34162 "1 " 0 # line from EL NIDO 115.00 (2) to BRKR ORO LOMA
115.00
4 34168 0 "1 " 0 # LOAD-DROP EL NIDO 115.00 LOAD==12.49(2.54)
4 34168 0 "2 " 0 # LOAD-DROP EL NIDO 115.00 LOAD==15.00(3.05)
0
#
#
# (31) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34134 34104 "1 " 0 # line from WILSON A 115.00 BRKR to BRKR ATWATER
115.00
0
#
#
# (32) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34134 34136 "1 " 0 # line from WILSON A 115.00 BRKR to BRKR WILSON B
115.00
0
#
#
# (33) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34134 34144 "1 " 0 # line from WILSON A 115.00 BRKR to BRKR MERCED
115.00
0
#
#
# (34) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34136 34138 "1 " 0 # line from WILSON B 115.00 BRKR to BRKR EL CAPTN
115.00
0

```

```

#
#
# (35) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34136 34144 "2 " 0 # line from WILSON B 115.00 BRKR to BRKR MERCED
115.00
0
#
#
# (36) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34141 34148 "1 " 0 # line from PAN2_TAP 115.00 (2) to (2) CHENY
115.00
2 34141 34142 "1 " 0 # TRAN from PAN2_TAP 115.00 (2) to (1) WHD_PAN2
13.80
1 34148 34149 "1 " 0 # line from CHENY 115.00 (2) to (3) CHENYT
115.00
1 34149 34158 "1 " 0 # line from CHENYT 115.00 (3) to BRKR PANOCHE
115.00
1 34149 34354 "1 " 0 # line from CHENYT 115.00 (3) to BRKR SCHINDLR
115.00
4 34148 0 "1 " 0 # LOAD-DROP CHENY 115.00 LOAD==13.12(2.66)
3 34142 0 "1 " 0 # GEN-DROP WHD_PAN2 13.80 GEN==49.00(4.03)
0
#
#
# (37) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34150 34154 "1 " 0 # line from NEWHALL 115.00 (2) to BRKR DAIRYLND
115.00
1 34150 34178 "1 " 0 # line from NEWHALL 115.00 (2) to (3) MADERAPR
115.00
1 34178 34156 "1 " 0 # line from MADERAPR 115.00 (3) to BRKR MENDOTA
115.00
2 34178 34179 "1 " 0 # TRAN from MADERAPR 115.00 (3) to (1) MADERA_G
13.80
4 34150 0 "2 " 0 # LOAD-DROP NEWHALL 115.00 LOAD==8.55(1.73)
4 34150 0 "3 " 0 # LOAD-DROP NEWHALL 115.00 LOAD==10.62(2.16)
4 34179 0 "ss" 0 # LOAD-DROP MADERA_G 13.80 LOAD==3.60(0.85)
3 34179 0 "1 " 0 # GEN-DROP MADERA_G 13.80 GEN==28.60(6.34)
0
#
#
# (38) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34157 34156 "1 " 0 # line from PANOCHET 115.00 (2) to BRKR MENDOTA
115.00
1 34157 34158 "1 " 0 # line from PANOCHET 115.00 (2) to BRKR PANOCHE
115.00
3 34186 0 "1 " 0 # DG_PAN Unit trips for Panoche - Mendota 115 kV outage
0
#
#
# (39) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34158 34189 "1 " 0 # line from PANOCHE 115.00 BRKR to (3) STARWOOD
115.00
2 34189 34328 "1 " 0 # TRAN from STARWOOD 115.00 (3) to (1) STARGET1
13.80
2 34189 34329 "1 " 0 # TRAN from STARWOOD 115.00 (3) to (1) STARGET2
13.80
4 34328 0 "ss" 0 # LOAD-DROP STARGET1 13.80 LOAD==1.00(0.55)
4 34329 0 "ss" 0 # LOAD-DROP STARGET2 13.80 LOAD==1.00(0.55)
3 34328 0 "1 " 0 # GEN-DROP STARGET1 13.80 GEN==60.94(9.59)
3 34329 0 "2 " 0 # GEN-DROP STARGET2 13.80 GEN==60.94(9.59)
0
#
#
# (40) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#

```

```

1 34158 34350 "1 " 0 # line from PANOCHE 115.00 BRKR to (2) KAMM
115.00
1 34350 34352 "1 " 0 # line from KAMM 115.00 (2) to (2) CANTUA
115.00
1 34352 34432 "1 " 0 # line from CANTUA 115.00 (2) to (2) WESTLNDS
115.00
1 34432 34354 "1 " 0 # line from WESTLNDS 115.00 (2) to BRKR SCHINDLR
115.00
4 34350 0 "1 " 0 # LOAD-DROP KAMM 115.00 LOAD==3.85(1.75)
4 34352 0 "1 " 0 # LOAD-DROP CANTUA 115.00 LOAD==16.79(3.41)
4 34432 0 "16" 0 # LOAD-DROP WESTLNDS 115.00 LOAD==0.94(0.23)
4 34432 0 "18" 0 # LOAD-DROP WESTLNDS 115.00 LOAD==1.21(0.32)
0
#
#
# (41) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34159 34158 "1 " 0 # line from PANOCHEJ 115.00 (3) to BRKR PANOCHE
115.00
1 34159 34160 "1 " 0 # line from PANOCHEJ 115.00 (3) to (2) HAMMONDS
115.00
1 34159 34180 "1 " 0 # line from PANOCHEJ 115.00 (3) to (3) OXFRDJCT
115.00
1 34160 34161 "1 " 0 # line from HAMMONDS 115.00 (2) to (3) DFSTP
115.00
1 34161 34162 "1 " 0 # line from DFSTP 115.00 (3) to BRKR ORO LOMA
115.00
1 34161 34164 "1 " 0 # line from DFSTP 115.00 (3) to (1) DFS
115.00
1 34180 34166 "1 " 0 # line from OXFRDJCT 115.00 (3) to (1) OXFORD
115.00
1 34180 34181 "1 " 0 # line from OXFRDJCT 115.00 (3) to (3) WSTLDJCT
115.00
1 34181 34182 "1 " 0 # line from WSTLDJCT 115.00 (3) to (1) WSTLD1RA
115.00
1 34181 34183 "1 " 0 # line from WSTLDJCT 115.00 (3) to (3) LUISJCT
115.00
1 34183 34163 "1 " 0 # line from LUISJCT 115.00 (3) to (1) LUIS_#3
115.00
1 34183 34165 "1 " 0 # line from LUISJCT 115.00 (3) to (1) LUIS_#5
115.00
4 34160 0 "1 " 0 # LOAD-DROP HAMMONDS 115.00 LOAD==10.00(2.03)
4 34164 0 "1 " 0 # LOAD-DROP DFS 115.00 LOAD==1.37(1.06)
4 34166 0 "1 " 0 # LOAD-DROP OXFORD 115.00 LOAD==3.87(1.76)
4 34182 0 "1 " 0 # LOAD-DROP WSTLD1RA 115.00 LOAD==2.98(0.71)
4 34163 0 "1 " 0 # LOAD-DROP LUIS_#3 115.00 LOAD==3.30(0.78)
4 34165 0 "1 " 0 # LOAD-DROP LUIS_#5 115.00 LOAD==3.40(0.81)
0
#
#
# (42) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34172 34170 "1 " 0 # line from WESTLAND 70.00 (2) to (1) WESIX
70.00
1 34172 34271 "1 " 0 # line from WESTLAND 70.00 (2) to (3) WSTLDJCT
70.00
1 34271 34269 "1 " 0 # line from WSTLDJCT 70.00 (3) to (3) BIOMSJCT
70.00
1 34271 34469 "1 " 0 # line from WSTLDJCT 70.00 (3) to (3) GFFNJCT
70.00
1 34269 34268 "1 " 0 # line from BIOMSJCT 70.00 (3) to BRKR MENDOTA
70.00
1 34269 34270 "1 " 0 # line from BIOMSJCT 70.00 (3) to (2) BIOMASS
70.00
2 34270 34334 "1 " 0 # TRAN from BIOMASS 70.00 (2) to (1) BIO PWR
9.11
1 34469 34470 "1 " 0 # line from GFFNJCT 70.00 (3) to (1) GIFFEN
70.00
1 34469 34471 "1 " 0 # line from GFFNJCT 70.00 (3) to (3) SNJQJCT
70.00

```



```

1 34471 34472 "1 " 0 # line from SNJQJCT 70.00 (3) to BRKR SAN JOQN
70.00
1 34471 34474 "1 " 0 # line from SNJQJCT 70.00 (3) to BRKR HELM
70.00
4 34172 0 "1 " 0 # LOAD-DROP WESTLAND 70.00 LOAD==3.20(0.76)
4 34170 0 "1 " 0 # LOAD-DROP WESIX 70.00 LOAD==1.60(0.38)
4 34470 0 "1 " 0 # LOAD-DROP GIFFEN 70.00 LOAD==9.59(1.95)
3 34334 0 "1 " 0 # GEN-DROP BIO PWR 9.11 GEN==21.80(10.99)
1 34472 34473 "1 " 1 # Switches in San Joaquin CB22 to transfer load
4 34472 0 "***" 1 # Restore Load at San Joaquin
0
#
#
# (43) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34200 34218 "1 " 0 # line from ORO LOMA 70.00 BRKR to (2) DOS PALS
70.00
1 34218 34216 "1 " 0 # line from DOS PALS 70.00 (2) to BRKR SNTA RTA
70.00
4 34218 0 "1 " 0 # LOAD-DROP DOS PALS 70.00 LOAD==10.29(2.09)
0
#
#
# (44) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34200 34222 "1 " 0 # line from ORO LOMA 70.00 BRKR to (3) MRCYSPRS
70.00
1 34222 34220 "1 " 0 # line from MRCYSPRS 70.00 (3) to (2) ORTIGA
70.00
1 34222 34224 "1 " 0 # line from MRCYSPRS 70.00 (3) to (2) ARBURUA
70.00
1 34220 34206 "1 " 0 # line from ORTIGA 70.00 (2) to BRKR CANAL
70.00
1 34224 34272 "1 " 0 # line from ARBURUA 70.00 (2) to (2) WRGHT PP
70.00
1 34272 34214 "1 " 0 # line from WRGHT PP 70.00 (2) to BRKR LOS BANS
70.00
4 34220 0 "1 " 0 # LOAD-DROP ORTIGA 70.00 LOAD==6.88(1.40)
4 34224 0 "1 " 0 # LOAD-DROP ARBURUA 70.00 LOAD==3.77(1.83)
4 34272 0 "1 " 0 # LOAD-DROP WRGHT PP 70.00 LOAD==9.50(1.93)
0
#
#
# (45) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34200 34234 "1 " 0 # line from ORO LOMA 70.00 BRKR to (2) POSO J1
70.00
1 34234 34266 "1 " 0 # line from POSO J1 70.00 (2) to (2) FIREBAGH
70.00
1 34266 34267 "1 " 0 # line from FIREBAGH 70.00 (2) to (2) TOMATAK
70.00
1 34267 34268 "1 " 0 # line from TOMATAK 70.00 (2) to BRKR MENDOTA
70.00
4 34266 0 "1 " 0 # LOAD-DROP FIREBAGH 70.00 LOAD==11.13(2.26)
4 34267 0 "1 " 0 # LOAD-DROP TOMATAK 70.00 LOAD==6.40(4.97)
0
#
#
# (46) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34202 34203 "1 " 0 # line from MERCED 70.00 BRKR to (3) ELNIDOTP
70.00
1 34203 34205 "1 " 0 # line from ELNIDOTP 70.00 (3) to (2) ELNIDO
70.00
1 34203 34236 "1 " 0 # line from ELNIDOTP 70.00 (3) to (1) POSO J2
70.00
2 34205 34330 "1 " 0 # TRAN from ELNIDO 70.00 (2) to (1) ELNIDO
13.80
4 34330 0 "ss" 0 # LOAD-DROP ELNIDO 13.80 LOAD==2.00(1.11)
3 34330 0 "1 " 0 # GEN-DROP ELNIDO 13.80 GEN==12.50(5.69)

```

```

0
#
#
# (47) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34202 34230 "1 " 0 # line from MERCED 70.00 BRKR to BRKR MRCDLFLS
70.00
0
#
#
# (48) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34204 34212 "1 " 0 # line from LIVNGSTN 70.00 (1) to (3) LVNGSTNT
70.00
1 34212 34206 "1 " 0 # line from LVNGSTNT 70.00 (3) to BRKR CANAL
70.00
1 34212 34210 "1 " 0 # line from LVNGSTNT 70.00 (3) to (2) SNTA NLA
70.00
1 34210 34208 "1 " 0 # line from SNTA NLA 70.00 (2) to (2) CHEVPIPE
70.00
1 34208 34214 "1 " 0 # line from CHEVPIPE 70.00 (2) to BRKR LOS BANS
70.00
4 34204 0 "2 " 0 # LOAD-DROP LIVNGSTN 70.00 LOAD==5.51(1.12)
4 34210 0 "1 " 0 # LOAD-DROP SNTA NLA 70.00 LOAD==6.75(1.37)
4 34210 0 "2 " 0 # LOAD-DROP SNTA NLA 70.00 LOAD==9.50(1.93)
4 34208 0 "1 " 0 # LOAD-DROP CHEVPIPE 70.00 LOAD==0.63(0.42)
0
#
#
# (49) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34206 34216 "1 " 0 # line from CANAL 70.00 BRKR to BRKR SNTA RTA
70.00
0
#
#
# (50) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34214 34278 "1 " 0 # line from LOS BANS 70.00 BRKR to (2) PCHCO PP
70.00
1 34278 34280 "1 " 0 # line from PCHCO PP 70.00 (2) to (2) INTL TUR
70.00
2 34280 34342 "1 " 0 # TRAN from INTL TUR 70.00 (2) to (1) INT.TURB
9.11
4 34278 0 "1 " 0 # LOAD-DROP PCHCO PP 70.00 LOAD==18.00(4.10)
3 34342 0 "1 " 0 # GEN-DROP INT.TURB 9.11 GEN==1.10(0.00)
0
#
#
# (51) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34214 34282 "1 " 0 # line from LOS BANS 70.00 BRKR to (2) ONLL PMP
69.00
2 34282 34316 "1 " 0 # TRAN from ONLL PMP 69.00 (2) to (1) ONEILPMP
9.11
4 34282 0 "1 " 0 # LOAD-DROP ONLL PMP 69.00 LOAD==6.00(1.20)
3 34316 0 "1 " 0 # GEN-DROP ONEILPMP 9.11 GEN==0.50(0.00)
0
#
#
# (52) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34228 34232 "1 " 0 # line from MARIPOS2 70.00 (1) to BRKR EXCHEQR
70.00
4 34228 0 "1 " 0 # LOAD-DROP MARIPOS2 70.00 LOAD==9.01(1.83)
4 34228 0 "2 " 0 # LOAD-DROP MARIPOS2 70.00 LOAD==9.37(1.90)
1 34228 34244 "1 " 1 # Switches in Mariposa SW 39 to transfer load
4 34228 0 "***" 1 # Restore Load at Mariposa
0
#

```

```

#
# (53) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34232 34242 "1 " 0 # line from EXCHEQUR 70.00 BRKR to (2) BER VLLY
70.00
1 34242 34244 "1 " 0 # line from BER VLLY 70.00 (2) to (2) BRCEBG J
70.00
1 34244 34246 "1 " 0 # line from BRCEBG J 70.00 (2) to (3) SAXONCRK
70.00
1 34246 34248 "1 " 0 # line from SAXONCRK 70.00 (3) to (2) INDN FLT
70.00
2 34246 34346 "1 " 0 # TRAN from SAXONCRK 70.00 (3) to (1) SAXNCK L
4.16
1 34248 34250 "1 " 0 # line from INDN FLT 70.00 (2) to (1) YOSEMITE
70.00
4 34242 0 "1 " 0 # LOAD-DROP BER VLLY 70.00 LOAD==5.91(1.20)
4 34246 0 "1 " 0 # LOAD-DROP SAXONCRK 70.00 LOAD==0.03(0.02)
4 34248 0 "1 " 0 # LOAD-DROP INDN FLT 70.00 LOAD==2.02(0.41)
4 34250 0 "1 " 0 # LOAD-DROP YOSEMITE 70.00 LOAD==2.90(0.00)
0
#
#
# (54) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34237 34255 "1 " 0 # line from CANANDGA 70.00 (2) to (3) TRIGO J
70.00
1 34237 34240 "1 " 0 # line from CANANDGA 70.00 (2) to BRKR GLASS
70.00
1 34255 34238 "1 " 0 # line from TRIGO J 70.00 (3) to BRKR BONITA
70.00
1 34255 34254 "1 " 0 # line from TRIGO J 70.00 (3) to (3) TRIGO
70.00
1 34254 34252 "1 " 0 # line from TRIGO 70.00 (3) to BRKR MADERA
70.00
1 34254 34264 "1 " 0 # line from TRIGO 70.00 (3) to (1) EL PECO
70.00
4 34237 0 "1 " 0 # LOAD-DROP CANANDGA 70.00 LOAD==7.60(5.70)
4 34238 0 "1 " 0 # LOAD-DROP BONITA 70.00 LOAD==14.37(2.92)
4 34264 0 "1 " 0 # LOAD-DROP EL PECO 70.00 LOAD==9.86(2.01)
4 34264 0 "2 " 0 # LOAD-DROP EL PECO 70.00 LOAD==7.26(1.48)
1 34238 34236 "1 " 1 # Switches in Bonita SW23 to transfer load
4 34238 0 "1 " 1 # Restore Load at Bonita
0
#
#
# (55) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34252 34256 "1 " 0 # line from MADERA 70.00 BRKR to BRKR BORDEN
70.00
0
#
#
# (56) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34252 34256 "2 " 0 # line from MADERA 70.00 BRKR to BRKR BORDEN
70.00
0
#
#
# (57) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34256 34240 "1 " 0 # line from BORDEN 70.00 BRKR to BRKR GLASS
70.00
0
#
#
# (58) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34256 34262 "1 " 0 # line from BORDEN 70.00 BRKR to (2) CASSIDY
70.00

```

```

1 34262 34454 "1 " 0 # line from CASSIDY 70.00 (2) to (2) RIVERROC
70.00
1 34454 34464 "1 " 0 # line from RIVERROC 70.00 (2) to BRKR COPPRMNE
70.00
4 34262 0 "1 " 0 # LOAD-DROP CASSIDY 70.00 LOAD==14.31(2.90)
4 34454 0 "1 " 0 # LOAD-DROP RIVERROC 70.00 LOAD==2.01(1.83)
0
#
#
# (59) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34259 34261 "1 " 0 # line from NRTHFORK 70.00 (3) to (2) SJNO3
70.00
1 34259 34260 "1 " 0 # line from NRTHFORK 70.00 (3) to (3) SJNO2
70.00
2 34259 34340 "1 " 0 # TRAN from NRTHFORK 70.00 (3) to (1) N.FORK E
9.11
2 34261 34633 "1 " 0 # TRAN from SJNO3 70.00 (2) to (1) SJ3GEN
9.11
1 34260 34452 "1 " 0 # line from SJNO2 70.00 (3) to BRKR WISHON
70.00
2 34260 34631 "1 " 0 # TRAN from SJNO2 70.00 (3) to (1) SJ2GEN
9.11
4 34261 0 "2 " 0 # LOAD-DROP SJNO3 70.00 LOAD==6.95(1.41)
4 34260 0 "2 " 0 # LOAD-DROP SJNO2 70.00 LOAD==3.22(0.66)
4 34340 0 "1 " 0 # LOAD-DROP N.FORK E 9.11 LOAD==1.21(0.25)
3 34633 0 "1 " 0 # GEN-DROP SJ3GEN 9.11 GEN==1.00(0.00)
3 34631 0 "1 " 0 # GEN-DROP SJ2GEN 9.11 GEN==2.00(0.00)
0
#
#
# (60) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34321 34226 "1 " 0 # line from MCSWAINJ 70.00 (3) to (2) MC SWAIN
70.00
1 34321 34230 "1 " 0 # line from MCSWAINJ 70.00 (3) to BRKR MRCDFLLS
70.00
1 34321 34232 "1 " 0 # line from MCSWAINJ 70.00 (3) to BRKR EXCHEQUR
70.00
2 34226 34320 "1 " 0 # TRAN from MC SWAIN 70.00 (2) to (1) MCSWAIN
9.11
3 34320 0 "1 " 0 # GEN-DROP MCSWAIN 9.11 GEN==10.00(2.00)
0
#
#
# (61) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 37563 30800 "1 " 0 # line from MELONES 230.00 BRKR to BRKR WILSON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Melones - Wilson line
0
#
#
# (62) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 38615 30790 "1 " 0 # line from DS AMIGO 230.00 BRKR to BRKR PANOCHE
230.00
0
#
#
# (63) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
# **** 3-WINDING TRANSFORMER 30765 (30069) 30050 34302 :
2 30765 30050 "1 " 0 # TRAN from LOSBANOS 230.00 BRKR to (1) LOSBANOS
500.00
0
#
#
# (64) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#

```

```

#      **** 3-WINDING TRANSFORMER 30790 (30791) 34158 34310 :
2 30790 34158 "1 " 0 # TRAN from PANOCHE 230.00 BRKR to (1) PANOCHE
115.00
0
#
#
# (65) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 30790 34158 "2 " 0 # TRAN from PANOCHE 230.00 BRKR to BRKR PANOCHE
115.00
0
#
#
# (66) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
#      **** 3-WINDING TRANSFORMER 34112 (34176) 34232 34306 :
2 34112 34232 "1 " 0 # TRAN from EXCHEQUR 115.00 BRKR to (4) EXCHEQUR
70.00
1 34232 34228 "1 " 0 # line from EXCHEQUR 70.00 BRKR to (1) MARIPOS2
70.00
1 34232 34242 "1 " 0 # line from EXCHEQUR 70.00 BRKR to (1) BER VLLY
70.00
1 34232 34321 "1 " 0 # line from EXCHEQUR 70.00 BRKR to (1) MCSWAINJ
70.00
4 34228 0 "1 " 0 # LOAD-DROP MARIPOS2 70.00 LOAD==9.01(1.83)
4 34228 0 "2 " 0 # LOAD-DROP MARIPOS2 70.00 LOAD==9.37(1.90)
1 34228 34244 "1 " 1 # Switches in Mariposa SW 39 to transfer load
4 34228 0 "***" 1 # Restore Load at Mariposa
0
#
#
# (67) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34134 30800 "1 " 0 # TRAN from WILSON A 115.00 BRKR to BRKR WILSON
230.00
0
#
#
# (68) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34136 30800 "2 " 0 # TRAN from WILSON B 115.00 BRKR to BRKR WILSON
230.00
0
#
#
# (69) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
#      **** 3-WINDING TRANSFORMER 34144 (34146) 34202 34312 :
2 34144 34202 "2 " 0 # TRAN from MERCED 115.00 BRKR to (1) MERCED
70.00
0
#
#
# (70) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34200 34162 "2 " 0 # TRAN from ORO LOMA 70.00 BRKR to (3) ORO LOMA
115.00
1 34162 34161 "1 " 0 # line from ORO LOMA 115.00 BRKR to (1) DFSTP
115.00
1 34162 34168 "1 " 0 # line from ORO LOMA 115.00 BRKR to (1) EL NIDO
115.00
0
#
#
# (71) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34214 30765 "3 " 0 # TRAN from LOS BANS 70.00 BRKR to BRKR LOSBANOS
230.00
0
#

```

```

#
# (72) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34214 30765 "4 " 0 # TRAN from LOS BANS 70.00 BRKR to BRKR LOSBANOS
230.00
0
#
#
# (73) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34256 30805 "1 " 0 # TRAN from BORDEN 70.00 BRKR to BRKR BORDEN
230.00
0
#
#
# (74) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34256 30805 "2 " 0 # TRAN from BORDEN 70.00 BRKR to BRKR BORDEN
230.00
0
#
#
# (75) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34268 34156 "1 " 0 # TRAN from MENDOTA 70.00 BRKR to (3) MENDOTA
115.00
1 34156 34178 "1 " 0 # line from MENDOTA 115.00 BRKR to (1) MADERAPR
115.00
1 34156 34157 "1 " 0 # line from MENDOTA 115.00 BRKR to (1) PANOCHET
115.00
4 34156 0 "1 " 0 # LOAD-DROP MENDOTA 115.00 LOAD==24.55(4.99)
0
#
#
# (76) B1 GENERATOR OUTAGE
#
3 34142 0 "1" 0 # WHD_PAN2 13.80 PGEN=49.00 QGEN=-22.43
0
#
#
# (77) B1 GENERATOR OUTAGE
#
3 34179 0 "1" 0 # MADERA_G 13.80 PGEN=28.60 QGEN=3.67
0
#
#
# (78) B1 GENERATOR OUTAGE
#
3 34186 0 "1" 0 # DG_PAN1 13.80 PGEN=49.00 QGEN=-17.22
0
#
#
# (79) B1 GENERATOR OUTAGE
#
3 34301 0 "1" 0 # CHOWCOGN 13.80 PGEN=50.00 QGEN=0.72
0
#
#
# (80) B1 GENERATOR OUTAGE
#
3 34305 0 "1" 0 # CHWCHLA2 13.80 PGEN=12.50 QGEN=7.35
0
#
#
# (81) B1 GENERATOR OUTAGE
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#

```

```

# (82) B1 GENERATOR OUTAGE
#
3 34316 0 "1" 0 # ONEILPMP 9.11 PGEN=0.52 QGEN=0.00
0
#
#
# (83) B1 GENERATOR OUTAGE
#
3 34320 0 "1" 0 # MCSWAIN 9.11 PGEN=10.00 QGEN=0.00
0
#
#
# (84) B1 GENERATOR OUTAGE
#
3 34322 0 "1" 0 # MERCEDFL 9.11 PGEN=3.50 QGEN=2.00
0
#
#
# (85) B1 GENERATOR OUTAGE
#
3 34326 0 "1" 0 # PANO_BS1 13.80 PGEN=102.50 QGEN=25.42
0
#
#
# (86) B1 GENERATOR OUTAGE
#
3 34326 0 "2" 0 # PANO_BS1 13.80 PGEN=102.50 QGEN=25.42
0
#
#
# (87) B1 GENERATOR OUTAGE
#
3 34327 0 "3" 0 # PANO_BS2 13.80 PGEN=102.50 QGEN=25.42
0
#
#
# (88) B1 GENERATOR OUTAGE
#
3 34327 0 "4" 0 # PANO_BS2 13.80 PGEN=102.50 QGEN=25.42
0
#
#
# (89) B1 GENERATOR OUTAGE
#
3 34328 0 "1" 0 # STARGT1 13.80 PGEN=60.94 QGEN=13.94
0
#
#
# (90) B1 GENERATOR OUTAGE
#
3 34329 0 "2" 0 # STARGT2 13.80 PGEN=60.94 QGEN=13.94
0
#
#
# (91) B1 GENERATOR OUTAGE
#
3 34330 0 "1" 0 # ELNIDO 13.80 PGEN=12.50 QGEN=4.15
0
#
#
# (92) B1 GENERATOR OUTAGE
#
3 34332 0 "1" 0 # JRWCOGEN 9.11 PGEN=3.80 QGEN=5.40
0
#
#
# (93) B1 GENERATOR OUTAGE
#
3 34334 0 "1" 0 # BIO PWR 9.11 PGEN=21.80 QGEN=8.92
0

```

```

#
#
# (94) B1 GENERATOR OUTAGE
#
3 34342    0  "1"    0    # INT.TURB  9.11      PGEN=1.10  QGEN=0.00
0
#
#
# (95) B1 GENERATOR OUTAGE
#
3 34631    0  "1"    0    # SJ2GEN    9.11      PGEN=2.00  QGEN=0.00
0
#
#
# (96) B1 GENERATOR OUTAGE
#
3 34633    0  "1"    0    # SJ3GEN    9.11      PGEN=1.00  QGEN=0.00
0
#
#
# (97) B1 GENERATOR OUTAGE
#
3 34335    0  "1"    0    # Q196GT1  16.50     PGEN=192.50 QGEN=31.08
0
#
#
# (98) B1 GENERATOR OUTAGE
#
3 34336    0  "2"    0    # Q196GT2  16.50     PGEN=192.50 QGEN=31.08
0
#
#
# (99) B1 GENERATOR OUTAGE
#
3 34337    0  "3"    0    # Q196ST1  13.80     PGEN=68.50  QGEN=11.04
0
#
#
# (100) B1 GENERATOR OUTAGE
#
3 34338    0  "4"    0    # Q196ST2  13.80     PGEN=68.50  QGEN=11.04
0
#
#
# (101) B CAPACITOR OUTAGE
#
6 30765    0  "v"    0    # LOSBANOS 230.0    SVD
0
#
#
# (102) B CAPACITOR OUTAGE
#
6 30796    0  "v"    0    # STOREY 1 230.0    SVD
0
#
#
# (103) B CAPACITOR OUTAGE
#
6 34134    0  "v"    0    # WILSON A 115.0    SVD
0
#
#
# (104) B CAPACITOR OUTAGE
#
6 34252    0  "v"    0    # MADERA   70.0     SVD
0
#
#
# (105) B CAPACITOR OUTAGE
#

```



```

6 34302      0 "v"      0      # L.BANS T   13.8  SVD
0
#
#
# (106) L-1/G-1 OVERLAPPING OUTAGE
# Le Grand - Chowchilla 115 kV Line and Exchequer
1 34100 34101 "1 "      0      # line from CHWCHLLA 115.00 BRKR to (3) CERTAN T
115.00
1 34101 34116 "1 "      0      # line from CERTAN T 115.00 (3) to BRKR LE GRAND
115.00
1 34101 34107 "1 "      0      # line from CERTAN T 115.00 (3) to (2) CERTANJ2
115.00
1 34107 34103 "1 "      0      # line from CERTANJ2 115.00 (2) to (3) CHWCGNJ2
115.00
1 34103 34102 "1 "      0      # line from CHWCGNJ2 115.00 (3) to (1) CERTTEED
115.00
1 34103 34109 "1 "      0      # line from CHWCGNJ2 115.00 (3) to (3) CHWCGN
115.00
1 34109 34111 "1 "      0      # line from CHWCGN   115.00 (3) to (2) CHWCHLA2
115.00
2 34109 34301 "1 "      0      # TRAN from CHWCGN   115.00 (3) to (1) CHOWCOGN
13.80
2 34111 34305 "1 "      0      # TRAN from CHWCHLA2 115.00 (2) to (1) CHWCHLA2
13.80
4 34102      0 "1 "      0      # LOAD-DROP CERTTEED 115.00 LOAD==9.94(6.94)
4 34305      0 "ss"      0      # LOAD-DROP CHWCHLA2  13.80 LOAD==2.00(1.11)
3 34301      0 "1 "      0      # GEN-DROP  CHOWCOGN  13.80 GEN==50.00(4.33)
3 34305      0 "1 "      0      # GEN-DROP  CHWCHLA2  13.80 GEN==12.50(7.30)
#
3 34306      0 "1"      0      # EXCHQUER  13.80      PGEN=94.50 QGEN=8.77
0
#
#
# (107) L-1/G-1 OVERLAPPING OUTAGE
# Chowchilla - Kerckhoff #2 115 kV Line and Exchequer
1 34105 34100 "1 "      0      # line from CERTANJ1 115.00 (2) to BRKR CHWCHLLA
115.00
1 34105 34121 "1 "      0      # line from CERTANJ1 115.00 (2) to (3) SHARON T
115.00
1 34121 34120 "1 "      0      # line from SHARON T 115.00 (3) to (1) SHARON
115.00
1 34121 34128 "1 "      0      # line from SHARON T 115.00 (3) to (3) OAKH_JCT
115.00
1 34128 34126 "1 "      0      # line from OAKH_JCT 115.00 (3) to (2) CORSGOLD
115.00
1 34128 34123 "1 "      0      # line from OAKH_JCT 115.00 (3) to (2) K1-JCT
115.00
1 34126 34122 "1 "      0      # line from CORSGOLD 115.00 (2) to (1) OAKHURST
115.00
1 34123 34358 "2 "      0      # line from K1-JCT   115.00 (2) to BRKR KERCKHF2
115.00
4 34120      0 "1 "      0      # LOAD-DROP SHARON   115.00 LOAD==7.10(4.96)
4 34126      0 "1 "      0      # LOAD-DROP CORSGOLD 115.00 LOAD==2.21(0.45)
4 34126      0 "2 "      0      # LOAD-DROP CORSGOLD 115.00 LOAD==26.19(5.32)
4 34122      0 "1 "      0      # LOAD-DROP OAKHURST 115.00 LOAD==11.68(2.37)
4 34122      0 "2 "      0      # LOAD-DROP OAKHURST 115.00 LOAD==15.01(3.05)
#
3 34306      0 "1"      0      # EXCHQUER  13.80      PGEN=94.50 QGEN=8.77
0
#
#
# (108) L-1/G-1 OVERLAPPING OUTAGE
# Atwater - El Capitan 115 kV Line and Exchequer
1 34104 34106 "1 "      0      # line from ATWATER  115.00 BRKR to (2) CASTLE
115.00
1 34106 34138 "1 "      0      # line from CASTLE   115.00 (2) to BRKR EL CAPTN
115.00
#
3 34306      0 "1"      0      # EXCHQUER  13.80      PGEN=94.50 QGEN=8.77
0

```

```

#
#
# (109) L-1/G-1 OVERLAPPING OUTAGE
# Atwater - Merced 115 kV Line and Exchequer
1 34104 34108 "1 " 0 # line from ATWATER 115.00 BRKR to (3) CRESEY T
115.00
1 34108 34110 "1 " 0 # line from CRESEY T 115.00 BRKR to (1) ATWATR J
115.00
1 34108 34114 "1 " 0 # line from CRESEY T 115.00 (3) to (3) JRWD GEN
115.00
1 34114 34124 "1 " 0 # line from JRWD GEN 115.00 (3) to (2) JR WOOD
115.00
2 34114 34332 "1 " 0 # TRAN from JRWD GEN 115.00 (3) to (1) JRWCOGEN
9.11
1 34124 34140 "1 " 0 # line from JR WOOD 115.00 (2) to (1) CRESSEY
115.00
4 34124 0 "1 " 0 # LOAD-DROP JR WOOD 115.00 LOAD==11.70(10.32)
4 34140 0 "1 " 0 # LOAD-DROP CRESSEY 115.00 LOAD==19.02(3.86)
3 34332 0 "1 " 0 # GEN-DROP JRWCOGEN 9.11 GEN==3.80(5.40)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (110) L-1/G-1 OVERLAPPING OUTAGE
# Cressy Tap 115 kV Line and Exchequer
1 34108 34110 "1 " 0 # line from CRESEY T 115.00 BRKR to (3) ATWATR J
115.00
1 34110 34130 "1 " 0 # line from ATWATR J 115.00 (3) to (2) LIVNGSTN
115.00
1 34110 34144 "1 " 0 # line from ATWATR J 115.00 (3) to BRKR MERCED
115.00
1 34130 34132 "1 " 0 # line from LIVNGSTN 115.00 (2) to (1) GALLO
115.00
4 34130 0 "3 " 0 # LOAD-DROP LIVNGSTN 115.00 LOAD==24.58(5.00)
4 34132 0 "1 " 0 # LOAD-DROP GALLO 115.00 LOAD==4.30(3.68)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (111) L-1/G-1 OVERLAPPING OUTAGE
# Le Grand - Dairyland 115 kV Line and Exchequer
1 34116 34154 "1 " 0 # line from LE GRAND 115.00 BRKR to BRKR DAIRYLND
115.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (112) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Oro Loma 115 kV Line and Exchequer
1 34118 34136 "1 " 0 # line from LE GRNDJ 115.00 (2) to BRKR WILSON B
115.00
1 34118 34168 "1 " 0 # line from LE GRNDJ 115.00 (2) to (2) EL NIDO
115.00
1 34168 34162 "1 " 0 # line from EL NIDO 115.00 (2) to BRKR ORO LOMA
115.00
4 34168 0 "1 " 0 # LOAD-DROP EL NIDO 115.00 LOAD==12.49(2.54)
4 34168 0 "2 " 0 # LOAD-DROP EL NIDO 115.00 LOAD==15.00(3.05)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (113) L-1/G-1 OVERLAPPING OUTAGE
# El Capitan - Wilson 115 kV Line and Exchequer
1 34136 34138 "1 " 0 # line from WILSON B 115.00 BRKR to BRKR EL CAPTN
115.00
#

```

```

3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (114) L-1/G-1 OVERLAPPING OUTAGE
# Dairyland - Mendota 115 kV Line and Exchequer
1 34150 34154 "1 " 0 # line from NEWHALL 115.00 (2) to BRKR DAIRYLND
115.00
1 34150 34178 "1 " 0 # line from NEWHALL 115.00 (2) to (3) MADERAPR
115.00
1 34178 34156 "1 " 0 # line from MADERAPR 115.00 (3) to BRKR MENDOTA
115.00
2 34178 34179 "1 " 0 # TRAN from MADERAPR 115.00 (3) to (1) MADERA_G
13.80
4 34150 0 "2 " 0 # LOAD-DROP NEWHALL 115.00 LOAD==8.55(1.73)
4 34150 0 "3 " 0 # LOAD-DROP NEWHALL 115.00 LOAD==10.62(2.16)
4 34179 0 "ss" 0 # LOAD-DROP MADERA_G 13.80 LOAD==3.60(0.85)
3 34179 0 "1 " 0 # GEN-DROP MADERA_G 13.80 GEN==28.60(6.34)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (115) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Mendota 115 kV Line and Exchequer
1 34157 34156 "1 " 0 # line from PANOCHET 115.00 (2) to BRKR MENDOTA
115.00
1 34157 34158 "1 " 0 # line from PANOCHET 115.00 (2) to BRKR PANOCHET
115.00
3 34186 0 "1 " 0 # DG_PAN Unit trips for Panoche - Mendota 115 kV outage
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (116) L-1/G-1 OVERLAPPING OUTAGE
# Glass - Biola - Madera 70 kV Line and Exchequer
1 34237 34255 "1 " 0 # line from CANANDGA 70.00 (2) to (3) TRIGO J
70.00
1 34237 34240 "1 " 0 # line from CANANDGA 70.00 (2) to BRKR GLASS
70.00
1 34255 34238 "1 " 0 # line from TRIGO J 70.00 (3) to BRKR BONITA
70.00
1 34255 34254 "1 " 0 # line from TRIGO J 70.00 (3) to (3) TRIGO
70.00
1 34254 34252 "1 " 0 # line from TRIGO 70.00 (3) to BRKR MADERA
70.00
1 34254 34264 "1 " 0 # line from TRIGO 70.00 (3) to (1) EL PECO
70.00
4 34237 0 "1 " 0 # LOAD-DROP CANANDGA 70.00 LOAD==7.60(5.70)
4 34238 0 "1 " 0 # LOAD-DROP BONITA 70.00 LOAD==14.37(2.92)
4 34264 0 "1 " 0 # LOAD-DROP EL PECO 70.00 LOAD==9.86(2.01)
4 34264 0 "2 " 0 # LOAD-DROP EL PECO 70.00 LOAD==7.26(1.48)
1 34238 34236 "1 " 1 # Switches in Bonita SW23 to transfer load
4 34238 0 "1 " 1 # Restore Load at Bonita
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (117) L-1/G-1 OVERLAPPING OUTAGE
# Merced Falls - Exchequer 70 kV Line and Exchequer
1 34321 34226 "1 " 0 # line from MCSWAINJ 70.00 (3) to (2) MC SWAIN
70.00
1 34321 34230 "1 " 0 # line from MCSWAINJ 70.00 (3) to BRKR MRCDFLLS
70.00
1 34321 34232 "1 " 0 # line from MCSWAINJ 70.00 (3) to BRKR EXCHEQUER
70.00
2 34226 34320 "1 " 0 # TRAN from MC SWAIN 70.00 (2) to (1) MCSWAIN
9.11

```

```

3 34320      0 "1 "  0      # GEN-DROP      MCSWAIN      9.11  GEN==10.00(2.00)
#
3 34306      0 "1"   0      # EXCHQUER     13.80          PGEN=94.50  QGEN=8.77
0
#
#
# (118) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Canal - Oro Loma 70 kV Line and Exchequer
1 34200 34222 "1 "  0      # line from     ORO LOMA     70.00  BRKR to (3)  MRCYSPRS
70.00
1 34222 34220 "1 "  0      # line from     MRCYSPRS     70.00  (3) to (2)  ORTIGA
70.00
1 34222 34224 "1 "  0      # line from     MRCYSPRS     70.00  (3) to (2)  ARBURUA
70.00
1 34220 34206 "1 "  0      # line from     ORTIGA       70.00  (2) to BRKR  CANAL
70.00
1 34224 34272 "1 "  0      # line from     ARBURUA      70.00  (2) to (2)  WRGHT PP
70.00
1 34272 34214 "1 "  0      # line from     WRGHT PP    70.00  (2) to BRKR  LOS BANS
70.00
4 34220      0 "1 "  0      # LOAD-DROP     ORTIGA       70.00  LOAD==6.88(1.40)
4 34224      0 "1 "  0      # LOAD-DROP     ARBURUA      70.00  LOAD==3.77(1.83)
4 34272      0 "1 "  0      # LOAD-DROP     WRGHT PP    70.00  LOAD==9.50(1.93)
#
3 34306      0 "1"   0      # EXCHQUER     13.80          PGEN=94.50  QGEN=8.77
0
#
#
# (119) L-1/G-1 OVERLAPPING OUTAGE
# Atwater - El Capitan 115 kV Line and JR Wood Cogen
1 34104 34106 "1 "  0      # line from     ATWATER     115.00  BRKR to (2)  CASTLE
115.00
1 34106 34138 "1 "  0      # line from     CASTLE      115.00  (2) to BRKR  EL CAPTN
115.00
#
3 34332      0 "1"   0      # JRWCOGEN      9.11          PGEN=4.00   QGEN=5.40
0
#
#
# (120) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Atwater #2 115 kV Line and JR Wood Cogen
1 34134 34104 "1 "  0      # line from     WILSON A    115.00  BRKR to BRKR  ATWATER
115.00
#
3 34332      0 "1"   0      # JRWCOGEN      9.11          PGEN=4.00   QGEN=5.40
0
#
#
# (121) L-1/G-1 OVERLAPPING OUTAGE
# Le Grand - Chowchilla 115 kV Line and Kerckhoff
1 34100 34101 "1 "  0      # line from     CHWCHLLA    115.00  BRKR to (3)  CERTAN T
115.00
1 34101 34116 "1 "  0      # line from     CERTAN T    115.00  (3) to BRKR  LE GRAND
115.00
1 34101 34107 "1 "  0      # line from     CERTAN T    115.00  (3) to (2)  CERTANJ2
115.00
1 34107 34103 "1 "  0      # line from     CERTANJ2    115.00  (2) to (3)  CHWCGNJT
115.00
1 34103 34102 "1 "  0      # line from     CHWCGNJT    115.00  (3) to (1)  CERTTEED
115.00
1 34103 34109 "1 "  0      # line from     CHWCGNJT    115.00  (3) to (3)  CHWCGN
115.00
1 34109 34111 "1 "  0      # line from     CHWCGN      115.00  (3) to (2)  CHWCHLA2
115.00
2 34109 34301 "1 "  0      # TRAN from     CHWCGN      115.00  (3) to (1)  CHOWCOGN
13.80
2 34111 34305 "1 "  0      # TRAN from     CHWCHLA2    115.00  (2) to (1)  CHWCHLA2
13.80
4 34102      0 "1 "  0      # LOAD-DROP     CERTTEED    115.00  LOAD==9.94(6.94)
4 34305      0 "ss"  0      # LOAD-DROP     CHWCHLA2    13.80   LOAD==2.00(1.11)

```

```

3 34301 0 "1 " 0 # GEN-DROP CHOWCOGN 13.80 GEN==50.00(4.33)
3 34305 0 "1 " 0 # GEN-DROP CHWCHLA2 13.80 GEN==12.50(7.30)
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (122) L-1/G-1 OVERLAPPING OUTAGE
# Exchequer - Le Grand 115 kV Line and Kerckhoff
1 34112 34116 "1 " 0 # line from EXCHEQUR 115.00 BRKR to BRKR LE GRAND
115.00
3 34306 0 "1 " 0 # Exchequer Unit will trip for this outage
4 34228 0 "***" 0 # Mariposa Loads will drop if bus is below 64 kV, this is
anticipate
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (123) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
# Le Grand - Dairyland 115 kV Line and Kerckhoff
1 34116 34154 "1 " 0 # line from LE GRAND 115.00 BRKR to BRKR DAIRYLND
115.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (124) L-1/G-1 OVERLAPPING OUTAGE
# Glass - Biola - Madera 70 kV Line and Kerckhoff
1 34237 34255 "1 " 0 # line from CANANDGA 70.00 (2) to (3) TRIGO J
70.00
1 34237 34240 "1 " 0 # line from CANANDGA 70.00 (2) to BRKR GLASS
70.00
1 34255 34238 "1 " 0 # line from TRIGO J 70.00 (3) to BRKR BONITA
70.00
1 34255 34254 "1 " 0 # line from TRIGO J 70.00 (3) to (3) TRIGO
70.00
1 34254 34252 "1 " 0 # line from TRIGO 70.00 (3) to BRKR MADERA
70.00
1 34254 34264 "1 " 0 # line from TRIGO 70.00 (3) to (1) EL PECO
70.00
4 34237 0 "1 " 0 # LOAD-DROP CANANDGA 70.00 LOAD==7.60(5.70)
4 34238 0 "1 " 0 # LOAD-DROP BONITA 70.00 LOAD==14.37(2.92)
4 34264 0 "1 " 0 # LOAD-DROP EL PECO 70.00 LOAD==9.86(2.01)
4 34264 0 "2 " 0 # LOAD-DROP EL PECO 70.00 LOAD==7.26(1.48)
1 34238 34236 "1 " 1 # Switches in Bonita SW23 to transfer load
4 34238 0 "1 " 1 # Restore Load at Bonita
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (125) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Canal - Oro Loma 70 kV Line and Oneil Pump
1 34200 34222 "1 " 0 # line from ORO LOMA 70.00 BRKR to (3) MRCYSPRS
70.00
1 34222 34220 "1 " 0 # line from MRCYSPRS 70.00 (3) to (2) ORTIGA
70.00
1 34222 34224 "1 " 0 # line from MRCYSPRS 70.00 (3) to (2) ARBURUA
70.00
1 34220 34206 "1 " 0 # line from ORTIGA 70.00 (2) to BRKR CANAL
70.00
1 34224 34272 "1 " 0 # line from ARBURUA 70.00 (2) to (2) WRGHT PP
70.00
1 34272 34214 "1 " 0 # line from WRGHT PP 70.00 (2) to BRKR LOS BANS
70.00
4 34220 0 "1 " 0 # LOAD-DROP ORTIGA 70.00 LOAD==6.88(1.40)
4 34224 0 "1 " 0 # LOAD-DROP ARBURUA 70.00 LOAD==3.77(1.83)
4 34272 0 "1 " 0 # LOAD-DROP WRGHT PP 70.00 LOAD==9.50(1.93)

```

```

#
3 34316      0 "1"      0      # ONEILPMP   9.11      PGEN=0.52  QGEN=0.00
0
#
#
# (126) L-1/G-1 OVERLAPPING OUTAGE
# Warnerville - Wilson 230 kV Line and Melones Unit 1
1 30515 30800 "1 "      0      # line from WARNERVL 230.00  BRKR to BRKR  WILSON
230.00
#
3 37561      0 "1"      0      # MELONE1   13.80      PGEN=119.00 QGEN=60.00
0
#
#
# (127) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Borden #1 230 kV Line and Melones Unit 1
1 30795 30805 "1 "      0      # line from STOREY 2 230.00  (2) to BRKR  BORDEN
230.00
1 30795 30800 "1 "      0      # line from STOREY 2 230.00  (2) to BRKR  WILSON
230.00
4 30795      0 "2 "      0      # LOAD-DROP   STOREY 2 230.00  LOAD==33.89(6.88)
#
3 37561      0 "1"      0      # MELONE1   13.80      PGEN=119.00 QGEN=60.00
0
#
#
# (128) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Borden #2 230 kV Line and Melones Unit 1
1 30796 30800 "1 "      0      # line from STOREY 1 230.00  (2) to BRKR  WILSON
230.00
1 30796 30805 "1 "      0      # line from STOREY 1 230.00  (2) to BRKR  BORDEN
230.00
4 30796      0 "1 "      0      # LOAD-DROP   STOREY 1 230.00  LOAD==37.87(7.69)
#
3 37561      0 "1"      0      # MELONE1   13.80      PGEN=119.00 QGEN=60.00
0
#
#
# (129) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Gregg #1 230 kV Line and Melones Unit 1
1 30805 30810 "1 "      0      # line from BORDEN   230.00  BRKR to BRKR  GREGG
230.00
3 34604      0 "***"     0      # Drop unit#3 with loss of Gregg - Borden line
#
3 37561      0 "1"      0      # MELONE1   13.80      PGEN=119.00 QGEN=60.00
0
#
#
# (130) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Gregg #2 230 kV Line and Melones Unit 1
1 30805 30810 "2 "      0      # line from BORDEN   230.00  BRKR to BRKR  GREGG
230.00
3 34604      0 "***"     0      # Drop unit#3 with loss of Gregg - Borden #2 line
#
3 37561      0 "1"      0      # MELONE1   13.80      PGEN=119.00 QGEN=60.00
0
#
#
# (131) L-1/G-1 OVERLAPPING OUTAGE
# Melones - Wilson 230 kV Line and Melones Unit 1
1 37563 30800 "1 "      0      # line from MELONES 230.00  (2) to BRKR  WILSON   230.00
#
3 37561      0 "1"      0      # MELONE1   13.80      PGEN=119.00 QGEN=60.00
0
#
#
# (132) L-1/G-1 OVERLAPPING OUTAGE
# Warnerville - Wilson 230 kV Line and Helms Unit 1
1 30515 30800 "1 "      0      # line from WARNERVL 230.00  BRKR to BRKR  WILSON
230.00

```

```

#
3 34600      0 "1"      0      # HELMS 1   18.00      PGEN=404.00  QGEN=66.02
0
#
#
# (133) L-1/G-1 OVERLAPPING OUTAGE
# Westley - Los Banos 230 kV Line and Helms Unit 1
1 30670 30765 "1 "      0      # line from WESTLEY 230.00  BRKR to BRKR  LOSBANOS
230.00
#
3 34600      0 "1"      0      # HELMS 1   18.00      PGEN=404.00  QGEN=66.02
0
#
#
# (134) L-1/G-1 OVERLAPPING OUTAGE
# Moss Landing - Panoche 230 kV Line and Helms Unit 1
1 30750 30790 "1 "      0      # line from MOSSLND2 230.00  BRKR to BRKR  PANOCH
230.00
#
3 34600      0 "1"      0      # HELMS 1   18.00      PGEN=404.00  QGEN=66.02
0
#
#
# (135) L-1/G-1 OVERLAPPING OUTAGE
# Coburn - Panoche 230 kV Line and Helms Unit 1
1 30760 30790 "1 "      0      # line from COBURN  230.00  BRKR to BRKR  PANOCH
230.00
#
3 34600      0 "1"      0      # HELMS 1   18.00      PGEN=404.00  QGEN=66.02
0
#
#
# (136) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Panoche #1 230 kV Line and Helms Unit 1
1 30765 30790 "1 "      0      # line from LOSBANOS 230.00  BRKR to BRKR  PANOCH
230.00
#
3 34600      0 "1"      0      # HELMS 1   18.00      PGEN=404.00  QGEN=66.02
0
#
#
# (137) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Panoche #2 230 kV Line and Helms Unit 1
1 30765 30790 "2 "      0      # line from LOSBANOS 230.00  BRKR to BRKR  PANOCH
230.00
#
3 34600      0 "1"      0      # HELMS 1   18.00      PGEN=404.00  QGEN=66.02
0
#
#
# (138) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Dos Amigos 230 kV Line and Helms Unit 1
1 30765 38615 "1 "      0      # line from LOSBANOS 230.00  BRKR to BRKR  DS AMIGO
230.00
#
3 34600      0 "1"      0      # HELMS 1   18.00      PGEN=404.00  QGEN=66.02
0
#
#
# (139) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - San Luis PGP #1 230 kV Line and Helms Unit 1
1 30765 38625 "1 "      0      # line from LOSBANOS 230.00  BRKR to BRKR  SN LS PP
230.00
#
3 34600      0 "1"      0      # HELMS 1   18.00      PGEN=404.00  QGEN=66.02
0
#
#
# (140) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - San Luis PGP #2 230 kV Line and Helms Unit 1

```

```

1 30765 38625 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (141) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Kearney 230 kV Line and Helms Unit 1
1 30790 30825 "1 " 0 # line from PANOCHE 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (142) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Helm 230 kV Line and Helms Unit 1
1 30790 30873 "1 " 0 # line from PANOCHE 230.00 BRKR to BRKR HELM
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (143) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Panoche #1 230 kV Line and Helms Unit 1
1 30790 30900 "1 " 0 # line from PANOCHE 230.00 BRKR to BRKR GATES
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (144) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Panoche #2 230 kV Line and Helms Unit 1
1 30790 30900 "2 " 0 # line from PANOCHE 230.00 BRKR to BRKR GATES
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (145) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Borden #1 230 kV Line and Helms Unit 1
1 30795 30805 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR BORDEN
230.00
1 30795 30800 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR WILSON
230.00
4 30795 0 "2 " 0 # LOAD-DROP STOREY 2 230.00 LOAD==33.89(6.88)
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (146) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Borden #2 230 kV Line and Helms Unit 1
1 30796 30800 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR WILSON
230.00
1 30796 30805 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR BORDEN
230.00
4 30796 0 "1 " 0 # LOAD-DROP STOREY 1 230.00 LOAD==37.87(7.69)
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#

```



```

# (147) L-1/G-1 OVERLAPPING OUTAGE
# Melones - Wilson 230 kV Line and Helms Unit 1
1 37563 30800 "1 " 0 # line from MELONES 230.00 (2) to BRKR WILSON 230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (148) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Gregg #1 230 kV Line and Helms Unit 1
1 30805 30810 "1 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden line
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (149) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Gregg #2 230 kV Line and Helms Unit 1
1 30805 30810 "2 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden #2 line
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (150) L-1/G-1 OVERLAPPING OUTAGE
# Dos Amigos - Panoche 230 kV Line and Helms Unit 1
1 38615 30790 "1 " 0 # line from DS AMIGO 230.00 BRKR to BRKR PANOCHE
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (151) L-1/G-1 OVERLAPPING OUTAGE
# Warnerville - Wilson 230 kV Line and Exchequer
1 30515 30800 "1 " 0 # line from WARNERVL 230.00 BRKR to BRKR WILSON
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (152) L-1/G-1 OVERLAPPING OUTAGE
# Westley - Los Banos 230 kV Line and Exchequer
1 30670 30765 "1 " 0 # line from WESTLEY 230.00 BRKR to BRKR LOSBANOS
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (153) L-1/G-1 OVERLAPPING OUTAGE
# Moss Landing - Panoche 230 kV Line and Exchequer
1 30750 30790 "1 " 0 # line from MOSSLND2 230.00 BRKR to BRKR PANOCHE
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (154) L-1/G-1 OVERLAPPING OUTAGE
# Coburn - Panoche 230 kV Line and Exchequer
1 30760 30790 "1 " 0 # line from COBURN 230.00 BRKR to BRKR PANOCHE
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77

```

```

0
#
#
# (155) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Panoche #1 230 kV Line and Exchequer
1 30765 30790 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR PANOCH
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (156) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Panoche #2 230 kV Line and Exchequer
1 30765 30790 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR PANOCH
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (157) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Dos Amigos 230 kV Line and Exchequer
1 30765 38615 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR DS AMIGO
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (158) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - San Luis PGP #1 230 kV Line and Exchequer
1 30765 38625 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (159) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - San Luis PGP #2 230 kV Line and Exchequer
1 30765 38625 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (160) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Kearney 230 kV Line and Exchequer
1 30790 30825 "1 " 0 # line from PANOCH 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (161) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Helm 230 kV Line and Exchequer
1 30790 30873 "1 " 0 # line from PANOCH 230.00 BRKR to BRKR HELM
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (162) L-1/G-1 OVERLAPPING OUTAGE

```

```

# Gates - Panoche #1 230 kV Line and Exchequer
1 30790 30900 "1 " 0 # line from PANOCH 230.00 BRKR to BRKR GATES
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (163) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Panoche #2 230 kV Line and Exchequer
1 30790 30900 "2 " 0 # line from PANOCH 230.00 BRKR to BRKR GATES
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (164) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Borden #1 230 kV Line and Exchequer
1 30795 30805 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR BORDEN
230.00
1 30795 30800 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR WILSON
230.00
4 30795 0 "2 " 0 # LOAD-DROP STOREY 2 230.00 LOAD==33.89(6.88)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (165) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Borden #2 230 kV Line and Exchequer
1 30796 30800 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR WILSON
230.00
1 30796 30805 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR BORDEN
230.00
4 30796 0 "1 " 0 # LOAD-DROP STOREY 1 230.00 LOAD==37.87(7.69)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (166) L-1/G-1 OVERLAPPING OUTAGE
# Melones - Wilson 230 kV Line and Exchequer
1 37563 30800 "1 " 0 # line from MELONES 230.00 (2) to BRKR WILSON 230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (167) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Gregg #1 230 kV Line and Exchequer
1 30805 30810 "1 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden line
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (168) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Gregg #2 230 kV Line and Exchequer
1 30805 30810 "2 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden #2 line
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (169) L-1/G-1 OVERLAPPING OUTAGE

```

```

# Dos Amigos - Panoche 230 kV Line and Exchequer
1 38615 30790 "1 " 0 # line from DS AMIGO 230.00 BRKR to BRKR PANOCH
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (170) L-1/G-1 OVERLAPPING OUTAGE
# Warnerville - Wilson 230 kV Line and Kerckhoff
1 30515 30800 "1 " 0 # line from WARNERVL 230.00 BRKR to BRKR WILSON
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (171) L-1/G-1 OVERLAPPING OUTAGE
# Westley - Los Banos 230 kV Line and Kerckhoff
1 30670 30765 "1 " 0 # line from WESTLEY 230.00 BRKR to BRKR LOSBANOS
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (172) L-1/G-1 OVERLAPPING OUTAGE
# Moss Landing - Panoche 230 kV Line and Kerckhoff
1 30750 30790 "1 " 0 # line from MOSSLND2 230.00 BRKR to BRKR PANOCH
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (173) L-1/G-1 OVERLAPPING OUTAGE
# Coburn - Panoche 230 kV Line and Kerckhoff
1 30760 30790 "1 " 0 # line from COBURN 230.00 BRKR to BRKR PANOCH
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (174) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Panoche #1 230 kV Line and Kerckhoff
1 30765 30790 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR PANOCH
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (175) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Panoche #2 230 kV Line and Kerckhoff
1 30765 30790 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR PANOCH
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (176) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Dos Amigos 230 kV Line and Kerckhoff
1 30765 38615 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR DS AMIGO
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#

```

```

#
# (177) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - San Luis PGP #1 230 kV Line and Kerckhoff
1 30765 38625 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (178) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - San Luis PGP #2 230 kV Line and Kerckhoff
1 30765 38625 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (179) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Kearney 230 kV Line and Kerckhoff
1 30790 30825 "1 " 0 # line from PANOCHÉ 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (180) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Helm 230 kV Line and Kerckhoff
1 30790 30873 "1 " 0 # line from PANOCHÉ 230.00 BRKR to BRKR HELM
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (181) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Panoche #1 230 kV Line and Kerckhoff
1 30790 30900 "1 " 0 # line from PANOCHÉ 230.00 BRKR to BRKR GATES
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (182) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Panoche #2 230 kV Line and Kerckhoff
1 30790 30900 "2 " 0 # line from PANOCHÉ 230.00 BRKR to BRKR GATES
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (183) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Borden #1 230 kV Line and Kerckhoff
1 30795 30805 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR BORDEN
230.00
1 30795 30800 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR WILSON
230.00
4 30795 0 "2 " 0 # LOAD-DROP STOREY 2 230.00 LOAD==33.89(6.88)
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#

```

```

# (184) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Borden #2 230 kV Line and Kerckhoff
1 30796 30800 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR WILSON
230.00
1 30796 30805 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR BORDEN
230.00
4 30796 0 "1 " 0 # LOAD-DROP STOREY 1 230.00 LOAD==37.87(7.69)
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (185) L-1/G-1 OVERLAPPING OUTAGE
# Melones - Wilson 230 kV Line and Kerckhoff
1 37563 30800 "1 " 0 # line from MELONES 230.00 (2) to BRKR WILSON 230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (186) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Gregg #1 230 kV Line and Kerckhoff
1 30805 30810 "1 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden line
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (187) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Gregg #2 230 kV Line and Kerckhoff
1 30805 30810 "2 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden #2 line
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (188) L-1/G-1 OVERLAPPING OUTAGE
# Dos Amigos - Panoche 230 kV Line and Kerckhoff
1 38615 30790 "1 " 0 # line from DS AMIGO 230.00 BRKR to BRKR PANOCHE
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# 2013 sumpk category b contingency list
# Fresno Zone 314
#
#
# (189) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30873 30875 "1 " 0 # line from HELM 230.00 BRKR to BRKR MC CALL
230.00
0
#
#
# (190) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30810 30820 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34600 0 "***" 0 # Drop unit#1 with a loss Helm - Gregg #1 line
0
#
#
# (191) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#

```

```

1 30810 30820 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Helm - Gregg #2 line
0
#
#
# (192) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30810 30835 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #1 line
0
#
#
# (193) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30810 30835 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #2 line
0
#
#
# (194) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30810 30845 "1 " 0 # line from GREGG 230.00 BRKR to (3) FGRDN T2
230.00
1 30845 30846 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR FIGRDN 2
230.00
1 30845 30850 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR ASHLAN
230.00
4 30846 0 "1 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==52.57(10.67)
4 30846 0 "2 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==36.77(7.47)
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Figarden line
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30846 0 "***" 1 # Restore Load at Figarden 2
0
#
#
# (195) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00
1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
0
#
#
# (196) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30830 30835 "1 " 0 # line from KEARNEY 230.00 BRKR to BRKR HERNDON
230.00
0
#
#
# (197) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30835 30840 "1 " 0 # line from HERNDON 230.00 BRKR to (3) FGRDN T1
230.00
1 30840 30841 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR FIGRDN 1
230.00
1 30840 30850 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR ASHLAN
230.00
4 30841 0 "1 " 0 # LOAD-DROP FIGRDN 1 230.00 LOAD==73.45(14.92)
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30841 0 "***" 1 # Restore Load at Figarden 1
0

```

```

#
#
# (198) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30855 30860 "1 " 0 # line from HAAS 230.00 (2) to (3) BALCH3TP
230.00
2 30855 34610 "1 " 0 # TRAN from HAAS 230.00 (2) to (1) HAAS
13.80
1 30860 30875 "1 " 0 # line from BALCH3TP 230.00 (3) to BRKR MC CALL
230.00
2 30860 34614 "1 " 0 # TRAN from BALCH3TP 230.00 (3) to (1) BLCH 2-3
13.80
3 34610 0 "1 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34610 0 "2 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34614 0 "1 " 0 # GEN-DROP BLCH 2-3 13.80 GEN==50.00(7.64)
0
#
#
# (199) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30865 30870 "1 " 0 # line from BALCH 230.00 (2) to (3) PINE FLT
230.00
2 30865 34612 "1 " 0 # TRAN from BALCH 230.00 (2) to (1) BLCH 2-2
13.80
1 30870 30875 "1 " 0 # line from PINE FLT 230.00 (3) to BRKR MC CALL
230.00
2 30870 38720 "1 " 0 # TRAN from PINE FLT 230.00 (3) to (1) PINE FLT
13.80
3 34612 0 "1 " 0 # GEN-DROP BLCH 2-2 13.80 GEN==50.00(0.66)
3 38720 0 "1 " 0 # GEN-DROP PINE FLT 13.80 GEN==57.00(23.30)
0
#
#
# (200) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30875 30874 "1 " 0 # line from MC CALL 230.00 BRKR to BRKR P0615STN
230.00
0
#
#
# (201) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30875 30874 "2 " 0 # line from MC CALL 230.00 BRKR to BRKR P0615STN
230.00
0
#
#
# (202) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30875 30880 "1 " 0 # line from MC CALL 230.00 BRKR to (2) HENTAP2
230.00
1 30880 30900 "1 " 0 # line from HENTAP2 230.00 (2) to BRKR GATES
230.00
0
#
#
# (203) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30900 30905 "1 " 0 # line from GATES 230.00 BRKR to BRKR TEMPLETN
230.00
0
#
#
# (204) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30900 30915 "1 " 0 # line from GATES 230.00 BRKR to BRKR MORROBAY
230.00
0
#
#

```



```

# (205) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30900 30935 "1 " 0 # line from GATES 230.00 BRKR to BRKR ARCO
230.00
0
#
#
# (206) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30900 30970 "1 " 0 # line from GATES 230.00 BRKR to BRKR MIDWAY
230.00
0
#
#
# (207) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34123 34358 "2 " 0 # line from K1-JCT 115.00 (2) to BRKR KERCKHF2
115.00
1 34123 34128 "1 " 0 # line from K1-JCT 115.00 (2) to (3) OAKH_JCT
115.00
1 34128 34121 "1 " 0 # line from OAKH_JCT 115.00 (3) to (3) SHARON T
115.00
1 34128 34126 "1 " 0 # line from OAKH_JCT 115.00 (3) to (2) CORSGOLD
115.00
1 34121 34105 "1 " 0 # line from SHARON T 115.00 (3) to (2) CERTANJ1
115.00
1 34121 34120 "1 " 0 # line from SHARON T 115.00 (3) to (1) SHARON
115.00
1 34105 34100 "1 " 0 # line from CERTANJ1 115.00 (2) to BRKR CHWCHLLA
115.00
1 34126 34122 "1 " 0 # line from CORSGOLD 115.00 (2) to (1) OAKHURST
115.00
4 34126 0 "1 " 0 # LOAD-DROP CORSGOLD 115.00 LOAD==2.21(0.45)
4 34126 0 "2 " 0 # LOAD-DROP CORSGOLD 115.00 LOAD==26.19(5.32)
4 34120 0 "1 " 0 # LOAD-DROP SHARON 115.00 LOAD==7.10(4.96)
4 34122 0 "1 " 0 # LOAD-DROP OAKHURST 115.00 LOAD==11.68(2.37)
4 34122 0 "2 " 0 # LOAD-DROP OAKHURST 115.00 LOAD==15.01(3.05)
0
#
#
# (208) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34149 34354 "1 " 0 # line from CHENYT 115.00 (3) to BRKR SCHINDLR
115.00
1 34149 34148 "1 " 0 # line from CHENYT 115.00 (3) to (2) CHENY
115.00
1 34149 34158 "1 " 0 # line from CHENYT 115.00 (3) to BRKR PANOCHÉ
115.00
1 34148 34141 "1 " 0 # line from CHENY 115.00 (2) to (2) PAN2_TAP
115.00
2 34141 34142 "1 " 0 # TRAN from PAN2_TAP 115.00 (2) to (1) WHD_PAN2
13.80
4 34148 0 "1 " 0 # LOAD-DROP CHENY 115.00 LOAD==13.12(2.66)
3 34142 0 "1 " 0 # GEN-DROP WHD_PAN2 13.80 GEN==49.00(4.03)
0
#
#
# (209) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34184 34570 "1 " 0 # line from GATS2_TP 70.00 (3) to BRKR COLNGA 2
70.00
1 34184 34552 "1 " 0 # line from GATS2_TP 70.00 (3) to BRKR GATES
70.00
2 34184 34553 "1 " 0 # TRAN from GATS2_TP 70.00 (3) to (1) WHD_GAT2
13.80
3 34553 0 "1 " 0 # GEN-DROP WHD_GAT2 13.80 GEN==49.00(-25.30)
0
#
#
# (210) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

```

```

#
1 34356 34358 "1 " 0 # line from KERCKHF1 115.00 BRKR to BRKR KERCKHF2
115.00
0
#
#
# (211) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34357 34361 "1 " 0 # line from AIRWAYJ1 115.00 (3) to BRKR AIRWAYS
115.00
1 34357 34368 "1 " 0 # line from AIRWAYJ1 115.00 (3) to (2) LASPALMS
115.00
1 34357 34410 "1 " 0 # line from AIRWAYJ1 115.00 (3) to BRKR MANCHSTR
115.00
1 34368 34366 "1 " 0 # line from LASPALMS 115.00 (2) to BRKR SANGER
115.00
4 34368 0 "1 " 0 # LOAD-DROP LASPALMS 115.00 LOAD==13.90(11.89)
0
#
#
# (212) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34358 34360 "1 " 0 # line from KERCKHF2 115.00 BRKR to (3) WWARD JT
115.00
1 34360 34414 "1 " 0 # line from WWARD JT 115.00 (3) to BRKR WOODWARD
115.00
1 34360 34363 "1 " 0 # line from WWARD JT 115.00 (3) to (3) CLOVISJ1
115.00
1 34363 34362 "1 " 0 # line from CLOVISJ1 115.00 (3) to BRKR CLOVIS-1
115.00
1 34363 34366 "1 " 0 # line from CLOVISJ1 115.00 (3) to BRKR SANGER
115.00
4 34362 0 "1 " 0 # LOAD-DROP CLOVIS-1 115.00 LOAD==51.01(10.36)
4 34362 0 "2 " 0 # LOAD-DROP CLOVIS-1 115.00 LOAD==50.20(10.20)
1 34362 34364 "1 " 1 # Switches in Clovis SW 387 to transfer load
4 34362 0 "***" 1 # Restore Load at Clovis 1
0
#
#
# (213) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34359 34361 "1 " 0 # line from AIRWAYJ2 115.00 (3) to BRKR AIRWAYS
115.00
1 34359 34408 "1 " 0 # line from AIRWAYJ2 115.00 (3) to BRKR BARTON
115.00
1 34359 34366 "1 " 0 # line from AIRWAYJ2 115.00 (3) to BRKR SANGER
115.00
0
#
#
# (214) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34364 34365 "1 " 0 # line from CLOVIS-2 115.00 BRKR to (3) CLOVISJ2
115.00
1 34365 34358 "1 " 0 # line from CLOVISJ2 115.00 (3) to BRKR KERCKHF2
115.00
1 34365 34366 "1 " 0 # line from CLOVISJ2 115.00 (3) to BRKR SANGER
115.00
4 34364 0 "3 " 0 # LOAD-DROP CLOVIS-2 115.00 LOAD==44.76(9.09)
1 34362 34364 "1 " 1 # Switches in Clovis SW 387 to transfer load
4 34364 0 "***" 1 # Restore Load at Clovis 2
0
#
#
# (215) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34366 34370 "1 " 0 # line from SANGER 115.00 BRKR to BRKR MC CALL
115.00
0
#

```

```

#
# (216) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34366 34370 "2 " 0 # line from SANGER 115.00 BRKR to BRKR MC CALL
115.00
0
#
#
# (217) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34366 34370 "3 " 0 # line from SANGER 115.00 BRKR to BRKR MC CALL
115.00
0
#
#
# (218) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34366 34372 "1 " 0 # line from SANGER 115.00 BRKR to BRKR MALAGA
115.00
0
#
#
# (219) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34366 34389 "1 " 0 # line from SANGER 115.00 BRKR to (3) RAINBWTP
115.00
1 34389 34388 "1 " 0 # line from RAINBWTP 115.00 (3) to (1) RAINBW
115.00
1 34389 34394 "1 " 0 # line from RAINBWTP 115.00 (3) to (3) PIEDRA 1
115.00
1 34394 34380 "1 " 0 # line from PIEDRA 1 115.00 (3) to BRKR REEDLEY
115.00
1 34394 34400 "1 " 0 # line from PIEDRA 1 115.00 (3) to BRKR KNGSRVR1
115.00
4 34388 0 "1 " 0 # LOAD-DROP RAINBW 115.00 LOAD==16.20(3.29)
0
#
#
# (220) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34366 34396 "1 " 0 # line from SANGER 115.00 BRKR to (2) PIEDRA 2
115.00
1 34396 34398 "1 " 0 # line from PIEDRA 2 115.00 (2) to (2) BALCH
115.00
2 34398 34624 "1 " 0 # TRAN from BALCH 115.00 (2) to (1) BALCH 1
13.20
4 34624 0 "1 " 0 # LOAD-DROP BALCH 1 13.20 LOAD==0.26(0.00)
3 34624 0 "1 " 0 # GEN-DROP BALCH 1 13.20 GEN==27.00(8.33)
0
#
#
# (221) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34369 34370 "1 " 0 # line from P0418 115.00 (5) to BRKR MC CALL
115.00
2 34369 34661 "1 " 0 # TRAN from P0418 115.00 (5) to (1) P0418GT1
13.80
2 34369 34663 "1 " 0 # TRAN from P0418 115.00 (5) to (1) P0418GT2
13.80
2 34369 34665 "1 " 0 # TRAN from P0418 115.00 (5) to (1) P0418GT3
13.80
2 34369 34667 "1 " 0 # TRAN from P0418 115.00 (5) to (1) P0418GT4
13.80
4 34661 0 "ss" 0 # LOAD-DROP P0418GT1 13.80 LOAD==3.00(1.66)
4 34663 0 "ss" 0 # LOAD-DROP P0418GT2 13.80 LOAD==3.00(1.66)
4 34665 0 "ss" 0 # LOAD-DROP P0418GT3 13.80 LOAD==3.00(1.66)
4 34667 0 "ss" 0 # LOAD-DROP P0418GT4 13.80 LOAD==3.00(1.66)
3 34661 0 "1 " 0 # GEN-DROP P0418GT1 13.80 GEN==78.80(13.93)
3 34663 0 "2 " 0 # GEN-DROP P0418GT2 13.80 GEN==78.80(13.93)
3 34665 0 "3 " 0 # GEN-DROP P0418GT3 13.80 GEN==78.80(13.93)

```

```

3 34667      0 "4 "    0      # GEN-DROP    P0418GT4  13.80  GEN==78.80(13.93)
0
#
#
# (222)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34370 34382 "1 "    0      # line from  MC CALL  115.00  BRKR to BRKR  WAHTOKE
115.00
0
#
#
# (223)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34370 34385 "1 "    0      # line from  MC CALL  115.00  BRKR to (3)   KINGS J1
115.00
1 34385 34417 "1 "    0      # line from  KINGS J1 115.00  (3) to (2)   KINGS J2
115.00
1 34385 34425 "1 "    0      # line from  KINGS J1 115.00  (3) to (3)   KCOGNJCT
115.00
1 34417 34418 "1 "    0      # line from  KINGS J2 115.00  (2) to BRKR  KINGSBRG
115.00
1 34425 34387 "1 "    0      # line from  KCOGNJCT 115.00  (3) to (1)   SUNMAID
115.00
1 34425 34427 "1 "    0      # line from  KCOGNJCT 115.00  (3) to (2)   GRDNGLS2
115.00
1 34427 34386 "1 "    0      # line from  GRDNGLS2 115.00  (2) to (2)   KNGSCOGN
115.00
2 34386 34642 "1 "    0      # TRAN from  KNGSCOGN 115.00  (2) to BRKR  KINGSBUR
9.11
4 34387      0 "1 "    0      # LOAD-DROP  SUNMAID  115.00  LOAD==3.40(3.28)
3 34642      0 "1 "    0      # GEN-DROP   KINGSBUR   9.11   GEN==34.00(17.30)
0
#
#
# (224)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34402 34404 "1 "    0      # line from  CAL AVE  115.00  BRKR to BRKR  WST FRSO
115.00
0
#
#
# (225)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34372 34376 "1 "    0      # line from  MALAGA   115.00  BRKR to (1)   PPG
115.00
4 34376      0 "1 "    0      # LOAD-DROP  PPG         115.00  LOAD==6.25(3.87)
0
#
#
# (226)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34372 34379 "1 "    0      # line from  MALAGA   115.00  BRKR to (3)   MALAGATP
115.00
1 34379 34373 "1 "    0      # line from  MALAGATP 115.00  (3) to (3)   SCWAXJCT
115.00
1 34379 34375 "1 "    0      # line from  MALAGATP 115.00  (3) to (3)   ULTPWRJ
115.00
1 34373 34371 "1 "    0      # line from  SCWAXJCT 115.00  (3) to (1)   SCWAX
115.00
1 34373 34374 "1 "    0      # line from  SCWAXJCT 115.00  (3) to (1)   RANCHRS
115.00
1 34375 34377 "1 "    0      # line from  ULTPWRJ  115.00  (3) to (2)   AIRPROD
115.00
2 34375 34640 "1 "    0      # TRAN from  ULTPWRJ  115.00  (3) to (1)   ULTR.PWR
9.11
1 34377 34370 "1 "    0      # line from  AIRPROD  115.00  (2) to BRKR  MC CALL
115.00
4 34371      0 "1 "    0      # LOAD-DROP  SCWAX     115.00  LOAD==2.70(1.53)
4 34374      0 "1 "    0      # LOAD-DROP  RANCHRS   115.00  LOAD==9.16(1.86)
4 34377      0 "1 "    0      # LOAD-DROP  AIRPROD   115.00  LOAD==5.10(2.02)

```

```

3 34640      0 "1 "  0      # GEN-DROP    ULTR.PWR    9.11  GEN==14.50(13.00)
0
#
#
# (227)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34372 34381 "1 "  0      # line from  MALAGA    115.00  BRKR to (3)  KRCDP
115.00
2 34381 34671 "1 "  0      # TRAN from  KRCDP      115.00  (3) to (1)  KRCDPCT1
13.80
2 34381 34672 "1 "  0      # TRAN from  KRCDP      115.00  (3) to (1)  KRCDPCT2
13.80
4 34671      0 "ss"  0      # LOAD-DROP   KRCDPCT1   13.80  LOAD==1.05(0.65)
4 34672      0 "ss"  0      # LOAD-DROP   KRCDPCT2   13.80  LOAD==1.05(0.65)
3 34671      0 "1 "  0      # GEN-DROP   KRCDPCT1   13.80  GEN==50.00(7.14)
3 34672      0 "1 "  0      # GEN-DROP   KRCDPCT2   13.80  GEN==50.00(7.14)
0
#
#
# (228)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34380 34384 "1 "  0      # line from  REEDLEY    115.00  BRKR to (2)  GERAWAN
115.00
1 34384 34382 "1 "  0      # line from  GERAWAN    115.00  (2) to BRKR  WAHTOKE
115.00
0
#
#
# (229)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34390 34370 "1 "  0      # line from  DANISHCM   115.00  (2) to BRKR  MC CALL
115.00
1 34390 34402 "1 "  0      # line from  DANISHCM   115.00  (2) to BRKR  CAL AVE
115.00
4 34390      0 "1 "  0      # LOAD-DROP   DANISHCM   115.00  LOAD==4.10(3.51)
0
#
#
# (230)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34391 34392 "1 "  0      # line from  QUEBECTP   115.00  (2) to (1)  QUEBEC
115.00
1 34391 34426 "1 "  0      # line from  QUEBECTP   115.00  (2) to BRKR  ALPAUGH
115.00
4 34392      0 "1 "  0      # LOAD-DROP   QUEBEC     115.00  LOAD==11.20(7.82)
0
#
#
# (231)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34404 34370 "1 "  0      # line from  WST FRSO   115.00  BRKR to BRKR  MC CALL
115.00
0
#
#
# (232)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34408 34412 "1 "  0      # line from  BARTON     115.00  BRKR to BRKR  HERNDON
115.00
0
#
#
# (233)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34409 34413 "1 "  0      # line from  PNDLJ2     115.00  (3) to BRKR  PNEDLE
115.00
1 34409 34416 "1 "  0      # line from  PNDLJ2     115.00  (3) to BRKR  BULLARD
115.00
1 34409 34412 "1 "  0      # line from  PNDLJ2     115.00  (3) to BRKR  HERNDON
115.00

```

```

4 34413 0 "2 " 0 # LOAD-DROP PNEBLE 115.00 LOAD==30.74(6.25)
4 34413 0 "3 " 0 # LOAD-DROP PNEBLE 115.00 LOAD==40.42(8.20)
1 34411 34413 "1 " 1 # Switches in Pindale CB#12 to transfer load
4 34413 0 "***" 1 # Restore load at Pindale
0
#
#
# (234) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34410 34412 "1 " 0 # line from MANCHSTR 115.00 BRKR to BRKR HERNDON
115.00
0
#
#
# (235) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34411 34416 "1 " 0 # line from PNDLJ1 115.00 (2) to BRKR BULLARD
115.00
1 34411 34412 "1 " 0 # line from PNDLJ1 115.00 (2) to BRKR HERNDON
115.00
0
#
#
# (236) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34412 34422 "1 " 0 # line from HERNDON 115.00 BRKR to (2) CHLDHOSP
115.00
1 34422 34414 "1 " 0 # line from CHLDHOSP 115.00 (2) to BRKR WOODWARD
115.00
4 34422 0 "1 " 0 # LOAD-DROP CHLDHOSP 115.00 LOAD==3.50(1.60)
0
#
#
# (237) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34418 34420 "1 " 0 # line from KINGSBRG 115.00 BRKR to BRKR CORCORAN
115.00
0
#
#
# (238) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34418 34420 "2 " 0 # line from KINGSBRG 115.00 BRKR to BRKR CORCORAN
115.00
0
#
#
# (239) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34418 34423 "1 " 0 # line from KINGSBRG 115.00 BRKR to (3) GAURD J1
115.00
1 34423 34370 "1 " 0 # line from GAURD J1 115.00 (3) to BRKR MC CALL
115.00
1 34423 34421 "1 " 0 # line from GAURD J1 115.00 (3) to (2) GAURD J2
115.00
1 34421 34424 "1 " 0 # line from GAURD J2 115.00 (2) to (1) GRDN GLS
115.00
4 34424 0 "1 " 0 # LOAD-DROP GRDN GLS 115.00 LOAD==3.50(1.15)
4 34418 0 "3 " 0 # Kingsburg Bank #3 will also be dropped on this outage
0
#
#
# (240) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34418 34428 "1 " 0 # line from KINGSBRG 115.00 BRKR to (2) CONTADNA
115.00
1 34428 34429 "1 " 0 # line from CONTADNA 115.00 (2) to (4) GWF_HEP
115.00
1 34429 34521 "1 " 0 # line from GWF_HEP 115.00 (4) to (2) LEPRNOFD
115.00

```

```

2 34429 34431 "1 " 0 # TRAN from GWF_HEP 115.00 (4) to (1) GWF_HEP1
13.80
2 34429 34433 "1 " 0 # TRAN from GWF_HEP 115.00 (4) to (1) GWF_HEP2
13.80
1 34521 34430 "1 " 0 # line from LEPRNOFD 115.00 (2) to BRKR HENRETTA
115.00
4 34428 0 "1 " 0 # LOAD-DROP CONTADNA 115.00 LOAD==7.60(5.70)
4 34429 0 "ss" 0 # LOAD-DROP GWF_HEP 115.00 LOAD==3.00(0.68)
4 34521 0 "1 " 0 # LOAD-DROP LEPRNOFD 115.00 LOAD==6.65(4.30)
3 34431 0 "1 " 0 # GEN-DROP GWF_HEP1 13.80 GEN==50.00(21.27)
3 34433 0 "1 " 0 # GEN-DROP GWF_HEP2 13.80 GEN==50.00(21.27)
0
#
#
# (241) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34426 34700 "1 " 0 # line from ALPAUGH 115.00 BRKR to BRKR SMYRNA
115.00
0
#
#
# (242) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34452 34260 "1 " 0 # line from WISHON 70.00 BRKR to (3) SJNO2
70.00
1 34260 34259 "1 " 0 # line from SJNO2 70.00 (3) to (3) NRTHFORK
70.00
2 34260 34631 "1 " 0 # TRAN from SJNO2 70.00 (3) to (1) SJ2GEN
9.11
1 34259 34261 "1 " 0 # line from NRTHFORK 70.00 (3) to (2) SJNO3
70.00
2 34259 34340 "1 " 0 # TRAN from NRTHFORK 70.00 (3) to (1) N.FORK E
9.11
2 34261 34633 "1 " 0 # TRAN from SJNO3 70.00 (2) to (1) SJ3GEN
9.11
4 34260 0 "2 " 0 # LOAD-DROP SJNO2 70.00 LOAD==3.22(0.66)
4 34261 0 "2 " 0 # LOAD-DROP SJNO3 70.00 LOAD==6.95(1.41)
4 34340 0 "1 " 0 # LOAD-DROP N.FORK E 9.11 LOAD==1.21(0.25)
3 34631 0 "1 " 0 # GEN-DROP SJ2GEN 9.11 GEN==2.00(0.00)
3 34633 0 "1 " 0 # GEN-DROP SJ3GEN 9.11 GEN==1.00(0.00)
0
#
#
# (243) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34452 34491 "1 " 0 # line from WISHON 70.00 BRKR to (3) AUBRYTP
70.00
1 34491 34464 "1 " 0 # line from AUBRYTP 70.00 (3) to BRKR COPPRMNE
70.00
1 34491 34493 "1 " 0 # line from AUBRYTP 70.00 (3) to (1) AUBERRY
70.00
4 34493 0 "1 " 0 # LOAD-DROP AUBERRY 70.00 LOAD==6.07(1.23)
4 34493 0 "2 " 0 # LOAD-DROP AUBERRY 70.00 LOAD==7.15(1.45)
0
#
#
# (244) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34456 34458 "1 " 0 # line from HRDWK TP 70.00 (3) to (1) HARDWICK
70.00
1 34456 34522 "1 " 0 # line from HRDWK TP 70.00 (3) to (1) HNF RD SW
70.00
1 34456 34576 "1 " 0 # line from HRDWK TP 70.00 (3) to BRKR KINGLOBUS
70.00
4 34458 0 "1 " 0 # LOAD-DROP HARDWICK 70.00 LOAD==12.86(2.61)
0
#
#
# (245) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#

```

```

1 34460 34462 "1 " 0 # line from GUERNSEY 70.00 BRKR to (3) GUR3TPT
70.00
1 34462 34542 "1 " 0 # line from GUR3TPT 70.00 (3) to (2) JCBSCRNR
70.00
1 34462 34554 "1 " 0 # line from GUR3TPT 70.00 (3) to BRKR AMSTG SW
70.00
1 34542 34540 "1 " 0 # line from JCBSCRNR 70.00 (2) to BRKR HENRITTA
70.00
4 34460 0 "1 " 0 # LOAD-DROP GUERNSEY 70.00 LOAD==10.51(2.13)
4 34542 0 "1 " 0 # LOAD-DROP JCBSCRNR 70.00 LOAD==12.05(2.45)
4 34542 0 "2 " 0 # LOAD-DROP JCBSCRNR 70.00 LOAD==9.54(1.94)
0
#
#
# (246) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34464 34478 "1 " 0 # line from COPPRMNE 70.00 BRKR to BRKR TVY VLLY
70.00
0
#
#
# (247) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34464 34638 "1 " 0 # line from COPPRMNE 70.00 BRKR to (2) FRANTDM
70.00
2 34638 34636 "1 " 0 # TRAN from FRANTDM 70.00 (2) to (1) FRIANTDM
6.60
3 34636 0 "2 " 0 # GEN-DROP FRIANTDM 6.60 GEN==14.70(5.86)
3 34636 0 "3 " 0 # GEN-DROP FRIANTDM 6.60 GEN==7.80(3.11)
3 34636 0 "4 " 0 # GEN-DROP FRIANTDM 6.60 GEN==2.30(0.92)
0
#
#
# (248) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34466 34482 "1 " 0 # line from BIOLA 70.00 BRKR to BRKR OLDKERN
70.00
4 34466 0 "1 " 0 # LOAD-DROP BIOLA 70.00 LOAD==21.80(4.43)
0
#
#
# (249) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34468 34482 "1 " 0 # line from BOWLES 70.00 (1) to BRKR OLDKERN
70.00
4 34468 0 "1 " 0 # LOAD-DROP BOWLES 70.00 LOAD==18.29(3.72)
0
#
#
# (250) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34469 34271 "1 " 0 # line from GFFNJCT 70.00 (3) to (3) WSTLDJCT
70.00
1 34469 34470 "1 " 0 # line from GFFNJCT 70.00 (3) to (1) GIFFEN
70.00
1 34469 34471 "1 " 0 # line from GFFNJCT 70.00 (3) to (3) SNJQJCT
70.00
1 34271 34172 "1 " 0 # line from WSTLDJCT 70.00 (3) to (2) WESTLAND
70.00
1 34271 34269 "1 " 0 # line from WSTLDJCT 70.00 (3) to (3) BIOMSJCT
70.00
1 34471 34472 "1 " 0 # line from SNJQJCT 70.00 (3) to BRKR SAN JOQN
70.00
1 34471 34474 "1 " 0 # line from SNJQJCT 70.00 (3) to BRKR HELM
70.00
1 34172 34170 "1 " 0 # line from WESTLAND 70.00 (2) to (1) WESIX
70.00
1 34269 34268 "1 " 0 # line from BIOMSJCT 70.00 (3) to BRKR MENDOTA
70.00

```



```

1 34269 34270 "1 " 0 # line from BIOMSJCT 70.00 (3) to (2) BIOMASS
70.00
2 34270 34334 "1 " 0 # TRAN from BIOMASS 70.00 (2) to (1) BIO PWR
9.11
4 34470 0 "1 " 0 # LOAD-DROP GIFFEN 70.00 LOAD==9.59(1.95)
4 34172 0 "1 " 0 # LOAD-DROP WESTLAND 70.00 LOAD==3.20(0.76)
4 34170 0 "1 " 0 # LOAD-DROP WESIX 70.00 LOAD==1.60(0.38)
3 34334 0 "1 " 0 # GEN-DROP BIO PWR 9.11 GEN==21.80(10.99)
1 34472 34473 "1 " 1 # Switches in San Joaquin CB22 to transfer load
4 34472 0 "***" 1 # Restore Load at San Joaquin
0
#
#
# (251) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34473 34472 "1 " 0 # line from SNJQTP 70.00 (2) to BRKR SAN JOQN
70.00
1 34473 34475 "1 " 0 # line from SNJQTP 70.00 (2) to (3) AGRCJCT
70.00
1 34475 34476 "1 " 0 # line from AGRCJCT 70.00 (3) to (2) AGRICO
70.00
1 34475 34484 "1 " 0 # line from AGRCJCT 70.00 (3) to BRKR KERMAN
70.00
2 34476 34608 "1 " 0 # TRAN from AGRICO 70.00 (2) to (1) AGRICO
13.80
4 34484 0 "1 " 0 # LOAD-DROP KERMAN 70.00 LOAD==19.44(3.95)
4 34484 0 "2 " 0 # LOAD-DROP KERMAN 70.00 LOAD==11.78(2.39)
3 34608 0 "2 " 0 # GEN-DROP AGRICO 13.80 GEN==7.00(1.08)
3 34608 0 "3 " 0 # GEN-DROP AGRICO 13.80 GEN==18.10(2.80)
3 34608 0 "4 " 0 # GEN-DROP AGRICO 13.80 GEN==26.00(4.02)
0
#
#
# (252) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34474 34556 "1 " 0 # line from HELM 70.00 BRKR to BRKR STRD JCT
70.00
0
#
#
# (253) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34478 34492 "1 " 0 # line from TVY VLLY 70.00 BRKR to BRKR REEDLEY
70.00
0
#
#
# (254) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34480 34481 "1 " 0 # line from KEARNEY 70.00 BRKR to (3) FRWWTAP
70.00
1 34481 34483 "1 " 0 # line from FRWWTAP 70.00 (3) to (3) FRESNOWW
70.00
1 34481 34483 "2 " 0 # line from FRWWTAP 70.00 (3) to (3) FRESNOWW
70.00
2 34483 34485 "1 " 0 # TRAN from FRESNOWW 70.00 (3) to (1) FRESNOWW
12.47
4 34485 0 "1 " 0 # LOAD-DROP FRESNOWW 12.47 LOAD==7.91(0.00)
3 34485 0 "1 " 0 # GEN-DROP FRESNOWW 12.47 GEN==9.00(0.00)
0
#
#
# (255) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34480 34482 "1 " 0 # line from KEARNEY 70.00 BRKR to (3) OLDKERN
70.00
1 34482 34466 "1 " 0 # line from OLDKERN 70.00 BRKR to BRKR BIOLA
70.00
1 34482 34468 "1 " 0 # line from OLDKERN 70.00 BRKR to (1) BOWLES
70.00

```

```

4 34482 0 "1 " 0 # LOAD-DROP OLDKERN 70.00 LOAD==18.75(3.81)
4 34482 0 "3 " 0 # LOAD-DROP OLDKERN 70.00 LOAD==7.57(1.54)
4 34466 0 "1 " 0 # LOAD-DROP BIOLA 70.00 LOAD==21.80(4.43)
4 34468 0 "1 " 0 # LOAD-DROP BOWLES 70.00 LOAD==18.29(3.72)
0
#
#
# (256) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34480 34512 "1 " 0 # line from KEARNEY 70.00 BRKR to BRKR CARUTHRS
70.00
4 34512 0 "1 " 0 # LOAD-DROP CARUTHRS 70.00 LOAD==19.63(3.98)
0
#
#
# (257) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34487 34489 "1 " 0 # line from SNGRJCT 70.00 (3) to (2) SNGRCOGN
70.00
1 34487 34490 "1 " 0 # line from SNGRJCT 70.00 (3) to (2) PARLIER
70.00
1 34487 34488 "1 " 0 # line from SNGRJCT 70.00 (3) to BRKR SANGER
70.00
2 34489 34646 "1 " 0 # TRAN from SNGRCOGN 70.00 (2) to (1) SANGERCO
9.11
1 34490 34492 "1 " 0 # line from PARLIER 70.00 (2) to BRKR REEDLEY
70.00
4 34490 0 "1 " 0 # LOAD-DROP PARLIER 70.00 LOAD==20.24(4.11)
3 34646 0 "1 " 0 # GEN-DROP SANGERCO 9.11 GEN==37.50(1.40)
0
#
#
# (258) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34488 34366 "1 " 0 # line from SANGER 70.00 BRKR to BRKR SANGER
115.00
0
#
#
# (259) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34492 34497 "1 " 0 # line from REEDLEY 70.00 BRKR to (3) DNUBAJCT
70.00
1 34497 34499 "1 " 0 # line from DNUBAJCT 70.00 (3) to (2) DNUBAEGY
70.00
1 34497 34500 "1 " 0 # line from DNUBAJCT 70.00 (3) to BRKR DINUBA
70.00
2 34499 34648 "1 " 0 # TRAN from DNUBAEGY 70.00 (2) to (1) DINUBA E
13.80
4 34648 0 "ss" 0 # LOAD-DROP DINUBA E 13.80 LOAD==0.30(0.26)
3 34648 0 "1 " 0 # GEN-DROP DINUBA E 13.80 GEN==12.00(7.00)
0
#
#
# (260) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34492 34526 "1 " 0 # line from REEDLEY 70.00 BRKR to (3) ORSI JCT
70.00
1 34526 34495 "1 " 0 # line from ORSI JCT 70.00 (3) to (2) SANDCRK
70.00
1 34526 34502 "1 " 0 # line from ORSI JCT 70.00 (3) to BRKR OROSI
70.00
1 34495 34494 "1 " 0 # line from SANDCRK 70.00 (2) to (1) DUNLAP
70.00
4 34495 0 "1 " 0 # LOAD-DROP SANDCRK 70.00 LOAD==3.14(0.64)
4 34494 0 "1 " 0 # LOAD-DROP DUNLAP 70.00 LOAD==4.46(0.91)
0
#
#
# (261) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

```

```

#
1 34496 34498 "1 " 0 # line from STCRRL J 70.00 (3) to (1) STONCRRL
70.00
1 34496 34500 "1 " 0 # line from STCRRL J 70.00 (3) to BRKR DINUBA
70.00
1 34496 34502 "1 " 0 # line from STCRRL J 70.00 (3) to (2) OROSI
70.00
1 34502 34526 "1 " 0 # line from OROSI 70.00 BRKR to (1) ORSI JCT
70.00
4 34498 0 "2 " 0 # LOAD-DROP STONCRRL 70.00 LOAD==3.37(0.68)
4 34498 0 "3 " 0 # LOAD-DROP STONCRRL 70.00 LOAD==2.68(0.54)
4 34502 0 "1 " 0 # LOAD-DROP OROSI 70.00 LOAD==8.38(1.70)
4 34502 0 "2 " 0 # LOAD-DROP OROSI 70.00 LOAD==7.43(1.51)
0
#
#
# (262) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34508 34510 "1 " 0 # line from CAMDEN 70.00 (2) to (1) CMDN JCT
70.00
1 34508 34576 "1 " 0 # line from CAMDEN 70.00 (2) to BRKR KNGLOBUS
70.00
4 34508 0 "1 " 0 # LOAD-DROP CAMDEN 70.00 LOAD==6.87(1.40)
4 34508 0 "2 " 0 # LOAD-DROP CAMDEN 70.00 LOAD==10.90(2.22)
0
#
#
# (263) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34514 34540 "1 " 0 # line from MUSLSLGH 70.00 (1) to BRKR HENRITTA
70.00
4 34514 0 "1 " 0 # LOAD-DROP MUSLSLGH 70.00 LOAD==22.00(13.60)
0
#
#
# (264) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34516 34520 "1 " 0 # line from LEPRINO 70.00 (1) to (4) LPRNO TP
70.00
1 34520 34518 "1 " 0 # line from LPRNO TP 70.00 (4) to BRKR LEMOORE
70.00
1 34520 34524 "1 " 0 # line from LPRNO TP 70.00 (4) to (1) CANDLEWK
70.00
1 34520 34540 "1 " 0 # line from LPRNO TP 70.00 (4) to BRKR HENRITTA
70.00
4 34516 0 "1 " 0 # LOAD-DROP LEPRINO 70.00 LOAD==16.10(9.12)
4 34518 0 "1 " 0 # LOAD-DROP LEMOORE 70.00 LOAD==18.86(3.83)
4 34518 0 "2 " 0 # LOAD-DROP LEMOORE 70.00 LOAD==32.81(6.66)
0
#
#
# (265) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34528 34530 "1 " 0 # line from CORCORAN 70.00 BRKR to (3) BSWLL TP
70.00
1 34530 34531 "1 " 0 # line from BSWLL TP 70.00 (3) to (2) JGBSWLL
70.00
1 34530 34538 "1 " 0 # line from BSWLL TP 70.00 (3) to (1) BOSWELL
70.00
1 34531 34536 "1 " 0 # line from JGBSWLL 70.00 (2) to (1) ANGIOLA
70.00
4 34538 0 "1 " 0 # LOAD-DROP BOSWELL 70.00 LOAD==2.37(1.53)
4 34536 0 "1 " 0 # LOAD-DROP ANGIOLA 70.00 LOAD==7.24(1.47)
0
#
#
# (266) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34532 34554 "1 " 0 # line from ARMSTRNG 70.00 (1) to (4) AMSTG SW
70.00

```

```

1 34554 34462 "1 " 0 # line from AMSTG SW 70.00 BRKR to (1) GUR3TPT
70.00
1 34554 34534 "1 " 0 # line from AMSTG SW 70.00 (4) to (1) RESERVE
70.00
2 34554 34650 "1 " 0 # TRAN from AMSTG SW 70.00 BRKR to (1) GWF-PWR.
13.80
4 34534 0 "1 " 0 # LOAD-DROP RESERVE 70.00 LOAD==2.03(0.41)
3 34650 0 "1 " 0 # GEN-DROP GWF-PWR. 13.80 GEN==23.00(12.00)
0
#
#
# (267) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34537 34540 "1 " 0 # line from GWF_HENR 70.00 (5) to BRKR HENRITTA
70.00
2 34537 34539 "1 " 0 # TRAN from GWF_HENR 70.00 (5) to (1) GWF_GT1
13.80
2 34537 34541 "1 " 0 # TRAN from GWF_HENR 70.00 (5) to (1) GWF_GT2
13.80
2 34537 34691 "1 " 0 # TRAN from GWF_HENR 70.00 (5) to (1) Q272_ST1
13.80
2 34537 34692 "1 " 0 # TRAN from GWF_HENR 70.00 (5) to (1) Q272SLST
13.80
4 34539 0 "ss" 0 # LOAD-DROP GWF_GT1 13.80 LOAD==1.10(0.25)
4 34541 0 "ss" 0 # LOAD-DROP GWF_GT2 13.80 LOAD==1.10(0.25)
4 34691 0 "ss" 0 # LOAD-DROP Q272_ST1 13.80 LOAD==2.00(1.11)
4 34692 0 "ss" 0 # LOAD-DROP Q272SLST 13.80 LOAD==14.00(7.75)
3 34539 0 "1 " 0 # GEN-DROP GWF_GT1 13.80 GEN==50.00(4.51)
3 34541 0 "1 " 0 # GEN-DROP GWF_GT2 13.80 GEN==50.00(4.51)
3 34691 0 "1 " 0 # GEN-DROP Q272_ST1 13.80 GEN==27.00(1.87)
3 34692 0 "1 " 0 # GEN-DROP Q272SLST 13.80 GEN==139.00(35.74)
0
#
#
# (268) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34544 34550 "1 " 0 # line from TLRE LKE 70.00 BRKR to (2) CHEVPLIN
70.00
1 34550 34546 "1 " 0 # line from CHEVPLIN 70.00 (2) to (2) AVENAL
70.00
1 34546 34548 "1 " 0 # line from AVENAL 70.00 (2) to BRKR KETTLEMN
70.00
4 34544 0 "1 " 0 # LOAD-DROP TLRE LKE 70.00 LOAD==6.79(1.38)
4 34550 0 "1 " 0 # LOAD-DROP CHEVPLIN 70.00 LOAD==1.01(0.73)
4 34546 0 "1 " 0 # LOAD-DROP AVENAL 70.00 LOAD==7.72(1.57)
0
#
#
# (269) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34548 34552 "1 " 0 # line from KETTLEMN 70.00 (2) to BRKR GATES
70.00
1 34548 34546 "1 " 0 # line from KETTLEMN 70.00 BRKR to (1) AVENAL
70.00
4 34548 0 "1 " 0 # LOAD-DROP KETTLEMN 70.00 LOAD==6.32(1.29)
0
#
#
# (270) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34552 34558 "1 " 0 # line from GATES 70.00 BRKR to BRKR HURON
70.00
0
#
#
# (271) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34552 34558 "2 " 0 # line from GATES 70.00 BRKR to BRKR HURON
70.00
0

```

```

#
#
# (272) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34552 34578 "1 " 0 # line from GATES 70.00 BRKR to (2) JACALITO
70.00
1 34578 34574 "1 " 0 # line from JACALITO 70.00 (2) to BRKR COLNGA 1
70.00
4 34578 0 "1 " 0 # LOAD-DROP JACALITO 70.00 LOAD==4.45(2.99)
0
#
#
# (273) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34556 34562 "1 " 0 # line from STRD JCT 70.00 BRKR to BRKR SCHLNDLR
70.00
0
#
#
# (274) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34556 34564 "1 " 0 # line from STRD JCT 70.00 (3) to BRKR STROUD
70.00
1 34556 34474 "1 " 0 # line from STRD JCT 70.00 BRKR to BRKR HELM
70.00
1 34556 34562 "1 " 0 # line from STRD JCT 70.00 BRKR to BRKR SCHLNDLR
70.00
4 34564 0 "1 " 0 # LOAD-DROP STROUD 70.00 LOAD==13.09(2.66)
0
#
#
# (275) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34558 34560 "1 " 0 # line from HURON 70.00 BRKR to (2) CALFLAX
70.00
1 34560 34562 "1 " 0 # line from CALFLAX 70.00 (2) to BRKR SCHLNDLR
70.00
4 34560 0 "1 " 0 # LOAD-DROP CALFLAX 70.00 LOAD==6.53(1.33)
1 34552 34558 "2 " 0 # Must include Gates - Huron #2 in this outage
0
#
#
# (276) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34562 34566 "1 " 0 # line from SCHLNDLR 70.00 BRKR to (2) PLSNTVLY
70.00
1 34566 34570 "1 " 0 # line from PLSNTVLY 70.00 (2) to BRKR COLNGA 2
70.00
4 34566 0 "1 " 0 # LOAD-DROP PLSNTVLY 70.00 LOAD==10.00(2.51)
0
#
#
# (277) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34570 34572 "1 " 0 # line from COLNGA 2 70.00 BRKR to (3) TORNADO
70.00
1 34572 34574 "1 " 0 # line from TORNADO 70.00 (3) to BRKR COLNGA 1
70.00
2 34572 34654 "1 " 0 # TRAN from TORNADO 70.00 (3) to (1) COLNGAGN
9.11
4 34572 0 "1 " 0 # LOAD-DROP TORNADO 70.00 LOAD==1.74(1.44)
3 34654 0 "1 " 0 # GEN-DROP COLNGAGN 9.11 GEN==34.00(5.40)
2 34570 34652 "1 " 0 # Must include Colinga2 - Chv.coal in this outage -
modeled on bus,
3 34652 0 "***" 0 # Drops units on Derrick Sub
4 34652 0 "***" 0 # Drops load at Derrick Sub
0
#
#
# (278) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

```

```

#
1 36354 34574 "1 " 0 # line from SAN MIGL 70.00 BRKR to BRKR COLNGA 1
70.00
0
#
#
# (279) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
# **** 3-WINDING TRANSFORMER 30835 (30882) 34412 34630 :
2 30835 34412 "1 " 0 # TRAN from HERNDON 230.00 BRKR to (1) HERNDON
115.00
0
#
#
# (280) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
# **** 3-WINDING TRANSFORMER 30835 (30883) 34412 34632 :
2 30835 34412 "2 " 0 # TRAN from HERNDON 230.00 BRKR to (1) HERNDON
115.00
0
#
#
# (281) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
# **** 3-WINDING TRANSFORMER 30875 (30876) 34370 34618 :
2 30875 34370 "1 " 0 # TRAN from MC CALL 230.00 BRKR to (1) MC CALL
115.00
0
#
#
# (282) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
# **** 3-WINDING TRANSFORMER 30875 (30877) 34370 34620 :
2 30875 34370 "2 " 0 # TRAN from MC CALL 230.00 BRKR to (1) MC CALL
115.00
0
#
#
# (283) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
# **** 3-WINDING TRANSFORMER 30875 (30878) 34370 34621 :
2 30875 34370 "3 " 0 # TRAN from MC CALL 230.00 BRKR to (1) MC CALL
115.00
0
#
#
# (284) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 30881 34430 "3 " 0 # TRAN from HENRIETA 230.00 BRKR to BRKR HENRETTA
115.00
0
#
#
# (285) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
# **** 3-WINDING TRANSFORMER 30900 (34607) 30055 34606 :
2 30900 30055 "11" 0 # TRAN from GATES 230.00 BRKR to (1) GATES
500.00
0
#
#
# (286) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 30900 30901 "1 " 0 # TRAN from GATES 230.00 BRKR to (3) GATES 1M
230.00
2 30901 34378 "1 " 0 # TRAN from GATES 1M 230.00 (3) to BRKR GATES
115.00
2 30901 34622 "1 " 0 # TRAN from GATES 1M 230.00 (3) to (1) GATES 1T
13.20
4 34378 0 "3 " 0 # Drop Gates Bank #3

```

```

0
#
#
# (287) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34356 34344 "1 " 0 # TRAN from KERCKHF1 115.00 BRKR to (1) KERCKHOF
6.60
4 34344 0 "4 " 0 # LOAD-DROP KERCKHOF 6.60 LOAD==3.24(0.66)
3 34344 0 "2 " 0 # GEN-DROP KERCKHOF 6.60 GEN==6.80(-4.00)
0
#
#
# (288) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34366 34590 "1 " 0 # TRAN from SANGER 115.00 BRKR to (2) SANGR3T
115.00
2 34590 34488 "1 " 0 # TRAN from SANGR3T 115.00 (2) to BRKR SANGER
70.00
4 34590 0 "3 " 0 # LOAD-DROP SANGR3T 115.00 LOAD==20.55(4.17)
0
#
#
# (289) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34418 34576 "2 " 0 # TRAN from KINGSBRG 115.00 BRKR to BRKR KNGLOBUS
70.00
0
#
#
# (290) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34474 30873 "1 " 0 # TRAN from HELM 70.00 BRKR to BRKR HELM
230.00
0
#
#
# (291) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34480 30830 "2 " 0 # TRAN from KEARNEY 70.00 BRKR to BRKR KEARNEY
230.00
0
#
#
# (292) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34492 34380 "1 " 0 # TRAN from REEDLEY 70.00 BRKR to BRKR REEDLEY
115.00
0
#
#
# (293) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34492 34380 "2 " 0 # TRAN from REEDLEY 70.00 BRKR to BRKR REEDLEY
115.00
0
#
#
# (294) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34528 34420 "2 " 0 # TRAN from CORCORAN 70.00 BRKR to BRKR CORCORAN
115.00
1 34420 34391 "1 " 0 # Must include Corcoran - Quebec (Corcoran CB 142) in
this outage
1 34420 34418 "2 " 0 # Must include Corcoran - Kingburg (Corcoran CB 162) in
this outage
1 34528 34460 "1 " 0 # Must include Corcorna - Guernsey (Corcoran CB 42) in
this outage
0
#
#

```

```

# (295) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34540 30881 "2 " 0 # TRAN from HENRITTA 70.00 BRKR to BRKR HENRIETA
230.00
0
#
#
# (296) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34540 30881 "4 " 0 # TRAN from HENRITTA 70.00 BRKR to BRKR HENRIETA
230.00
0
#
#
# (297) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34552 34378 "2 " 0 # TRAN from GATES 70.00 BRKR to BRKR GATES
115.00
0
#
#
# (298) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34562 34354 "1 " 0 # TRAN from SCHLNDLR 70.00 BRKR to (3) SCHINDLR
115.00
1 34354 34149 "1 " 0 # line from SCHINDLR 115.00 BRKR to (1) CHENYNT
115.00
1 34354 34432 "1 " 0 # line from SCHINDLR 115.00 BRKR to (1) WESTLNDS
115.00
4 34354 0 "1 " 0 # LOAD-DROP SCHINDLR 115.00 LOAD==11.22(2.28)
0
#
#
# (299) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34652 34570 "1 " 0 # TRAN from CHV.COAL 9.11 (1) to BRKR COLNGA 2
70.00
4 34652 0 "S1" 0 # LOAD-DROP CHV.COAL 9.11 LOAD==5.12(2.48)
4 34652 0 "SG" 0 # LOAD-DROP CHV.COAL 9.11 LOAD==0.94(0.46)
3 34652 0 "1 " 0 # GEN-DROP CHV.COAL 9.11 GEN==2.50(8.30)
3 34652 0 "2 " 0 # GEN-DROP CHV.COAL 9.11 GEN==8.00(4.00)
0
#
#
# (300) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34658 34452 "1 " 0 # TRAN from WISHON 2.30 (1) to BRKR WISHON
70.00
3 34658 0 "3 " 0 # GEN-DROP WISHON 2.30 GEN==4.50(1.00)
3 34658 0 "4 " 0 # GEN-DROP WISHON 2.30 GEN==4.50(1.00)
0
#
#
# (301) B1 GENERATOR OUTAGE
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (302) B1 GENERATOR OUTAGE
#
3 34344 0 "2" 0 # KERCKHOF 6.60 PGEN=6.80 QGEN=-4.00
0
#
#
# (303) B1 GENERATOR OUTAGE
#
3 34431 0 "1" 0 # GWF_HEP1 13.80 PGEN=50.00 QGEN=21.57
0
#

```



```

#
# (304) B1 GENERATOR OUTAGE
#
3 34433      0  "1"      0      # GWF_HEP2  13.80      PGEN=50.00  QGEN=21.57
0
#
# (305) B1 GENERATOR OUTAGE
#
3 34485      0  "1"      0      # FRESNOWW  12.47      PGEN=9.00   QGEN=0.00
0
#
# (306) B1 GENERATOR OUTAGE
#
3 34539      0  "1"      0      # GWF_GT1   13.80      PGEN=50.00  QGEN=1.23
0
#
# (307) B1 GENERATOR OUTAGE
#
3 34541      0  "1"      0      # GWF_GT2   13.80      PGEN=50.00  QGEN=1.23
0
#
# (308) B1 GENERATOR OUTAGE
#
3 34553      0  "1"      0      # WHD_GAT2  13.80      PGEN=49.00  QGEN=-25.30
0
#
# (309) B1 GENERATOR OUTAGE
#
3 34600      0  "1"      0      # HELMS 1   18.00      PGEN=404.00 QGEN=66.02
0
#
# (310) B1 GENERATOR OUTAGE
#
3 34602      0  "1"      0      # HELMS 2   18.00      PGEN=404.00 QGEN=66.06
0
#
# (311) B1 GENERATOR OUTAGE
#
3 34604      0  "1"      0      # HELMS 3   18.00      PGEN=404.00 QGEN=66.12
0
#
# (312) B1 GENERATOR OUTAGE
#
3 34608      0  "2"      0      # AGRICO    13.80      PGEN=7.00   QGEN=1.64
0
#
# (313) B1 GENERATOR OUTAGE
#
3 34608      0  "3"      0      # AGRICO    13.80      PGEN=18.10  QGEN=4.24
0
#
# (314) B1 GENERATOR OUTAGE
#
3 34608      0  "4"      0      # AGRICO    13.80      PGEN=26.00  QGEN=6.09
0
#
# (315) B1 GENERATOR OUTAGE
#
3 34610      0  "1"      0      # HAAS      13.80      PGEN=70.00  QGEN=18.75

```

```

0
#
#
# (316) B1 GENERATOR OUTAGE
#
3 34610      0 "2"      0      # HAAS      13.80      PGEN=70.00  QGEN=18.75
0
#
#
# (317) B1 GENERATOR OUTAGE
#
3 34612      0 "1"      0      # BLCH 2-2  13.80      PGEN=50.00  QGEN=9.61
0
#
#
# (318) B1 GENERATOR OUTAGE
#
3 34614      0 "1"      0      # BLCH 2-3  13.80      PGEN=50.00  QGEN=13.00
0
#
#
# (319) B1 GENERATOR OUTAGE
#
3 34616      0 "1"      0      # KINGSRIV  13.80      PGEN=47.00  QGEN=9.00
0
#
#
# (320) B1 GENERATOR OUTAGE
#
3 34618      0 "1"      0      # MCCALL1T  13.20      PGEN=0.00   QGEN=36.40
0
#
#
# (321) B1 GENERATOR OUTAGE
#
3 34621      0 "1"      0      # MCCALL3T  13.20      PGEN=0.00   QGEN=4.85
0
#
#
# (322) B1 GENERATOR OUTAGE
#
3 34624      0 "1"      0      # BALCH 1   13.20      PGEN=27.00  QGEN=10.00
0
#
#
# (323) B1 GENERATOR OUTAGE
#
3 34630      0 "1"      0      # HERNDN1T  13.20      PGEN=0.00   QGEN=20.26
0
#
#
# (324) B1 GENERATOR OUTAGE
#
3 34632      0 "1"      0      # HERNDN2T  13.20      PGEN=0.00   QGEN=32.58
0
#
#
# (325) B1 GENERATOR OUTAGE
#
3 34636      0 "2"      0      # FRIANTDM  6.60       PGEN=14.70  QGEN=6.14
0
#
#
# (326) B1 GENERATOR OUTAGE
#
3 34636      0 "3"      0      # FRIANTDM  6.60       PGEN=7.80   QGEN=3.26
0
#
#
# (327) B1 GENERATOR OUTAGE

```

#								
3	34636	0	"4"	0	# FRIANTDM	6.60	PGEN=2.30	QGEN=0.96
0								
#								
#	(328)	B1	GENERATOR	OUTAGE				
#								
3	34640	0	"1"	0	# ULTR.PWR	9.11	PGEN=14.50	QGEN=13.00
0								
#								
#	(329)	B1	GENERATOR	OUTAGE				
#								
3	34642	0	"1"	0	# KINGSBUR	9.11	PGEN=34.00	QGEN=17.30
0								
#								
#	(330)	B1	GENERATOR	OUTAGE				
#								
3	34646	0	"1"	0	# SANGERCO	9.11	PGEN=37.50	QGEN=4.31
0								
#								
#	(331)	B1	GENERATOR	OUTAGE				
#								
3	34648	0	"1"	0	# DINUBA E	13.80	PGEN=12.00	QGEN=7.00
0								
#								
#	(332)	B1	GENERATOR	OUTAGE				
#								
3	34650	0	"1"	0	# GWF-PWR.	13.80	PGEN=23.00	QGEN=12.00
0								
#								
#	(333)	B1	GENERATOR	OUTAGE				
#								
3	34652	0	"1"	0	# CHV.COAL	9.11	PGEN=2.50	QGEN=8.30
0								
#								
#	(334)	B1	GENERATOR	OUTAGE				
#								
3	34652	0	"2"	0	# CHV.COAL	9.11	PGEN=8.00	QGEN=4.00
0								
#								
#	(335)	B1	GENERATOR	OUTAGE				
#								
3	34654	0	"1"	0	# COLNGAGN	9.11	PGEN=34.00	QGEN=-3.48
0								
#								
#	(336)	B1	GENERATOR	OUTAGE				
#								
3	34658	0	"3"	0	# WISHON	2.30	PGEN=4.50	QGEN=1.00
0								
#								
#	(337)	B1	GENERATOR	OUTAGE				
#								
3	34658	0	"4"	0	# WISHON	2.30	PGEN=4.50	QGEN=1.00
0								
#								
#	(338)	B1	GENERATOR	OUTAGE				
#								
3	34671	0	"1"	0	# KRCDPCT1	13.80	PGEN=50.00	QGEN=10.75
0								
#								

```

#
# (339) B1 GENERATOR OUTAGE
#
3 34672      0 "1"      0      # KRCDPCT2  13.80      PGEN=50.00  QGEN=10.75
0
#
# (340) B1 GENERATOR OUTAGE
#
3 38720      0 "1"      0      # PINE FLT   13.80      PGEN=57.00  QGEN=23.30
0
#
# (341) B1 GENERATOR OUTAGE
#
3 34661      0 "1"      0      # P0418GT1  13.80      PGEN=78.80  QGEN=13.93
0
#
# (342) B1 GENERATOR OUTAGE
#
3 34663      0 "2"      0      # P0418GT2  13.80      PGEN=78.80  QGEN=13.93
0
#
# (343) B1 GENERATOR OUTAGE
#
3 34665      0 "3"      0      # P0418GT3  13.80      PGEN=78.80  QGEN=13.93
0
#
# (344) B1 GENERATOR OUTAGE
#
3 34667      0 "4"      0      # P0418GT4  13.80      PGEN=78.80  QGEN=13.93
0
#
# (345) B1 GENERATOR OUTAGE
#
3 34685      0 "1"      0      # P0615CT1  16.50      PGEN=192.00 QGEN=35.45
0
#
# (346) B1 GENERATOR OUTAGE
#
3 34686      0 "1"      0      # P0615CT2  16.50      PGEN=192.00 QGEN=35.45
0
#
# (347) B1 GENERATOR OUTAGE
#
3 34687      0 "1"      0      # P0615STG  16.50      PGEN=193.00 QGEN=35.57
0
#
# (348) B1 GENERATOR OUTAGE
#
3 34688      0 "1"      0      # Q254CTG1  18.00      PGEN=172.40 QGEN=41.25
0
#
# (349) B1 GENERATOR OUTAGE
#
3 34689      0 "2"      0      # Q254CTG2  18.00      PGEN=172.40 QGEN=41.25
0
#
# (350) B1 GENERATOR OUTAGE
#
3 34690      0 "3"      0      # Q254STG1  18.00      PGEN=290.80 QGEN=67.53

```

```

0
#
#
# (351) B1 GENERATOR OUTAGE
#
3 34691      0 "1"      0      # Q272_ST1  13.80      PGEN=27.00  QGEN=1.87
0
#
#
# (352) B1 GENERATOR OUTAGE
#
3 34692      0 "1"      0      # Q272SLST  13.80      PGEN=139.00 QGEN=35.74
0
#
#
# (353) L-1/G-1 OVERLAPPING OUTAGE
# Smyrna - Semitropic - Midway 115 kV Line and Exchequer
1 34700 34708 "1 "      0      # line from SMYRNA  115.00  BRKR to (2)  MCKIBBEN
115.00
1 34708 34742 "1 "      0      # line from MCKIBBEN 115.00  (2) to (2)  SEMITRPJ
115.00
1 34742 34746 "1 "      0      # line from SEMITRPJ 115.00  (2) to (2)  GANSO
115.00
1 34746 34774 "1 "      0      # line from GANSO   115.00  (2) to BRKR  MIDWAY
115.00
4 34746      0 "1 "      0      # LOAD-DROP      GANSO   115.00  LOAD==5.34(1.22)
#
3 34306      0 "1"      0      # EXCHQUER  13.80      PGEN=89.95  QGEN=18.49
0
#
#
# (354) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Coalinga #2 70 kV Line and Chevron Coalinga Unit 1
1 34184 34570 "1 "      0      # line from GATS2_TP 70.00  (3) to BRKR  COLNGA 2
70.00
1 34184 34552 "1 "      0      # line from GATS2_TP 70.00  (3) to BRKR  GATES
70.00
2 34184 34553 "1 "      0      # TRAN from GATS2_TP 70.00  (3) to (1)  WHD_GAT2
13.80
3 34553      0 "1 "      0      # GEN-DROP      WHD_GAT2  13.80  GEN==49.00(-25.30)
#
3 34652      0 "1"      0      # CHV.COAL    9.11      PGEN=17.00  QGEN=8.30
0
#
#
# (355) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Coalinga #1 70 kV Line and Chevron Coalinga Unit 1
1 34552 34578 "1 "      0      # line from GATES   70.00  BRKR to (2)  JACALITO
70.00
1 34578 34574 "1 "      0      # line from JACALITO 70.00  (2) to BRKR  COLNGA 1
70.00
4 34578      0 "1 "      0      # LOAD-DROP      JACALITO  70.00  LOAD==4.03(2.5) 0
#
3 34652      0 "1"      0      # CHV.COAL    9.11      PGEN=17.00  QGEN=8.30
0
#
#
# (356) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Coalinga #2 70 kV Line and Coalinga Cogen
1 34184 34570 "1 "      0      # line from GATS2_TP 70.00  (3) to BRKR  COLNGA 2
70.00
1 34184 34552 "1 "      0      # line from GATS2_TP 70.00  (3) to BRKR  GATES
70.00
2 34184 34553 "1 "      0      # TRAN from GATS2_TP 70.00  (3) to (1)  WHD_GAT2
13.80
3 34553      0 "1 "      0      # GEN-DROP      WHD_GAT2  13.80  GEN==49.00(-25.30)
#
3 34654      0 "1"      0      # COLNGAGN    9.11      PGEN=34.22  QGEN=-13.50
0
#

```

```

#
# (357) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Coalinga #1 70 kV Line and Coalinga Cogen
1 34552 34578 "1 " 0 # line from GATES 70.00 BRKR to (2) JACALITO
70.00
1 34578 34574 "1 " 0 # line from JACALITO 70.00 (2) to BRKR COLNGA 1
70.00
4 34578 0 "1 " 0 # LOAD-DROP JACALITO 70.00 LOAD==4.03(2.5) 0
#
3 34654 0 "1" 0 # COLNGAGN 9.11 PGEN=34.22 QGEN=-13.50
0
#
#
# (358) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Coppermine 70 kV Line and Friant PP Unit 2
1 34262 34454 "1 " 0 # line from CASSIDY 70.00 (2) to (2) RIVERROC
70.00
1 34262 34256 "1 " 0 # line from CASSIDY 70.00 (2) to BRKR BORDEN
70.00
1 34454 34464 "1 " 0 # line from RIVERROC 70.00 (2) to BRKR COPPRMNE
70.00
4 34262 0 "1 " 0 # LOAD-DROP CASSIDY 70.00 LOAD==14.31(2.90)
4 34454 0 "1 " 0 # LOAD-DROP RIVERROC 70.00 LOAD==2.01(1.83)
#
3 34636 0 "2" 0 # FRIANTDM 6.60 PGEN=14.70 QGEN=6.14
0
#
#
# (359) L-1/G-1 OVERLAPPING OUTAGE
# Henrietta - Lemoore 70 kV Line and GWF Hanford
1 34516 34520 "1 " 0 # line from LEPRINO 70.00 (1) to (4) LPRNO TP
70.00
1 34520 34518 "1 " 0 # line from LPRNO TP 70.00 (4) to BRKR LEMOORE
70.00
1 34520 34524 "1 " 0 # line from LPRNO TP 70.00 (4) to (1) CANDLEWK
70.00
1 34520 34540 "1 " 0 # line from LPRNO TP 70.00 (4) to BRKR HENRITTA
70.00
4 34516 0 "1 " 0 # LOAD-DROP LEPRINO 70.00 LOAD==16.10(9.12)
4 34518 0 "1 " 0 # LOAD-DROP LEMOORE 70.00 LOAD==18.86(3.83)
4 34518 0 "2 " 0 # LOAD-DROP LEMOORE 70.00 LOAD==32.81(6.66)
#
3 34650 0 "1" 0 # GWF-PWR. 13.80 PGEN=23.00 QGEN=12.00
0
#
#
# (360) L-1/G-1 OVERLAPPING OUTAGE
# Henrietta - Lemoore 70 kV Line and GWF Henrietta Unit 1
1 34516 34520 "1 " 0 # line from LEPRINO 70.00 (1) to (4) LPRNO TP
70.00
1 34520 34518 "1 " 0 # line from LPRNO TP 70.00 (4) to BRKR LEMOORE
70.00
1 34520 34524 "1 " 0 # line from LPRNO TP 70.00 (4) to (1) CANDLEWK
70.00
1 34520 34540 "1 " 0 # line from LPRNO TP 70.00 (4) to BRKR HENRITTA
70.00
4 34516 0 "1 " 0 # LOAD-DROP LEPRINO 70.00 LOAD==16.10(9.12)
4 34518 0 "1 " 0 # LOAD-DROP LEMOORE 70.00 LOAD==18.86(3.83)
4 34518 0 "2 " 0 # LOAD-DROP LEMOORE 70.00 LOAD==32.81(6.66)
#
3 34539 0 "1" 0 # GWF_GT1 13.80 PGEN=50.00 QGEN=1.23
0
#
#
# (361) L-1/G-1 OVERLAPPING OUTAGE
# McCall - Wahtoke 115 kV Line and Sanger Cogen
1 34370 34382 "1 " 0 # line from MC CALL 115.00 BRKR to BRKR WAHTOKE
115.00
#
3 34646 0 "1" 0 # SANGERCO 9.11 PGEN=37.50 QGEN=4.31

```

```

0
#
#
# (362) L-1/G-1 OVERLAPPING OUTAGE
# McCall - Wahtoke 115 kV Line and Kings River Power House
1 34370 34382 "1 " 0 # line from MC CALL 115.00 BRKR to BRKR WAHTOKE
115.00
#
3 34616 0 "1" 0 # KINGSRIV 13.80 PGEN=47.00 QGEN=9.00
0
#
#
# (363) L-1/G-1 OVERLAPPING OUTAGE
# Helm - McCall 230 kV Line and Exchequer
1 30873 30875 "1 " 0 # line from HELM 230.00 BRKR to BRKR MC CALL
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (364) L-1/G-1 OVERLAPPING OUTAGE
# Helms - Gregg #1 230 kV Line and Exchequer
1 30810 30820 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34600 0 "***" 0 # Drop unit#1 with a loss Helm - Gregg #1 line
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (365) L-1/G-1 OVERLAPPING OUTAGE
# Helms - Gregg #2 230 kV Line and Exchequer
1 30810 30820 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Helm - Gregg #2 line
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (366) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Herndon #1 230 kV Line and Exchequer
1 30810 30835 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #1 line
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (367) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Herndon #2 230 kV Line and Exchequer
1 30810 30835 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #2 line
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (368) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Ashlan 230 kV Line and Exchequer
1 30810 30845 "1 " 0 # line from GREGG 230.00 BRKR to (3) FGRDN T2
230.00
1 30845 30846 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR FIGRDN 2
230.00
1 30845 30850 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR ASHLAN
230.00
4 30846 0 "1 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==52.57(10.67)

```

```

4 30846      0 "2 "  0 # LOAD-DROP   FIGRDN 2 230.00  LOAD==36.77(7.47)
3 34604      0 "***" 0 # Drop unit#3 with a loss Gregg - Figarden line
1 30841 30846 "1 "  1 # Switches in Figarden SW 286 to transfer load
4 30846      0 "***" 1 # Restore Load at Figarden 2
#
3 34306      0 "1"  0 # EXCHQUER  13.80      PGEN=94.50  QGEN=8.77
0
#
#
# (369) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Gregg 230 kV Line and Exchequer
1 30810 30879 "1 "  0 # line from GREGG      230.00  BRKR to (3)  HENTAP1
230.00
1 30879 30881 "1 "  0 # line from HENTAP1  230.00  (3) to BRKR  HENRIETA
230.00
1 30879 30900 "1 "  0 # line from HENTAP1  230.00  (3) to BRKR  GATES
230.00
3 34604      0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 "  1 # Henrietta flip flop (Henrietta CB 222)
#
3 34306      0 "1"  0 # EXCHQUER  13.80      PGEN=94.50  QGEN=8.77
0
#
#
# (370) L-1/G-1 OVERLAPPING OUTAGE
# Herndon - Kearney 230 kV Line and Exchequer
1 30830 30835 "1 "  0 # line from KEARNEY  230.00  BRKR to BRKR  HERNDON
230.00
#
3 34306      0 "1"  0 # EXCHQUER  13.80      PGEN=94.50  QGEN=8.77
0
#
#
# (371) L-1/G-1 OVERLAPPING OUTAGE
# Herndon - Ashlan 230 kV Line and Exchequer
1 30835 30840 "1 "  0 # line from HERNDON  230.00  BRKR to (3)  FGRDN T1
230.00
1 30840 30841 "1 "  0 # line from FGRDN T1 230.00  (3) to BRKR  FIGRDN 1
230.00
1 30840 30850 "1 "  0 # line from FGRDN T1 230.00  (3) to BRKR  ASHLAN
230.00
4 30841      0 "1 "  0 # LOAD-DROP   FIGRDN 1 230.00  LOAD==73.45(14.92)
1 30841 30846 "1 "  1 # Switches in Figarden SW 286 to transfer load
4 30841      0 "***" 1 # Restore Load at Figarden 1
#
3 34306      0 "1"  0 # EXCHQUER  13.80      PGEN=94.50  QGEN=8.77
0
#
#
# (372) L-1/G-1 OVERLAPPING OUTAGE
# Haas - McCall 230 kV Line and Exchequer
1 30855 30860 "1 "  0 # line from HAAS      230.00  (2) to (3)  BALCH3TP
230.00
2 30855 34610 "1 "  0 # TRAN from HAAS      230.00  (2) to (1)  HAAS
13.80
1 30860 30875 "1 "  0 # line from BALCH3TP  230.00  (3) to BRKR  MC CALL
230.00
2 30860 34614 "1 "  0 # TRAN from BALCH3TP  230.00  (3) to (1)  BLCH 2-3
13.80
3 34610      0 "1 "  0 # GEN-DROP    HAAS      13.80  GEN==70.00(10.21)
3 34610      0 "2 "  0 # GEN-DROP    HAAS      13.80  GEN==70.00(10.21)
3 34614      0 "1 "  0 # GEN-DROP    BLCH 2-3  13.80  GEN==50.00(7.64)
#
3 34306      0 "1"  0 # EXCHQUER  13.80      PGEN=94.50  QGEN=8.77
0
#
#
# (373) L-1/G-1 OVERLAPPING OUTAGE
# Balch - McCall 230 kV Line and Exchequer

```



```

1 30865 30870 "1 " 0 # line from BALCH 230.00 (2) to (3) PINE FLT
230.00
2 30865 34612 "1 " 0 # TRAN from BALCH 230.00 (2) to (1) BLCH 2-2
13.80
1 30870 30875 "1 " 0 # line from PINE FLT 230.00 (3) to BRKR MC CALL
230.00
2 30870 38720 "1 " 0 # TRAN from PINE FLT 230.00 (3) to (1) PINE FLT
13.80
3 34612 0 "1 " 0 # GEN-DROP BLCH 2-2 13.80 GEN==50.00(0.66)
3 38720 0 "1 " 0 # GEN-DROP PINE FLT 13.80 GEN==57.00(23.30)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (374) L-1/G-1 OVERLAPPING OUTAGE
# Gates - McCall 230 kV Line and Exchequer
1 30875 30880 "1 " 0 # line from MC CALL 230.00 BRKR to (2) HENTAP2
230.00
1 30880 30900 "1 " 0 # line from HENTAP2 230.00 (2) to BRKR GATES
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (375) L-1/G-1 OVERLAPPING OUTAGE
# Templeton - Gates 230 kV Line and Exchequer
1 30900 30905 "1 " 0 # line from GATES 230.00 BRKR to BRKR TEMPLETN
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (376) L-1/G-1 OVERLAPPING OUTAGE
# Morro Bay - Gates 230 kV Line and Exchequer
1 30900 30915 "1 " 0 # line from GATES 230.00 BRKR to BRKR MORROBAY
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (377) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Arco 230 kV Line and Exchequer
1 30900 30935 "1 " 0 # line from GATES 230.00 BRKR to BRKR ARCO
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (378) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Midway 230 kV Line and Exchequer
1 30900 30970 "1 " 0 # line from GATES 230.00 BRKR to BRKR MIDWAY
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (379) L-1/G-1 OVERLAPPING OUTAGE
# Helm - McCall 230 kV Line and Kerckhoff
1 30873 30875 "1 " 0 # line from HELM 230.00 BRKR to BRKR MC CALL
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#

```

```

#
# (380) L-1/G-1 OVERLAPPING OUTAGE
# Helms - Gregg #1 230 kV Line and Kerckhoff
1 30810 30820 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34600 0 "***" 0 # Drop unit#1 with a loss Helm - Gregg #1 line
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (381) L-1/G-1 OVERLAPPING OUTAGE
# Helms - Gregg #2 230 kV Line and Kerckhoff
1 30810 30820 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Helm - Gregg #2 line
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (382) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Herndon #1 230 kV Line and Kerckhoff
1 30810 30835 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #1 line
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (383) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Herndon #2 230 kV Line and Kerckhoff
1 30810 30835 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #2 line
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (384) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Ashlan 230 kV Line and Kerckhoff
1 30810 30845 "1 " 0 # line from GREGG 230.00 BRKR to (3) FGRDN T2
230.00
1 30845 30846 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR FIGRDN 2
230.00
1 30845 30850 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR ASHLAN
230.00
4 30846 0 "1 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==52.57(10.67)
4 30846 0 "2 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==36.77(7.47)
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Figarden line
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30846 0 "***" 1 # Restore Load at Figarden 2
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (385) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Gregg 230 kV Line and Kerckhoff
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00
1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
#

```

```

3 34308      0 "1"      0      # KERCKHOF 13.80      PGEN=129.00 QGEN=16.00
0
#
#
# (386) L-1/G-1 OVERLAPPING OUTAGE
# Herndon - Kearney 230 kV Line and Kerckhoff
1 30830 30835 "1 "      0      # line from KEARNEY 230.00 BRKR to BRKR  HERNDON
230.00
#
3 34308      0 "1"      0      # KERCKHOF 13.80      PGEN=129.00 QGEN=16.00
0
#
#
# (387) L-1/G-1 OVERLAPPING OUTAGE
# Herndon - Ashlan 230 kV Line and Kerckhoff
1 30835 30840 "1 "      0      # line from HERNDON 230.00 BRKR to (3)  FGRDN T1
230.00
1 30840 30841 "1 "      0      # line from FGRDN T1 230.00 (3) to BRKR  FIGRDN 1
230.00
1 30840 30850 "1 "      0      # line from FGRDN T1 230.00 (3) to BRKR  ASHLAN
230.00
4 30841      0 "1 "      0      # LOAD-DROP FIGRDN 1 230.00 LOAD==73.45(14.92)
1 30841 30846 "1 "      1      # Switches in Figarden SW 286 to transfer load
4 30841      0 "***"    1      # Restore Load at Figarden 1
#
3 34308      0 "1"      0      # KERCKHOF 13.80      PGEN=129.00 QGEN=16.00
0
#
#
# (388) L-1/G-1 OVERLAPPING OUTAGE
# Haas - McCall 230 kV Line and Kerckhoff
1 30855 30860 "1 "      0      # line from HAAS      230.00 (2) to (3)  BALCH3TP
230.00
2 30855 34610 "1 "      0      # TRAN from HAAS      230.00 (2) to (1)  HAAS
13.80
1 30860 30875 "1 "      0      # line from BALCH3TP 230.00 (3) to BRKR  MC CALL
230.00
2 30860 34614 "1 "      0      # TRAN from BALCH3TP 230.00 (3) to (1)  BLCH 2-3
13.80
3 34610      0 "1 "      0      # GEN-DROP HAAS      13.80 GEN==70.00(10.21)
3 34610      0 "2 "      0      # GEN-DROP HAAS      13.80 GEN==70.00(10.21)
3 34614      0 "1 "      0      # GEN-DROP BLCH 2-3 13.80 GEN==50.00(7.64)
#
3 34308      0 "1"      0      # KERCKHOF 13.80      PGEN=129.00 QGEN=16.00
0
#
#
# (389) L-1/G-1 OVERLAPPING OUTAGE
# Balch - McCall 230 kV Line and Kerckhoff
1 30865 30870 "1 "      0      # line from BALCH      230.00 (2) to (3)  PINE FLT
230.00
2 30865 34612 "1 "      0      # TRAN from BALCH      230.00 (2) to (1)  BLCH 2-2
13.80
1 30870 30875 "1 "      0      # line from PINE FLT 230.00 (3) to BRKR  MC CALL
230.00
2 30870 38720 "1 "      0      # TRAN from PINE FLT 230.00 (3) to (1)  PINE FLT
13.80
3 34612      0 "1 "      0      # GEN-DROP BLCH 2-2 13.80 GEN==50.00(0.66)
3 38720      0 "1 "      0      # GEN-DROP PINE FLT 13.80 GEN==57.00(23.30)
#
3 34308      0 "1"      0      # KERCKHOF 13.80      PGEN=129.00 QGEN=16.00
0
#
#
# (390) L-1/G-1 OVERLAPPING OUTAGE
# Gates - McCall 230 kV Line and Kerckhoff
1 30875 30880 "1 "      0      # line from MC CALL 230.00 BRKR to (2)  HENTAP2
230.00
1 30880 30900 "1 "      0      # line from HENTAP2 230.00 (2) to BRKR  GATES
230.00

```

```

#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (391) L-1/G-1 OVERLAPPING OUTAGE
# Templeton - Gates 230 kV Line and Kerckhoff
1 30900 30905 "1 " 0 # line from GATES 230.00 BRKR to BRKR TEMPLETN
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (392) L-1/G-1 OVERLAPPING OUTAGE
# Morro Bay - Gates 230 kV Line and Kerckhoff
1 30900 30915 "1 " 0 # line from GATES 230.00 BRKR to BRKR MORROBAY
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (393) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Arco 230 kV Line and Kerckhoff
1 30900 30935 "1 " 0 # line from GATES 230.00 BRKR to BRKR ARCO
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (394) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Midway 230 kV Line and Kerckhoff
1 30900 30970 "1 " 0 # line from GATES 230.00 BRKR to BRKR MIDWAY
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (395) L-1/G-1 OVERLAPPING OUTAGE
# Helm - McCall 230 kV Line and Helms Unit 1
1 30873 30875 "1 " 0 # line from HELM 230.00 BRKR to BRKR MC CALL
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (396) L-1/G-1 OVERLAPPING OUTAGE
# Helms - Gregg #1 230 kV Line and Helms Unit 1
1 30810 30820 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34600 0 "***" 0 # Drop unit#1 with a loss Helm - Gregg #1 line
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (397) L-1/G-1 OVERLAPPING OUTAGE
# Helms - Gregg #2 230 kV Line and Helms Unit 1
1 30810 30820 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Helm - Gregg #2 line
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#

```

```

# (398) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Herndon #1 230 kV Line and Helms Unit 1
1 30810 30835 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #1 line
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (399) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Herndon #2 230 kV Line and Helms Unit 1
1 30810 30835 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #2 line
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (400) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Ashlan 230 kV Line and Helms Unit 1
1 30810 30845 "1 " 0 # line from GREGG 230.00 BRKR to (3) FGRDN T2
230.00
1 30845 30846 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR FIGRDN 2
230.00
1 30845 30850 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR ASHLAN
230.00
4 30846 0 "1 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==52.57(10.67)
4 30846 0 "2 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==36.77(7.47)
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Figarden line
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30846 0 "***" 1 # Restore Load at Figarden 2
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (401) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Gregg 230 kV Line and Helms Unit 1
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00
1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (402) L-1/G-1 OVERLAPPING OUTAGE
# Herndon - Kearney 230 kV Line and Helms Unit 1
1 30830 30835 "1 " 0 # line from KEARNEY 230.00 BRKR to BRKR HERNDON
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (403) L-1/G-1 OVERLAPPING OUTAGE
# Herndon - Ashlan 230 kV Line and Helms Unit 1
1 30835 30840 "1 " 0 # line from HERNDON 230.00 BRKR to (3) FGRDN T1
230.00
1 30840 30841 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR FIGRDN 1
230.00
1 30840 30850 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR ASHLAN
230.00

```

```

4 30841      0 "1 " 0 # LOAD-DROP FIGRDN 1 230.00 LOAD==73.45(14.92)
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30841      0 "***" 1 # Restore Load at Figarden 1
#
3 34600      0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (404) L-1/G-1 OVERLAPPING OUTAGE
# Haas - McCall 230 kV Line and Helms Unit 1
1 30855 30860 "1 " 0 # line from HAAS 230.00 (2) to (3) BALCH3TP
230.00
2 30855 34610 "1 " 0 # TRAN from HAAS 230.00 (2) to (1) HAAS
13.80
1 30860 30875 "1 " 0 # line from BALCH3TP 230.00 (3) to BRKR MC CALL
230.00
2 30860 34614 "1 " 0 # TRAN from BALCH3TP 230.00 (3) to (1) BLCH 2-3
13.80
3 34610      0 "1 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34610      0 "2 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34614      0 "1 " 0 # GEN-DROP BLCH 2-3 13.80 GEN==50.00(7.64)
#
3 34600      0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (405) L-1/G-1 OVERLAPPING OUTAGE
# Balch - McCall 230 kV Line and Helms Unit 1
1 30865 30870 "1 " 0 # line from BALCH 230.00 (2) to (3) PINE FLT
230.00
2 30865 34612 "1 " 0 # TRAN from BALCH 230.00 (2) to (1) BLCH 2-2
13.80
1 30870 30875 "1 " 0 # line from PINE FLT 230.00 (3) to BRKR MC CALL
230.00
2 30870 38720 "1 " 0 # TRAN from PINE FLT 230.00 (3) to (1) PINE FLT
13.80
3 34612      0 "1 " 0 # GEN-DROP BLCH 2-2 13.80 GEN==50.00(0.66)
3 38720      0 "1 " 0 # GEN-DROP PINE FLT 13.80 GEN==57.00(23.30)
#
3 34600      0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (406) L-1/G-1 OVERLAPPING OUTAGE
# Gates - McCall 230 kV Line and Helms Unit 1
1 30875 30880 "1 " 0 # line from MC CALL 230.00 BRKR to (2) HENTAP2
230.00
1 30880 30900 "1 " 0 # line from HENTAP2 230.00 (2) to BRKR GATES
230.00
#
3 34600      0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (407) L-1/G-1 OVERLAPPING OUTAGE
# Templeton - Gates 230 kV Line and Helms Unit 1
1 30900 30905 "1 " 0 # line from GATES 230.00 BRKR to BRKR TEMPLETN
230.00
#
3 34600      0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (408) L-1/G-1 OVERLAPPING OUTAGE
# Morro Bay - Gates 230 kV Line and Helms Unit 1
1 30900 30915 "1 " 0 # line from GATES 230.00 BRKR to BRKR MORROBAY
230.00
#
3 34600      0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0

```

```

#
#
# (409) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Arco 230 kV Line and Helms Unit 1
1 30900 30935 "1 " 0 # line from GATES 230.00 BRKR to BRKR ARCO
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (410) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Midway 230 kV Line and Helms Unit 1
1 30900 30970 "1 " 0 # line from GATES 230.00 BRKR to BRKR MIDWAY
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (411) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Kearney 230 kV Line and Melones Unit 1
1 30790 30825 "1 " 0 # line from PANOCHE 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (412) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Helm 230 kV Line and Melones Unit 1
1 30790 30873 "1 " 0 # line from PANOCHE 230.00 BRKR to BRKR HELM
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (413) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Panoche #1 230 kV Line and Melones Unit 1
1 30790 30900 "1 " 0 # line from PANOCHE 230.00 BRKR to BRKR GATES
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (414) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Panoche #2 230 kV Line and Melones Unit 1
1 30790 30900 "2 " 0 # line from PANOCHE 230.00 BRKR to BRKR GATES
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (415) L-1/G-1 OVERLAPPING OUTAGE
# Helm - McCall 230 kV Line and Melones Unit 1
1 30873 30875 "1 " 0 # line from HELM 230.00 BRKR to BRKR MC CALL
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (416) L-1/G-1 OVERLAPPING OUTAGE
# Helms - Gregg #1 230 kV Line and Melones Unit 1

```

```

1 30810 30820 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34600 0 "***" 0 # Drop unit#1 with a loss Helm - Gregg #1 line
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (417) L-1/G-1 OVERLAPPING OUTAGE
# Helms - Gregg #2 230 kV Line and Melones Unit 1
1 30810 30820 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Helm - Gregg #2 line
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (418) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Herndon #1 230 kV Line and Melones Unit 1
1 30810 30835 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #1 line
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (419) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Herndon #2 230 kV Line and Melones Unit 1
1 30810 30835 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #2 line
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (420) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Ashlan 230 kV Line and Melones Unit 1
1 30810 30845 "1 " 0 # line from GREGG 230.00 BRKR to (3) FGRDN T2
230.00
1 30845 30846 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR FIGRDN 2
230.00
1 30845 30850 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR ASHLAN
230.00
4 30846 0 "1 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==52.57(10.67)
4 30846 0 "2 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==36.77(7.47)
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Figarden line
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30846 0 "***" 1 # Restore Load at Figarden 2
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (421) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Gregg 230 kV Line and Melones Unit 1
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00
1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#

```



```

#
# (422) L-1/G-1 OVERLAPPING OUTAGE
# Herndon - Kearney 230 kV Line and Melones Unit 1
1 30830 30835 "1 " 0 # line from KEARNEY 230.00 BRKR to BRKR HERNDON
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (423) L-1/G-1 OVERLAPPING OUTAGE
# Herndon - Ashlan 230 kV Line and Melones Unit 1
1 30835 30840 "1 " 0 # line from HERNDON 230.00 BRKR to (3) FGRDN T1
230.00
1 30840 30841 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR FIGRDN 1
230.00
1 30840 30850 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR ASHLAN
230.00
4 30841 0 "1 " 0 # LOAD-DROP FIGRDN 1 230.00 LOAD==73.45(14.92)
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30841 0 "***" 1 # Restore Load at Figarden 1
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (424) L-1/G-1 OVERLAPPING OUTAGE
# Haas - McCall 230 kV Line and Melones Unit 1
1 30855 30860 "1 " 0 # line from HAAS 230.00 (2) to (3) BALCH3TP
230.00
2 30855 34610 "1 " 0 # TRAN from HAAS 230.00 (2) to (1) HAAS
13.80
1 30860 30875 "1 " 0 # line from BALCH3TP 230.00 (3) to BRKR MC CALL
230.00
2 30860 34614 "1 " 0 # TRAN from BALCH3TP 230.00 (3) to (1) BLCH 2-3
13.80
3 34610 0 "1 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34610 0 "2 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34614 0 "1 " 0 # GEN-DROP BLCH 2-3 13.80 GEN==50.00(7.64)
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (425) L-1/G-1 OVERLAPPING OUTAGE
# Balch - McCall 230 kV Line and Melones Unit 1
1 30865 30870 "1 " 0 # line from BALCH 230.00 (2) to (3) PINE FLT
230.00
2 30865 34612 "1 " 0 # TRAN from BALCH 230.00 (2) to (1) BLCH 2-2
13.80
1 30870 30875 "1 " 0 # line from PINE FLT 230.00 (3) to BRKR MC CALL
230.00
2 30870 38720 "1 " 0 # TRAN from PINE FLT 230.00 (3) to (1) PINE FLT
13.80
3 34612 0 "1 " 0 # GEN-DROP BLCH 2-2 13.80 GEN==50.00(0.66)
3 38720 0 "1 " 0 # GEN-DROP PINE FLT 13.80 GEN==57.00(23.30)
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (426) L-1/G-1 OVERLAPPING OUTAGE
# Gates - McCall 230 kV Line and Melones Unit 1
1 30875 30880 "1 " 0 # line from MC CALL 230.00 BRKR to (2) HENTAP2
230.00
1 30880 30900 "1 " 0 # line from HENTAP2 230.00 (2) to BRKR GATES
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0

```

```

#
#
# (427) L-1/G-1 OVERLAPPING OUTAGE
# Templeton - Gates 230 kV Line and Melones Unit 1
1 30900 30905 "1 " 0 # line from GATES 230.00 BRKR to BRKR TEMPLETN
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (428) L-1/G-1 OVERLAPPING OUTAGE
# Morro Bay - Gates 230 kV Line and Melones Unit 1
1 30900 30915 "1 " 0 # line from GATES 230.00 BRKR to BRKR MORROBAY
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (429) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Arco 230 kV Line and Melones Unit 1
1 30900 30935 "1 " 0 # line from GATES 230.00 BRKR to BRKR ARCO
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (430) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Midway 230 kV Line and Melones Unit 1
1 30900 30970 "1 " 0 # line from GATES 230.00 BRKR to BRKR MIDWAY
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
-1
# EOF

```

# Summer Peak Category C Contingencies

```

# Q299 2013 sumpk category c contingency list (dctl and bus outages)
# Yosemite and Fresno Divisions Zones 313 and 314
#
# 2013 sumpk category c contingency list
# Yosemite Zone 313
#
# (1) C5 DCTL OUTAGE
# Wilson - Atwater and El Capitan - Wilson 115 kV Lines
1 34134 34104 "1 " 0 # line from WILSON A 115.00 BRKR to BRKR ATWATER
115.00
#
1 34136 34138 "1 " 0 # line from WILSON B 115.00 BRKR to BRKR EL CAPTN
115.00
0
#
# (2) C5 DCTL OUTAGE
# Wilson - Atwater and Atwater - El Capitan 115 kV Lines
1 34134 34104 "1 " 0 # line from WILSON A 115.00 BRKR to BRKR ATWATER
115.00
#
1 34104 34106 "1 " 0 # line from ATWATER 115.00 BRKR to (2) CASTLE
115.00
1 34106 34138 "1 " 0 # line from CASTLE 115.00 (2) to BRKR EL CAPTN
115.00
0
#
# (3) C5 DCTL OUTAGE
# Wilson - Merced #2 and Wilson - Oro Loma 115 kV Lines
1 34134 34144 "1 " 0 # line from WILSON A 115.00 BRKR to BRKR MERCED
115.00
#
1 34118 34136 "1 " 0 # line from LE GRNDJ 115.00 (2) to BRKR WILSON B
115.00
1 34118 34168 "1 " 0 # line from LE GRNDJ 115.00 (2) to (2) EL NIDO
115.00
1 34168 34162 "1 " 0 # line from EL NIDO 115.00 (2) to BRKR ORO LOMA
115.00
4 34168 0 "1 " 0 # LOAD-DROP EL NIDO 115.00 LOAD==12.49(2.54)
4 34168 0 "2 " 0 # LOAD-DROP EL NIDO 115.00 LOAD==15.00(3.05)
0
#
# (4) C5 DCTL OUTAGE
# Panoche - Schindler #1 and #2 115 kV Lines
1 34158 34350 "1 " 0 # line from PANOCHER 115.00 BRKR to (2) KAMM
115.00
1 34350 34352 "1 " 0 # line from KAMM 115.00 (2) to (2) CANTUA
115.00
1 34352 34432 "1 " 0 # line from CANTUA 115.00 (2) to (2) WESTLNDS
115.00
1 34432 34354 "1 " 0 # line from WESTLNDS 115.00 (2) to BRKR SCHINDLR
115.00
4 34350 0 "1 " 0 # LOAD-DROP KAMM 115.00 LOAD==3.85(1.75)
4 34352 0 "1 " 0 # LOAD-DROP CANTUA 115.00 LOAD==16.79(3.41)
4 34432 0 "16" 0 # LOAD-DROP WESTLNDS 115.00 LOAD==0.94(0.23)
4 34432 0 "18" 0 # LOAD-DROP WESTLNDS 115.00 LOAD==1.21(0.32)
#
1 34141 34148 "1 " 0 # line from PAN2_TAP 115.00 (2) to (2) CHENY
115.00
2 34141 34142 "1 " 0 # TRAN from PAN2_TAP 115.00 (2) to (1) WHD_PAN2
13.80

```

```

1 34148 34149 "1 " 0 # line from CHENY 115.00 (2) to (3) CHENYT
115.00
1 34149 34158 "1 " 0 # line from CHENYT 115.00 (3) to BRKR PANOCHE
115.00
1 34149 34354 "1 " 0 # line from CHENYT 115.00 (3) to BRKR SCHINDLR
115.00
4 34148 0 "1 " 0 # LOAD-DROP CHENY 115.00 LOAD==13.12(2.66)
3 34142 0 "1 " 0 # GEN-DROP WHD_PAN2 13.80 GEN==49.00(4.03)
0
#
#
# (5) C5 DCTL OUTAGE
# Gates - Panoche #1 and #2 230 kV Lines
1 30790 30900 "1 " 0 # line from PANOCHE 230.00 BRKR to BRKR GATES
230.00
#
1 30790 30900 "2 " 0 # line from PANOCHE 230.00 BRKR to BRKR GATES
230.00
0
#
#
# (6) C5 DCTL OUTAGE
# Los Banos - Panoche #2 and Los Banos - Dos Amigos 230 kV Lines
1 30765 30790 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR PANOCHE
230.00
#
1 30765 38615 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR DS AMIGO
230.00
0
#
#
# (7) C5 DCTL OUTAGE
# Los Banos - Panoche #2 and Dos Amigos - Panoche 230 kV Lines
1 30765 30790 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR PANOCHE
230.00
#
1 38615 30790 "1 " 0 # line from DS AMIGO 230.00 BRKR to BRKR PANOCHE
230.00
0
#
#
# (8) C5 DCTL OUTAGE
# Los Banos - San Luis PGP #1 and #2 230 kV Lines
1 30765 38625 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
#
1 30765 38625 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
0
#
#
# (9) C5 DCTL OUTAGE
# Bellota - Melones and Bellota - Warnerville 230 kV Lines
1 30500 38206 "1 " 0 # line from BELLOTA 230.00 BRKR to (2) COTTLE A
230.00
1 38206 37563 "1 " 0 # line from COTTLE A 230.00 (2) to BRKR MELONES
230.00
4 38206 0 "1 " 0 # LOAD-DROP COTTLE A 230.00 LOAD==19.23(0.00)
3 34604 0 "***" 0 # Drop Helms unit#3 with a loss Bellota - Melones line
#
1 30500 38208 "1 " 0 # line from BELLOTA 230.00 BRKR to (3) COTTLE B
230.00
1 38208 30515 "1 " 0 # line from COTTLE B 230.00 (3) to BRKR WARNERVL
230.00
4 38208 0 "2 " 0 # LOAD-DROP COTTLE B 230.00 LOAD==21.32(7.38)
0
#
#
# (10) C5 DCTL OUTAGE
# Bellota - Melones and Warnerville - Wilson 230 kV Lines

```

```

1 30500 38206 "1 " 0 # line from BELLOTA 230.00 BRKR to (2) COTTLE A
230.00
1 38206 37563 "1 " 0 # line from COTTLE A 230.00 (2) to BRKR MELONES
230.00
4 38206 0 "1 " 0 # LOAD-DROP COTTLE A 230.00 LOAD==19.23(0.00)
3 34604 0 "***" 0 # Drop Helms unit#3 with a loss Bellota - Melones line
#
1 30515 30800 "1 " 0 # line from WARNERVL 230.00 BRKR to BRKR WILSON
230.00
0
#
#
# (11) C5 DCTL OUTAGE
# Bellota - Melones and Melones - Wilson 230 kV Lines
1 30500 38206 "1 " 0 # line from BELLOTA 230.00 BRKR to (2) COTTLE A
230.00
1 38206 37563 "1 " 0 # line from COTTLE A 230.00 (2) to BRKR MELONES
230.00
4 38206 0 "1 " 0 # LOAD-DROP COTTLE A 230.00 LOAD==19.23(0.00)
3 34604 0 "***" 0 # Drop Helms unit#3 with a loss Bellota - Melones line
#
1 37563 30800 "1 " 0 # line from MELONES 230.00 BRKR to BRKR WILSON
230.00
3 34604 0 "***" 0 # Drop Helms unit#3 with a loss Melones - Wilson line
0
#
#
# (12) C5 DCTL OUTAGE
# Melones - Wilson and Warnerville - Wilson 230 kV Lines
1 37563 30800 "1 " 0 # line from MELONES 230.00 BRKR to BRKR WILSON
230.00
3 34604 0 "***" 0 # Drop Helms unit#3 with a loss Melones - Wilson line
#
1 30515 30800 "1 " 0 # line from WARNERVL 230.00 BRKR to BRKR WILSON
230.00
0
#
#
# (13) C5 DCTL OUTAGE
# Wilson - Borden #1 and #2 230 kV Lines
1 30795 30805 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR BORDEN
230.00
1 30795 30800 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR WILSON
230.00
4 30795 0 "2 " 0 # LOAD-DROP STOREY 2 230.00 LOAD==33.89(6.88)
#
1 30796 30800 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR WILSON
230.00
1 30796 30805 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR BORDEN
230.00
4 30796 0 "1 " 0 # LOAD-DROP STOREY 1 230.00 LOAD==37.87(7.69)
0
#
#
# (14) C5 DCTL OUTAGE
# Borden - Gregg #1 and #2 230 kV Lines
1 30805 30810 "1 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden line
#
1 30805 30810 "2 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden #2 line
0
#
#
# (15) C5 DCTL OUTAGE
# Moss Landing - Panoche and Coburn - Panoche 230 kV Lines
1 30750 30790 "1 " 0 # line from MOSSLND2 230.00 BRKR to BRKR PANOCHE
230.00

```

```

#
1 30760 30790 "1" 0 # line from COBURN 230.00 BRKR to BRKR PANOCHE
230.00
0
#
#
# (16) C5 DCTL OUTAGE
# Panoche - Helm and Panoche - Kearney 230 kV Lines
1 30790 30873 "1" 0 # line from PANOCHE 230.00 BRKR to BRKR HELM
230.00
#
1 30790 30825 "1" 0 # line from PANOCHE 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1" 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1" 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
0
#
#
# (17) BUS FAULT 30765 "LOSBANOS" Bus Section 1
#
1 30765 30670 "1" 0 # LINE from LOSBANOS 230.00 to WESTLEY 230.00
1 30765 30790 "2" 0 # LINE from LOSBANOS 230.00 to PANOCHE 230.00
1 30765 38625 "1" 0 # LINE from LOSBANOS 230.00 to SN LS PP 230.00
1 30765 38625 "2" 0 # LINE from LOSBANOS 230.00 to SN LS PP 230.00
2 30765 34214 "3" 0 # TRAN from LOSBANOS 230.00 to LOS BANS 70.00
6 30765 0 "v" 0 # drop Los Banos 230 kV shunt Caps
0
#
#
# (18) BUS FAULT 30765 "LOSBANOS" Bus Section 2
#
1 30765 30790 "1" 0 # LINE from LOSBANOS 230.00 to PANOCHE 230.00
1 30765 38615 "1" 0 # LINE from LOSBANOS 230.00 to DS AMIGO 230.00
2 30765 34214 "4" 0 # TRAN from LOSBANOS 230.00 to LOS BANS 70.00
0
#
#
# (19) BUS FAULT 30790 "PANOCHE" Bus Section 1
#
1 30790 30760 "1" 0 # LINE from PANOCHE 230.00 to COBURN 230.00
1 30790 30765 "1" 0 # LINE from PANOCHE 230.00 to LOSBANOS 230.00
1 30790 30765 "2" 0 # LINE from PANOCHE 230.00 to LOSBANOS 230.00
1 30790 30825 "1" 0 # LINE from PANOCHE 230.00 to MCMULLN1 230.00
1 30790 30900 "1" 0 # LINE from PANOCHE 230.00 to GATES 230.00
2 30790 30791 "1" 0 # TRAN from PANOCHE 230.00 to PNCHE 1M 230.00
0
#
#
# (20) BUS FAULT 30790 "PANOCHE" Bus Section 2
#
1 30790 30750 "1" 0 # LINE from PANOCHE 230.00 to MOSSLND2 230.00
1 30790 30793 "1" 0 # LINE from PANOCHE 230.00 to PANO_EC 230.00
1 30790 30873 "1" 0 # LINE from PANOCHE 230.00 to HELM 230.00
1 30790 30900 "2" 0 # LINE from PANOCHE 230.00 to GATES 230.00
1 30790 38615 "1" 0 # LINE from PANOCHE 230.00 to DS AMIGO 230.00
2 30790 34158 "2" 0 # TRAN from PANOCHE 230.00 to PANOCHE 115.00
0
#
#
# (21) BUS FAULT 34100 "CHWCHLLA"
#
1 34100 34101 "1" 0 # LINE from CHWCHLLA 115.00 to CERTAN T 115.00
1 34100 34105 "1" 0 # LINE from CHWCHLLA 115.00 to CERTANJ1 115.00
4 34100 0 "1" 0 # LOAD-DROP CHWCHLLA 115.00 LOAD==10.13(2.06)
4 34100 0 "2" 0 # LOAD-DROP CHWCHLLA 115.00 LOAD==13.86(2.82)
0
#
#
# (22) BUS FAULT 34104 "ATWATER"

```

```

#
1 34104 34106 "1" 0 # LINE from ATWATER 115.00 to CASTLE 115.00
1 34104 34108 "1" 0 # LINE from ATWATER 115.00 to CRESEY T 115.00
1 34104 34134 "1" 0 # LINE from ATWATER 115.00 to WILSON A 115.00
4 34104 0 "1 " 0 # LOAD-DROP ATWATER 115.00 LOAD==32.40(6.57)
4 34104 0 "2 " 0 # LOAD-DROP ATWATER 115.00 LOAD==28.36(5.76)
0
#
#
# (23) BUS FAULT 34112 "EXCHEQR"
#
1 34112 34116 "1" 0 # LINE from EXCHEQR 115.00 to LE GRAND 115.00
2 34112 34176 "1" 0 # TRAN from EXCHEQR 115.00 to EXCHQRTP 115.00
0
#
#
# (24) BUS FAULT 34116 "LE GRAND"
#
1 34116 34101 "1" 0 # LINE from LE GRAND 115.00 to CERTAN T 115.00
1 34116 34112 "1" 0 # LINE from LE GRAND 115.00 to EXCHEQR 115.00
1 34116 34134 "1" 0 # LINE from LE GRAND 115.00 to WILSON A 115.00
1 34116 34154 "1" 0 # LINE from LE GRAND 115.00 to DAIRYLND 115.00
4 34116 0 "1 " 0 # LOAD-DROP LE GRAND 115.00 LOAD==13.41(2.72)
0
#
#
# (25) BUS FAULT 34134 "WILSON A"
#
1 34134 34116 "1" 0 # LINE from WILSON A 115.00 to LE GRAND 115.00
1 34134 34104 "1" 0 # LINE from WILSON A 115.00 to ATWATER 115.00
1 34134 34136 "1" 0 # LINE from WILSON A 115.00 to WILSON B 115.00
1 34134 34144 "1" 0 # LINE from WILSON A 115.00 to MERCED 115.00
2 34134 30800 "1" 0 # TRAN from WILSON A 115.00 to WILSON 230.00
4 34134 0 "3 " 0 # LOAD-DROP WILSON A 115.00 LOAD==18.66(3.79)
6 34134 0 "v" 0 # drop Wilson A 115 kV shunt Caps
0
#
#
# (26) BUS FAULT 34136 "WILSON B"
#
1 34136 34118 "1" 0 # LINE from WILSON B 115.00 to LE GRNDJ 115.00
1 34136 34134 "1" 0 # LINE from WILSON B 115.00 to WILSON A 115.00
1 34136 34138 "1" 0 # LINE from WILSON B 115.00 to EL CAPTN 115.00
1 34136 34144 "2" 0 # LINE from WILSON B 115.00 to MERCED 115.00
2 34136 30800 "2" 0 # TRAN from WILSON B 115.00 to WILSON 230.00
0
#
#
# (27) BUS FAULT 34138 "EL CAPTN"
#
1 34138 34106 "1" 0 # LINE from EL CAPTN 115.00 to CASTLE 115.00
1 34138 34136 "1" 0 # LINE from EL CAPTN 115.00 to WILSON B 115.00
4 34138 0 "1 " 0 # LOAD-DROP EL CAPTN 115.00 LOAD==19.47(3.95)
4 34138 0 "2 " 0 # LOAD-DROP EL CAPTN 115.00 LOAD==25.91(5.26)
4 34138 0 "3 " 0 # LOAD-DROP EL CAPTN 115.00 LOAD==33.05(6.71)
0
#
#
# (28) BUS FAULT 34144 "MERCED"
#
1 34144 34110 "1" 0 # LINE from MERCED 115.00 to ATWATR J 115.00
1 34144 34134 "1" 0 # LINE from MERCED 115.00 to WILSON A 115.00
1 34144 34136 "2" 0 # LINE from MERCED 115.00 to WILSON B 115.00
2 34144 34146 "2" 0 # TRAN from MERCED 115.00 to MERCED M 115.00
4 34144 0 "1 " 0 # LOAD-DROP MERCED 115.00 LOAD==37.10(7.53)
4 34144 0 "3 " 0 # LOAD-DROP MERCED 115.00 LOAD==19.45(3.95)
0
#
#
# (29) BUS FAULT 34154 "DAIRYLND"

```

```

#
1 34154 34116 "1" 0 # LINE from DAIRYLND 115.00 to LE GRAND 115.00
1 34154 34150 "1" 0 # LINE from DAIRYLND 115.00 to NEWHALL 115.00
4 34154 0 "1 " 0 # LOAD-DROP DAIRYLND 115.00 LOAD==25.82(5.24)
0
#
#
# (30) BUS FAULT 34158 "PANOCHÉ" Bus Section 1
#
1 34158 34149 "1" 0 # LINE from PANOCHÉ 115.00 to CHENYT 115.00
1 34158 34159 "1" 0 # LINE from PANOCHÉ 115.00 to PANOCHÉJ 115.00
2 34158 30790 "2" 0 # TRAN from PANOCHÉ 115.00 to PANOCHÉ 230.00
2 34158 34186 "1" 0 # TRAN from PANOCHÉ 115.00 to DG_PAN1 13.80
0
#
#
# (31) BUS FAULT 34158 "PANOCHÉ" Bus Section 2
#
1 34158 34157 "1" 0 # LINE from PANOCHÉ 115.00 to PANOCHÉT 115.00
1 34158 34189 "1" 0 # LINE from PANOCHÉ 115.00 to STARWOOD 115.00
1 34158 34350 "1" 0 # LINE from PANOCHÉ 115.00 to KAMM 115.00
2 34158 30791 "1" 0 # TRAN from PANOCHÉ 115.00 to PNCHE 1M 230.00
0
#
#
# (32) BUS FAULT 34200 "ORO LOMA"
#
1 34200 34218 "1" 0 # LINE from ORO LOMA 70.00 to DOS PALS 70.00
1 34200 34222 "1" 0 # LINE from ORO LOMA 70.00 to MRCYSPRS 70.00
1 34200 34234 "1" 0 # LINE from ORO LOMA 70.00 to POSO J1 70.00
2 34200 34162 "2" 0 # TRAN from ORO LOMA 70.00 to ORO LOMA 115.00
4 34200 0 "1 " 0 # LOAD-DROP ORO LOMA 70.00 LOAD==8.64(1.75)
0
#
#
# (33) BUS FAULT 34202 "MERCED"
#
1 34202 34203 "1" 0 # LINE from MERCED 70.00 to ELNIDOTP 70.00
1 34202 34230 "1" 0 # LINE from MERCED 70.00 to MRCDFLLS 70.00
2 34202 34146 "2" 0 # TRAN from MERCED 70.00 to MERCED M 115.00
0
#
#
# (34) BUS FAULT 34206 "CANAL"
#
1 34206 34212 "1" 0 # LINE from CANAL 70.00 to LVNGSTNT 70.00
1 34206 34216 "1" 0 # LINE from CANAL 70.00 to SNTA RTA 70.00
1 34206 34220 "1" 0 # LINE from CANAL 70.00 to ORTIGA 70.00
4 34206 0 "1 " 0 # LOAD-DROP CANAL 70.00 LOAD==30.56(6.21)
4 34206 0 "2 " 0 # LOAD-DROP CANAL 70.00 LOAD==31.27(6.35)
0
#
#
# (35) BUS FAULT 34214 "LOS BANS"
#
1 34214 34208 "1" 0 # LINE from LOS BANS 70.00 to CHEVPIPE 70.00
1 34214 34272 "1" 0 # LINE from LOS BANS 70.00 to WRGHT PP 70.00
1 34214 34278 "1" 0 # LINE from LOS BANS 70.00 to PCHCO PP 70.00
1 34214 34282 "1" 0 # LINE from LOS BANS 70.00 to ONLL PMP 69.00
2 34214 30765 "3" 0 # TRAN from LOS BANS 70.00 to LOSBANOS 230.00
2 34214 30765 "4" 0 # TRAN from LOS BANS 70.00 to LOSBANOS 230.00
0
#
#
# (36) BUS FAULT 34216 "SNTA RTA"
#
1 34216 34206 "1" 0 # LINE from SNTA RTA 70.00 to CANAL 70.00
1 34216 34218 "1" 0 # LINE from SNTA RTA 70.00 to DOS PALS 70.00
4 34216 0 "1 " 0 # LOAD-DROP SNTA RTA 70.00 LOAD==7.48(1.52)
0

```



```

#
#
# (37) BUS FAULT 34230 "MRCDFLLS"
#
1 34230 34202 "1" 0 # LINE from MRCDFLLS 70.00 to MERCED 70.00
1 34230 34321 "1" 0 # LINE from MRCDFLLS 70.00 to MCSWAINJ 70.00
2 34230 34322 "1" 0 # TRAN from MRCDFLLS 70.00 to MERCEDFL 9.11
2 34230 34322 "2" 0 # TRAN from MRCDFLLS 70.00 to MERCEDFL 9.11
4 34230 0 "2 " 0 # LOAD-DROP MRCDFLLS 70.00 LOAD==8.94(1.82)
0
#
#
# (38) BUS FAULT 34238 "BONITA"
#
1 34238 34236 "1" 0 # LINE from BONITA 70.00 to POSO J2 70.00
1 34238 34255 "1" 0 # LINE from BONITA 70.00 to TRIGO J 70.00
4 34238 0 "1 " 0 # LOAD-DROP BONITA 70.00 LOAD==14.37(2.92)
0
#
#
# (39) BUS FAULT 34240 "GLASS"
#
1 34240 34237 "1" 0 # LINE from GLASS 70.00 to CANANDGA 70.00
1 34240 34256 "1" 0 # LINE from GLASS 70.00 to BORDEN 70.00
4 34240 0 "1 " 0 # LOAD-DROP GLASS 70.00 LOAD==9.05(4.89)
0
#
#
# (40) BUS FAULT 34252 "MADERA"
#
1 34252 34254 "1" 0 # LINE from MADERA 70.00 to TRIGO 70.00
1 34252 34256 "1" 0 # LINE from MADERA 70.00 to BORDEN 70.00
1 34252 34256 "2" 0 # LINE from MADERA 70.00 to BORDEN 70.00
4 34252 0 "1 " 0 # LOAD-DROP MADERA 70.00 LOAD==17.99(3.65)
4 34252 0 "2 " 0 # LOAD-DROP MADERA 70.00 LOAD==23.16(4.71)
6 34252 0 "v" 0 # drop Madera 70 kV shunt Caps
0
#
#
# (41) BUS FAULT 34256 "BORDEN"
#
1 34256 34252 "1" 0 # LINE from BORDEN 70.00 to MADERA 70.00
1 34256 34252 "2" 0 # LINE from BORDEN 70.00 to MADERA 70.00
1 34256 34240 "1" 0 # LINE from BORDEN 70.00 to GLASS 70.00
1 34256 34262 "1" 0 # LINE from BORDEN 70.00 to CASSIDY 70.00
2 34256 30805 "1" 0 # TRAN from BORDEN 70.00 to BORDEN 230.00
2 34256 30805 "2" 0 # TRAN from BORDEN 70.00 to BORDEN 230.00
0
#
#
# (42) BUS FAULT 34268 "MENDOTA"
#
1 34268 34267 "1" 0 # LINE from MENDOTA 70.00 to TOMATAK 70.00
1 34268 34269 "1" 0 # LINE from MENDOTA 70.00 to BIOMSJCT 70.00
2 34268 34156 "1" 0 # TRAN from MENDOTA 70.00 to MENDOTA 115.00
0
#
#
# 2013 sumpk category c contingency list
# Fresno Zone 314
#
#
# (43) C5 DCTL OUTAGE
# Gates - Schindler and Gates - Huron #1 70 kV Lines
1 34558 34560 "1 " 0 # line from HURON 70.00 BRKR to (2) CALFLAX
70.00
1 34560 34562 "1 " 0 # line from CALFLAX 70.00 (2) to BRKR SCHLNDLR
70.00
4 34560 0 "1 " 0 # LOAD-DROP CALFLAX 70.00 LOAD==6.53(1.33)
1 34552 34558 "2 " 0 # Must include Gates - Huron #2 in this outage

```

```

#
1 34552 34558 "1 " 0 # line from GATES 70.00 BRKR to BRKR HURON
70.00
0
#
#
# (44) C5 DCTL OUTAGE
# Barton - Sanger and Manchester - Sanger 115 kV Lines
1 34359 34361 "1 " 0 # line from AIRWAYJ2 115.00 (3) to BRKR AIRWAYS
115.00
1 34359 34408 "1 " 0 # line from AIRWAYJ2 115.00 (3) to BRKR BARTON
115.00
1 34359 34366 "1 " 0 # line from AIRWAYJ2 115.00 (3) to BRKR SANGER
115.00
#
1 34357 34361 "1 " 0 # line from AIRWAYJ1 115.00 (3) to BRKR AIRWAYS
115.00
1 34357 34368 "1 " 0 # line from AIRWAYJ1 115.00 (3) to (2) LASPALMS
115.00
1 34357 34410 "1 " 0 # line from AIRWAYJ1 115.00 (3) to BRKR MANCHSTR
115.00
1 34368 34366 "1 " 0 # line from LASPALMS 115.00 (2) to BRKR SANGER
115.00
4 34368 0 "1 " 0 # LOAD-DROP LASPALMS 115.00 LOAD==13.90(11.89)
0
#
#
# (45) C5 DCTL OUTAGE
# Herndon - Barton and Herndon - Manchester 115 kV Lines
1 34408 34412 "1 " 0 # line from BARTON 115.00 BRKR to BRKR HERNDON
115.00
#
1 34410 34412 "1 " 0 # line from MANCHSTR 115.00 BRKR to BRKR HERNDON
115.00
0
#
#
# (46) C5 DCTL OUTAGE
# Herndon - Barton and Manchester - Sanger 115 kV Lines
1 34408 34412 "1 " 0 # line from BARTON 115.00 BRKR to BRKR HERNDON
115.00
#
1 34357 34361 "1 " 0 # line from AIRWAYJ1 115.00 (3) to BRKR AIRWAYS
115.00
1 34357 34368 "1 " 0 # line from AIRWAYJ1 115.00 (3) to (2) LASPALMS
115.00
1 34357 34410 "1 " 0 # line from AIRWAYJ1 115.00 (3) to BRKR MANCHSTR
115.00
1 34368 34366 "1 " 0 # line from LASPALMS 115.00 (2) to BRKR SANGER
115.00
4 34368 0 "1 " 0 # LOAD-DROP LASPALMS 115.00 LOAD==13.90(11.89)
0
#
#
# (47) C5 DCTL OUTAGE
# Herndon - Bullard #1 and #2 115 kV Lines
1 34411 34416 "1 " 0 # line from PNDLJ1 115.00 (2) to BRKR BULLARD
115.00
1 34411 34412 "1 " 0 # line from PNDLJ1 115.00 (2) to BRKR HERNDON
115.00
#
1 34409 34413 "1 " 0 # line from PNDLJ2 115.00 (3) to BRKR PNEDELE
115.00
1 34409 34416 "1 " 0 # line from PNDLJ2 115.00 (3) to BRKR BULLARD
115.00
1 34409 34412 "1 " 0 # line from PNDLJ2 115.00 (3) to BRKR HERNDON
115.00
4 34413 0 "2 " 0 # LOAD-DROP PNEDELE 115.00 LOAD==30.74(6.25)
4 34413 0 "3 " 0 # LOAD-DROP PNEDELE 115.00 LOAD==40.42(8.20)
1 34411 34413 "1 " 1 # Switches in Pindale CB#12 to transfer load

```

```

4 34413      0  "***"  1      # Restore load at Pindale
0
#
#
# (48)  C5 DCTL OUTAGE
# Kerckhoff - Clovis - Sanger #1 and #2 115 kV Lines
1 34358 34360 "1 "  0      # line from  KERCKHF2 115.00  BRKR to (3)  WWARD JT
115.00
1 34360 34414 "1 "  0      # line from  WWARD JT 115.00  (3) to BRKR  WOODWARD
115.00
1 34360 34363 "1 "  0      # line from  WWARD JT 115.00  (3) to (3)  CLOVISJ1
115.00
1 34363 34362 "1 "  0      # line from  CLOVISJ1 115.00  (3) to BRKR  CLOVIS-1
115.00
1 34363 34366 "1 "  0      # line from  CLOVISJ1 115.00  (3) to BRKR  SANGER
115.00
4 34362      0  "1 "  0      # LOAD-DROP    CLOVIS-1 115.00  LOAD==51.01(10.36)
4 34362      0  "2 "  0      # LOAD-DROP    CLOVIS-1 115.00  LOAD==50.20(10.20)
1 34362 34364 "1 "  1      # Switches in Clovis SW 387 to transfer load
4 34362      0  "***"  1      # Restore Load at Clovis 1
#
1 34364 34365 "1 "  0      # line from  CLOVIS-2 115.00  BRKR to (3)  CLOVISJ2
115.00
1 34365 34358 "1 "  0      # line from  CLOVISJ2 115.00  (3) to BRKR  KERCKHF2
115.00
1 34365 34366 "1 "  0      # line from  CLOVISJ2 115.00  (3) to BRKR  SANGER
115.00
4 34364      0  "3 "  0      # LOAD-DROP    CLOVIS-2 115.00  LOAD==44.76(9.09)
1 34362 34364 "1 "  1      # Switches in Clovis SW 387 to transfer load
4 34364      0  "***"  1      # Restore Load at Clovis 2
0
#
#
# (49)  C5 DCTL OUTAGE
# Kingburg - Corcoran #1 and #2 115 kV Lines
1 34418 34420 "1 "  0      # line from  KINGSBRG 115.00  BRKR to BRKR  CORCORAN
115.00
#
1 34418 34420 "2 "  0      # line from  KINGSBRG 115.00  BRKR to BRKR  CORCORAN
115.00
0
#
#
# (50)  C5 DCTL OUTAGE
# Kings River - Sanger - Reedley and Balch - Sanger 115 kV Lines
1 34366 34389 "1 "  0      # line from  SANGER 115.00  BRKR to (3)  RAINBWTP
115.00
1 34389 34388 "1 "  0      # line from  RAINBWTP 115.00  (3) to (1)  RAINBW
115.00
1 34389 34394 "1 "  0      # line from  RAINBWTP 115.00  (3) to (3)  PIEDRA 1
115.00
1 34394 34380 "1 "  0      # line from  PIEDRA 1 115.00  (3) to BRKR  REEDLEY
115.00
1 34394 34400 "1 "  0      # line from  PIEDRA 1 115.00  (3) to BRKR  KNGSRV1
115.00
4 34388      0  "1 "  0      # LOAD-DROP    RAINBW 115.00  LOAD==16.20(3.29)
#
1 34366 34396 "1 "  0      # line from  SANGER 115.00  BRKR to (2)  PIEDRA 2
115.00
1 34396 34398 "1 "  0      # line from  PIEDRA 2 115.00  (2) to (2)  BALCH
115.00
2 34398 34624 "1 "  0      # TRAN from  BALCH 115.00  (2) to (1)  BALCH 1
13.20
4 34624      0  "1 "  0      # LOAD-DROP    BALCH 1 13.20  LOAD==0.26(0.00)
3 34624      0  "1 "  0      # GEN-DROP    BALCH 1 13.20  GEN==27.00(8.33)
0
#
#
# (51)  C5 DCTL OUTAGE
# McCall - Kingsburg #1 and #2 115 kV Lines

```

```

1 34370 34385 "1 " 0 # line from MC CALL 115.00 BRKR to (3) KINGS J1
115.00
1 34385 34417 "1 " 0 # line from KINGS J1 115.00 (3) to (2) KINGS J2
115.00
1 34385 34425 "1 " 0 # line from KINGS J1 115.00 (3) to (3) KCOGNJCT
115.00
1 34417 34418 "1 " 0 # line from KINGS J2 115.00 (2) to BRKR KINGSBRG
115.00
1 34425 34387 "1 " 0 # line from KCOGNJCT 115.00 (3) to (1) SUNMAID
115.00
1 34425 34427 "1 " 0 # line from KCOGNJCT 115.00 (3) to (2) GRDNGLS2
115.00
1 34427 34386 "1 " 0 # line from GRDNGLS2 115.00 (2) to (2) KNGSCOGN
115.00
2 34386 34642 "1 " 0 # TRAN from KNGSCOGN 115.00 (2) to BRKR KINGSBUR
9.11
4 34387 0 "1 " 0 # LOAD-DROP SUNMAID 115.00 LOAD==3.40(3.28)
3 34642 0 "1 " 0 # GEN-DROP KINGSBUR 9.11 GEN==34.00(17.30)
#
1 34418 34423 "1 " 0 # line from KINGSBRG 115.00 BRKR to (3) GAURD J1
115.00
1 34423 34370 "1 " 0 # line from GAURD J1 115.00 (3) to BRKR MC CALL
115.00
1 34423 34421 "1 " 0 # line from GAURD J1 115.00 (3) to (2) GAURD J2
115.00
1 34421 34424 "1 " 0 # line from GAURD J2 115.00 (2) to (1) GRDN GLS
115.00
4 34424 0 "1 " 0 # LOAD-DROP GRDN GLS 115.00 LOAD==3.50(1.15)
4 34418 0 "3 " 0 # Kingsburg Bank #3 will also be dropped on this outage
0
#
#
# (52) C5 DCTL OUTAGE
# McCall - Sanger #1 and #2 115 kV Lines
1 34366 34370 "1 " 0 # line from SANGER 115.00 BRKR to BRKR MC CALL
115.00
#
1 34366 34370 "2 " 0 # line from SANGER 115.00 BRKR to BRKR MC CALL
115.00
0
#
#
# (53) C5 DCTL OUTAGE
# McCall - West Fresno and California Ave. - West Fresno 115 kV Lines
1 34404 34370 "1 " 0 # line from WST FRSO 115.00 BRKR to BRKR MC CALL
115.00
#
1 34402 34404 "1 " 0 # line from CAL AVE 115.00 BRKR to BRKR WST FRSO
115.00
0
#
#
# (54) C5 DCTL OUTAGE
# McCall - West Fresno and California Ave. - McCall 115 kV Lines
1 34404 34370 "1 " 0 # line from WST FRSO 115.00 BRKR to BRKR MC CALL
115.00
#
1 34390 34370 "1 " 0 # line from DANISHCM 115.00 (2) to BRKR MC CALL
115.00
1 34390 34402 "1 " 0 # line from DANISHCM 115.00 (2) to BRKR CAL AVE
115.00
4 34390 0 "1 " 0 # LOAD-DROP DANISHCM 115.00 LOAD==4.10(3.51)
0
#
#
# (55) C5 DCTL OUTAGE
# Gates - Gregg and Gates - McCall 230 kV Lines
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00

```

```

1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
#
1 30875 30880 "1 " 0 # line from MC CALL 230.00 BRKR to (2) HENTAP2
230.00
1 30880 30900 "1 " 0 # line from HENTAP2 230.00 (2) to BRKR GATES
230.00
0
#
#
# (56) C5 DCTL OUTAGE
# Panoche - Kearney and Gates - Gregg 230 kV Lines
1 30790 30825 "1 " 0 # line from PANOCHE 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
#
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00
1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
0
#
#
# (57) C5 DCTL OUTAGE
# Panoche - Kearney and Panoche - Helm 230 kV Lines
1 30790 30825 "1 " 0 # line from PANOCHE 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
#
1 30790 30873 "1 " 0 # line from PANOCHE 230.00 BRKR to BRKR HELM
230.00
0
#
#
# (58) C5 DCTL OUTAGE
# Panoche - Kearney and Helm - McCall 230 kV Lines
1 30790 30825 "1 " 0 # line from PANOCHE 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
#
1 30873 30875 "1 " 0 # line from HELM 230.00 BRKR to BRKR MC CALL
230.00
0
#
#
# (59) C5 DCTL OUTAGE
# Helm - McCall and Gates - McCall 230 kV Lines
1 30873 30875 "1 " 0 # line from HELM 230.00 BRKR to BRKR MC CALL
230.00
#
1 30875 30880 "1 " 0 # line from MC CALL 230.00 BRKR to (2) HENTAP2
230.00
1 30880 30900 "1 " 0 # line from HENTAP2 230.00 (2) to BRKR GATES
230.00
0
#

```

```

#
# (60) C5 DCTL OUTAGE
# Helms - Gregg #1 and #2 230 kV Lines
1 30810 30820 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34600 0 "***" 0 # Drop unit#1 with a loss Helm - Gregg #1 line
#
1 30810 30820 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Helm - Gregg #2 line
0
#
#
# (61) C5 DCTL OUTAGE
# Gregg - Herndon #1 and #2 230 kV Lines
1 30830 30835 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #1 line
#
1 30810 30835 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #2 line
0
#
#
# (62) C5 DCTL OUTAGE
# Herndon - Kearney and Herndon - Ashlan 230 kV Lines
1 30830 30835 "1 " 0 # line from KEARNEY 230.00 BRKR to BRKR HERNDON
230.00
#
1 30835 30840 "1 " 0 # line from HERNDON 230.00 BRKR to (3) FGRDN T1
230.00
1 30840 30841 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR FIGRDN 1
230.00
1 30840 30850 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR ASHLAN
230.00
4 30841 0 "1 " 0 # LOAD-DROP FIGRDN 1 230.00 LOAD==73.45(14.92)
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30841 0 "***" 1 # Restore Load at Figarden 1
0
#
#
# (63) C5 DCTL OUTAGE
# Herndon - Kearney and Gates - Gregg 230 kV Lines
1 30830 30835 "1 " 0 # line from KEARNEY 230.00 BRKR to BRKR HERNDON
230.00
#
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00
1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
0
#
#
# (64) C5 DCTL OUTAGE
# Gates - Gregg and Gregg - Ashlan 230 kV Lines
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00
1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
#

```

```

1 30810 30845 "1 " 0 # line from GREGG 230.00 BRKR to (3) FGRDN T2
230.00
1 30845 30846 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR FIGRDN 2
230.00
1 30845 30850 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR ASHLAN
230.00
4 30846 0 "1 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==52.57(10.67)
4 30846 0 "2 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==36.77(7.47)
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Figarden line
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30846 0 "***" 1 # Restore Load at Figarden 2
0
#
#
# (65) C5 DCTL OUTAGE
# Herndon - Ashlan and Gregg - Ashlan 230 kV Lines
1 30835 30840 "1 " 0 # line from HERNDON 230.00 BRKR to (3) FGRDN T1
230.00
1 30840 30841 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR FIGRDN 1
230.00
1 30840 30850 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR ASHLAN
230.00
4 30841 0 "1 " 0 # LOAD-DROP FIGRDN 1 230.00 LOAD==73.45(14.92)
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30841 0 "***" 1 # Restore Load at Figarden 1
#
1 30810 30845 "1 " 0 # line from GREGG 230.00 BRKR to (3) FGRDN T2
230.00
1 30845 30846 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR FIGRDN 2
230.00
1 30845 30850 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR ASHLAN
230.00
4 30846 0 "1 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==52.57(10.67)
4 30846 0 "2 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==36.77(7.47)
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Figarden line
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30846 0 "***" 1 # Restore Load at Figarden 2
0
#
#
# (66) C5 DCTL OUTAGE
# Haas - McCall and Balch - McCall 230 kV Lines
1 30855 30860 "1 " 0 # line from HAAS 230.00 (2) to (3) BALCH3TP
230.00
2 30855 34610 "1 " 0 # TRAN from HAAS 230.00 (2) to (1) HAAS
13.80
1 30860 30875 "1 " 0 # line from BALCH3TP 230.00 (3) to BRKR MC CALL
230.00
2 30860 34614 "1 " 0 # TRAN from BALCH3TP 230.00 (3) to (1) BLCH 2-3
13.80
3 34610 0 "1 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34610 0 "2 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34614 0 "1 " 0 # GEN-DROP BLCH 2-3 13.80 GEN==50.00(7.64)
#
1 30865 30870 "1 " 0 # line from BALCH 230.00 (2) to (3) PINE FLT
230.00
2 30865 34612 "1 " 0 # TRAN from BALCH 230.00 (2) to (1) BLCH 2-2
13.80
1 30870 30875 "1 " 0 # line from PINE FLT 230.00 (3) to BRKR MC CALL
230.00
2 30870 38720 "1 " 0 # TRAN from PINE FLT 230.00 (3) to (1) PINE FLT
13.80
3 34612 0 "1 " 0 # GEN-DROP BLCH 2-2 13.80 GEN==50.00(0.66)
3 38720 0 "1 " 0 # GEN-DROP PINE FLT 13.80 GEN==57.00(23.30)
0
#
#
# (67) C5 DCTL OUTAGE
# Morro Bay - Gates and Templeton - Gates 230 kV Lines

```

```

1 30900 30915 "1 " 0 # line from GATES 230.00 BRKR to BRKR MORROBAY
230.00
#
1 30900 30905 "1 " 0 # line from GATES 230.00 BRKR to BRKR TEMPLETN
230.00
0
#
#
# (68) C5 DCTL OUTAGE
# Gates - Midway and Gates - Arco 230 kV Lines
1 30900 30970 "1 " 0 # line from GATES 230.00 BRKR to BRKR MIDWAY
230.00
#
1 30900 30935 "1 " 0 # line from GATES 230.00 BRKR to BRKR ARCO
230.00
0
#
#
# (69) BUS FAULT 30820 "HELMS PP"
#
1 30820 30810 "1" 0 # LINE from HELMS PP 230.00 to GREGG 230.00
1 30820 30810 "2" 0 # LINE from HELMS PP 230.00 to GREGG 230.00
2 30820 34600 "1" 0 # TRAN from HELMS PP 230.00 to HELMS 1 18.00
2 30820 34602 "1" 0 # TRAN from HELMS PP 230.00 to HELMS 2 18.00
2 30820 34604 "1" 0 # TRAN from HELMS PP 230.00 to HELMS 3 18.00
0
#
#
# (70) BUS FAULT 30830 "KEARNEY"
#
1 30830 30825 "1" 0 # LINE from KEARNEY 230.00 to MCMULLN1 230.00
1 30830 30835 "1" 0 # LINE from KEARNEY 230.00 to HERNDON 230.00
2 30830 34480 "2" 0 # TRAN from KEARNEY 230.00 to KEARNEY 70.00
0
#
#
# (71) BUS FAULT 30835 "HERNDON" 230 kV Bus Section 1
#
1 30835 30810 "1" 0 # LINE from HERNDON 230.00 to GREGG 230.00
1 30835 30830 "1" 0 # LINE from HERNDON 230.00 to KEARNEY 230.00
2 30835 30882 "1" 0 # TRAN from HERNDON 230.00 to HERNDN1M 115.00
0
#
#
# (72) BUS FAULT 30835 "HERNDON" 230 kV Bus Section 2
#
1 30835 30810 "2" 0 # LINE from HERNDON 230.00 to GREGG 230.00
1 30835 30840 "1" 0 # LINE from HERNDON 230.00 to FGRDN T1 230.00
2 30835 30883 "2" 0 # TRAN from HERNDON 230.00 to HERNDN2M 115.00
0
#
#
# (73) BUS FAULT 30841 "FIGRDN 1"
#
1 30841 30840 "1" 0 # LINE from FIGRDN 1 230.00 to FGRDN T1 230.00
1 30841 30846 "1" 0 # LINE from FIGRDN 1 230.00 to FIGRDN 2 230.00
4 30841 0 "1 " 0 # LOAD-DROP FIGRDN 1 230.00 LOAD==73.45(14.92)
0
#
#
# (74) BUS FAULT 30846 "FIGRDN 2"
#
1 30846 30841 "1" 0 # LINE from FIGRDN 2 230.00 to FIGRDN 1 230.00
1 30846 30845 "1" 0 # LINE from FIGRDN 2 230.00 to FGRDN T2 230.00
4 30846 0 "1 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==52.57(10.67)
4 30846 0 "2 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==36.77(7.47)
0
#
#
# (75) BUS FAULT 30850 "ASHLAN"

```



```

#
1 30850 30840 "1" 0 # LINE from ASHLAN 230.00 to FGRDN T1 230.00
1 30850 30845 "1" 0 # LINE from ASHLAN 230.00 to FGRDN T2 230.00
4 30850 0 "1 " 0 # LOAD-DROP ASHLAN 230.00 LOAD==69.20(13.40)
4 30850 0 "2 " 0 # LOAD-DROP ASHLAN 230.00 LOAD==64.54(12.84)
4 30850 0 "3 " 0 # LOAD-DROP ASHLAN 230.00 LOAD==65.51(12.49)
0
#
#
# (76) BUS FAULT 30873 "HELM"
#
1 30873 30790 "1" 0 # LINE from HELM 230.00 to PANOCHE 230.00
1 30873 30875 "1" 0 # LINE from HELM 230.00 to MC CALL 230.00
2 30873 34474 "1" 0 # TRAN from HELM 230.00 to HELM 70.00
0
#
#
# (77) BUS FAULT 30874 "P0615STN"
#
1 30874 30875 "1" 0 # LINE from P0615STN 230.00 to MC CALL 230.00
1 30874 30875 "2" 0 # LINE from P0615STN 230.00 to MC CALL 230.00
2 30874 34685 "1" 0 # TRAN from P0615STN 230.00 to P0615CT1 16.50
2 30874 34686 "1" 0 # TRAN from P0615STN 230.00 to P0615CT2 16.50
2 30874 34687 "1" 0 # TRAN from P0615STN 230.00 to P0615STG 16.50
0
#
#
# (78) BUS FAULT 30875 "MC CALL" 230 kV Bus Section 1
#
1 30875 30870 "1" 0 # LINE from MC CALL 230.00 to PINE FLT 230.00
1 30875 30874 "1" 0 # LINE from MC CALL 230.00 to P0615STN 230.00
1 30875 30880 "1" 0 # LINE from MC CALL 230.00 to HENTAP2 230.00
2 30875 30877 "2" 0 # TRAN from MC CALL 230.00 to MCCALL2M 115.00
6 30875 0 "v" 0 # SVD from MC CALL 230.00
0
#
#
# (79) BUS FAULT 30875 "MC CALL" 230 kV Bus Section 2
#
1 30875 30873 "1" 0 # LINE from MC CALL 230.00 to HELM 230.00
1 30875 30860 "1" 0 # LINE from MC CALL 230.00 to BALCH3TP 230.00
1 30875 30874 "2" 0 # LINE from MC CALL 230.00 to P0615STN 230.00
2 30875 30876 "1" 0 # TRAN from MC CALL 230.00 to MCCALL1M 115.00
2 30875 30878 "3" 0 # TRAN from MC CALL 230.00 to MCCALL3M 115.00
0
#
#
# (80) BUS FAULT 30881 "HENRIETA"
#
1 30881 30879 "1" 0 # LINE from HENRIETA 230.00 to HENTAP1 230.00
1 30881 30880 "1" 0 # LINE from HENRIETA 230.00 to HENTAP2 230.00
2 30881 34430 "3" 0 # TRAN from HENRIETA 230.00 to HENRETTA 115.00
2 30881 34540 "2" 0 # TRAN from HENRIETA 230.00 to HENRITTA 70.00
2 30881 34540 "4" 0 # TRAN from HENRIETA 230.00 to HENRITTA 70.00
0
#
#
# (81) BUS FAULT 30900 "GATES" 230 kV Bus Section 1D
#
1 30900 30790 "1" 0 # LINE from GATES 230.00 to PANOCHE 230.00
1 30900 30905 "1" 0 # LINE from GATES 230.00 to TEMPLETN 230.00
2 30900 30901 "1" 0 # TRAN from GATES 230.00 to GATES 1M 230.00
6 30900 0 "v" 0 # SVD from GATES 230.00
0
#
#
# (82) BUS FAULT 30900 "GATES" 230 kV Bus Section 2D
#
1 30900 30790 "2" 0 # LINE from GATES 230.00 to PANOCHE 230.00
1 30900 30915 "1" 0 # LINE from GATES 230.00 to MORROBAY 230.00

```

```

0
#
#
# (83) BUS FAULT 30900 "GATES" 230 kV Bus Section 1E
#
1 30900 30879 "1" 0 # LINE from GATES 230.00 to HENTAP1 230.00
1 30900 30935 "1" 0 # LINE from GATES 230.00 to ARCO 230.00
0
#
#
# (84) BUS FAULT 30900 "GATES" 230 kV Bus Section 2E
#
1 30900 30880 "1" 0 # LINE from GATES 230.00 to HENTAP2 230.00
1 30900 30970 "1" 0 # LINE from GATES 230.00 to MIDWAY 230.00
0
#
#
# (85) BUS FAULT 34356 "KERCKHF1"
#
1 34356 34123 "2" 0 # LINE from KERCKHF1 115.00 to K1-JCT 115.00
1 34356 34358 "1" 0 # LINE from KERCKHF1 115.00 to KERCKHF2 115.00
2 34356 34344 "1" 0 # TRAN from KERCKHF1 115.00 to KERCKHOF 6.60
0
#
#
# (86) BUS FAULT 34358 "KERCKHF2"
#
1 34358 34123 "2" 0 # LINE from KERCKHF2 115.00 to K1-JCT 115.00
1 34358 34356 "1" 0 # LINE from KERCKHF2 115.00 to KERCKHF1 115.00
1 34358 34360 "1" 0 # LINE from KERCKHF2 115.00 to WWARD JT 115.00
1 34358 34365 "1" 0 # LINE from KERCKHF2 115.00 to CLOVISJ2 115.00
2 34358 34308 "1" 0 # TRAN from KERCKHF2 115.00 to KERCKHOF 13.80
0
#
#
# (87) BUS FAULT 34361 "AIRWAYS"
#
1 34361 34357 "1" 0 # LINE from AIRWAYS 115.00 to AIRWAYJ1 115.00
1 34361 34359 "1" 0 # LINE from AIRWAYS 115.00 to AIRWAYJ2 115.00
4 34361 0 "1 " 0 # LOAD-DROP AIRWAYS 115.00 LOAD==38.39(7.43)
4 34361 0 "2 " 0 # LOAD-DROP AIRWAYS 115.00 LOAD==12.60(2.56)
0
#
#
# (88) BUS FAULT 34362 "CLOVIS-1"
#
1 34362 34363 "1" 0 # LINE from CLOVIS-1 115.00 to CLOVISJ1 115.00
1 34362 34364 "1" 0 # LINE from CLOVIS-1 115.00 to CLOVIS-2 115.00
4 34362 0 "1 " 0 # LOAD-DROP CLOVIS-1 115.00 LOAD==51.01(10.36)
4 34362 0 "2 " 0 # LOAD-DROP CLOVIS-1 115.00 LOAD==50.20(10.20)
0
#
#
# (89) BUS FAULT 34364 "CLOVIS-2"
#
1 34364 34362 "1" 0 # LINE from CLOVIS-2 115.00 to CLOVIS-1 115.00
1 34364 34365 "1" 0 # LINE from CLOVIS-2 115.00 to CLOVISJ2 115.00
4 34364 0 "3 " 0 # LOAD-DROP CLOVIS-2 115.00 LOAD==44.76(9.09)
0
#
#
# (90) BUS FAULT 34366 "SANGER"
#
1 34366 34363 "1" 0 # LINE from SANGER 115.00 to CLOVISJ1 115.00
1 34366 34365 "1" 0 # LINE from SANGER 115.00 to CLOVISJ2 115.00
1 34366 34359 "1" 0 # LINE from SANGER 115.00 to AIRWAYJ2 115.00
1 34366 34368 "1" 0 # LINE from SANGER 115.00 to LASPALMS 115.00
1 34366 34370 "1" 0 # LINE from SANGER 115.00 to MC CALL 115.00
1 34366 34370 "2" 0 # LINE from SANGER 115.00 to MC CALL 115.00
1 34366 34370 "3" 0 # LINE from SANGER 115.00 to MC CALL 115.00

```

```

1 34366 34372 "1" 0 # LINE from SANGER 115.00 to MALAGA 115.00
1 34366 34389 "1" 0 # LINE from SANGER 115.00 to RAINBWTP 115.00
1 34366 34396 "1" 0 # LINE from SANGER 115.00 to PIEDRA 2 115.00
1 34366 34488 "1" 0 # LINE from SANGER 115.00 to SANGER 70.00
2 34366 34590 "1" 0 # TRAN from SANGER 115.00 to SANGR3T 115.00
4 34366 0 "1 " 0 # LOAD-DROP SANGER 115.00 LOAD==24.26(4.93)
0
#
#
# (91) BUS FAULT 34372 "MALAGA"
#
1 34372 34366 "1" 0 # LINE from MALAGA 115.00 to SANGER 115.00
1 34372 34376 "1" 0 # LINE from MALAGA 115.00 to PPG 115.00
1 34372 34379 "1" 0 # LINE from MALAGA 115.00 to MALAGATP 115.00
1 34372 34381 "1" 0 # LINE from MALAGA 115.00 to KRCDP 115.00
4 34372 0 "1 " 0 # LOAD-DROP MALAGA 115.00 LOAD==25.25(5.12)
4 34372 0 "2 " 0 # LOAD-DROP MALAGA 115.00 LOAD==22.76(4.62)
4 34372 0 "3 " 0 # LOAD-DROP MALAGA 115.00 LOAD==23.13(4.69)
0
#
#
# (92) BUS FAULT 34378 "GATES"
#
2 34378 30901 "1" 0 # TRAN from GATES 115.00 to GATES 1M 230.00
2 34378 34552 "2" 0 # TRAN from GATES 115.00 to GATES 70.00
4 34378 0 "3 " 0 # LOAD-DROP GATES 115.00 LOAD==19.45(3.95)
0
#
#
# (93) BUS FAULT 34380 "REEDLEY"
#
1 34380 34384 "1" 0 # LINE from REEDLEY 115.00 to GERAWAN 115.00
1 34380 34394 "1" 0 # LINE from REEDLEY 115.00 to PIEDRA 1 115.00
2 34380 34492 "1" 0 # TRAN from REEDLEY 115.00 to REEDLEY 70.00
2 34380 34492 "2" 0 # TRAN from REEDLEY 115.00 to REEDLEY 70.00
4 34380 0 "3 " 0 # LOAD-DROP REEDLEY 115.00 LOAD==26.17(5.31)
0
#
#
# (94) BUS FAULT 34382 "WAHTOKE"
#
1 34382 34370 "1" 0 # LINE from WAHTOKE 115.00 to MC CALL 115.00
1 34382 34384 "1" 0 # LINE from WAHTOKE 115.00 to GERAWAN 115.00
4 34382 0 "2 " 0 # LOAD-DROP WAHTOKE 115.00 LOAD==30.36(6.17)
4 34382 0 "3 " 0 # LOAD-DROP WAHTOKE 115.00 LOAD==20.84(4.24)
0
#
#
# (95) BUS FAULT 34400 "KNGSRVR1"
#
1 34400 34394 "1" 0 # LINE from KNGSRVR1 115.00 to PIEDRA 1 115.00
2 34400 34616 "1" 0 # TRAN from KNGSRVR1 115.00 to KINGSRIV 13.80
0
#
#
# (96) BUS FAULT 34402 "CAL AVE"
#
1 34402 34390 "1" 0 # LINE from CAL AVE 115.00 to DANISHCM 115.00
1 34402 34404 "1" 0 # LINE from CAL AVE 115.00 to WST FRSO 115.00
4 34402 0 "1 " 0 # LOAD-DROP CAL AVE 115.00 LOAD==28.95(5.87)
4 34402 0 "2 " 0 # LOAD-DROP CAL AVE 115.00 LOAD==31.26(6.35)
4 34402 0 "3 " 0 # LOAD-DROP CAL AVE 115.00 LOAD==24.42(4.96)
0
#
#
# (97) BUS FAULT 34404 "WST FRSO"
#
1 34404 34370 "1" 0 # LINE from WST FRSO 115.00 to MC CALL 115.00
1 34404 34402 "1" 0 # LINE from WST FRSO 115.00 to CAL AVE 115.00
4 34404 0 "1 " 0 # LOAD-DROP WST FRSO 115.00 LOAD==37.55(7.63)

```

```

4 34404      0 "2 "    0      # LOAD-DROP      WST FRSO 115.00  LOAD==39.04(7.93)
0
#
#
# (98) BUS FAULT  34408  "BARTON"
#
1 34408  34359  "1"    0      # LINE from  BARTON  115.00  to  AIRWAYJ2 115.00
1 34408  34412  "1"    0      # LINE from  BARTON  115.00  to  HERNDON  115.00
4 34408      0 "1 "    0      # LOAD-DROP      BARTON  115.00  LOAD==43.27(8.79)
4 34408      0 "2 "    0      # LOAD-DROP      BARTON  115.00  LOAD==37.15(7.54)
4 34408      0 "3 "    0      # LOAD-DROP      BARTON  115.00  LOAD==26.96(5.47)
0
#
#
# (99) BUS FAULT  34410  "MANCHSTR"
#
1 34410  34357  "1"    0      # LINE from  MANCHSTR 115.00  to  AIRWAYJ1 115.00
1 34410  34412  "1"    0      # LINE from  MANCHSTR 115.00  to  HERNDON  115.00
4 34410      0 "1 "    0      # LOAD-DROP      MANCHSTR 115.00  LOAD==25.28(5.13)
4 34410      0 "2 "    0      # LOAD-DROP      MANCHSTR 115.00  LOAD==25.47(5.18)
4 34410      0 "3 "    0      # LOAD-DROP      MANCHSTR 115.00  LOAD==36.21(7.36)
0
#
#
# (100) BUS FAULT  34412  "HERNDON" 115 kV Bus Section 1
#
1 34412  34408  "1"    0      # LINE from  HERNDON  115.00  to  BARTON  115.00
1 34412  34409  "1"    0      # LINE from  HERNDON  115.00  to  PNDLJ2  115.00
2 34412  30882  "1"    0      # TRAN from  HERNDON  115.00  to  HERNDN1M 115.00
0
#
#
# (101) BUS FAULT  34412  "HERNDON" 115 kV Bus Section 2
#
1 34412  34410  "1"    0      # LINE from  HERNDON  115.00  to  MANCHSTR 115.00
1 34412  34411  "1"    0      # LINE from  HERNDON  115.00  to  PNDLJ1  115.00
1 34412  34422  "1"    0      # LINE from  HERNDON  115.00  to  CHLDHOSP 115.00
0
#
#
# (102) BUS FAULT  34413  "PNEDLE"
#
1 34413  34409  "1"    0      # LINE from  PNEDLE  115.00  to  PNDLJ2  115.00
1 34413  34411  "1"    0      # LINE from  PNEDLE  115.00  to  PNDLJ1  115.00
4 34413      0 "2 "    0      # LOAD-DROP      PNEDLE  115.00  LOAD==30.74(6.25)
4 34413      0 "3 "    0      # LOAD-DROP      PNEDLE  115.00  LOAD==40.42(8.20)
0
#
#
# (103) BUS FAULT  34414  "WOODWARD"
#
1 34414  34360  "1"    0      # LINE from  WOODWARD 115.00  to  WWARD JT 115.00
1 34414  34422  "1"    0      # LINE from  WOODWARD 115.00  to  CHLDHOSP 115.00
4 34414      0 "1 "    0      # LOAD-DROP      WOODWARD 115.00  LOAD==42.25(8.58)
4 34414      0 "2 "    0      # LOAD-DROP      WOODWARD 115.00  LOAD==52.69(10.70)
4 34414      0 "3 "    0      # LOAD-DROP      WOODWARD 115.00  LOAD==44.09(8.95)
0
#
#
# (104) BUS FAULT  34416  "BULLARD"
#
1 34416  34409  "1"    0      # LINE from  BULLARD  115.00  to  PNDLJ2  115.00
1 34416  34411  "1"    0      # LINE from  BULLARD  115.00  to  PNDLJ1  115.00
4 34416      0 "1 "    0      # LOAD-DROP      BULLARD  115.00  LOAD==44.87(9.11)
4 34416      0 "2 "    0      # LOAD-DROP      BULLARD  115.00  LOAD==44.65(9.07)
4 34416      0 "3 "    0      # LOAD-DROP      BULLARD  115.00  LOAD==42.52(8.63)
0
#
#
# (105) BUS FAULT  34418  "KINGSBRG" 115 kV Bus Section D

```

```

#
1 34418 34417 "1" 0 # LINE from KINGSBRG 115.00 to KINGS J2 115.00
1 34418 34428 "1" 0 # LINE from KINGSBRG 115.00 to CONTADNA 115.00
1 34418 34420 "2" 0 # LINE from KINGSBRG 115.00 to CORCORAN 115.00
4 34418 0 "1 " 0 # LOAD-DROP KINGSBRG 115.00 LOAD==39.24(7.96)
0
#
#
# (106) BUS FAULT 34418 "KINGSBRG" 115 kV Bus Section E
#
1 34418 34420 "1" 0 # LINE from KINGSBRG 115.00 to CORCORAN 115.00
1 34418 34423 "1" 0 # LINE from KINGSBRG 115.00 to GAURD J1 115.00
2 34418 34576 "2" 0 # TRAN from KINGSBRG 115.00 to KNGLOBUS 70.00
4 34418 0 "3 " 0 # LOAD-DROP KINGSBRG 115.00 LOAD==24.32(4.94)
0
#
#
# (107) BUS FAULT 34420 "CORCORAN"
#
1 34420 34391 "1" 0 # LINE from CORCORAN 115.00 to QUEBECTP 115.00
1 34420 34418 "1" 0 # LINE from CORCORAN 115.00 to KINGSBRG 115.00
1 34420 34418 "2" 0 # LINE from CORCORAN 115.00 to KINGSBRG 115.00
2 34420 34528 "2" 0 # TRAN from CORCORAN 115.00 to CORCORAN 70.00
4 34420 0 "3 " 0 # LOAD-DROP CORCORAN 115.00 LOAD==16.21(3.30)
4 34420 0 "4 " 0 # LOAD-DROP CORCORAN 115.00 LOAD==17.81(3.61)
0
#
#
# (108) BUS FAULT 34426 "ALPAUGH"
#
1 34426 34391 "1" 0 # LINE from ALPAUGH 115.00 to QUEBECTP 115.00
1 34426 34700 "1" 0 # LINE from ALPAUGH 115.00 to SMYRNA 115.00
4 34426 0 "2 " 0 # LOAD-DROP ALPAUGH 115.00 LOAD==5.62(1.14)
0
#
#
# (109) BUS FAULT 34430 "HENRETTA"
#
1 34430 34521 "1" 0 # LINE from HENRETTA 115.00 to LEPRNOFD 115.00
2 34430 30881 "3" 0 # TRAN from HENRETTA 115.00 to HENRIETA 230.00
0
#
#
# (110) BUS FAULT 34452 "WISHON"
#
1 34452 34260 "1" 0 # LINE from WISHON 70.00 to SJNO2 70.00
1 34452 34491 "1" 0 # LINE from WISHON 70.00 to AUBRYTP 70.00
2 34452 34658 "1" 0 # TRAN from WISHON 70.00 to WISHON 2.30
0
#
#
# (111) BUS FAULT 34460 "GUERNSEY"
#
1 34460 34462 "1" 0 # LINE from GUERNSEY 70.00 to GUR3TPT 70.00
1 34460 34528 "1" 0 # LINE from GUERNSEY 70.00 to CORCORAN 70.00
4 34460 0 "1 " 0 # LOAD-DROP GUERNSEY 70.00 LOAD==10.51(2.13)
0
#
#
# (112) BUS FAULT 34464 "COPPRMNE"
#
1 34464 34454 "1" 0 # LINE from COPPRMNE 70.00 to RIVERROC 70.00
1 34464 34478 "1" 0 # LINE from COPPRMNE 70.00 to TVY VLLY 70.00
1 34464 34638 "1" 0 # LINE from COPPRMNE 70.00 to FRANTDM 70.00
1 34464 34491 "1" 0 # LINE from COPPRMNE 70.00 to AUBRYTP 70.00
4 34464 0 "1 " 0 # LOAD-DROP COPPRMNE 70.00 LOAD==22.96(4.67)
0
#
#
# (113) BUS FAULT 34466 "BIOLA"

```

```

#
1 34466 34264 "1" 0 # LINE from BIOLA 70.00 to EL PECO 70.00
1 34466 34482 "1" 0 # LINE from BIOLA 70.00 to OLDKERN 70.00
4 34466 0 "1 " 0 # LOAD-DROP BIOLA 70.00 LOAD==21.80(4.43)
0
#
#
# (114) BUS FAULT 34472 "SAN JOQN"
#
1 34472 34471 "1" 0 # LINE from SAN JOQN 70.00 to SNJQJCT 70.00
1 34472 34473 "1" 0 # LINE from SAN JOQN 70.00 to SNJQTP 70.00
4 34472 0 "1 " 0 # LOAD-DROP SAN JOQN 70.00 LOAD==6.44(1.31)
4 34472 0 "2 " 0 # LOAD-DROP SAN JOQN 70.00 LOAD==3.92(0.79)
0
#
#
# (115) BUS FAULT 34474 "HELM"
#
1 34474 34471 "1" 0 # LINE from HELM 70.00 to SNJQJCT 70.00
1 34474 34473 "1" 0 # LINE from HELM 70.00 to SNJQTP 70.00
1 34474 34556 "1" 0 # LINE from HELM 70.00 to STRD JCT 70.00
1 34474 34564 "1" 0 # LINE from HELM 70.00 to STROUD 70.00
2 34474 30873 "1" 0 # TRAN from HELM 70.00 to HELM 230.00
0
#
#
# (116) BUS FAULT 34478 "TVY VLLY"
#
1 34478 34464 "1" 0 # LINE from TVY VLLY 70.00 to COPPRMNE 70.00
1 34478 34492 "1" 0 # LINE from TVY VLLY 70.00 to REEDLEY 70.00
4 34478 0 "1 " 0 # LOAD-DROP TVY VLLY 70.00 LOAD==10.27(2.09)
0
#
#
# (117) BUS FAULT 34480 "KEARNEY"
#
1 34480 34481 "1" 0 # LINE from KEARNEY 70.00 to FRWWTAP 70.00
1 34480 34482 "1" 0 # LINE from KEARNEY 70.00 to OLDKERN 70.00
1 34480 34512 "1" 0 # LINE from KEARNEY 70.00 to CARUTHRS 70.00
2 34480 30830 "2" 0 # TRAN from KEARNEY 70.00 to KEARNEY 230.00
0
#
#
# (118) BUS FAULT 34484 "KERMAN"
#
1 34484 34475 "1" 0 # LINE from KERMAN 70.00 to AGRCJCT 70.00
1 34484 34481 "1" 0 # LINE from KERMAN 70.00 to FRWWTAP 70.00
4 34484 0 "1 " 0 # LOAD-DROP KERMAN 70.00 LOAD==19.44(3.95)
4 34484 0 "2 " 0 # LOAD-DROP KERMAN 70.00 LOAD==11.78(2.39)
0
#
#
# (119) BUS FAULT 34486 "CALIFRNV"
#
1 34486 34488 "1" 0 # LINE from CALIFRNV 70.00 to SANGER 70.00
1 34486 34488 "2" 0 # LINE from CALIFRNV 70.00 to SANGER 70.00
0
#
#
# (120) BUS FAULT 34488 "SANGER"
#
1 34488 34486 "1" 0 # LINE from SANGER 70.00 to CALIFRNV 70.00
1 34488 34486 "2" 0 # LINE from SANGER 70.00 to CALIFRNV 70.00
1 34488 34366 "1" 0 # LINE from SANGER 70.00 to SANGER 115.00
1 34488 34487 "1" 0 # LINE from SANGER 70.00 to SNGRJCT 70.00
2 34488 34590 "1" 0 # TRAN from SANGER 70.00 to SANGR3T 115.00
0
#
#
# (121) BUS FAULT 34492 "REEDLEY"

```

```

#
1 34492 34478 "1" 0 # LINE from REEDLEY 70.00 to TVY VLLY 70.00
1 34492 34490 "1" 0 # LINE from REEDLEY 70.00 to PARLIER 70.00
1 34492 34497 "1" 0 # LINE from REEDLEY 70.00 to DNUBAJCT 70.00
1 34492 34526 "1" 0 # LINE from REEDLEY 70.00 to ORSI JCT 70.00
2 34492 34380 "1" 0 # TRAN from REEDLEY 70.00 to REEDLEY 115.00
2 34492 34380 "2" 0 # TRAN from REEDLEY 70.00 to REEDLEY 115.00
4 34492 0 "1 " 0 # LOAD-DROP REEDLEY 70.00 LOAD==17.42(3.54)
0
#
#
# (122) BUS FAULT 34500 "DINUBA"
#
1 34500 34496 "1" 0 # LINE from DINUBA 70.00 to STCRRL J 70.00
1 34500 34497 "1" 0 # LINE from DINUBA 70.00 to DNUBAJCT 70.00
4 34500 0 "1 " 0 # LOAD-DROP DINUBA 70.00 LOAD==19.23(3.91)
4 34500 0 "2 " 0 # LOAD-DROP DINUBA 70.00 LOAD==9.33(1.90)
0
#
#
# (123) BUS FAULT 34512 "CARUTHRS"
#
1 34512 34480 "1" 0 # LINE from CARUTHRS 70.00 to KEARNEY 70.00
1 34512 34510 "1" 0 # LINE from CARUTHRS 70.00 to CMDN JCT 70.00
4 34512 0 "1 " 0 # LOAD-DROP CARUTHRS 70.00 LOAD==19.63(3.98)
0
#
#
# (124) BUS FAULT 34518 "LEMOORE"
#
1 34518 34520 "1" 0 # LINE from LEMOORE 70.00 to LPRNO TP 70.00
1 34518 34522 "1" 0 # LINE from LEMOORE 70.00 to HNF RD SW 70.00
4 34518 0 "1 " 0 # LOAD-DROP LEMOORE 70.00 LOAD==18.86(3.83)
4 34518 0 "2 " 0 # LOAD-DROP LEMOORE 70.00 LOAD==32.81(6.66)
0
#
#
# (125) BUS FAULT 34528 "CORCORAN"
#
1 34528 34460 "1" 0 # LINE from CORCORAN 70.00 to GUERNSEY 70.00
1 34528 34530 "1" 0 # LINE from CORCORAN 70.00 to BSWLL TP 70.00
2 34528 34420 "2" 0 # TRAN from CORCORAN 70.00 to CORCORAN 115.00
0
#
#
# (126) BUS FAULT 34540 "HENRITTA"
#
1 34540 34514 "1" 0 # LINE from HENRITTA 70.00 to MUSLSLGH 70.00
1 34540 34520 "1" 0 # LINE from HENRITTA 70.00 to LPRNO TP 70.00
1 34540 34537 "1" 0 # LINE from HENRITTA 70.00 to GWF_HENR 70.00
1 34540 34542 "1" 0 # LINE from HENRITTA 70.00 to JCBSCRNR 70.00
1 34540 34544 "1" 0 # LINE from HENRITTA 70.00 to TLRE LKE 70.00
2 34540 30881 "2" 0 # TRAN from HENRITTA 70.00 to HENRIETA 230.00
2 34540 30881 "4" 0 # TRAN from HENRITTA 70.00 to HENRIETA 230.00
4 34540 0 "1 " 0 # LOAD-DROP HENRITTA 70.00 LOAD==8.20(1.67)
0
#
#
# (127) BUS FAULT 34544 "TLRE LKE"
#
1 34544 34540 "1" 0 # LINE from TLRE LKE 70.00 to HENRITTA 70.00
1 34544 34550 "1" 0 # LINE from TLRE LKE 70.00 to CHEVPLIN 70.00
1 34544 34580 "1" 0 # LINE from TLRE LKE 70.00 to BDGR HLL 70.00
4 34544 0 "1 " 0 # LOAD-DROP TLRE LKE 70.00 LOAD==6.79(1.38)
0
#
#
# (128) BUS FAULT 34552 "GATES"
#
1 34552 34548 "1" 0 # LINE from GATES 70.00 to KETTLEMN 70.00

```

```

1 34552 34184 "1" 0 # LINE from GATES 70.00 to GATS2_TP 70.00
1 34552 34558 "1" 0 # LINE from GATES 70.00 to HURON 70.00
1 34552 34558 "2" 0 # LINE from GATES 70.00 to HURON 70.00
1 34552 34578 "1" 0 # LINE from GATES 70.00 to JACALITO 70.00
2 34552 34378 "2" 0 # TRAN from GATES 70.00 to GATES 115.00
0
#
#
# (129) BUS FAULT 34558 "HURON"
#
1 34558 34552 "1" 0 # LINE from HURON 70.00 to GATES 70.00
1 34558 34552 "2" 0 # LINE from HURON 70.00 to GATES 70.00
1 34558 34560 "1" 0 # LINE from HURON 70.00 to CALFLAX 70.00
4 34558 34552 "1 " 1 # LOAD-TRANSFER HURON 70.00 TO GATES 70.00
LOAD==15.33(3.11)
0
#
#
# (130) BUS FAULT 34562 "SCHLNDLR"
#
1 34562 34556 "1" 0 # LINE from SCHLNDLR 70.00 to STRD JCT 70.00
1 34562 34560 "1" 0 # LINE from SCHLNDLR 70.00 to CALFLAX 70.00
1 34562 34566 "1" 0 # LINE from SCHLNDLR 70.00 to PLSNTVLY 70.00
2 34562 34354 "1" 0 # TRAN from SCHLNDLR 70.00 to SCHINDLR 115.00
4 34562 0 "1 " 0 # LOAD-DROP SCHLNDLR 70.00 LOAD==9.59(1.95)
0
#
#
# (131) BUS FAULT 34564 "STROUD"
#
1 34564 34556 "1" 0 # LINE from STROUD 70.00 to STRD JCT 70.00
1 34564 34474 "1" 0 # LINE from STROUD 70.00 to HELM 70.00
4 34564 0 "1 " 0 # LOAD-DROP STROUD 70.00 LOAD==13.09(2.66)
0
#
#
# (132) BUS FAULT 34570 "COLNGA 2"
#
1 34570 34184 "1" 0 # LINE from COLNGA 2 70.00 to GATS2_TP 70.00
1 34570 34566 "1" 0 # LINE from COLNGA 2 70.00 to PLSNTVLY 70.00
1 34570 34572 "1" 0 # LINE from COLNGA 2 70.00 to TORNADO 70.00
2 34570 34652 "1" 0 # TRAN from COLNGA 2 70.00 to CHV.COAL 9.11
4 34570 0 "1 " 0 # LOAD-DROP COLNGA 2 70.00 LOAD==8.23(1.67)
0
#
#
# (133) BUS FAULT 34574 "COLNGA 1"
#
1 34574 34572 "1" 0 # LINE from COLNGA 1 70.00 to TORNADO 70.00
1 34574 34578 "1" 0 # LINE from COLNGA 1 70.00 to JACALITO 70.00
1 34574 36354 "1" 0 # LINE from COLNGA 1 70.00 to SAN MIGL 70.00
4 34574 0 "1 " 0 # LOAD-DROP COLNGA 1 70.00 LOAD==9.34(1.90)
4 34574 0 "2 " 0 # LOAD-DROP COLNGA 1 70.00 LOAD==9.99(2.03)
0
#
#
# (134) BUS FAULT 34576 "KNGLOBUS"
#
1 34576 34456 "1" 0 # LINE from KNGLOBUS 70.00 to HRDWK TP 70.00
1 34576 34508 "1" 0 # LINE from KNGLOBUS 70.00 to CAMDEN 70.00
2 34576 34418 "2" 0 # TRAN from KNGLOBUS 70.00 to KINGSBRG 115.00
0
#
#
-1
# EOF

```



## Summer Off-Peak Category B Contingencies

```
# Q299 2013 sumop category b contingency list
# Yosemite and Fresno Divisions Zones 313 and 314
#
# 2013 sumop category b contingency list
# Yosemite Zone 313
#
# (1) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30515 30800 "1 " 0 # line from WARNERVL 230.00 BRKR to BRKR WILSON
230.00
0
#
# (2) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30670 30765 "1 " 0 # line from WESTLEY 230.00 BRKR to BRKR LOSBANOS
230.00
0
#
# (3) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30750 30790 "1 " 0 # line from MOSSLND2 230.00 BRKR to BRKR PANOCHE
230.00
0
#
# (4) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30760 30790 "1 " 0 # line from COBURN 230.00 BRKR to BRKR PANOCHE
230.00
0
#
# (5) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30765 30790 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR PANOCHE
230.00
0
#
# (6) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30765 30790 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR PANOCHE
230.00
0
#
# (7) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30765 38615 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR DS AMIGO
230.00
0
#
# (8) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30765 38625 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
0
#
# (9) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
```

```

1 30765 38625 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
0
#
#
# (10) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30790 30793 "1 " 0 # line from PANOCHE 230.00 BRKR to (3) PANO_EC
230.00
2 30793 34326 "1 " 0 # TRAN from PANO_EC 230.00 (3) to (1) PANO_BS1
13.80
2 30793 34327 "1 " 0 # TRAN from PANO_EC 230.00 (3) to (1) PANO_BS2
13.80
4 34326 0 "ss" 0 # LOAD-DROP PANO_BS1 13.80 LOAD==4.50(2.49)
4 34327 0 "ss" 0 # LOAD-DROP PANO_BS2 13.80 LOAD==4.50(2.49)
3 34326 0 "1 " 0 # GEN-DROP PANO_BS1 13.80 GEN==102.50(20.25)
3 34326 0 "2 " 0 # GEN-DROP PANO_BS1 13.80 GEN==102.50(20.25)
3 34327 0 "3 " 0 # GEN-DROP PANO_BS2 13.80 GEN==102.50(20.25)
3 34327 0 "4 " 0 # GEN-DROP PANO_BS2 13.80 GEN==102.50(20.25)
0
#
#
# (11) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
# sumop outage
1 30790 30825 "1 " 0 # line from PANOCHE 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
3 34600 0 "***" 0 # Trip Helms 1 for Panoche - Kearney 230 kV line outage
HTT/RAS
0
#
#
# (12) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30790 30873 "1 " 0 # line from PANOCHE 230.00 BRKR to BRKR HELM
230.00
0
#
#
# (13) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30790 30900 "1 " 0 # line from PANOCHE 230.00 BRKR to BRKR GATES
230.00
0
#
#
# (14) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30790 30900 "2 " 0 # line from PANOCHE 230.00 BRKR to BRKR GATES
230.00
0
#
#
# (15) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30795 30805 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR BORDEN
230.00
1 30795 30800 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR WILSON
230.00
4 30795 0 "2 " 0 # LOAD-DROP STOREY 2 230.00 LOAD==33.89(6.88)
0
#
#
# (16) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30796 30800 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR WILSON
230.00

```

```

1 30796 30805 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR BORDEN
230.00
4 30796 0 "1 " 0 # LOAD-DROP STOREY 1 230.00 LOAD==37.87(7.69)
0
#
#
# (17) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30805 30806 "1 " 0 # line from BORDEN 230.00 BRKR to BRKR Q196
230.00
0
#
#
# (18) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30805 30806 "2 " 0 # line from BORDEN 230.00 BRKR to BRKR Q196
230.00
0
#
#
# (19) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30805 30810 "1 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden line
0
#
#
# (20) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30805 30810 "2 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden #2 line
0
#
#
# (21) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34017 34010 "1 " 0 # line from CRWS LDG 60.00 (1) to (3) CRWS LDJ
60.00
1 34010 34006 "1 " 0 # line from CRWS LDJ 60.00 (3) to BRKR PATTERNS
60.00
1 34010 34012 "1 " 0 # line from CRWS LDJ 60.00 (3) to (2) GUSTN JT
60.00
1 34012 34014 "1 " 0 # line from GUSTN JT 60.00 (2) to BRKR NEWMAN
60.00
4 34017 0 "1 " 0 # LOAD-DROP CRWS LDG 60.00 LOAD==3.73(0.17)
1 34016 34017 "1 " 1 # Switches in Crows Landing SW 57 to transfer load
4 34017 0 "***" 1 # Restore Load at Crows Landing
0
#
#
# (22) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34100 34101 "1 " 0 # line from CHWCHLLA 115.00 BRKR to (3) CERTAN T
115.00
1 34101 34116 "1 " 0 # line from CERTAN T 115.00 (3) to BRKR LE GRAND
115.00
1 34101 34107 "1 " 0 # line from CERTAN T 115.00 (3) to (2) CERTANJ2
115.00
1 34107 34103 "1 " 0 # line from CERTANJ2 115.00 (2) to (3) CHWCGNJT
115.00
1 34103 34102 "1 " 0 # line from CHWCGNJT 115.00 (3) to (1) CERTTEED
115.00
1 34103 34109 "1 " 0 # line from CHWCGNJT 115.00 (3) to (3) CHWCGN
115.00
1 34109 34111 "1 " 0 # line from CHWCGN 115.00 (3) to (2) CHWCHLA2
115.00
2 34109 34301 "1 " 0 # TRAN from CHWCGN 115.00 (3) to (1) CHOWCOGN
13.80

```

```

2 34111 34305 "1 " 0 # TRAN from CHWCHLA2 115.00 (2) to (1) CHWCHLA2
13.80
4 34102 0 "1 " 0 # LOAD-DROP CERTTEED 115.00 LOAD==9.94(6.94)
4 34305 0 "ss" 0 # LOAD-DROP CHWCHLA2 13.80 LOAD==2.00(1.11)
3 34301 0 "1 " 0 # GEN-DROP CHOWCOGN 13.80 GEN==50.00(4.33)
3 34305 0 "1 " 0 # GEN-DROP CHWCHLA2 13.80 GEN==12.50(7.30)
0
#
#
# (23) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34104 34106 "1 " 0 # line from ATWATER 115.00 BRKR to (2) CASTLE
115.00
1 34106 34138 "1 " 0 # line from CASTLE 115.00 (2) to BRKR EL CAPTN
115.00
0
#
#
# (24) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34104 34108 "1 " 0 # line from ATWATER 115.00 BRKR to (3) CRESEY T
115.00
1 34108 34110 "1 " 0 # line from CRESEY T 115.00 BRKR to (1) ATWATR J
115.00
1 34108 34114 "1 " 0 # line from CRESEY T 115.00 (3) to (3) JRWD GEN
115.00
1 34114 34124 "1 " 0 # line from JRWD GEN 115.00 (3) to (2) JR WOOD
115.00
2 34114 34332 "1 " 0 # TRAN from JRWD GEN 115.00 (3) to (1) JRWCOGEN
9.11
1 34124 34140 "1 " 0 # line from JR WOOD 115.00 (2) to (1) CRESSEY
115.00
4 34124 0 "1 " 0 # LOAD-DROP JR WOOD 115.00 LOAD==11.70(10.32)
4 34140 0 "1 " 0 # LOAD-DROP CRESSEY 115.00 LOAD==19.02(3.86)
3 34332 0 "1 " 0 # GEN-DROP JRWCOGEN 9.11 GEN==3.80(5.40)
0
#
#
# (25) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34105 34100 "1 " 0 # line from CERTANJ1 115.00 (2) to BRKR CHWCHLLA
115.00
1 34105 34121 "1 " 0 # line from CERTANJ1 115.00 (2) to (3) SHARON T
115.00
1 34121 34120 "1 " 0 # line from SHARON T 115.00 (3) to (1) SHARON
115.00
1 34121 34128 "1 " 0 # line from SHARON T 115.00 (3) to (3) OAKH_JCT
115.00
1 34128 34126 "1 " 0 # line from OAKH_JCT 115.00 (3) to (2) CORSGOLD
115.00
1 34128 34123 "1 " 0 # line from OAKH_JCT 115.00 (3) to (2) K1-JCT
115.00
1 34126 34122 "1 " 0 # line from CORSGOLD 115.00 (2) to (1) OAKHURST
115.00
1 34123 34358 "2 " 0 # line from K1-JCT 115.00 (2) to BRKR KERCKHF2
115.00
4 34120 0 "1 " 0 # LOAD-DROP SHARON 115.00 LOAD==7.10(4.96)
4 34126 0 "1 " 0 # LOAD-DROP CORSGOLD 115.00 LOAD==2.21(0.45)
4 34126 0 "2 " 0 # LOAD-DROP CORSGOLD 115.00 LOAD==26.19(5.32)
4 34122 0 "1 " 0 # LOAD-DROP OAKHURST 115.00 LOAD==11.68(2.37)
4 34122 0 "2 " 0 # LOAD-DROP OAKHURST 115.00 LOAD==15.01(3.05)
0
#
#
# (26) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34108 34110 "1 " 0 # line from CRESEY T 115.00 BRKR to (3) ATWATR J
115.00
1 34110 34130 "1 " 0 # line from ATWATR J 115.00 (3) to (2) LIVNGSTN
115.00

```

```

1 34110 34144 "1 " 0 # line from ATWATR J 115.00 (3) to BRKR MERCED
115.00
1 34130 34132 "1 " 0 # line from LIVNGSTN 115.00 (2) to (1) GALLO
115.00
4 34130 0 "3 " 0 # LOAD-DROP LIVNGSTN 115.00 LOAD==24.58(5.00)
4 34132 0 "1 " 0 # LOAD-DROP GALLO 115.00 LOAD==4.30(3.68)
0
#
#
# (27) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34112 34116 "1 " 0 # line from EXCHEQUR 115.00 BRKR to BRKR LE GRAND
115.00
3 34306 0 "1 " 0 # Exchequer Unit will trip for this outage
4 34228 0 "***" 0 # Mariposa Loads will drop if bus is below 64 kV, this is
anticipate
0
#
#
# (28) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34116 34134 "1 " 0 # line from LE GRAND 115.00 BRKR to BRKR WILSON A
115.00
0
#
#
# (29) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34116 34154 "1 " 0 # line from LE GRAND 115.00 BRKR to BRKR DAIRYLND
115.00
0
#
#
# (30) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34118 34136 "1 " 0 # line from LE GRNDJ 115.00 (2) to BRKR WILSON B
115.00
1 34118 34168 "1 " 0 # line from LE GRNDJ 115.00 (2) to (2) EL NIDO
115.00
1 34168 34162 "1 " 0 # line from EL NIDO 115.00 (2) to BRKR ORO LOMA
115.00
4 34168 0 "1 " 0 # LOAD-DROP EL NIDO 115.00 LOAD==12.49(2.54)
4 34168 0 "2 " 0 # LOAD-DROP EL NIDO 115.00 LOAD==15.00(3.05)
0
#
#
# (31) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34134 34104 "1 " 0 # line from WILSON A 115.00 BRKR to BRKR ATWATER
115.00
0
#
#
# (32) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34134 34136 "1 " 0 # line from WILSON A 115.00 BRKR to BRKR WILSON B
115.00
0
#
#
# (33) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34134 34144 "1 " 0 # line from WILSON A 115.00 BRKR to BRKR MERCED
115.00
0
#
#
# (34) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#

```

```

1 34136 34138 "1 " 0 # line from WILSON B 115.00 BRKR to BRKR EL CAPTN
115.00
0
#
#
# (35) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34136 34144 "2 " 0 # line from WILSON B 115.00 BRKR to BRKR MERCED
115.00
0
#
#
# (36) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34141 34148 "1 " 0 # line from PAN2_TAP 115.00 (2) to (2) CHENY
115.00
2 34141 34142 "1 " 0 # TRAN from PAN2_TAP 115.00 (2) to (1) WHD_PAN2
13.80
1 34148 34149 "1 " 0 # line from CHENY 115.00 (2) to (3) CHENYT
115.00
1 34149 34158 "1 " 0 # line from CHENYT 115.00 (3) to BRKR PANOCHE
115.00
1 34149 34354 "1 " 0 # line from CHENYT 115.00 (3) to BRKR SCHINDLR
115.00
4 34148 0 "1 " 0 # LOAD-DROP CHENY 115.00 LOAD==13.12(2.66)
3 34142 0 "1 " 0 # GEN-DROP WHD_PAN2 13.80 GEN==49.00(4.03)
0
#
#
# (37) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34150 34154 "1 " 0 # line from NEWHALL 115.00 (2) to BRKR DAIRYLND
115.00
1 34150 34178 "1 " 0 # line from NEWHALL 115.00 (2) to (3) MADERAPR
115.00
1 34178 34156 "1 " 0 # line from MADERAPR 115.00 (3) to BRKR MENDOTA
115.00
2 34178 34179 "1 " 0 # TRAN from MADERAPR 115.00 (3) to (1) MADERA_G
13.80
4 34150 0 "2 " 0 # LOAD-DROP NEWHALL 115.00 LOAD==8.55(1.73)
4 34150 0 "3 " 0 # LOAD-DROP NEWHALL 115.00 LOAD==10.62(2.16)
4 34179 0 "ss" 0 # LOAD-DROP MADERA_G 13.80 LOAD==3.60(0.85)
3 34179 0 "1 " 0 # GEN-DROP MADERA_G 13.80 GEN==28.60(6.34)
0
#
#
# (38) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34157 34156 "1 " 0 # line from PANOCHET 115.00 (2) to BRKR MENDOTA
115.00
1 34157 34158 "1 " 0 # line from PANOCHET 115.00 (2) to BRKR PANOCHE
115.00
3 34186 0 "1 " 0 # DG_PAN Unit trips for Panoche - Mendota 115 kV outage
0
#
#
# (39) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34158 34189 "1 " 0 # line from PANOCHE 115.00 BRKR to (3) STARWOOD
115.00
2 34189 34328 "1 " 0 # TRAN from STARWOOD 115.00 (3) to (1) STARGET1
13.80
2 34189 34329 "1 " 0 # TRAN from STARWOOD 115.00 (3) to (1) STARGET2
13.80
4 34328 0 "ss" 0 # LOAD-DROP STARGET1 13.80 LOAD==1.00(0.55)
4 34329 0 "ss" 0 # LOAD-DROP STARGET2 13.80 LOAD==1.00(0.55)
3 34328 0 "1 " 0 # GEN-DROP STARGET1 13.80 GEN==60.94(9.59)
3 34329 0 "2 " 0 # GEN-DROP STARGET2 13.80 GEN==60.94(9.59)
0
#

```

```

#
# (40) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34158 34350 "1 " 0 # line from PANOCHE 115.00 BRKR to (2) KAMM
115.00
1 34350 34352 "1 " 0 # line from KAMM 115.00 (2) to (2) CANTUA
115.00
1 34352 34432 "1 " 0 # line from CANTUA 115.00 (2) to (2) WESTLNDS
115.00
1 34432 34354 "1 " 0 # line from WESTLNDS 115.00 (2) to BRKR SCHINDLR
115.00
4 34350 0 "1 " 0 # LOAD-DROP KAMM 115.00 LOAD==3.85(1.75)
4 34352 0 "1 " 0 # LOAD-DROP CANTUA 115.00 LOAD==16.79(3.41)
4 34432 0 "16" 0 # LOAD-DROP WESTLNDS 115.00 LOAD==0.94(0.23)
4 34432 0 "18" 0 # LOAD-DROP WESTLNDS 115.00 LOAD==1.21(0.32)
0
#
#
# (41) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34159 34158 "1 " 0 # line from PANOCHEJ 115.00 (3) to BRKR PANOCHE
115.00
1 34159 34160 "1 " 0 # line from PANOCHEJ 115.00 (3) to (2) HAMMONDS
115.00
1 34159 34180 "1 " 0 # line from PANOCHEJ 115.00 (3) to (3) OXFRDJCT
115.00
1 34160 34161 "1 " 0 # line from HAMMONDS 115.00 (2) to (3) DFSTP
115.00
1 34161 34162 "1 " 0 # line from DFSTP 115.00 (3) to BRKR ORO LOMA
115.00
1 34161 34164 "1 " 0 # line from DFSTP 115.00 (3) to (1) DFS
115.00
1 34180 34166 "1 " 0 # line from OXFRDJCT 115.00 (3) to (1) OXFORD
115.00
1 34180 34181 "1 " 0 # line from OXFRDJCT 115.00 (3) to (3) WSTLDJCT
115.00
1 34181 34182 "1 " 0 # line from WSTLDJCT 115.00 (3) to (1) WSTLD1RA
115.00
1 34181 34183 "1 " 0 # line from WSTLDJCT 115.00 (3) to (3) LUISJCT
115.00
1 34183 34163 "1 " 0 # line from LUISJCT 115.00 (3) to (1) LUIS_#3
115.00
1 34183 34165 "1 " 0 # line from LUISJCT 115.00 (3) to (1) LUIS_#5
115.00
4 34160 0 "1 " 0 # LOAD-DROP HAMMONDS 115.00 LOAD==10.00(2.03)
4 34164 0 "1 " 0 # LOAD-DROP DFS 115.00 LOAD==1.37(1.06)
4 34166 0 "1 " 0 # LOAD-DROP OXFORD 115.00 LOAD==3.87(1.76)
4 34182 0 "1 " 0 # LOAD-DROP WSTLD1RA 115.00 LOAD==2.98(0.71)
4 34163 0 "1 " 0 # LOAD-DROP LUIS_#3 115.00 LOAD==3.30(0.78)
4 34165 0 "1 " 0 # LOAD-DROP LUIS_#5 115.00 LOAD==3.40(0.81)
0
#
#
# (42) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34172 34170 "1 " 0 # line from WESTLAND 70.00 (2) to (1) WESIX
70.00
1 34172 34271 "1 " 0 # line from WESTLAND 70.00 (2) to (3) WSTLDJCT
70.00
1 34271 34269 "1 " 0 # line from WSTLDJCT 70.00 (3) to (3) BIOMSJCT
70.00
1 34271 34469 "1 " 0 # line from WSTLDJCT 70.00 (3) to (3) GFFNJCT
70.00
1 34269 34268 "1 " 0 # line from BIOMSJCT 70.00 (3) to BRKR MENDOTA
70.00
1 34269 34270 "1 " 0 # line from BIOMSJCT 70.00 (3) to (2) BIOMASS
70.00
2 34270 34334 "1 " 0 # TRAN from BIOMASS 70.00 (2) to (1) BIO PWR
9.11

```

```

1 34469 34470 "1 " 0 # line from GFFNJCT 70.00 (3) to (1) GIFFEN
70.00
1 34469 34471 "1 " 0 # line from GFFNJCT 70.00 (3) to (3) SNJQJCT
70.00
1 34471 34472 "1 " 0 # line from SNJQJCT 70.00 (3) to BRKR SAN JOQN
70.00
1 34471 34474 "1 " 0 # line from SNJQJCT 70.00 (3) to BRKR HELM
70.00
4 34172 0 "1 " 0 # LOAD-DROP WESTLAND 70.00 LOAD==3.20(0.76)
4 34170 0 "1 " 0 # LOAD-DROP WESIX 70.00 LOAD==1.60(0.38)
4 34470 0 "1 " 0 # LOAD-DROP GIFFEN 70.00 LOAD==9.59(1.95)
3 34334 0 "1 " 0 # GEN-DROP BIO PWR 9.11 GEN==21.80(10.99)
1 34472 34473 "1 " 1 # Switches in San Joaquin CB22 to transfer load
4 34472 0 "***" 1 # Restore Load at San Joaquin
0
#
#
# (43) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34200 34218 "1 " 0 # line from ORO LOMA 70.00 BRKR to (2) DOS PALS
70.00
1 34218 34216 "1 " 0 # line from DOS PALS 70.00 (2) to BRKR SNTA RTA
70.00
4 34218 0 "1 " 0 # LOAD-DROP DOS PALS 70.00 LOAD==10.29(2.09)
0
#
#
# (44) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34200 34222 "1 " 0 # line from ORO LOMA 70.00 BRKR to (3) MRCYSPRS
70.00
1 34222 34220 "1 " 0 # line from MRCYSPRS 70.00 (3) to (2) ORTIGA
70.00
1 34222 34224 "1 " 0 # line from MRCYSPRS 70.00 (3) to (2) ARBURUA
70.00
1 34220 34206 "1 " 0 # line from ORTIGA 70.00 (2) to BRKR CANAL
70.00
1 34224 34272 "1 " 0 # line from ARBURUA 70.00 (2) to (2) WRGHT PP
70.00
1 34272 34214 "1 " 0 # line from WRGHT PP 70.00 (2) to BRKR LOS BANS
70.00
4 34220 0 "1 " 0 # LOAD-DROP ORTIGA 70.00 LOAD==6.88(1.40)
4 34224 0 "1 " 0 # LOAD-DROP ARBURUA 70.00 LOAD==3.77(1.83)
4 34272 0 "1 " 0 # LOAD-DROP WRGHT PP 70.00 LOAD==9.50(1.93)
0
#
#
# (45) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34200 34234 "1 " 0 # line from ORO LOMA 70.00 BRKR to (2) POSO J1
70.00
1 34234 34266 "1 " 0 # line from POSO J1 70.00 (2) to (2) FIREBAGH
70.00
1 34266 34267 "1 " 0 # line from FIREBAGH 70.00 (2) to (2) TOMATAK
70.00
1 34267 34268 "1 " 0 # line from TOMATAK 70.00 (2) to BRKR MENDOTA
70.00
4 34266 0 "1 " 0 # LOAD-DROP FIREBAGH 70.00 LOAD==11.13(2.26)
4 34267 0 "1 " 0 # LOAD-DROP TOMATAK 70.00 LOAD==6.40(4.97)
0
#
#
# (46) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34202 34203 "1 " 0 # line from MERCED 70.00 BRKR to (3) ELNIDOTP
70.00
1 34203 34205 "1 " 0 # line from ELNIDOTP 70.00 (3) to (2) ELNIDO
70.00
1 34203 34236 "1 " 0 # line from ELNIDOTP 70.00 (3) to (1) POSO J2
70.00

```



```

2 34205 34330 "1 " 0 # TRAN from ELNIDO 70.00 (2) to (1) ELNIDO
13.80
4 34330 0 "ss" 0 # LOAD-DROP ELNIDO 13.80 LOAD==2.00(1.11)
3 34330 0 "1 " 0 # GEN-DROP ELNIDO 13.80 GEN==12.50(5.69)
0
#
#
# (47) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34202 34230 "1 " 0 # line from MERCED 70.00 BRKR to BRKR MRCDFLLS
70.00
0
#
#
# (48) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34204 34212 "1 " 0 # line from LIVNGSTN 70.00 (1) to (3) LVNGSTNT
70.00
1 34212 34206 "1 " 0 # line from LVNGSTNT 70.00 (3) to BRKR CANAL
70.00
1 34212 34210 "1 " 0 # line from LVNGSTNT 70.00 (3) to (2) SNTA NLA
70.00
1 34210 34208 "1 " 0 # line from SNTA NLA 70.00 (2) to (2) CHEVPIPE
70.00
1 34208 34214 "1 " 0 # line from CHEVPIPE 70.00 (2) to BRKR LOS BANS
70.00
4 34204 0 "2 " 0 # LOAD-DROP LIVNGSTN 70.00 LOAD==5.51(1.12)
4 34210 0 "1 " 0 # LOAD-DROP SNTA NLA 70.00 LOAD==6.75(1.37)
4 34210 0 "2 " 0 # LOAD-DROP SNTA NLA 70.00 LOAD==9.50(1.93)
4 34208 0 "1 " 0 # LOAD-DROP CHEVPIPE 70.00 LOAD==0.63(0.42)
0
#
#
# (49) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34206 34216 "1 " 0 # line from CANAL 70.00 BRKR to BRKR SNTA RTA
70.00
0
#
#
# (50) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34214 34278 "1 " 0 # line from LOS BANS 70.00 BRKR to (2) PCHCO PP
70.00
1 34278 34280 "1 " 0 # line from PCHCO PP 70.00 (2) to (2) INTL TUR
70.00
2 34280 34342 "1 " 0 # TRAN from INTL TUR 70.00 (2) to (1) INT.TURB
9.11
4 34278 0 "1 " 0 # LOAD-DROP PCHCO PP 70.00 LOAD==18.00(4.10)
3 34342 0 "1 " 0 # GEN-DROP INT.TURB 9.11 GEN==1.10(0.00)
0
#
#
# (51) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34214 34282 "1 " 0 # line from LOS BANS 70.00 BRKR to (2) ONLL PMP
69.00
2 34282 34316 "1 " 0 # TRAN from ONLL PMP 69.00 (2) to (1) ONEILPMP
9.11
4 34282 0 "1 " 0 # LOAD-DROP ONLL PMP 69.00 LOAD==6.00(1.20)
3 34316 0 "1 " 0 # GEN-DROP ONEILPMP 9.11 GEN==0.50(0.00)
0
#
#
# (52) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34228 34232 "1 " 0 # line from MARIPOS2 70.00 (1) to BRKR EXCHEQR
70.00
4 34228 0 "1 " 0 # LOAD-DROP MARIPOS2 70.00 LOAD==9.01(1.83)
4 34228 0 "2 " 0 # LOAD-DROP MARIPOS2 70.00 LOAD==9.37(1.90)

```

```

1 34228 34244 "1 " 1 # Switches in Mariposa SW 39 to transfer load
4 34228 0 "***" 1 # Restore Load at Mariposa
0
#
#
# (53) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34232 34242 "1 " 0 # line from EXCHEQUR 70.00 BRKR to (2) BER VLLY
70.00
1 34242 34244 "1 " 0 # line from BER VLLY 70.00 (2) to (2) BRCEBG J
70.00
1 34244 34246 "1 " 0 # line from BRCEBG J 70.00 (2) to (3) SAXONCRK
70.00
1 34246 34248 "1 " 0 # line from SAXONCRK 70.00 (3) to (2) INDN FLT
70.00
2 34246 34346 "1 " 0 # TRAN from SAXONCRK 70.00 (3) to (1) SAXNCK L
4.16
1 34248 34250 "1 " 0 # line from INDN FLT 70.00 (2) to (1) YOSEMITE
70.00
4 34242 0 "1 " 0 # LOAD-DROP BER VLLY 70.00 LOAD==5.91(1.20)
4 34246 0 "1 " 0 # LOAD-DROP SAXONCRK 70.00 LOAD==0.03(0.02)
4 34248 0 "1 " 0 # LOAD-DROP INDN FLT 70.00 LOAD==2.02(0.41)
4 34250 0 "1 " 0 # LOAD-DROP YOSEMITE 70.00 LOAD==2.90(0.00)
0
#
#
# (54) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34237 34255 "1 " 0 # line from CANANDGA 70.00 (2) to (3) TRIGO J
70.00
1 34237 34240 "1 " 0 # line from CANANDGA 70.00 (2) to BRKR GLASS
70.00
1 34255 34238 "1 " 0 # line from TRIGO J 70.00 (3) to BRKR BONITA
70.00
1 34255 34254 "1 " 0 # line from TRIGO J 70.00 (3) to (3) TRIGO
70.00
1 34254 34252 "1 " 0 # line from TRIGO 70.00 (3) to BRKR MADERA
70.00
1 34254 34264 "1 " 0 # line from TRIGO 70.00 (3) to (1) EL PECO
70.00
4 34237 0 "1 " 0 # LOAD-DROP CANANDGA 70.00 LOAD==7.60(5.70)
4 34238 0 "1 " 0 # LOAD-DROP BONITA 70.00 LOAD==14.37(2.92)
4 34264 0 "1 " 0 # LOAD-DROP EL PECO 70.00 LOAD==9.86(2.01)
4 34264 0 "2 " 0 # LOAD-DROP EL PECO 70.00 LOAD==7.26(1.48)
1 34238 34236 "1 " 1 # Switches in Bonita SW23 to transfer load
4 34238 0 "1 " 1 # Restore Load at Bonita
0
#
#
# (55) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34252 34256 "1 " 0 # line from MADERA 70.00 BRKR to BRKR BORDEN
70.00
0
#
#
# (56) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34252 34256 "2 " 0 # line from MADERA 70.00 BRKR to BRKR BORDEN
70.00
0
#
#
# (57) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34256 34240 "1 " 0 # line from BORDEN 70.00 BRKR to BRKR GLASS
70.00
0
#
#

```

```

# (58) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34256 34262 "1 " 0 # line from BORDEN 70.00 BRKR to (2) CASSIDY
70.00
1 34262 34454 "1 " 0 # line from CASSIDY 70.00 (2) to (2) RIVERROC
70.00
1 34454 34464 "1 " 0 # line from RIVERROC 70.00 (2) to BRKR COPPRMNE
70.00
4 34262 0 "1 " 0 # LOAD-DROP CASSIDY 70.00 LOAD==14.31(2.90)
4 34454 0 "1 " 0 # LOAD-DROP RIVERROC 70.00 LOAD==2.01(1.83)
0
#
#
# (59) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34259 34261 "1 " 0 # line from NRTHFORK 70.00 (3) to (2) SJNO3
70.00
1 34259 34260 "1 " 0 # line from NRTHFORK 70.00 (3) to (3) SJNO2
70.00
2 34259 34340 "1 " 0 # TRAN from NRTHFORK 70.00 (3) to (1) N.FORK E
9.11
2 34261 34633 "1 " 0 # TRAN from SJNO3 70.00 (2) to (1) SJ3GEN
9.11
1 34260 34452 "1 " 0 # line from SJNO2 70.00 (3) to BRKR WISHON
70.00
2 34260 34631 "1 " 0 # TRAN from SJNO2 70.00 (3) to (1) SJ2GEN
9.11
4 34261 0 "2 " 0 # LOAD-DROP SJNO3 70.00 LOAD==6.95(1.41)
4 34260 0 "2 " 0 # LOAD-DROP SJNO2 70.00 LOAD==3.22(0.66)
4 34340 0 "1 " 0 # LOAD-DROP N.FORK E 9.11 LOAD==1.21(0.25)
3 34633 0 "1 " 0 # GEN-DROP SJ3GEN 9.11 GEN==1.00(0.00)
3 34631 0 "1 " 0 # GEN-DROP SJ2GEN 9.11 GEN==2.00(0.00)
0
#
#
# (60) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34321 34226 "1 " 0 # line from MCSWAINJ 70.00 (3) to (2) MC SWAIN
70.00
1 34321 34230 "1 " 0 # line from MCSWAINJ 70.00 (3) to BRKR MRCDFLLS
70.00
1 34321 34232 "1 " 0 # line from MCSWAINJ 70.00 (3) to BRKR EXCHEQUR
70.00
2 34226 34320 "1 " 0 # TRAN from MC SWAIN 70.00 (2) to (1) MCSWAIN
9.11
3 34320 0 "1 " 0 # GEN-DROP MCSWAIN 9.11 GEN==10.00(2.00)
0
#
#
# (61) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 37563 30800 "1 " 0 # line from MELONES 230.00 BRKR to BRKR WILSON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Melones - Wilson line
0
#
#
# (62) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 38615 30790 "1 " 0 # line from DS AMIGO 230.00 BRKR to BRKR PANOCHE
230.00
0
#
#
# (63) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
# **** 3-WINDING TRANSFORMER 30765 (30069) 30050 34302 :
2 30765 30050 "1 " 0 # TRAN from LOSBANOS 230.00 BRKR to (1) LOSBANOS
500.00
0

```

```

#
#
# (64) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
# **** 3-WINDING TRANSFORMER 30790 (30791) 34158 34310 :
2 30790 34158 "1 " 0 # TRAN from PANOCHE 230.00 BRKR to (1) PANOCHE
115.00
0
#
#
# (65) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 30790 34158 "2 " 0 # TRAN from PANOCHE 230.00 BRKR to BRKR PANOCHE
115.00
0
#
#
# (66) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
# **** 3-WINDING TRANSFORMER 34112 (34176) 34232 34306 :
2 34112 34232 "1 " 0 # TRAN from EXCHEQUR 115.00 BRKR to (4) EXCHEQUR
70.00
1 34232 34228 "1 " 0 # line from EXCHEQUR 70.00 BRKR to (1) MARIPOS2
70.00
1 34232 34242 "1 " 0 # line from EXCHEQUR 70.00 BRKR to (1) BER VLLY
70.00
1 34232 34321 "1 " 0 # line from EXCHEQUR 70.00 BRKR to (1) MCSWAINJ
70.00
4 34228 0 "1 " 0 # LOAD-DROP MARIPOS2 70.00 LOAD==9.01(1.83)
4 34228 0 "2 " 0 # LOAD-DROP MARIPOS2 70.00 LOAD==9.37(1.90)
1 34228 34244 "1 " 1 # Switches in Mariposa SW 39 to transfer load
4 34228 0 "***" 1 # Restore Load at Mariposa
0
#
#
# (67) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34134 30800 "1 " 0 # TRAN from WILSON A 115.00 BRKR to BRKR WILSON
230.00
0
#
#
# (68) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34136 30800 "2 " 0 # TRAN from WILSON B 115.00 BRKR to BRKR WILSON
230.00
0
#
#
# (69) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
# **** 3-WINDING TRANSFORMER 34144 (34146) 34202 34312 :
2 34144 34202 "2 " 0 # TRAN from MERCED 115.00 BRKR to (1) MERCED
70.00
0
#
#
# (70) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34200 34162 "2 " 0 # TRAN from ORO LOMA 70.00 BRKR to (3) ORO LOMA
115.00
1 34162 34161 "1 " 0 # line from ORO LOMA 115.00 BRKR to (1) DFSTP
115.00
1 34162 34168 "1 " 0 # line from ORO LOMA 115.00 BRKR to (1) EL NIDO
115.00
0
#
#
# (71) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#

```

```

2 34214 30765 "3 " 0 # TRAN from LOS BANS 70.00 BRKR to BRKR LOSBANOS
230.00
0
#
#
# (72) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34214 30765 "4 " 0 # TRAN from LOS BANS 70.00 BRKR to BRKR LOSBANOS
230.00
0
#
#
# (73) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34256 30805 "1 " 0 # TRAN from BORDEN 70.00 BRKR to BRKR BORDEN
230.00
0
#
#
# (74) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34256 30805 "2 " 0 # TRAN from BORDEN 70.00 BRKR to BRKR BORDEN
230.00
0
#
#
# (75) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34268 34156 "1 " 0 # TRAN from MENDOTA 70.00 BRKR to (3) MENDOTA
115.00
1 34156 34178 "1 " 0 # line from MENDOTA 115.00 BRKR to (1) MADERAPR
115.00
1 34156 34157 "1 " 0 # line from MENDOTA 115.00 BRKR to (1) PANOCHE
115.00
4 34156 0 "1 " 0 # LOAD-DROP MENDOTA 115.00 LOAD==24.55 (4.99)
0
#
#
# (76) B1 GENERATOR OUTAGE
#
3 34142 0 "1" 0 # WHD_PAN2 13.80 PGEN=49.00 QGEN=-22.43
0
#
#
# (77) B1 GENERATOR OUTAGE
#
3 34179 0 "1" 0 # MADERA_G 13.80 PGEN=28.60 QGEN=3.67
0
#
#
# (78) B1 GENERATOR OUTAGE
#
3 34186 0 "1" 0 # DG_PAN1 13.80 PGEN=49.00 QGEN=-17.22
0
#
#
# (79) B1 GENERATOR OUTAGE
#
3 34301 0 "1" 0 # CHOWCOGN 13.80 PGEN=50.00 QGEN=0.72
0
#
#
# (80) B1 GENERATOR OUTAGE
#
3 34305 0 "1" 0 # CHWCHLA2 13.80 PGEN=12.50 QGEN=7.35
0
#
#
# (81) B1 GENERATOR OUTAGE
#

```

```

3 34306      0  "1"      0      # EXCHQUER  13.80      PGEN=94.50  QGEN=8.77
0
#
#
# (82) B1 GENERATOR OUTAGE
#
3 34316      0  "1"      0      # ONEILPMP   9.11      PGEN=0.52  QGEN=0.00
0
#
#
# (83) B1 GENERATOR OUTAGE
#
3 34320      0  "1"      0      # MCSWAIN    9.11      PGEN=10.00  QGEN=0.00
0
#
#
# (84) B1 GENERATOR OUTAGE
#
3 34322      0  "1"      0      # MERCEDFL   9.11      PGEN=3.50  QGEN=2.00
0
#
#
# (85) B1 GENERATOR OUTAGE
#
3 34326      0  "1"      0      # PANO_BS1   13.80     PGEN=102.50  QGEN=25.42
0
#
#
# (86) B1 GENERATOR OUTAGE
#
3 34326      0  "2"      0      # PANO_BS1   13.80     PGEN=102.50  QGEN=25.42
0
#
#
# (87) B1 GENERATOR OUTAGE
#
3 34327      0  "3"      0      # PANO_BS2   13.80     PGEN=102.50  QGEN=25.42
0
#
#
# (88) B1 GENERATOR OUTAGE
#
3 34327      0  "4"      0      # PANO_BS2   13.80     PGEN=102.50  QGEN=25.42
0
#
#
# (89) B1 GENERATOR OUTAGE
#
3 34328      0  "1"      0      # STARGT1    13.80     PGEN=60.94  QGEN=13.94
0
#
#
# (90) B1 GENERATOR OUTAGE
#
3 34329      0  "2"      0      # STARGT2    13.80     PGEN=60.94  QGEN=13.94
0
#
#
# (91) B1 GENERATOR OUTAGE
#
3 34330      0  "1"      0      # ELNIDO     13.80     PGEN=12.50  QGEN=4.15
0
#
#
# (92) B1 GENERATOR OUTAGE
#
3 34332      0  "1"      0      # JRWCOGEN   9.11      PGEN=3.80  QGEN=5.40
0
#
#

```

```

# (93) B1 GENERATOR OUTAGE
#
3 34334      0 "1"      0      # BIO PWR      9.11      PGEN=21.80  QGEN=8.92
0
#
#
# (94) B1 GENERATOR OUTAGE
#
3 34342      0 "1"      0      # INT.TURB     9.11      PGEN=1.10  QGEN=0.00
0
#
#
# (95) B1 GENERATOR OUTAGE
#
3 34631      0 "1"      0      # SJ2GEN       9.11      PGEN=2.00  QGEN=0.00
0
#
#
# (96) B1 GENERATOR OUTAGE
#
3 34633      0 "1"      0      # SJ3GEN       9.11      PGEN=1.00  QGEN=0.00
0
#
#
# (97) B1 GENERATOR OUTAGE
#
3 34335      0 "1"      0      # Q196GT1     16.50     PGEN=192.50 QGEN=31.08
0
#
#
# (98) B1 GENERATOR OUTAGE
#
3 34336      0 "2"      0      # Q196GT2     16.50     PGEN=192.50 QGEN=31.08
0
#
#
# (99) B1 GENERATOR OUTAGE
#
3 34337      0 "3"      0      # Q196ST1     13.80     PGEN=68.50  QGEN=11.04
0
#
#
# (100) B1 GENERATOR OUTAGE
#
3 34338      0 "4"      0      # Q196ST2     13.80     PGEN=68.50  QGEN=11.04
0
#
#
# (101) B CAPACITOR OUTAGE
#
6 30765      0 "v"      0      # LOSBANOS    230.0    SVD
0
#
#
# (102) B CAPACITOR OUTAGE
#
6 30796      0 "v"      0      # STOREY 1    230.0    SVD
0
#
#
# (103) B CAPACITOR OUTAGE
#
6 34134      0 "v"      0      # WILSON A    115.0    SVD
0
#
#
# (104) B CAPACITOR OUTAGE
#
6 34252      0 "v"      0      # MADERA      70.0     SVD
0

```

```

#
#
# (105) B CAPACITOR OUTAGE
#
6 34302      0 "v"      0      # L.BANS T   13.8   SVD
0
#
#
# (106) L-1/G-1 OVERLAPPING OUTAGE
# Le Grand - Chowchilla 115 kV Line and Exchequer
1 34100 34101 "1 " 0      # line from CHWCHLLA 115.00 BRKR to (3) CERTAN T
115.00
1 34101 34116 "1 " 0      # line from CERTAN T 115.00 (3) to BRKR LE GRAND
115.00
1 34101 34107 "1 " 0      # line from CERTAN T 115.00 (3) to (2) CERTANJ2
115.00
1 34107 34103 "1 " 0      # line from CERTANJ2 115.00 (2) to (3) CHWCGNJ2
115.00
1 34103 34102 "1 " 0      # line from CHWCGNJ2 115.00 (3) to (1) CERTTEED
115.00
1 34103 34109 "1 " 0      # line from CHWCGNJ2 115.00 (3) to (3) CHWCGN
115.00
1 34109 34111 "1 " 0      # line from CHWCGN 115.00 (3) to (2) CHWCHLA2
115.00
2 34109 34301 "1 " 0      # TRAN from CHWCGN 115.00 (3) to (1) CHOWCOGN
13.80
2 34111 34305 "1 " 0      # TRAN from CHWCHLA2 115.00 (2) to (1) CHWCHLA2
13.80
4 34102      0 "1 " 0      # LOAD-DROP CERTTEED 115.00 LOAD==9.94(6.94)
4 34305      0 "ss" 0      # LOAD-DROP CHWCHLA2 13.80 LOAD==2.00(1.11)
3 34301      0 "1 " 0      # GEN-DROP CHOWCOGN 13.80 GEN==50.00(4.33)
3 34305      0 "1 " 0      # GEN-DROP CHWCHLA2 13.80 GEN==12.50(7.30)
#
3 34306      0 "1" 0      # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (107) L-1/G-1 OVERLAPPING OUTAGE
# Chowchilla - Kerckhoff #2 115 kV Line and Exchequer
1 34105 34100 "1 " 0      # line from CERTANJ1 115.00 (2) to BRKR CHWCHLLA
115.00
1 34105 34121 "1 " 0      # line from CERTANJ1 115.00 (2) to (3) SHARON T
115.00
1 34121 34120 "1 " 0      # line from SHARON T 115.00 (3) to (1) SHARON
115.00
1 34121 34128 "1 " 0      # line from SHARON T 115.00 (3) to (3) OAKH_JCT
115.00
1 34128 34126 "1 " 0      # line from OAKH_JCT 115.00 (3) to (2) CORSGOLD
115.00
1 34128 34123 "1 " 0      # line from OAKH_JCT 115.00 (3) to (2) K1-JCT
115.00
1 34126 34122 "1 " 0      # line from CORSGOLD 115.00 (2) to (1) OAKHURST
115.00
1 34123 34358 "2 " 0      # line from K1-JCT 115.00 (2) to BRKR KERCKHF2
115.00
4 34120      0 "1 " 0      # LOAD-DROP SHARON 115.00 LOAD==7.10(4.96)
4 34126      0 "1 " 0      # LOAD-DROP CORSGOLD 115.00 LOAD==2.21(0.45)
4 34126      0 "2 " 0      # LOAD-DROP CORSGOLD 115.00 LOAD==26.19(5.32)
4 34122      0 "1 " 0      # LOAD-DROP OAKHURST 115.00 LOAD==11.68(2.37)
4 34122      0 "2 " 0      # LOAD-DROP OAKHURST 115.00 LOAD==15.01(3.05)
#
3 34306      0 "1" 0      # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (108) L-1/G-1 OVERLAPPING OUTAGE
# Atwater - El Capitan 115 kV Line and Exchequer
1 34104 34106 "1 " 0      # line from ATWATER 115.00 BRKR to (2) CASTLE
115.00

```



```

1 34106 34138 "1 " 0 # line from CASTLE 115.00 (2) to BRKR EL CAPTN
115.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (109) L-1/G-1 OVERLAPPING OUTAGE
# Atwater - Merced 115 kV Line and Exchequer
1 34104 34108 "1 " 0 # line from ATWATER 115.00 BRKR to (3) CRESEY T
115.00
1 34108 34110 "1 " 0 # line from CRESEY T 115.00 BRKR to (1) ATWATR J
115.00
1 34108 34114 "1 " 0 # line from CRESEY T 115.00 (3) to (3) JRWD GEN
115.00
1 34114 34124 "1 " 0 # line from JRWD GEN 115.00 (3) to (2) JR WOOD
115.00
2 34114 34332 "1 " 0 # TRAN from JRWD GEN 115.00 (3) to (1) JRWCOGEN
9.11
1 34124 34140 "1 " 0 # line from JR WOOD 115.00 (2) to (1) CRESSEY
115.00
4 34124 0 "1 " 0 # LOAD-DROP JR WOOD 115.00 LOAD==11.70(10.32)
4 34140 0 "1 " 0 # LOAD-DROP CRESSEY 115.00 LOAD==19.02(3.86)
3 34332 0 "1 " 0 # GEN-DROP JRWCOGEN 9.11 GEN==3.80(5.40)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (110) L-1/G-1 OVERLAPPING OUTAGE
# Cressy Tap 115 kV Line and Exchequer
1 34108 34110 "1 " 0 # line from CRESEY T 115.00 BRKR to (3) ATWATR J
115.00
1 34110 34130 "1 " 0 # line from ATWATR J 115.00 (3) to (2) LIVNGSTN
115.00
1 34110 34144 "1 " 0 # line from ATWATR J 115.00 (3) to BRKR MERCED
115.00
1 34130 34132 "1 " 0 # line from LIVNGSTN 115.00 (2) to (1) GALLO
115.00
4 34130 0 "3 " 0 # LOAD-DROP LIVNGSTN 115.00 LOAD==24.58(5.00)
4 34132 0 "1 " 0 # LOAD-DROP GALLO 115.00 LOAD==4.30(3.68)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (111) L-1/G-1 OVERLAPPING OUTAGE
# Le Grand - Dairyland 115 kV Line and Exchequer
1 34116 34154 "1 " 0 # line from LE GRAND 115.00 BRKR to BRKR DAIRYLND
115.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (112) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Oro Loma 115 kV Line and Exchequer
1 34118 34136 "1 " 0 # line from LE GRNDJ 115.00 (2) to BRKR WILSON B
115.00
1 34118 34168 "1 " 0 # line from LE GRNDJ 115.00 (2) to (2) EL NIDO
115.00
1 34168 34162 "1 " 0 # line from EL NIDO 115.00 (2) to BRKR ORO LOMA
115.00
4 34168 0 "1 " 0 # LOAD-DROP EL NIDO 115.00 LOAD==12.49(2.54)
4 34168 0 "2 " 0 # LOAD-DROP EL NIDO 115.00 LOAD==15.00(3.05)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#

```

```

# (113) L-1/G-1 OVERLAPPING OUTAGE
# El Capitan - Wilson 115 kV Line and Exchequer
1 34136 34138 "1 " 0 # line from WILSON B 115.00 BRKR to BRKR EL CAPTN
115.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (114) L-1/G-1 OVERLAPPING OUTAGE
# Dairyland - Mendota 115 kV Line and Exchequer
1 34150 34154 "1 " 0 # line from NEWHALL 115.00 (2) to BRKR DAIRYLAND
115.00
1 34150 34178 "1 " 0 # line from NEWHALL 115.00 (2) to (3) MADERAPR
115.00
1 34178 34156 "1 " 0 # line from MADERAPR 115.00 (3) to BRKR MENDOTA
115.00
2 34178 34179 "1 " 0 # TRAN from MADERAPR 115.00 (3) to (1) MADERA_G
13.80
4 34150 0 "2 " 0 # LOAD-DROP NEWHALL 115.00 LOAD==8.55(1.73)
4 34150 0 "3 " 0 # LOAD-DROP NEWHALL 115.00 LOAD==10.62(2.16)
4 34179 0 "ss" 0 # LOAD-DROP MADERA_G 13.80 LOAD==3.60(0.85)
3 34179 0 "1 " 0 # GEN-DROP MADERA_G 13.80 GEN==28.60(6.34)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (115) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Mendota 115 kV Line and Exchequer
1 34157 34156 "1 " 0 # line from PANOCHET 115.00 (2) to BRKR MENDOTA
115.00
1 34157 34158 "1 " 0 # line from PANOCHET 115.00 (2) to BRKR PANOCHE
115.00
3 34186 0 "1 " 0 # DG_PAN Unit trips for Panoche - Mendota 115 kV outage
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (116) L-1/G-1 OVERLAPPING OUTAGE
# Glass - Biola - Madera 70 kV Line and Exchequer
1 34237 34255 "1 " 0 # line from CANANDGA 70.00 (2) to (3) TRIGO J
70.00
1 34237 34240 "1 " 0 # line from CANANDGA 70.00 (2) to BRKR GLASS
70.00
1 34255 34238 "1 " 0 # line from TRIGO J 70.00 (3) to BRKR BONITA
70.00
1 34255 34254 "1 " 0 # line from TRIGO J 70.00 (3) to (3) TRIGO
70.00
1 34254 34252 "1 " 0 # line from TRIGO 70.00 (3) to BRKR MADERA
70.00
1 34254 34264 "1 " 0 # line from TRIGO 70.00 (3) to (1) EL PECO
70.00
4 34237 0 "1 " 0 # LOAD-DROP CANANDGA 70.00 LOAD==7.60(5.70)
4 34238 0 "1 " 0 # LOAD-DROP BONITA 70.00 LOAD==14.37(2.92)
4 34264 0 "1 " 0 # LOAD-DROP EL PECO 70.00 LOAD==9.86(2.01)
4 34264 0 "2 " 0 # LOAD-DROP EL PECO 70.00 LOAD==7.26(1.48)
1 34238 34236 "1 " 1 # Switches in Bonita SW23 to transfer load
4 34238 0 "1 " 1 # Restore Load at Bonita
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (117) L-1/G-1 OVERLAPPING OUTAGE
# Merced Falls - Exchequer 70 kV Line and Exchequer
1 34321 34226 "1 " 0 # line from MCSWAINJ 70.00 (3) to (2) MC SWAIN
70.00

```

```

1 34321 34230 "1 " 0 # line from MCSWAINJ 70.00 (3) to BRKR MRCDFLLS
70.00
1 34321 34232 "1 " 0 # line from MCSWAINJ 70.00 (3) to BRKR EXCHEQUER
70.00
2 34226 34320 "1 " 0 # TRAN from MC SWAIN 70.00 (2) to (1) MCSWAIN
9.11
3 34320 0 "1 " 0 # GEN-DROP MCSWAIN 9.11 GEN==10.00(2.00)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (118) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Canal - Oro Loma 70 kV Line and Exchequer
1 34200 34222 "1 " 0 # line from ORO LOMA 70.00 BRKR to (3) MRCYSPRS
70.00
1 34222 34220 "1 " 0 # line from MRCYSPRS 70.00 (3) to (2) ORTIGA
70.00
1 34222 34224 "1 " 0 # line from MRCYSPRS 70.00 (3) to (2) ARBURUA
70.00
1 34220 34206 "1 " 0 # line from ORTIGA 70.00 (2) to BRKR CANAL
70.00
1 34224 34272 "1 " 0 # line from ARBURUA 70.00 (2) to (2) WRGHT PP
70.00
1 34272 34214 "1 " 0 # line from WRGHT PP 70.00 (2) to BRKR LOS BANS
70.00
4 34220 0 "1 " 0 # LOAD-DROP ORTIGA 70.00 LOAD==6.88(1.40)
4 34224 0 "1 " 0 # LOAD-DROP ARBURUA 70.00 LOAD==3.77(1.83)
4 34272 0 "1 " 0 # LOAD-DROP WRGHT PP 70.00 LOAD==9.50(1.93)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (119) L-1/G-1 OVERLAPPING OUTAGE
# Atwater - El Capitan 115 kV Line and JR Wood Cogen
1 34104 34106 "1 " 0 # line from ATWATER 115.00 BRKR to (2) CASTLE
115.00
1 34106 34138 "1 " 0 # line from CASTLE 115.00 (2) to BRKR EL CAPTN
115.00
#
3 34332 0 "1" 0 # JRWCOGEN 9.11 PGEN=4.00 QGEN=5.40
0
#
#
# (120) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Atwater #2 115 kV Line and JR Wood Cogen
1 34134 34104 "1 " 0 # line from WILSON A 115.00 BRKR to BRKR ATWATER
115.00
#
3 34332 0 "1" 0 # JRWCOGEN 9.11 PGEN=4.00 QGEN=5.40
0
#
#
# (121) L-1/G-1 OVERLAPPING OUTAGE
# Le Grand - Chowchilla 115 kV Line and Kerckhoff
1 34100 34101 "1 " 0 # line from CHWCHLLA 115.00 BRKR to (3) CERTAN T
115.00
1 34101 34116 "1 " 0 # line from CERTAN T 115.00 (3) to BRKR LE GRAND
115.00
1 34101 34107 "1 " 0 # line from CERTAN T 115.00 (3) to (2) CERTANJ2
115.00
1 34107 34103 "1 " 0 # line from CERTANJ2 115.00 (2) to (3) CHWCGNJT
115.00
1 34103 34102 "1 " 0 # line from CHWCGNJT 115.00 (3) to (1) CERTTEED
115.00
1 34103 34109 "1 " 0 # line from CHWCGNJT 115.00 (3) to (3) CHWCGN
115.00
1 34109 34111 "1 " 0 # line from CHWCGN 115.00 (3) to (2) CHWCHLA2
115.00

```

```

2 34109 34301 "1 " 0 # TRAN from CHWCGN 115.00 (3) to (1) CHOWCOGN
13.80
2 34111 34305 "1 " 0 # TRAN from CHWCHLA2 115.00 (2) to (1) CHWCHLA2
13.80
4 34102 0 "1 " 0 # LOAD-DROP CERTTEED 115.00 LOAD==9.94(6.94)
4 34305 0 "ss" 0 # LOAD-DROP CHWCHLA2 13.80 LOAD==2.00(1.11)
3 34301 0 "1 " 0 # GEN-DROP CHOWCOGN 13.80 GEN==50.00(4.33)
3 34305 0 "1 " 0 # GEN-DROP CHWCHLA2 13.80 GEN==12.50(7.30)
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (122) L-1/G-1 OVERLAPPING OUTAGE
# Exchequer - Le Grand 115 kV Line and Kerckhoff
1 34112 34116 "1 " 0 # line from EXCHEQUR 115.00 BRKR to BRKR LE GRAND
115.00
3 34306 0 "1 " 0 # Exchequer Unit will trip for this outage
4 34228 0 "***" 0 # Mariposa Loads will drop if bus is below 64 kV, this is
anticipate
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (123) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
# Le Grand - Dairyland 115 kV Line and Kerckhoff
1 34116 34154 "1 " 0 # line from LE GRAND 115.00 BRKR to BRKR DAIRYLND
115.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (124) L-1/G-1 OVERLAPPING OUTAGE
# Glass - Biola - Madera 70 kV Line and Kerckhoff
1 34237 34255 "1 " 0 # line from CANANDGA 70.00 (2) to (3) TRIGO J
70.00
1 34237 34240 "1 " 0 # line from CANANDGA 70.00 (2) to BRKR GLASS
70.00
1 34255 34238 "1 " 0 # line from TRIGO J 70.00 (3) to BRKR BONITA
70.00
1 34255 34254 "1 " 0 # line from TRIGO J 70.00 (3) to (3) TRIGO
70.00
1 34254 34252 "1 " 0 # line from TRIGO 70.00 (3) to BRKR MADERA
70.00
1 34254 34264 "1 " 0 # line from TRIGO 70.00 (3) to (1) EL PECO
70.00
4 34237 0 "1 " 0 # LOAD-DROP CANANDGA 70.00 LOAD==7.60(5.70)
4 34238 0 "1 " 0 # LOAD-DROP BONITA 70.00 LOAD==14.37(2.92)
4 34264 0 "1 " 0 # LOAD-DROP EL PECO 70.00 LOAD==9.86(2.01)
4 34264 0 "2 " 0 # LOAD-DROP EL PECO 70.00 LOAD==7.26(1.48)
1 34238 34236 "1 " 1 # Switches in Bonita SW23 to transfer load
4 34238 0 "1 " 1 # Restore Load at Bonita
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (125) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Canal - Oro Loma 70 kV Line and Oneil Pump
1 34200 34222 "1 " 0 # line from ORO LOMA 70.00 BRKR to (3) MRCYSPRS
70.00
1 34222 34220 "1 " 0 # line from MRCYSPRS 70.00 (3) to (2) ORTIGA
70.00
1 34222 34224 "1 " 0 # line from MRCYSPRS 70.00 (3) to (2) ARBURUA
70.00
1 34220 34206 "1 " 0 # line from ORTIGA 70.00 (2) to BRKR CANAL
70.00

```

```

1 34224 34272 "1 " 0 # line from ARBURUA 70.00 (2) to (2) WRGHT PP
70.00
1 34272 34214 "1 " 0 # line from WRGHT PP 70.00 (2) to BRKR LOS BANS
70.00
4 34220 0 "1 " 0 # LOAD-DROP ORTIGA 70.00 LOAD==6.88(1.40)
4 34224 0 "1 " 0 # LOAD-DROP ARBURUA 70.00 LOAD==3.77(1.83)
4 34272 0 "1 " 0 # LOAD-DROP WRGHT PP 70.00 LOAD==9.50(1.93)
#
3 34316 0 "1" 0 # ONEILPMP 9.11 PGEN=0.52 QGEN=0.00
0
#
#
# (126) L-1/G-1 OVERLAPPING OUTAGE
# Warnerville - Wilson 230 kV Line and Melones Unit 1
1 30515 30800 "1 " 0 # line from WARNERVL 230.00 BRKR to BRKR WILSON
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (127) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Borden #1 230 kV Line and Melones Unit 1
1 30795 30805 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR BORDEN
230.00
1 30795 30800 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR WILSON
230.00
4 30795 0 "2 " 0 # LOAD-DROP STOREY 2 230.00 LOAD==33.89(6.88)
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (128) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Borden #2 230 kV Line and Melones Unit 1
1 30796 30800 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR WILSON
230.00
1 30796 30805 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR BORDEN
230.00
4 30796 0 "1 " 0 # LOAD-DROP STOREY 1 230.00 LOAD==37.87(7.69)
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (129) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Gregg #1 230 kV Line and Melones Unit 1
1 30805 30810 "1 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden line
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (130) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Gregg #2 230 kV Line and Melones Unit 1
1 30805 30810 "2 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden #2 line
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (131) L-1/G-1 OVERLAPPING OUTAGE
# Melones - Wilson 230 kV Line and Melones Unit 1
1 37563 30800 "1 " 0 # line from MELONES 230.00 (2) to BRKR WILSON 230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00

```

```

0
#
#
# (132) L-1/G-1 OVERLAPPING OUTAGE
# Warnerville - Wilson 230 kV Line and Helms Unit 1
1 30515 30800 "1 " 0 # line from WARNERVL 230.00 BRKR to BRKR WILSON
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (133) L-1/G-1 OVERLAPPING OUTAGE
# Westley - Los Banos 230 kV Line and Helms Unit 1
1 30670 30765 "1 " 0 # line from WESTLEY 230.00 BRKR to BRKR LOSBANOS
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (134) L-1/G-1 OVERLAPPING OUTAGE
# Moss Landing - Panoche 230 kV Line and Helms Unit 1
1 30750 30790 "1 " 0 # line from MOSSLND2 230.00 BRKR to BRKR PANOCH
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (135) L-1/G-1 OVERLAPPING OUTAGE
# Coburn - Panoche 230 kV Line and Helms Unit 1
1 30760 30790 "1 " 0 # line from COBURN 230.00 BRKR to BRKR PANOCH
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (136) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Panoche #1 230 kV Line and Helms Unit 1
1 30765 30790 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR PANOCH
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (137) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Panoche #2 230 kV Line and Helms Unit 1
1 30765 30790 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR PANOCH
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (138) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Dos Amigos 230 kV Line and Helms Unit 1
1 30765 38615 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR DS AMIG
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (139) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - San Luis PGP #1 230 kV Line and Helms Unit 1
1 30765 38625 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00

```

```

#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (140) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - San Luis PGP #2 230 kV Line and Helms Unit 1
1 30765 38625 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (141) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Kearney 230 kV Line and Helms Unit 1 sumop outage
1 30790 30825 "1 " 0 # line from PANOCH 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
3 34600 0 "***" 0 # Trip Helms 1 for Panoche - Kearney 230 kV line outage
HTT/RAS
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (142) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Helm 230 kV Line and Helms Unit 1
1 30790 30873 "1 " 0 # line from PANOCH 230.00 BRKR to BRKR HELM
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (143) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Panoche #1 230 kV Line and Helms Unit 1
1 30790 30900 "1 " 0 # line from PANOCH 230.00 BRKR to BRKR GATES
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (144) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Panoche #2 230 kV Line and Helms Unit 1
1 30790 30900 "2 " 0 # line from PANOCH 230.00 BRKR to BRKR GATES
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (145) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Borden #1 230 kV Line and Helms Unit 1
1 30795 30805 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR BORDEN
230.00
1 30795 30800 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR WILSON
230.00
4 30795 0 "2 " 0 # LOAD-DROP STOREY 2 230.00 LOAD==33.89(6.88)
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (146) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Borden #2 230 kV Line and Helms Unit 1

```

```

1 30796 30800 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR WILSON
230.00
1 30796 30805 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR BORDEN
230.00
4 30796 0 "1 " 0 # LOAD-DROP STOREY 1 230.00 LOAD==37.87(7.69)
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (147) L-1/G-1 OVERLAPPING OUTAGE
# Melones - Wilson 230 kV Line and Helms Unit 1
1 37563 30800 "1 " 0 # line from MELONES 230.00 (2) to BRKR WILSON 230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (148) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Gregg #1 230 kV Line and Helms Unit 1
1 30805 30810 "1 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden line
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (149) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Gregg #2 230 kV Line and Helms Unit 1
1 30805 30810 "2 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden #2 line
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (150) L-1/G-1 OVERLAPPING OUTAGE
# Dos Amigos - Panoche 230 kV Line and Helms Unit 1
1 38615 30790 "1 " 0 # line from DS AMIGO 230.00 BRKR to BRKR PANOCHE
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (151) L-1/G-1 OVERLAPPING OUTAGE
# Warnerville - Wilson 230 kV Line and Exchequer
1 30515 30800 "1 " 0 # line from WARNERVL 230.00 BRKR to BRKR WILSON
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (152) L-1/G-1 OVERLAPPING OUTAGE
# Westley - Los Banos 230 kV Line and Exchequer
1 30670 30765 "1 " 0 # line from WESTLEY 230.00 BRKR to BRKR LOSBANOS
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (153) L-1/G-1 OVERLAPPING OUTAGE
# Moss Landing - Panoche 230 kV Line and Exchequer
1 30750 30790 "1 " 0 # line from MOSSLND2 230.00 BRKR to BRKR PANOCHE
230.00
#

```



```

3 34306      0 "1"      0      # EXCHQUER 13.80      PGEN=94.50 QGEN=8.77
0
#
#
# (154) L-1/G-1 OVERLAPPING OUTAGE
# Coburn - Panoche 230 kV Line and Exchequer
1 30760 30790 "1 "      0      # line from COBURN 230.00 BRKR to BRKR PANOCH
230.00
#
3 34306      0 "1"      0      # EXCHQUER 13.80      PGEN=94.50 QGEN=8.77
0
#
#
# (155) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Panoche #1 230 kV Line and Exchequer
1 30765 30790 "1 "      0      # line from LOSBANOS 230.00 BRKR to BRKR PANOCH
230.00
#
3 34306      0 "1"      0      # EXCHQUER 13.80      PGEN=94.50 QGEN=8.77
0
#
#
# (156) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Panoche #2 230 kV Line and Exchequer
1 30765 30790 "2 "      0      # line from LOSBANOS 230.00 BRKR to BRKR PANOCH
230.00
#
3 34306      0 "1"      0      # EXCHQUER 13.80      PGEN=94.50 QGEN=8.77
0
#
#
# (157) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Dos Amigos 230 kV Line and Exchequer
1 30765 38615 "1 "      0      # line from LOSBANOS 230.00 BRKR to BRKR DS AMIGO
230.00
#
3 34306      0 "1"      0      # EXCHQUER 13.80      PGEN=94.50 QGEN=8.77
0
#
#
# (158) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - San Luis PGP #1 230 kV Line and Exchequer
1 30765 38625 "1 "      0      # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
#
3 34306      0 "1"      0      # EXCHQUER 13.80      PGEN=94.50 QGEN=8.77
0
#
#
# (159) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - San Luis PGP #2 230 kV Line and Exchequer
1 30765 38625 "2 "      0      # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
#
3 34306      0 "1"      0      # EXCHQUER 13.80      PGEN=94.50 QGEN=8.77
0
#
#
# (160) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Kearney 230 kV Line and Exchequer sumop outage
1 30790 30825 "1 "      0      # line from PANOCH 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 "      0      # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825      0 "1 "      0      # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
3 34600      0 "***"      0      # Trip Helms 1 for Panoche - Kearney 230 kV line outage
HTT/RAS
#
3 34306      0 "1"      0      # EXCHQUER 13.80      PGEN=94.50 QGEN=8.77
0

```

```

#
#
# (161) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Helm 230 kV Line and Exchequer
1 30790 30873 "1 " 0 # line from PANOCH 230.00 BRKR to BRKR HELM
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (162) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Panoche #1 230 kV Line and Exchequer
1 30790 30900 "1 " 0 # line from PANOCH 230.00 BRKR to BRKR GATES
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (163) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Panoche #2 230 kV Line and Exchequer
1 30790 30900 "2 " 0 # line from PANOCH 230.00 BRKR to BRKR GATES
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (164) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Borden #1 230 kV Line and Exchequer
1 30795 30805 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR BORDEN
230.00
1 30795 30800 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR WILSON
230.00
4 30795 0 "2 " 0 # LOAD-DROP STOREY 2 230.00 LOAD==33.89(6.88)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (165) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Borden #2 230 kV Line and Exchequer
1 30796 30800 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR WILSON
230.00
1 30796 30805 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR BORDEN
230.00
4 30796 0 "1 " 0 # LOAD-DROP STOREY 1 230.00 LOAD==37.87(7.69)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (166) L-1/G-1 OVERLAPPING OUTAGE
# Melones - Wilson 230 kV Line and Exchequer
1 37563 30800 "1 " 0 # line from MELONES 230.00 (2) to BRKR WILSON 230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (167) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Gregg #1 230 kV Line and Exchequer
1 30805 30810 "1 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden line
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#

```

```

#
# (168) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Gregg #2 230 kV Line and Exchequer
1 30805 30810 "2 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden #2 line
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (169) L-1/G-1 OVERLAPPING OUTAGE
# Dos Amigos - Panoche 230 kV Line and Exchequer
1 38615 30790 "1 " 0 # line from DS AMIGO 230.00 BRKR to BRKR PANOCHE
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (170) L-1/G-1 OVERLAPPING OUTAGE
# Warnerville - Wilson 230 kV Line and Kerckhoff
1 30615 30800 "1 " 0 # line from WARNERVL 230.00 BRKR to BRKR WILSON
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (171) L-1/G-1 OVERLAPPING OUTAGE
# Westley - Los Banos 230 kV Line and Kerckhoff
1 30670 30765 "1 " 0 # line from WESTLEY 230.00 BRKR to BRKR LOSBANOS
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (172) L-1/G-1 OVERLAPPING OUTAGE
# Moss Landing - Panoche 230 kV Line and Kerckhoff
1 30750 30790 "1 " 0 # line from MOSSLND2 230.00 BRKR to BRKR PANOCHE
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (173) L-1/G-1 OVERLAPPING OUTAGE
# Coburn - Panoche 230 kV Line and Kerckhoff
1 30760 30790 "1 " 0 # line from COBURN 230.00 BRKR to BRKR PANOCHE
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (174) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Panoche #1 230 kV Line and Kerckhoff
1 30765 30790 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR PANOCHE
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (175) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Panoche #2 230 kV Line and Kerckhoff
1 30765 30790 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR PANOCHE
230.00
#

```

```

3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (176) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Dos Amigos 230 kV Line and Kerckhoff
1 30765 38615 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR DS AMIGO
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (177) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - San Luis PGP #1 230 kV Line and Kerckhoff
1 30765 38625 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (178) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - San Luis PGP #2 230 kV Line and Kerckhoff
1 30765 38625 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (179) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Kearney 230 kV Line and Kerckhoff sumop outage
1 30790 30825 "1 " 0 # line from PANOCH 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
3 34600 0 "***" 0 # Trip Helms 1 for Panoche - Kearney 230 kV line outage
HTT/RAS
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (180) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Helm 230 kV Line and Kerckhoff
1 30790 30873 "1 " 0 # line from PANOCH 230.00 BRKR to BRKR HELM
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (181) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Panoche #1 230 kV Line and Kerckhoff
1 30790 30900 "1 " 0 # line from PANOCH 230.00 BRKR to BRKR GATES
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (182) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Panoche #2 230 kV Line and Kerckhoff
1 30790 30900 "2 " 0 # line from PANOCH 230.00 BRKR to BRKR GATES
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0

```

```

#
#
# (183) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Borden #1 230 kV Line and Kerckhoff
1 30795 30805 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR BORDEN
230.00
1 30795 30800 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR WILSON
230.00
4 30795 0 "2 " 0 # LOAD-DROP STOREY 2 230.00 LOAD==33.89(6.88)
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (184) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Borden #2 230 kV Line and Kerckhoff
1 30796 30800 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR WILSON
230.00
1 30796 30805 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR BORDEN
230.00
4 30796 0 "1 " 0 # LOAD-DROP STOREY 1 230.00 LOAD==37.87(7.69)
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (185) L-1/G-1 OVERLAPPING OUTAGE
# Melones - Wilson 230 kV Line and Kerckhoff
1 37563 30800 "1 " 0 # line from MELONES 230.00 (2) to BRKR WILSON 230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (186) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Gregg #1 230 kV Line and Kerckhoff
1 30805 30810 "1 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden line
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (187) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Gregg #2 230 kV Line and Kerckhoff
1 30805 30810 "2 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden #2 line
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (188) L-1/G-1 OVERLAPPING OUTAGE
# Dos Amigos - Panoche 230 kV Line and Kerckhoff
1 38615 30790 "1 " 0 # line from DS AMIGO 230.00 BRKR to BRKR PANOCHE
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# 2013 sumop category b contingency list
# Fresno Zone 314
#
#
# (189) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#

```

```

1 30873 30875 "1 " 0 # line from HELM 230.00 BRKR to BRKR MC CALL
230.00
0
#
#
# (190) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
# sumop outage
1 30810 30820 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Helm - Gregg #1 line sumop
3 34602 0 "***" 0 # Drop unit#2 with a loss Helm - Gregg #1 line sumop
0
#
#
# (191) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
# sumop outage
1 30810 30820 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Helm - Gregg #2 line
3 34602 0 "***" 0 # Drop unit#2 with a loss Helm - Gregg #2 line sumop
0
#
#
# (192) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30810 30835 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #1 line
0
#
#
# (193) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30810 30835 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #2 line
0
#
#
# (194) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30810 30845 "1 " 0 # line from GREGG 230.00 BRKR to (3) FGRDN T2
230.00
1 30845 30846 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR FIGRDN 2
230.00
1 30845 30850 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR ASHLAN
230.00
4 30846 0 "1 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==52.57(10.67)
4 30846 0 "2 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==36.77(7.47)
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Figarden line
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30846 0 "***" 1 # Restore Load at Figarden 2
0
#
#
# (195) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
# sumop outage
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00
1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
3 34600 0 "***" 0 # Trip Helms 1 for Gates - Gregg 230 kV line outage
HTT/RAS
0
#
#

```

```

# (196) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
# sumop outage
1 30830 30835 "1 " 0 # line from KEARNEY 230.00 BRKR to BRKR HERNDON
230.00
3 34600 0 "***" 0 # Trip Helms 1 for Herndon - Kearney 230 kV line outage
HTT/RAS
0
#
#
# (197) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30835 30840 "1 " 0 # line from HERNDON 230.00 BRKR to (3) FGRDN T1
230.00
1 30840 30841 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR FIGRDN 1
230.00
1 30840 30850 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR ASHLAN
230.00
4 30841 0 "1 " 0 # LOAD-DROP FIGRDN 1 230.00 LOAD==73.45(14.92)
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30841 0 "***" 1 # Restore Load at Figarden 1
0
#
#
# (198) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30855 30860 "1 " 0 # line from HAAS 230.00 (2) to (3) BALCH3TP
230.00
2 30855 34610 "1 " 0 # TRAN from HAAS 230.00 (2) to (1) HAAS
13.80
1 30860 30875 "1 " 0 # line from BALCH3TP 230.00 (3) to BRKR MC CALL
230.00
2 30860 34614 "1 " 0 # TRAN from BALCH3TP 230.00 (3) to (1) BLCH 2-3
13.80
3 34610 0 "1 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34610 0 "2 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34614 0 "1 " 0 # GEN-DROP BLCH 2-3 13.80 GEN==50.00(7.64)
0
#
#
# (199) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30865 30870 "1 " 0 # line from BALCH 230.00 (2) to (3) PINE FLT
230.00
2 30865 34612 "1 " 0 # TRAN from BALCH 230.00 (2) to (1) BLCH 2-2
13.80
1 30870 30875 "1 " 0 # line from PINE FLT 230.00 (3) to BRKR MC CALL
230.00
2 30870 38720 "1 " 0 # TRAN from PINE FLT 230.00 (3) to (1) PINE FLT
13.80
3 34612 0 "1 " 0 # GEN-DROP BLCH 2-2 13.80 GEN==50.00(0.66)
3 38720 0 "1 " 0 # GEN-DROP PINE FLT 13.80 GEN==57.00(23.30)
0
#
#
# (200) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30875 30874 "1 " 0 # line from MC CALL 230.00 BRKR to BRKR P0615STN
230.00
0
#
#
# (201) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30875 30874 "2 " 0 # line from MC CALL 230.00 BRKR to BRKR P0615STN
230.00
0
#
#
# (202) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#

```

```

1 30875 30880 "1 " 0 # line from MC CALL 230.00 BRKR to (2) HENTAP2
230.00
1 30880 30900 "1 " 0 # line from HENTAP2 230.00 (2) to BRKR GATES
230.00
0
#
#
# (203) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30900 30905 "1 " 0 # line from GATES 230.00 BRKR to BRKR TEMPLETN
230.00
0
#
#
# (204) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30900 30915 "1 " 0 # line from GATES 230.00 BRKR to BRKR MORROBAY
230.00
0
#
#
# (205) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30900 30935 "1 " 0 # line from GATES 230.00 BRKR to BRKR ARCO
230.00
0
#
#
# (206) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30900 30970 "1 " 0 # line from GATES 230.00 BRKR to BRKR MIDWAY
230.00
0
#
#
# (207) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34123 34358 "2 " 0 # line from K1-JCT 115.00 (2) to BRKR KERCKHF2
115.00
1 34123 34128 "1 " 0 # line from K1-JCT 115.00 (2) to (3) OAKH_JCT
115.00
1 34128 34121 "1 " 0 # line from OAKH_JCT 115.00 (3) to (3) SHARON T
115.00
1 34128 34126 "1 " 0 # line from OAKH_JCT 115.00 (3) to (2) CORSGOLD
115.00
1 34121 34105 "1 " 0 # line from SHARON T 115.00 (3) to (2) CERTANJ1
115.00
1 34121 34120 "1 " 0 # line from SHARON T 115.00 (3) to (1) SHARON
115.00
1 34105 34100 "1 " 0 # line from CERTANJ1 115.00 (2) to BRKR CHWCHLLA
115.00
1 34126 34122 "1 " 0 # line from CORSGOLD 115.00 (2) to (1) OAKHURST
115.00
4 34126 0 "1 " 0 # LOAD-DROP CORSGOLD 115.00 LOAD==2.21(0.45)
4 34126 0 "2 " 0 # LOAD-DROP CORSGOLD 115.00 LOAD==26.19(5.32)
4 34120 0 "1 " 0 # LOAD-DROP SHARON 115.00 LOAD==7.10(4.96)
4 34122 0 "1 " 0 # LOAD-DROP OAKHURST 115.00 LOAD==11.68(2.37)
4 34122 0 "2 " 0 # LOAD-DROP OAKHURST 115.00 LOAD==15.01(3.05)
0
#
#
# (208) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34149 34354 "1 " 0 # line from CHENYNT 115.00 (3) to BRKR SCHINDLR
115.00
1 34149 34148 "1 " 0 # line from CHENYNT 115.00 (3) to (2) CHENY
115.00
1 34149 34158 "1 " 0 # line from CHENYNT 115.00 (3) to BRKR PANOCHE
115.00

```



```

1 34148 34141 "1 " 0 # line from CHENY 115.00 (2) to (2) PAN2_TAP
115.00
2 34141 34142 "1 " 0 # TRAN from PAN2_TAP 115.00 (2) to (1) WHD_PAN2
13.80
4 34148 0 "1 " 0 # LOAD-DROP CHENY 115.00 LOAD==13.12(2.66)
3 34142 0 "1 " 0 # GEN-DROP WHD_PAN2 13.80 GEN==49.00(4.03)
0
#
#
# (209) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34184 34570 "1 " 0 # line from GATS2_TP 70.00 (3) to BRKR COLNGA 2
70.00
1 34184 34552 "1 " 0 # line from GATS2_TP 70.00 (3) to BRKR GATES
70.00
2 34184 34553 "1 " 0 # TRAN from GATS2_TP 70.00 (3) to (1) WHD_GAT2
13.80
3 34553 0 "1 " 0 # GEN-DROP WHD_GAT2 13.80 GEN==49.00(-25.30)
0
#
#
# (210) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34356 34358 "1 " 0 # line from KERCKHF1 115.00 BRKR to BRKR KERCKHF2
115.00
0
#
#
# (211) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34357 34361 "1 " 0 # line from AIRWAYJ1 115.00 (3) to BRKR AIRWAYS
115.00
1 34357 34368 "1 " 0 # line from AIRWAYJ1 115.00 (3) to (2) LASPALMS
115.00
1 34357 34410 "1 " 0 # line from AIRWAYJ1 115.00 (3) to BRKR MANCHSTR
115.00
1 34368 34366 "1 " 0 # line from LASPALMS 115.00 (2) to BRKR SANGER
115.00
4 34368 0 "1 " 0 # LOAD-DROP LASPALMS 115.00 LOAD==13.90(11.89)
0
#
#
# (212) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34358 34360 "1 " 0 # line from KERCKHF2 115.00 BRKR to (3) WWARD JT
115.00
1 34360 34414 "1 " 0 # line from WWARD JT 115.00 (3) to BRKR WOODWARD
115.00
1 34360 34363 "1 " 0 # line from WWARD JT 115.00 (3) to (3) CLOVISJ1
115.00
1 34363 34362 "1 " 0 # line from CLOVISJ1 115.00 (3) to BRKR CLOVIS-1
115.00
1 34363 34366 "1 " 0 # line from CLOVISJ1 115.00 (3) to BRKR SANGER
115.00
4 34362 0 "1 " 0 # LOAD-DROP CLOVIS-1 115.00 LOAD==51.01(10.36)
4 34362 0 "2 " 0 # LOAD-DROP CLOVIS-1 115.00 LOAD==50.20(10.20)
1 34362 34364 "1 " 1 # Switches in Clovis SW 387 to transfer load
4 34362 0 "***" 1 # Restore Load at Clovis 1
0
#
#
# (213) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34359 34361 "1 " 0 # line from AIRWAYJ2 115.00 (3) to BRKR AIRWAYS
115.00
1 34359 34408 "1 " 0 # line from AIRWAYJ2 115.00 (3) to BRKR BARTON
115.00
1 34359 34366 "1 " 0 # line from AIRWAYJ2 115.00 (3) to BRKR SANGER
115.00
0

```

```

#
#
# (214) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34364 34365 "1 " 0 # line from CLOVIS-2 115.00 BRKR to (3) CLOVISJ2
115.00
1 34365 34358 "1 " 0 # line from CLOVISJ2 115.00 (3) to BRKR KERCKHF2
115.00
1 34365 34366 "1 " 0 # line from CLOVISJ2 115.00 (3) to BRKR SANGER
115.00
4 34364 0 "3 " 0 # LOAD-DROP CLOVIS-2 115.00 LOAD==44.76(9.09)
1 34362 34364 "1 " 1 # Switches in Clovis SW 387 to transfer load
4 34364 0 "***" 1 # Restore Load at Clovis 2
0
#
#
# (215) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34366 34370 "1 " 0 # line from SANGER 115.00 BRKR to BRKR MC CALL
115.00
0
#
#
# (216) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34366 34370 "2 " 0 # line from SANGER 115.00 BRKR to BRKR MC CALL
115.00
0
#
#
# (217) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34366 34370 "3 " 0 # line from SANGER 115.00 BRKR to BRKR MC CALL
115.00
0
#
#
# (218) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34366 34372 "1 " 0 # line from SANGER 115.00 BRKR to BRKR MALAGA
115.00
0
#
#
# (219) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34366 34389 "1 " 0 # line from SANGER 115.00 BRKR to (3) RAINBWTP
115.00
1 34389 34388 "1 " 0 # line from RAINBWTP 115.00 (3) to (1) RAINBW
115.00
1 34389 34394 "1 " 0 # line from RAINBWTP 115.00 (3) to (3) PIEDRA 1
115.00
1 34394 34380 "1 " 0 # line from PIEDRA 1 115.00 (3) to BRKR REEDLEY
115.00
1 34394 34400 "1 " 0 # line from PIEDRA 1 115.00 (3) to BRKR KNGSRVR1
115.00
4 34388 0 "1 " 0 # LOAD-DROP RAINBW 115.00 LOAD==16.20(3.29)
0
#
#
# (220) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34366 34396 "1 " 0 # line from SANGER 115.00 BRKR to (2) PIEDRA 2
115.00
1 34396 34398 "1 " 0 # line from PIEDRA 2 115.00 (2) to (2) BALCH
115.00
2 34398 34624 "1 " 0 # TRAN from BALCH 115.00 (2) to (1) BALCH 1
13.20
4 34624 0 "1 " 0 # LOAD-DROP BALCH 1 13.20 LOAD==0.26(0.00)
3 34624 0 "1 " 0 # GEN-DROP BALCH 1 13.20 GEN==27.00(8.33)

```

```

0
#
#
# (221) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34369 34370 "1 " 0 # line from P0418 115.00 (5) to BRKR MC CALL
115.00
2 34369 34661 "1 " 0 # TRAN from P0418 115.00 (5) to (1) P0418GT1
13.80
2 34369 34663 "1 " 0 # TRAN from P0418 115.00 (5) to (1) P0418GT2
13.80
2 34369 34665 "1 " 0 # TRAN from P0418 115.00 (5) to (1) P0418GT3
13.80
2 34369 34667 "1 " 0 # TRAN from P0418 115.00 (5) to (1) P0418GT4
13.80
4 34661 0 "ss" 0 # LOAD-DROP P0418GT1 13.80 LOAD==3.00(1.66)
4 34663 0 "ss" 0 # LOAD-DROP P0418GT2 13.80 LOAD==3.00(1.66)
4 34665 0 "ss" 0 # LOAD-DROP P0418GT3 13.80 LOAD==3.00(1.66)
4 34667 0 "ss" 0 # LOAD-DROP P0418GT4 13.80 LOAD==3.00(1.66)
3 34661 0 "1 " 0 # GEN-DROP P0418GT1 13.80 GEN==78.80(13.93)
3 34663 0 "2 " 0 # GEN-DROP P0418GT2 13.80 GEN==78.80(13.93)
3 34665 0 "3 " 0 # GEN-DROP P0418GT3 13.80 GEN==78.80(13.93)
3 34667 0 "4 " 0 # GEN-DROP P0418GT4 13.80 GEN==78.80(13.93)
0
#
#
# (222) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34370 34382 "1 " 0 # line from MC CALL 115.00 BRKR to BRKR WAHTOKE
115.00
0
#
#
# (223) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34370 34385 "1 " 0 # line from MC CALL 115.00 BRKR to (3) KINGS J1
115.00
1 34385 34417 "1 " 0 # line from KINGS J1 115.00 (3) to (2) KINGS J2
115.00
1 34385 34425 "1 " 0 # line from KINGS J1 115.00 (3) to (3) KCOGNJCT
115.00
1 34417 34418 "1 " 0 # line from KINGS J2 115.00 (2) to BRKR KINGSBURG
115.00
1 34425 34387 "1 " 0 # line from KCOGNJCT 115.00 (3) to (1) SUNMAID
115.00
1 34425 34427 "1 " 0 # line from KCOGNJCT 115.00 (3) to (2) GRDNGLS2
115.00
1 34427 34386 "1 " 0 # line from GRDNGLS2 115.00 (2) to (2) KNGSCOGN
115.00
2 34386 34642 "1 " 0 # TRAN from KNGSCOGN 115.00 (2) to BRKR KINGSBUR
9.11
4 34387 0 "1 " 0 # LOAD-DROP SUNMAID 115.00 LOAD==3.40(3.28)
3 34642 0 "1 " 0 # GEN-DROP KINGSBUR 9.11 GEN==34.00(17.30)
0
#
#
# (224) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34402 34404 "1 " 0 # line from CAL AVE 115.00 BRKR to BRKR WST FRSO
115.00
0
#
#
# (225) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34372 34376 "1 " 0 # line from MALAGA 115.00 BRKR to (1) PPG
115.00
4 34376 0 "1 " 0 # LOAD-DROP PPG 115.00 LOAD==6.25(3.87)
0
#

```

```

#
# (226) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34372 34379 "1 " 0 # line from MALAGA 115.00 BRKR to (3) MALAGATP
115.00
1 34379 34373 "1 " 0 # line from MALAGATP 115.00 (3) to (3) SCWAXJCT
115.00
1 34379 34375 "1 " 0 # line from MALAGATP 115.00 (3) to (3) ULTPWRJ
115.00
1 34373 34371 "1 " 0 # line from SCWAXJCT 115.00 (3) to (1) SCWAX
115.00
1 34373 34374 "1 " 0 # line from SCWAXJCT 115.00 (3) to (1) RANCHRS
115.00
1 34375 34377 "1 " 0 # line from ULTPWRJ 115.00 (3) to (2) AIRPROD
115.00
2 34375 34640 "1 " 0 # TRAN from ULTPWRJ 115.00 (3) to (1) ULTR.PWR
9.11
1 34377 34370 "1 " 0 # line from AIRPROD 115.00 (2) to BRKR MC CALL
115.00
4 34371 0 "1 " 0 # LOAD-DROP SCWAX 115.00 LOAD==2.70(1.53)
4 34374 0 "1 " 0 # LOAD-DROP RANCHRS 115.00 LOAD==9.16(1.86)
4 34377 0 "1 " 0 # LOAD-DROP AIRPROD 115.00 LOAD==5.10(2.02)
3 34640 0 "1 " 0 # GEN-DROP ULTR.PWR 9.11 GEN==14.50(13.00)
0
#
#
# (227) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34372 34381 "1 " 0 # line from MALAGA 115.00 BRKR to (3) KRCDP
115.00
2 34381 34671 "1 " 0 # TRAN from KRCDP 115.00 (3) to (1) KRCDPCT1
13.80
2 34381 34672 "1 " 0 # TRAN from KRCDP 115.00 (3) to (1) KRCDPCT2
13.80
4 34671 0 "ss" 0 # LOAD-DROP KRCDPCT1 13.80 LOAD==1.05(0.65)
4 34672 0 "ss" 0 # LOAD-DROP KRCDPCT2 13.80 LOAD==1.05(0.65)
3 34671 0 "1 " 0 # GEN-DROP KRCDPCT1 13.80 GEN==50.00(7.14)
3 34672 0 "1 " 0 # GEN-DROP KRCDPCT2 13.80 GEN==50.00(7.14)
0
#
#
# (228) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34380 34384 "1 " 0 # line from REEDLEY 115.00 BRKR to (2) GERAWAN
115.00
1 34384 34382 "1 " 0 # line from GERAWAN 115.00 (2) to BRKR WAHTOKE
115.00
0
#
#
# (229) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34390 34370 "1 " 0 # line from DANISHCM 115.00 (2) to BRKR MC CALL
115.00
1 34390 34402 "1 " 0 # line from DANISHCM 115.00 (2) to BRKR CAL AVE
115.00
4 34390 0 "1 " 0 # LOAD-DROP DANISHCM 115.00 LOAD==4.10(3.51)
0
#
#
# (230) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34391 34392 "1 " 0 # line from QUEBECTP 115.00 (2) to (1) QUEBEC
115.00
1 34391 34426 "1 " 0 # line from QUEBECTP 115.00 (2) to BRKR ALPAUGH
115.00
4 34392 0 "1 " 0 # LOAD-DROP QUEBEC 115.00 LOAD==11.20(7.82)
0
#
#

```

```

# (231) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34404 34370 "1 " 0 # line from WST FRSO 115.00 BRKR to BRKR MC CALL
115.00
0
#
#
# (232) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34408 34412 "1 " 0 # line from BARTON 115.00 BRKR to BRKR HERNDON
115.00
0
#
#
# (233) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34409 34413 "1 " 0 # line from PNDLJ2 115.00 (3) to BRKR PNEBLE
115.00
1 34409 34416 "1 " 0 # line from PNDLJ2 115.00 (3) to BRKR BULLARD
115.00
1 34409 34412 "1 " 0 # line from PNDLJ2 115.00 (3) to BRKR HERNDON
115.00
4 34413 0 "2 " 0 # LOAD-DROP PNEBLE 115.00 LOAD==30.74(6.25)
4 34413 0 "3 " 0 # LOAD-DROP PNEBLE 115.00 LOAD==40.42(8.20)
1 34411 34413 "1 " 1 # Switches in Pindale CB#12 to transfer load
4 34413 0 "***" 1 # Restore load at Pindale
0
#
#
# (234) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34410 34412 "1 " 0 # line from MANCHSTR 115.00 BRKR to BRKR HERNDON
115.00
0
#
#
# (235) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34411 34416 "1 " 0 # line from PNDLJ1 115.00 (2) to BRKR BULLARD
115.00
1 34411 34412 "1 " 0 # line from PNDLJ1 115.00 (2) to BRKR HERNDON
115.00
0
#
#
# (236) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34412 34422 "1 " 0 # line from HERNDON 115.00 BRKR to (2) CHLDHOSP
115.00
1 34422 34414 "1 " 0 # line from CHLDHOSP 115.00 (2) to BRKR WOODWARD
115.00
4 34422 0 "1 " 0 # LOAD-DROP CHLDHOSP 115.00 LOAD==3.50(1.60)
0
#
#
# (237) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34418 34420 "1 " 0 # line from KINGSBRG 115.00 BRKR to BRKR CORCORAN
115.00
0
#
#
# (238) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34418 34420 "2 " 0 # line from KINGSBRG 115.00 BRKR to BRKR CORCORAN
115.00
0
#
#
# (239) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

```

```

#
1 34418 34423 "1 " 0 # line from KINGSBRG 115.00 BRKR to (3) GAURD J1
115.00
1 34423 34370 "1 " 0 # line from GAURD J1 115.00 (3) to BRKR MC CALL
115.00
1 34423 34421 "1 " 0 # line from GAURD J1 115.00 (3) to (2) GAURD J2
115.00
1 34421 34424 "1 " 0 # line from GAURD J2 115.00 (2) to (1) GRDN GLS
115.00
4 34424 0 "1 " 0 # LOAD-DROP GRDN GLS 115.00 LOAD==3.50(1.15)
4 34418 0 "3 " 0 # Kingsburg Bank #3 will also be dropped on this outage
0
#
#
# (240) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34418 34428 "1 " 0 # line from KINGSBRG 115.00 BRKR to (2) CONTADNA
115.00
1 34428 34429 "1 " 0 # line from CONTADNA 115.00 (2) to (4) GWF_HEP
115.00
1 34429 34521 "1 " 0 # line from GWF_HEP 115.00 (4) to (2) LEPRNOFD
115.00
2 34429 34431 "1 " 0 # TRAN from GWF_HEP 115.00 (4) to (1) GWF_HEP1
13.80
2 34429 34433 "1 " 0 # TRAN from GWF_HEP 115.00 (4) to (1) GWF_HEP2
13.80
1 34521 34430 "1 " 0 # line from LEPRNOFD 115.00 (2) to BRKR HENRETTA
115.00
4 34428 0 "1 " 0 # LOAD-DROP CONTADNA 115.00 LOAD==7.60(5.70)
4 34429 0 "ss" 0 # LOAD-DROP GWF_HEP 115.00 LOAD==3.00(0.68)
4 34521 0 "1 " 0 # LOAD-DROP LEPRNOFD 115.00 LOAD==6.65(4.30)
3 34431 0 "1 " 0 # GEN-DROP GWF_HEP1 13.80 GEN==50.00(21.27)
3 34433 0 "1 " 0 # GEN-DROP GWF_HEP2 13.80 GEN==50.00(21.27)
0
#
#
# (241) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34426 34700 "1 " 0 # line from ALPAUGH 115.00 BRKR to BRKR SMYRNA
115.00
0
#
#
# (242) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34452 34260 "1 " 0 # line from WISHON 70.00 BRKR to (3) SJNO2
70.00
1 34260 34259 "1 " 0 # line from SJNO2 70.00 (3) to (3) NRTHFORK
70.00
2 34260 34631 "1 " 0 # TRAN from SJNO2 70.00 (3) to (1) SJ2GEN
9.11
1 34259 34261 "1 " 0 # line from NRTHFORK 70.00 (3) to (2) SJNO3
70.00
2 34259 34340 "1 " 0 # TRAN from NRTHFORK 70.00 (3) to (1) N.FORK E
9.11
2 34261 34633 "1 " 0 # TRAN from SJNO3 70.00 (2) to (1) SJ3GEN
9.11
4 34260 0 "2 " 0 # LOAD-DROP SJNO2 70.00 LOAD==3.22(0.66)
4 34261 0 "2 " 0 # LOAD-DROP SJNO3 70.00 LOAD==6.95(1.41)
4 34340 0 "1 " 0 # LOAD-DROP N.FORK E 9.11 LOAD==1.21(0.25)
3 34631 0 "1 " 0 # GEN-DROP SJ2GEN 9.11 GEN==2.00(0.00)
3 34633 0 "1 " 0 # GEN-DROP SJ3GEN 9.11 GEN==1.00(0.00)
0
#
#
# (243) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34452 34491 "1 " 0 # line from WISHON 70.00 BRKR to (3) AUBRYTP
70.00

```

```

1 34491 34464 "1 " 0 # line from AUBRYTP 70.00 (3) to BRKR COPPRMNE
70.00
1 34491 34493 "1 " 0 # line from AUBRYTP 70.00 (3) to (1) AUBERRY
70.00
4 34493 0 "1 " 0 # LOAD-DROP AUBERRY 70.00 LOAD==6.07(1.23)
4 34493 0 "2 " 0 # LOAD-DROP AUBERRY 70.00 LOAD==7.15(1.45)
0
#
#
# (244) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34456 34458 "1 " 0 # line from HRDWK TP 70.00 (3) to (1) HARDWICK
70.00
1 34456 34522 "1 " 0 # line from HRDWK TP 70.00 (3) to (1) HNFERD SW
70.00
1 34456 34576 "1 " 0 # line from HRDWK TP 70.00 (3) to BRKR KNGLOBUS
70.00
4 34458 0 "1 " 0 # LOAD-DROP HARDWICK 70.00 LOAD==12.86(2.61)
0
#
#
# (245) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34460 34462 "1 " 0 # line from GUERNSEY 70.00 BRKR to (3) GUR3TPT
70.00
1 34462 34542 "1 " 0 # line from GUR3TPT 70.00 (3) to (2) JCBSCRNR
70.00
1 34462 34554 "1 " 0 # line from GUR3TPT 70.00 (3) to BRKR AMSTG SW
70.00
1 34542 34540 "1 " 0 # line from JCBSCRNR 70.00 (2) to BRKR HENRITTA
70.00
4 34460 0 "1 " 0 # LOAD-DROP GUERNSEY 70.00 LOAD==10.51(2.13)
4 34542 0 "1 " 0 # LOAD-DROP JCBSCRNR 70.00 LOAD==12.05(2.45)
4 34542 0 "2 " 0 # LOAD-DROP JCBSCRNR 70.00 LOAD==9.54(1.94)
0
#
#
# (246) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34464 34478 "1 " 0 # line from COPPRMNE 70.00 BRKR to BRKR TVY VLLY
70.00
0
#
#
# (247) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34464 34638 "1 " 0 # line from COPPRMNE 70.00 BRKR to (2) FRANTDM
70.00
2 34638 34636 "1 " 0 # TRAN from FRANTDM 70.00 (2) to (1) FRIANTDM
6.60
3 34636 0 "2 " 0 # GEN-DROP FRIANTDM 6.60 GEN==14.70(5.86)
3 34636 0 "3 " 0 # GEN-DROP FRIANTDM 6.60 GEN==7.80(3.11)
3 34636 0 "4 " 0 # GEN-DROP FRIANTDM 6.60 GEN==2.30(0.92)
0
#
#
# (248) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34466 34482 "1 " 0 # line from BIOLA 70.00 BRKR to BRKR OLDKERN
70.00
4 34466 0 "1 " 0 # LOAD-DROP BIOLA 70.00 LOAD==21.80(4.43)
0
#
#
# (249) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34468 34482 "1 " 0 # line from BOWLES 70.00 (1) to BRKR OLDKERN
70.00
4 34468 0 "1 " 0 # LOAD-DROP BOWLES 70.00 LOAD==18.29(3.72)
0

```

```

#
#
# (250) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34469 34271 "1 " 0 # line from GFFNJCT 70.00 (3) to (3) WSTLDJCT
70.00
1 34469 34470 "1 " 0 # line from GFFNJCT 70.00 (3) to (1) GIFFEN
70.00
1 34469 34471 "1 " 0 # line from GFFNJCT 70.00 (3) to (3) SNJQJCT
70.00
1 34271 34172 "1 " 0 # line from WSTLDJCT 70.00 (3) to (2) WESTLAND
70.00
1 34271 34269 "1 " 0 # line from WSTLDJCT 70.00 (3) to (3) BIOMSJCT
70.00
1 34471 34472 "1 " 0 # line from SNJQJCT 70.00 (3) to BRKR SAN JOQN
70.00
1 34471 34474 "1 " 0 # line from SNJQJCT 70.00 (3) to BRKR HELM
70.00
1 34172 34170 "1 " 0 # line from WESTLAND 70.00 (2) to (1) WESIX
70.00
1 34269 34268 "1 " 0 # line from BIOMSJCT 70.00 (3) to BRKR MENDOTA
70.00
1 34269 34270 "1 " 0 # line from BIOMSJCT 70.00 (3) to (2) BIOMASS
70.00
2 34270 34334 "1 " 0 # TRAN from BIOMASS 70.00 (2) to (1) BIO PWR
9.11
4 34470 0 "1 " 0 # LOAD-DROP GIFFEN 70.00 LOAD==9.59(1.95)
4 34172 0 "1 " 0 # LOAD-DROP WESTLAND 70.00 LOAD==3.20(0.76)
4 34170 0 "1 " 0 # LOAD-DROP WESIX 70.00 LOAD==1.60(0.38)
3 34334 0 "1 " 0 # GEN-DROP BIO PWR 9.11 GEN==21.80(10.99)
1 34472 34473 "1 " 1 # Switches in San Joaquin CB22 to transfer load
4 34472 0 "***" 1 # Restore Load at San Joaquin
0
#
#
# (251) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34473 34472 "1 " 0 # line from SNJQTP 70.00 (2) to BRKR SAN JOQN
70.00
1 34473 34475 "1 " 0 # line from SNJQTP 70.00 (2) to (3) AGRCJCT
70.00
1 34475 34476 "1 " 0 # line from AGRCJCT 70.00 (3) to (2) AGRICO
70.00
1 34475 34484 "1 " 0 # line from AGRCJCT 70.00 (3) to BRKR KERMAN
70.00
2 34476 34608 "1 " 0 # TRAN from AGRICO 70.00 (2) to (1) AGRICO
13.80
4 34484 0 "1 " 0 # LOAD-DROP KERMAN 70.00 LOAD==19.44(3.95)
4 34484 0 "2 " 0 # LOAD-DROP KERMAN 70.00 LOAD==11.78(2.39)
3 34608 0 "2 " 0 # GEN-DROP AGRICO 13.80 GEN==7.00(1.08)
3 34608 0 "3 " 0 # GEN-DROP AGRICO 13.80 GEN==18.10(2.80)
3 34608 0 "4 " 0 # GEN-DROP AGRICO 13.80 GEN==26.00(4.02)
0
#
#
# (252) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34474 34556 "1 " 0 # line from HELM 70.00 BRKR to BRKR STRD JCT
70.00
0
#
#
# (253) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34478 34492 "1 " 0 # line from TVY VLLY 70.00 BRKR to BRKR REEDLEY
70.00
0
#
#
# (254) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

```



```

#
1 34480 34481 "1 " 0 # line from KEARNEY 70.00 BRKR to (3) FRWWTAP
70.00
1 34481 34483 "1 " 0 # line from FRWWTAP 70.00 (3) to (3) FRESNOWW
70.00
1 34481 34483 "2 " 0 # line from FRWWTAP 70.00 (3) to (3) FRESNOWW
70.00
2 34483 34485 "1 " 0 # TRAN from FRESNOWW 70.00 (3) to (1) FRESNOWW
12.47
4 34485 0 "1 " 0 # LOAD-DROP FRESNOWW 12.47 LOAD==7.91(0.00)
3 34485 0 "1 " 0 # GEN-DROP FRESNOWW 12.47 GEN==9.00(0.00)
0
#
#
# (255) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34480 34482 "1 " 0 # line from KEARNEY 70.00 BRKR to (3) OLDKERN
70.00
1 34482 34466 "1 " 0 # line from OLDKERN 70.00 BRKR to BRKR BIOLA
70.00
1 34482 34468 "1 " 0 # line from OLDKERN 70.00 BRKR to (1) BOWLES
70.00
4 34482 0 "1 " 0 # LOAD-DROP OLDKERN 70.00 LOAD==18.75(3.81)
4 34482 0 "3 " 0 # LOAD-DROP OLDKERN 70.00 LOAD==7.57(1.54)
4 34466 0 "1 " 0 # LOAD-DROP BIOLA 70.00 LOAD==21.80(4.43)
4 34468 0 "1 " 0 # LOAD-DROP BOWLES 70.00 LOAD==18.29(3.72)
0
#
#
# (256) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34480 34512 "1 " 0 # line from KEARNEY 70.00 BRKR to BRKR CARUTHRS
70.00
4 34512 0 "1 " 0 # LOAD-DROP CARUTHRS 70.00 LOAD==19.63(3.98)
0
#
#
# (257) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34487 34489 "1 " 0 # line from SNGRJCT 70.00 (3) to (2) SNGRCOGN
70.00
1 34487 34490 "1 " 0 # line from SNGRJCT 70.00 (3) to (2) PARLIER
70.00
1 34487 34488 "1 " 0 # line from SNGRJCT 70.00 (3) to BRKR SANGER
70.00
2 34489 34646 "1 " 0 # TRAN from SNGRCOGN 70.00 (2) to (1) SANGERCO
9.11
1 34490 34492 "1 " 0 # line from PARLIER 70.00 (2) to BRKR REEDLEY
70.00
4 34490 0 "1 " 0 # LOAD-DROP PARLIER 70.00 LOAD==20.24(4.11)
3 34646 0 "1 " 0 # GEN-DROP SANGERCO 9.11 GEN==37.50(1.40)
0
#
#
# (258) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34488 34366 "1 " 0 # line from SANGER 70.00 BRKR to BRKR SANGER
115.00
0
#
#
# (259) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34492 34497 "1 " 0 # line from REEDLEY 70.00 BRKR to (3) DNUBAJCT
70.00
1 34497 34499 "1 " 0 # line from DNUBAJCT 70.00 (3) to (2) DNUBAEGY
70.00
1 34497 34500 "1 " 0 # line from DNUBAJCT 70.00 (3) to BRKR DINUBA
70.00

```

```

2 34499 34648 "1 " 0 # TRAN from DNUBAEGY 70.00 (2) to (1) DINUBA E
13.80
4 34648 0 "ss" 0 # LOAD-DROP DINUBA E 13.80 LOAD==0.30(0.26)
3 34648 0 "1 " 0 # GEN-DROP DINUBA E 13.80 GEN==12.00(7.00)
0
#
#
# (260) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34492 34526 "1 " 0 # line from REEDLEY 70.00 BRKR to (3) ORSI JCT
70.00
1 34526 34495 "1 " 0 # line from ORSI JCT 70.00 (3) to (2) SANDCRK
70.00
1 34526 34502 "1 " 0 # line from ORSI JCT 70.00 (3) to BRKR OROSI
70.00
1 34495 34494 "1 " 0 # line from SANDCRK 70.00 (2) to (1) DUNLAP
70.00
4 34495 0 "1 " 0 # LOAD-DROP SANDCRK 70.00 LOAD==3.14(0.64)
4 34494 0 "1 " 0 # LOAD-DROP DUNLAP 70.00 LOAD==4.46(0.91)
0
#
#
# (261) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34496 34498 "1 " 0 # line from STCRRL J 70.00 (3) to (1) STONCRRL
70.00
1 34496 34500 "1 " 0 # line from STCRRL J 70.00 (3) to BRKR DINUBA
70.00
1 34496 34502 "1 " 0 # line from STCRRL J 70.00 (3) to (2) OROSI
70.00
1 34502 34526 "1 " 0 # line from OROSI 70.00 BRKR to (1) ORSI JCT
70.00
4 34498 0 "2 " 0 # LOAD-DROP STONCRRL 70.00 LOAD==3.37(0.68)
4 34498 0 "3 " 0 # LOAD-DROP STONCRRL 70.00 LOAD==2.68(0.54)
4 34502 0 "1 " 0 # LOAD-DROP OROSI 70.00 LOAD==8.38(1.70)
4 34502 0 "2 " 0 # LOAD-DROP OROSI 70.00 LOAD==7.43(1.51)
0
#
#
# (262) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34508 34510 "1 " 0 # line from CAMDEN 70.00 (2) to (1) CMDN JCT
70.00
1 34508 34576 "1 " 0 # line from CAMDEN 70.00 (2) to BRKR KNGLOBUS
70.00
4 34508 0 "1 " 0 # LOAD-DROP CAMDEN 70.00 LOAD==6.87(1.40)
4 34508 0 "2 " 0 # LOAD-DROP CAMDEN 70.00 LOAD==10.90(2.22)
0
#
#
# (263) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34514 34540 "1 " 0 # line from MUSLSLGH 70.00 (1) to BRKR HENRITTA
70.00
4 34514 0 "1 " 0 # LOAD-DROP MUSLSLGH 70.00 LOAD==22.00(13.60)
0
#
#
# (264) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34516 34520 "1 " 0 # line from LEPRINO 70.00 (1) to (4) LPRNO TP
70.00
1 34520 34518 "1 " 0 # line from LPRNO TP 70.00 (4) to BRKR LEMOORE
70.00
1 34520 34524 "1 " 0 # line from LPRNO TP 70.00 (4) to (1) CANDLEWK
70.00
1 34520 34540 "1 " 0 # line from LPRNO TP 70.00 (4) to BRKR HENRITTA
70.00
4 34516 0 "1 " 0 # LOAD-DROP LEPRINO 70.00 LOAD==16.10(9.12)
4 34518 0 "1 " 0 # LOAD-DROP LEMOORE 70.00 LOAD==18.86(3.83)

```

```

4 34518 0 "2 " 0 # LOAD-DROP LEMOORE 70.00 LOAD==32.81(6.66)
0
#
#
# (265) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34528 34530 "1 " 0 # line from CORCORAN 70.00 BRKR to (3) BSWLL TP
70.00
1 34530 34531 "1 " 0 # line from BSWLL TP 70.00 (3) to (2) JGBSWLL
70.00
1 34530 34538 "1 " 0 # line from BSWLL TP 70.00 (3) to (1) BOSWELL
70.00
1 34531 34536 "1 " 0 # line from JGBSWLL 70.00 (2) to (1) ANGIOLA
70.00
4 34538 0 "1 " 0 # LOAD-DROP BOSWELL 70.00 LOAD==2.37(1.53)
4 34536 0 "1 " 0 # LOAD-DROP ANGIOLA 70.00 LOAD==7.24(1.47)
0
#
#
# (266) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34532 34554 "1 " 0 # line from ARMSTRNG 70.00 (1) to (4) AMSTG SW
70.00
1 34554 34462 "1 " 0 # line from AMSTG SW 70.00 BRKR to (1) GUR3TPT
70.00
1 34554 34534 "1 " 0 # line from AMSTG SW 70.00 (4) to (1) RESERVE
70.00
2 34554 34650 "1 " 0 # TRAN from AMSTG SW 70.00 BRKR to (1) GWF-PWR.
13.80
4 34534 0 "1 " 0 # LOAD-DROP RESERVE 70.00 LOAD==2.03(0.41)
3 34650 0 "1 " 0 # GEN-DROP GWF-PWR. 13.80 GEN==23.00(12.00)
0
#
#
# (267) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34537 34540 "1 " 0 # line from GWF_HENR 70.00 (5) to BRKR HENRITTA
70.00
2 34537 34539 "1 " 0 # TRAN from GWF_HENR 70.00 (5) to (1) GWF_GT1
13.80
2 34537 34541 "1 " 0 # TRAN from GWF_HENR 70.00 (5) to (1) GWF_GT2
13.80
2 34537 34691 "1 " 0 # TRAN from GWF_HENR 70.00 (5) to (1) Q272_ST1
13.80
2 34537 34692 "1 " 0 # TRAN from GWF_HENR 70.00 (5) to (1) Q272SLST
13.80
4 34539 0 "ss" 0 # LOAD-DROP GWF_GT1 13.80 LOAD==1.10(0.25)
4 34541 0 "ss" 0 # LOAD-DROP GWF_GT2 13.80 LOAD==1.10(0.25)
4 34691 0 "ss" 0 # LOAD-DROP Q272_ST1 13.80 LOAD==2.00(1.11)
4 34692 0 "ss" 0 # LOAD-DROP Q272SLST 13.80 LOAD==14.00(7.75)
3 34539 0 "1 " 0 # GEN-DROP GWF_GT1 13.80 GEN==50.00(4.51)
3 34541 0 "1 " 0 # GEN-DROP GWF_GT2 13.80 GEN==50.00(4.51)
3 34691 0 "1 " 0 # GEN-DROP Q272_ST1 13.80 GEN==27.00(1.87)
3 34692 0 "1 " 0 # GEN-DROP Q272SLST 13.80 GEN==139.00(35.74)
0
#
#
# (268) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34544 34550 "1 " 0 # line from TLRE LKE 70.00 BRKR to (2) CHEVPLIN
70.00
1 34550 34546 "1 " 0 # line from CHEVPLIN 70.00 (2) to (2) AVENAL
70.00
1 34546 34548 "1 " 0 # line from AVENAL 70.00 (2) to BRKR KETTLEMN
70.00
4 34544 0 "1 " 0 # LOAD-DROP TLRE LKE 70.00 LOAD==6.79(1.38)
4 34550 0 "1 " 0 # LOAD-DROP CHEVPLIN 70.00 LOAD==1.01(0.73)
4 34546 0 "1 " 0 # LOAD-DROP AVENAL 70.00 LOAD==7.72(1.57)
0
#

```

```

#
# (269) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34548 34552 "1 " 0 # line from KETTLEMN 70.00 (2) to BRKR GATES
70.00
1 34548 34546 "1 " 0 # line from KETTLEMN 70.00 BRKR to (1) AVENAL
70.00
4 34548 0 "1 " 0 # LOAD-DROP KETTLEMN 70.00 LOAD==6.32(1.29)
0
#
# (270) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34552 34558 "1 " 0 # line from GATES 70.00 BRKR to BRKR HURON
70.00
0
#
# (271) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34552 34558 "2 " 0 # line from GATES 70.00 BRKR to BRKR HURON
70.00
0
#
# (272) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34552 34578 "1 " 0 # line from GATES 70.00 BRKR to (2) JACALITO
70.00
1 34578 34574 "1 " 0 # line from JACALITO 70.00 (2) to BRKR COLNGA 1
70.00
4 34578 0 "1 " 0 # LOAD-DROP JACALITO 70.00 LOAD==4.45(2.99)
0
#
# (273) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34556 34562 "1 " 0 # line from STRD JCT 70.00 BRKR to BRKR SCHLNDLR
70.00
0
#
# (274) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34556 34564 "1 " 0 # line from STRD JCT 70.00 (3) to BRKR STROUD
70.00
1 34556 34474 "1 " 0 # line from STRD JCT 70.00 BRKR to BRKR HELM
70.00
1 34556 34562 "1 " 0 # line from STRD JCT 70.00 BRKR to BRKR SCHLNDLR
70.00
4 34564 0 "1 " 0 # LOAD-DROP STROUD 70.00 LOAD==13.09(2.66)
0
#
# (275) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34558 34560 "1 " 0 # line from HURON 70.00 BRKR to (2) CALFLAX
70.00
1 34560 34562 "1 " 0 # line from CALFLAX 70.00 (2) to BRKR SCHLNDLR
70.00
4 34560 0 "1 " 0 # LOAD-DROP CALFLAX 70.00 LOAD==6.53(1.33)
1 34552 34558 "2 " 0 # Must include Gates - Huron in this outage
0
#
# (276) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34562 34566 "1 " 0 # line from SCHLNDLR 70.00 BRKR to (2) PLSNTVLY
70.00

```

```

1 34566 34570 "1 " 0 # line from PLSNTVLY 70.00 (2) to BRKR COLNGA 2
70.00
4 34566 0 "1 " 0 # LOAD-DROP PLSNTVLY 70.00 LOAD==10.00(2.51)
0
#
#
# (277) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34570 34572 "1 " 0 # line from COLNGA 2 70.00 BRKR to (3) TORNADO
70.00
1 34572 34574 "1 " 0 # line from TORNADO 70.00 (3) to BRKR COLNGA 1
70.00
2 34572 34654 "1 " 0 # TRAN from TORNADO 70.00 (3) to (1) COLNGAGN
9.11
4 34572 0 "1 " 0 # LOAD-DROP TORNADO 70.00 LOAD==1.74(1.44)
3 34654 0 "1 " 0 # GEN-DROP COLNGAGN 9.11 GEN==34.00(5.40)
2 34570 34652 "1 " 0 # Must include Colinga2 - Chv.coal in this outage -
modeled on bus,
3 34652 0 "***" 0 # Drops units on Derrick Sub
4 34652 0 "***" 0 # Drops load at Derrick Sub
0
#
#
# (278) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 36354 34574 "1 " 0 # line from SAN MIGL 70.00 BRKR to BRKR COLNGA 1
70.00
0
#
#
# (279) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
# **** 3-WINDING TRANSFORMER 30835 (30882) 34412 34630 :
2 30835 34412 "1 " 0 # TRAN from HERNDON 230.00 BRKR to (1) HERNDON
115.00
0
#
#
# (280) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
# **** 3-WINDING TRANSFORMER 30835 (30883) 34412 34632 :
2 30835 34412 "2 " 0 # TRAN from HERNDON 230.00 BRKR to (1) HERNDON
115.00
0
#
#
# (281) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
# **** 3-WINDING TRANSFORMER 30875 (30876) 34370 34618 :
2 30875 34370 "1 " 0 # TRAN from MC CALL 230.00 BRKR to (1) MC CALL
115.00
0
#
#
# (282) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
# **** 3-WINDING TRANSFORMER 30875 (30877) 34370 34620 :
2 30875 34370 "2 " 0 # TRAN from MC CALL 230.00 BRKR to (1) MC CALL
115.00
0
#
#
# (283) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
# **** 3-WINDING TRANSFORMER 30875 (30878) 34370 34621 :
2 30875 34370 "3 " 0 # TRAN from MC CALL 230.00 BRKR to (1) MC CALL
115.00
0
#
#

```

```

# (284) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 30881 34430 "3 " 0 # TRAN from HENRIETA 230.00 BRKR to BRKR HENRETTA
115.00
0
#
#
# (285) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
# **** 3-WINDING TRANSFORMER 30900 (34607) 30055 34606 :
2 30900 30055 "11" 0 # TRAN from GATES 230.00 BRKR to (1) GATES
500.00
0
#
#
# (286) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 30900 30901 "1 " 0 # TRAN from GATES 230.00 BRKR to (3) GATES 1M
230.00
2 30901 34378 "1 " 0 # TRAN from GATES 1M 230.00 (3) to BRKR GATES
115.00
2 30901 34622 "1 " 0 # TRAN from GATES 1M 230.00 (3) to (1) GATES 1T
13.20
4 34378 0 "3 " 0 # Drop Gates Bank #3
0
#
#
# (287) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34356 34344 "1 " 0 # TRAN from KERCKHF1 115.00 BRKR to (1) KERCKHOF
6.60
4 34344 0 "4 " 0 # LOAD-DROP KERCKHOF 6.60 LOAD==3.24(0.66)
3 34344 0 "2 " 0 # GEN-DROP KERCKHOF 6.60 GEN==6.80(-4.00)
0
#
#
# (288) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34366 34590 "1 " 0 # TRAN from SANGER 115.00 BRKR to (2) SANGR3T
115.00
2 34590 34488 "1 " 0 # TRAN from SANGR3T 115.00 (2) to BRKR SANGER
70.00
4 34590 0 "3 " 0 # LOAD-DROP SANGR3T 115.00 LOAD==20.55(4.17)
0
#
#
# (289) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34418 34576 "2 " 0 # TRAN from KINGSBRG 115.00 BRKR to BRKR KNGLOBUS
70.00
0
#
#
# (290) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34474 30873 "1 " 0 # TRAN from HELM 70.00 BRKR to BRKR HELM
230.00
0
#
#
# (291) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34480 30830 "2 " 0 # TRAN from KEARNEY 70.00 BRKR to BRKR KEARNEY
230.00
0
#
#
# (292) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#

```

```

2 34492 34380 "1 " 0 # TRAN from REEDLEY 70.00 BRKR to BRKR REEDLEY
115.00
0
#
#
# (293) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34492 34380 "2 " 0 # TRAN from REEDLEY 70.00 BRKR to BRKR REEDLEY
115.00
0
#
#
# (294) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34528 34420 "2 " 0 # TRAN from CORCORAN 70.00 BRKR to BRKR CORCORAN
115.00
1 34420 34391 "1 " 0 # Must include Corcoran - Quebec (Corcoran CB 142) in
this outage
1 34420 34418 "2 " 0 # Must include Corcoran - Kingburg (Corcoran CB 162) in
this outage
1 34528 34460 "1 " 0 # Must include Corcorana - Guernsey (Corcoran CB 42) in
this outage
0
#
#
# (295) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34540 30881 "2 " 0 # TRAN from HENRITTA 70.00 BRKR to BRKR HENRIETA
230.00
0
#
#
# (296) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34540 30881 "4 " 0 # TRAN from HENRITTA 70.00 BRKR to BRKR HENRIETA
230.00
0
#
#
# (297) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34552 34378 "2 " 0 # TRAN from GATES 70.00 BRKR to BRKR GATES
115.00
0
#
#
# (298) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34562 34354 "1 " 0 # TRAN from SCHINDLR 70.00 BRKR to (3) SCHINDLR
115.00
1 34354 34149 "1 " 0 # line from SCHINDLR 115.00 BRKR to (1) CHENYT
115.00
1 34354 34432 "1 " 0 # line from SCHINDLR 115.00 BRKR to (1) WESTLNDS
115.00
4 34354 0 "1 " 0 # LOAD-DROP SCHINDLR 115.00 LOAD==11.22(2.28)
0
#
#
# (299) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34652 34570 "1 " 0 # TRAN from CHV.COAL 9.11 (1) to BRKR COLNGA 2
70.00
4 34652 0 "S1" 0 # LOAD-DROP CHV.COAL 9.11 LOAD==5.12(2.48)
4 34652 0 "SG" 0 # LOAD-DROP CHV.COAL 9.11 LOAD==0.94(0.46)
3 34652 0 "1 " 0 # GEN-DROP CHV.COAL 9.11 GEN==2.50(8.30)
3 34652 0 "2 " 0 # GEN-DROP CHV.COAL 9.11 GEN==8.00(4.00)
0
#
#
# (300) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

```

```

#
2 34658 34452 "1 " 0 # TRAN from WISHON 2.30 (1) to BRKR WISHON
70.00
3 34658 0 "3 " 0 # GEN-DROP WISHON 2.30 GEN==4.50(1.00)
3 34658 0 "4 " 0 # GEN-DROP WISHON 2.30 GEN==4.50(1.00)
0
#
#
# (301) B1 GENERATOR OUTAGE
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (302) B1 GENERATOR OUTAGE
#
3 34344 0 "2" 0 # KERCKHOF 6.60 PGEN=6.80 QGEN=-4.00
0
#
#
# (303) B1 GENERATOR OUTAGE
#
3 34431 0 "1" 0 # GWF_HEP1 13.80 PGEN=50.00 QGEN=21.57
0
#
#
# (304) B1 GENERATOR OUTAGE
#
3 34433 0 "1" 0 # GWF_HEP2 13.80 PGEN=50.00 QGEN=21.57
0
#
#
# (305) B1 GENERATOR OUTAGE
#
3 34485 0 "1" 0 # FRESNOWW 12.47 PGEN=9.00 QGEN=0.00
0
#
#
# (306) B1 GENERATOR OUTAGE
#
3 34539 0 "1" 0 # GWF_GT1 13.80 PGEN=50.00 QGEN=1.23
0
#
#
# (307) B1 GENERATOR OUTAGE
#
3 34541 0 "1" 0 # GWF_GT2 13.80 PGEN=50.00 QGEN=1.23
0
#
#
# (308) B1 GENERATOR OUTAGE
#
3 34553 0 "1" 0 # WHD_GAT2 13.80 PGEN=49.00 QGEN=-25.30
0
#
#
# (309) B1 GENERATOR OUTAGE
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (310) B1 GENERATOR OUTAGE
#
3 34602 0 "1" 0 # HELMS 2 18.00 PGEN=404.00 QGEN=66.06
0
#
#
# (311) B1 GENERATOR OUTAGE
#

```



3	34604	0	"1"	0	# HELMS 3	18.00	PGEN=404.00	QGEN=66.12
0	#	#	# (312)	B1	GENERATOR	OUTAGE		
3	34608	0	"2"	0	# AGRICO	13.80	PGEN=7.00	QGEN=1.64
0	#	#	# (313)	B1	GENERATOR	OUTAGE		
3	34608	0	"3"	0	# AGRICO	13.80	PGEN=18.10	QGEN=4.24
0	#	#	# (314)	B1	GENERATOR	OUTAGE		
3	34608	0	"4"	0	# AGRICO	13.80	PGEN=26.00	QGEN=6.09
0	#	#	# (315)	B1	GENERATOR	OUTAGE		
3	34610	0	"1"	0	# HAAS	13.80	PGEN=70.00	QGEN=18.75
0	#	#	# (316)	B1	GENERATOR	OUTAGE		
3	34610	0	"2"	0	# HAAS	13.80	PGEN=70.00	QGEN=18.75
0	#	#	# (317)	B1	GENERATOR	OUTAGE		
3	34612	0	"1"	0	# BLCH 2-2	13.80	PGEN=50.00	QGEN=9.61
0	#	#	# (318)	B1	GENERATOR	OUTAGE		
3	34614	0	"1"	0	# BLCH 2-3	13.80	PGEN=50.00	QGEN=13.00
0	#	#	# (319)	B1	GENERATOR	OUTAGE		
3	34616	0	"1"	0	# KINGSRIV	13.80	PGEN=47.00	QGEN=9.00
0	#	#	# (320)	B1	GENERATOR	OUTAGE		
3	34618	0	"1"	0	# MCCALL1T	13.20	PGEN=0.00	QGEN=36.40
0	#	#	# (321)	B1	GENERATOR	OUTAGE		
3	34621	0	"1"	0	# MCCALL3T	13.20	PGEN=0.00	QGEN=4.85
0	#	#	# (322)	B1	GENERATOR	OUTAGE		
3	34624	0	"1"	0	# BALCH 1	13.20	PGEN=27.00	QGEN=10.00
0	#	#						

```

# (323) B1 GENERATOR OUTAGE
#
3 34630 0 "1" 0 # HERNDN1T 13.20 PGEN=0.00 QGEN=20.26
0
#
#
# (324) B1 GENERATOR OUTAGE
#
3 34632 0 "1" 0 # HERNDN2T 13.20 PGEN=0.00 QGEN=32.58
0
#
#
# (325) B1 GENERATOR OUTAGE
#
3 34636 0 "2" 0 # FRIANTDM 6.60 PGEN=14.70 QGEN=6.14
0
#
#
# (326) B1 GENERATOR OUTAGE
#
3 34636 0 "3" 0 # FRIANTDM 6.60 PGEN=7.80 QGEN=3.26
0
#
#
# (327) B1 GENERATOR OUTAGE
#
3 34636 0 "4" 0 # FRIANTDM 6.60 PGEN=2.30 QGEN=0.96
0
#
#
# (328) B1 GENERATOR OUTAGE
#
3 34640 0 "1" 0 # ULTR.PWR 9.11 PGEN=14.50 QGEN=13.00
0
#
#
# (329) B1 GENERATOR OUTAGE
#
3 34642 0 "1" 0 # KINGSBUR 9.11 PGEN=34.00 QGEN=17.30
0
#
#
# (330) B1 GENERATOR OUTAGE
#
3 34646 0 "1" 0 # SANGERCO 9.11 PGEN=37.50 QGEN=4.31
0
#
#
# (331) B1 GENERATOR OUTAGE
#
3 34648 0 "1" 0 # DINUBA E 13.80 PGEN=12.00 QGEN=7.00
0
#
#
# (332) B1 GENERATOR OUTAGE
#
3 34650 0 "1" 0 # GWF-PWR. 13.80 PGEN=23.00 QGEN=12.00
0
#
#
# (333) B1 GENERATOR OUTAGE
#
3 34652 0 "1" 0 # CHV.COAL 9.11 PGEN=2.50 QGEN=8.30
0
#
#
# (334) B1 GENERATOR OUTAGE
#
3 34652 0 "2" 0 # CHV.COAL 9.11 PGEN=8.00 QGEN=4.00
0

```

```

#
#
# (335) B1 GENERATOR OUTAGE
#
3 34654      0  "1"      0      # COLNGAGN  9.11      PGEN=34.00  QGEN=-3.48
0
#
#
# (336) B1 GENERATOR OUTAGE
#
3 34658      0  "3"      0      # WISHON     2.30      PGEN=4.50  QGEN=1.00
0
#
#
# (337) B1 GENERATOR OUTAGE
#
3 34658      0  "4"      0      # WISHON     2.30      PGEN=4.50  QGEN=1.00
0
#
#
# (338) B1 GENERATOR OUTAGE
#
3 34671      0  "1"      0      # KRCDPCT1  13.80     PGEN=50.00  QGEN=10.75
0
#
#
# (339) B1 GENERATOR OUTAGE
#
3 34672      0  "1"      0      # KRCDPCT2  13.80     PGEN=50.00  QGEN=10.75
0
#
#
# (340) B1 GENERATOR OUTAGE
#
3 38720      0  "1"      0      # PINE FLT   13.80     PGEN=57.00  QGEN=23.30
0
#
#
# (341) B1 GENERATOR OUTAGE
#
3 34661      0  "1"      0      # P0418GT1  13.80     PGEN=78.80  QGEN=13.93
0
#
#
# (342) B1 GENERATOR OUTAGE
#
3 34663      0  "2"      0      # P0418GT2  13.80     PGEN=78.80  QGEN=13.93
0
#
#
# (343) B1 GENERATOR OUTAGE
#
3 34665      0  "3"      0      # P0418GT3  13.80     PGEN=78.80  QGEN=13.93
0
#
#
# (344) B1 GENERATOR OUTAGE
#
3 34667      0  "4"      0      # P0418GT4  13.80     PGEN=78.80  QGEN=13.93
0
#
#
# (345) B1 GENERATOR OUTAGE
#
3 34685      0  "1"      0      # P0615CT1  16.50     PGEN=192.00  QGEN=35.45
0
#
#
# (346) B1 GENERATOR OUTAGE
#

```

```

3 34686      0 "1"      0      # P0615CT2  16.50      PGEN=192.00  QGEN=35.45
0
#
#
# (347) B1 GENERATOR OUTAGE
3 34687      0 "1"      0      # P0615STG  16.50      PGEN=193.00  QGEN=35.57
0
#
#
# (348) B1 GENERATOR OUTAGE
3 34688      0 "1"      0      # Q254CTG1  18.00      PGEN=172.40  QGEN=41.25
0
#
#
# (349) B1 GENERATOR OUTAGE
3 34689      0 "2"      0      # Q254CTG2  18.00      PGEN=172.40  QGEN=41.25
0
#
#
# (350) B1 GENERATOR OUTAGE
3 34690      0 "3"      0      # Q254STG1  18.00      PGEN=290.80  QGEN=67.53
0
#
#
# (351) B1 GENERATOR OUTAGE
3 34691      0 "1"      0      # Q272_ST1  13.80      PGEN=27.00   QGEN=1.87
0
#
#
# (352) B1 GENERATOR OUTAGE
3 34692      0 "1"      0      # Q272SLST  13.80      PGEN=139.00  QGEN=35.74
0
#
#
# (353) L-1/G-1 OVERLAPPING OUTAGE
# Smyrna - Semitropic - Midway 115 kV Line and Exchequer
1 34700 34708 "1 "      0      # line from SMYRNA  115.00  BRKR to (2)  MCKIBBEN
115.00
1 34708 34742 "1 "      0      # line from MCKIBBEN 115.00  (2) to (2)  SEMITRPJ
115.00
1 34742 34746 "1 "      0      # line from SEMITRPJ 115.00  (2) to (2)  GANSO
115.00
1 34746 34774 "1 "      0      # line from GANSO    115.00  (2) to BRKR  MIDWAY
115.00
4 34746      0 "1 "      0      # LOAD-DROP      GANSO    115.00  LOAD==5.34(1.22)
#
3 34306      0 "1"      0      # EXCHQUER  13.80      PGEN=89.95   QGEN=18.49
0
#
#
# (354) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Coalinga #2 70 kV Line and Chevron Coalinga Unit 1
1 34184 34570 "1 "      0      # line from GATS2_TP  70.00  (3) to BRKR  COLNGA 2
70.00
1 34184 34552 "1 "      0      # line from GATS2_TP  70.00  (3) to BRKR  GATES
70.00
2 34184 34553 "1 "      0      # TRAN from GATS2_TP  70.00  (3) to (1)  WHD_GAT2
13.80
3 34553      0 "1 "      0      # GEN-DROP      WHD_GAT2  13.80  GEN==49.00(-25.30)
#
3 34652      0 "1"      0      # CHV.COAL    9.11      PGEN=17.00   QGEN=8.30
0
#
#

```

```

# (355) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Coalinga #1 70 kV Line and Chevron Coalinga Unit 1
1 34552 34578 "1 " 0 # line from GATES 70.00 BRKR to (2) JACALITO
70.00
1 34578 34574 "1 " 0 # line from JACALITO 70.00 (2) to BRKR COLNGA 1
70.00
4 34578 0 "1 " 0 # LOAD-DROP JACALITO 70.00 LOAD==4.03(2.5) 0
#
3 34652 0 "1" 0 # CHV.COAL 9.11 PGEN=17.00 QGEN=8.30
0
#
#
# (356) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Coalinga #2 70 kV Line and Coalinga Cogen
1 34184 34570 "1 " 0 # line from GATS2_TP 70.00 (3) to BRKR COLNGA 2
70.00
1 34184 34552 "1 " 0 # line from GATS2_TP 70.00 (3) to BRKR GATES
70.00
2 34184 34553 "1 " 0 # TRAN from GATS2_TP 70.00 (3) to (1) WHD_GAT2
13.80
3 34553 0 "1 " 0 # GEN-DROP WHD_GAT2 13.80 GEN==49.00(-25.30)
#
3 34654 0 "1" 0 # COLNGAGN 9.11 PGEN=34.22 QGEN=-13.50
0
#
#
# (357) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Coalinga #1 70 kV Line and Coalinga Cogen
1 34552 34578 "1 " 0 # line from GATES 70.00 BRKR to (2) JACALITO
70.00
1 34578 34574 "1 " 0 # line from JACALITO 70.00 (2) to BRKR COLNGA 1
70.00
4 34578 0 "1 " 0 # LOAD-DROP JACALITO 70.00 LOAD==4.03(2.5) 0
#
3 34654 0 "1" 0 # COLNGAGN 9.11 PGEN=34.22 QGEN=-13.50
0
#
#
# (358) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Coppermine 70 kV Line and Friant PP Unit 2
1 34262 34454 "1 " 0 # line from CASSIDY 70.00 (2) to (2) RIVERROC
70.00
1 34262 34256 "1 " 0 # line from CASSIDY 70.00 (2) to BRKR BORDEN
70.00
1 34454 34464 "1 " 0 # line from RIVERROC 70.00 (2) to BRKR COPPRMNE
70.00
4 34262 0 "1 " 0 # LOAD-DROP CASSIDY 70.00 LOAD==14.31(2.90)
4 34454 0 "1 " 0 # LOAD-DROP RIVERROC 70.00 LOAD==2.01(1.83)
#
3 34636 0 "2" 0 # FRIANTDM 6.60 PGEN=14.70 QGEN=6.14
0
#
#
# (359) L-1/G-1 OVERLAPPING OUTAGE
# Henrietta - Lemoore 70 kV Line and GWF Hanford
1 34516 34520 "1 " 0 # line from LEPRINO 70.00 (1) to (4) LPRNO TP
70.00
1 34520 34518 "1 " 0 # line from LPRNO TP 70.00 (4) to BRKR LEMOORE
70.00
1 34520 34524 "1 " 0 # line from LPRNO TP 70.00 (4) to (1) CANDLEWK
70.00
1 34520 34540 "1 " 0 # line from LPRNO TP 70.00 (4) to BRKR HENRITTA
70.00
4 34516 0 "1 " 0 # LOAD-DROP LEPRINO 70.00 LOAD==16.10(9.12)
4 34518 0 "1 " 0 # LOAD-DROP LEMOORE 70.00 LOAD==18.86(3.83)
4 34518 0 "2 " 0 # LOAD-DROP LEMOORE 70.00 LOAD==32.81(6.66)
#
3 34650 0 "1" 0 # GWF-PWR. 13.80 PGEN=23.00 QGEN=12.00
0
#

```

```

#
# (360) L-1/G-1 OVERLAPPING OUTAGE
# Henrietta - Lemoore 70 kV Line and GWF Henrietta Unit 1
1 34516 34520 "1 " 0 # line from LEPRINO 70.00 (1) to (4) LPRNO TP
70.00
1 34520 34518 "1 " 0 # line from LPRNO TP 70.00 (4) to BRKR LEMOORE
70.00
1 34520 34524 "1 " 0 # line from LPRNO TP 70.00 (4) to (1) CANDLEWK
70.00
1 34520 34540 "1 " 0 # line from LPRNO TP 70.00 (4) to BRKR HENRITTA
70.00
4 34516 0 "1 " 0 # LOAD-DROP LEPRINO 70.00 LOAD==16.10(9.12)
4 34518 0 "1 " 0 # LOAD-DROP LEMOORE 70.00 LOAD==18.86(3.83)
4 34518 0 "2 " 0 # LOAD-DROP LEMOORE 70.00 LOAD==32.81(6.66)
#
3 34539 0 "1" 0 # GWF_GT1 13.80 PGEN=50.00 QGEN=1.23
0
#
#
# (361) L-1/G-1 OVERLAPPING OUTAGE
# McCall - Wahtoke 115 kV Line and Sanger Cogen
1 34370 34382 "1 " 0 # line from MC CALL 115.00 BRKR to BRKR WAHTOKE
115.00
#
3 34646 0 "1" 0 # SANGERCO 9.11 PGEN=37.50 QGEN=4.31
0
#
#
# (362) L-1/G-1 OVERLAPPING OUTAGE
# McCall - Wahtoke 115 kV Line and Kings River Power House
1 34370 34382 "1 " 0 # line from MC CALL 115.00 BRKR to BRKR WAHTOKE
115.00
#
3 34616 0 "1" 0 # KINGSRIV 13.80 PGEN=47.00 QGEN=9.00
0
#
#
# (363) L-1/G-1 OVERLAPPING OUTAGE
# Helm - McCall 230 kV Line and Exchequer
1 30873 30875 "1 " 0 # line from HELM 230.00 BRKR to BRKR MC CALL
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (364) L-1/G-1 OVERLAPPING OUTAGE
# Helms - Gregg #1 230 kV Line and Exchequer sumop outage
1 30810 30820 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Helm - Gregg #1 line sumop
3 34602 0 "***" 0 # Drop unit#2 with a loss Helm - Gregg #1 line sumop
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (365) L-1/G-1 OVERLAPPING OUTAGE
# Helms - Gregg #2 230 kV Line and Exchequer sumop outage
1 30810 30820 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Helm - Gregg #2 line sumop
3 34602 0 "***" 0 # Drop unit#2 with a loss Helm - Gregg #2 line sumop
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (366) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Herndon #1 230 kV Line and Exchequer

```

```

1 30810 30835 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #1 line
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (367) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Herndon #2 230 kV Line and Exchequer
1 30810 30835 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #2 line
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (368) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Ashlan 230 kV Line and Exchequer
1 30810 30845 "1 " 0 # line from GREGG 230.00 BRKR to (3) FGRDN T2
230.00
1 30845 30846 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR FIGRDN 2
230.00
1 30845 30850 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR ASHLAN
230.00
4 30846 0 "1 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==52.57(10.67)
4 30846 0 "2 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==36.77(7.47)
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Figarden line
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30846 0 "***" 1 # Restore Load at Figarden 2
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (369) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Gregg 230 kV Line and Exchequer sumop outage
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00
1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
3 34600 0 "***" 0 # Trip Helms 1 for Gates - Gregg 230 kV line outage
HTT/RAS
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (370) L-1/G-1 OVERLAPPING OUTAGE
# Herndon - Kearney 230 kV Line and Exchequer sumop outage
1 30830 30835 "1 " 0 # line from KEARNEY 230.00 BRKR to BRKR HERNDON
230.00
3 34600 0 "***" 0 # Trip Helms 1 for Herndon - Kearney 230 kV line outage
HTT/RAS
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (371) L-1/G-1 OVERLAPPING OUTAGE
# Herndon - Ashlan 230 kV Line and Exchequer
1 30835 30840 "1 " 0 # line from HERNDON 230.00 BRKR to (3) FGRDN T1
230.00
1 30840 30841 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR FIGRDN 1
230.00

```

```

1 30840 30850 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR ASHLAN
230.00
4 30841 0 "1 " 0 # LOAD-DROP FIGRDN 1 230.00 LOAD==73.45(14.92)
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30841 0 "1" 1 # Restore Load at Figarden 1
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (372) L-1/G-1 OVERLAPPING OUTAGE
# Haas - McCall 230 kV Line and Exchequer
1 30855 30860 "1 " 0 # line from HAAS 230.00 (2) to (3) BALCH3TP
230.00
2 30855 34610 "1 " 0 # TRAN from HAAS 230.00 (2) to (1) HAAS
13.80
1 30860 30875 "1 " 0 # line from BALCH3TP 230.00 (3) to BRKR MC CALL
230.00
2 30860 34614 "1 " 0 # TRAN from BALCH3TP 230.00 (3) to (1) BLCH 2-3
13.80
3 34610 0 "1 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34610 0 "2 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34614 0 "1 " 0 # GEN-DROP BLCH 2-3 13.80 GEN==50.00(7.64)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (373) L-1/G-1 OVERLAPPING OUTAGE
# Balch - McCall 230 kV Line and Exchequer
1 30865 30870 "1 " 0 # line from BALCH 230.00 (2) to (3) PINE FLT
230.00
2 30865 34612 "1 " 0 # TRAN from BALCH 230.00 (2) to (1) BLCH 2-2
13.80
1 30870 30875 "1 " 0 # line from PINE FLT 230.00 (3) to BRKR MC CALL
230.00
2 30870 38720 "1 " 0 # TRAN from PINE FLT 230.00 (3) to (1) PINE FLT
13.80
3 34612 0 "1 " 0 # GEN-DROP BLCH 2-2 13.80 GEN==50.00(0.66)
3 38720 0 "1 " 0 # GEN-DROP PINE FLT 13.80 GEN==57.00(23.30)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (374) L-1/G-1 OVERLAPPING OUTAGE
# Gates - McCall 230 kV Line and Exchequer
1 30875 30880 "1 " 0 # line from MC CALL 230.00 BRKR to (2) HENTAP2
230.00
1 30880 30900 "1 " 0 # line from HENTAP2 230.00 (2) to BRKR GATES
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (375) L-1/G-1 OVERLAPPING OUTAGE
# Templeton - Gates 230 kV Line and Exchequer
1 30900 30905 "1 " 0 # line from GATES 230.00 BRKR to BRKR TEMPLETN
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (376) L-1/G-1 OVERLAPPING OUTAGE
# Morro Bay - Gates 230 kV Line and Exchequer
1 30900 30915 "1 " 0 # line from GATES 230.00 BRKR to BRKR MORROBAY
230.00
#

```



```

3 34306      0 "1"      0      # EXCHQUER 13.80      PGEN=94.50 QGEN=8.77
0
#
#
# (377) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Arco 230 kV Line and Exchequer
1 30900 30935 "1 "      0      # line from GATES      230.00 BRKR to BRKR ARCO
230.00
#
3 34306      0 "1"      0      # EXCHQUER 13.80      PGEN=94.50 QGEN=8.77
0
#
#
# (378) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Midway 230 kV Line and Exchequer
1 30900 30970 "1 "      0      # line from GATES      230.00 BRKR to BRKR MIDWAY
230.00
#
3 34306      0 "1"      0      # EXCHQUER 13.80      PGEN=94.50 QGEN=8.77
0
#
#
# (379) L-1/G-1 OVERLAPPING OUTAGE
# Helm - McCall 230 kV Line and Kerckhoff
1 30873 30875 "1 "      0      # line from HELM      230.00 BRKR to BRKR MC CALL
230.00
#
3 34308      0 "1"      0      # KERCKHOF 13.80      PGEN=129.00 QGEN=16.00
0
#
#
# (380) L-1/G-1 OVERLAPPING OUTAGE
# Helms - Gregg #1 230 kV Line and Kerckhoff sumop outage
1 30810 30820 "1 "      0      # line from GREGG      230.00 BRKR to BRKR HELMS PP
230.00
3 34604      0 "***"      0      # Drop unit#3 with a loss Helm - Gregg #1 line sumop
3 34602      0 "***"      0      # Drop unit#2 with a loss Helm - Gregg #1 line sumop
#
3 34308      0 "1"      0      # KERCKHOF 13.80      PGEN=129.00 QGEN=16.00
0
#
#
# (381) L-1/G-1 OVERLAPPING OUTAGE
# Helms - Gregg #2 230 kV Line and Kerckhoff sumop outage
1 30810 30820 "2 "      0      # line from GREGG      230.00 BRKR to BRKR HELMS PP
230.00
3 34604      0 "***"      0      # Drop unit#3 with a loss Helm - Gregg #2 line sumop
3 34602      0 "***"      0      # Drop unit#2 with a loss Helm - Gregg #2 line sumop
#
3 34308      0 "1"      0      # KERCKHOF 13.80      PGEN=129.00 QGEN=16.00
0
#
#
# (382) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Herndon #1 230 kV Line and Kerckhoff
1 30810 30835 "1 "      0      # line from GREGG      230.00 BRKR to BRKR HERNDON
230.00
3 34604      0 "***"      0      # Drop unit#3 with a loss Gregg - Herndon #1 line
#
3 34308      0 "1"      0      # KERCKHOF 13.80      PGEN=129.00 QGEN=16.00
0
#
#
# (383) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Herndon #2 230 kV Line and Kerckhoff
1 30810 30835 "2 "      0      # line from GREGG      230.00 BRKR to BRKR HERNDON
230.00
3 34604      0 "***"      0      # Drop unit#3 with a loss Gregg - Herndon #2 line
#
3 34308      0 "1"      0      # KERCKHOF 13.80      PGEN=129.00 QGEN=16.00

```

```

0
#
#
# (384) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Ashlan 230 kV Line and Kerckhoff
1 30810 30845 "1 " 0 # line from GREGG 230.00 BRKR to (3) FGRDN T2
230.00
1 30845 30846 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR FIGRDN 2
230.00
1 30845 30850 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR ASHLAN
230.00
4 30846 0 "1 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==52.57(10.67)
4 30846 0 "2 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==36.77(7.47)
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Figarden line
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30846 0 "***" 1 # Restore Load at Figarden 2
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (385) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Gregg 230 kV Line and Kerckhoff sumop outage
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00
1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
3 34600 0 "***" 0 # Trip Helms 1 for Gates - Gregg 230 kV line outage
HTT/RAS
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (386) L-1/G-1 OVERLAPPING OUTAGE
# Herndon - Kearney 230 kV Line and Kerckhoff sumop outage
1 30830 30835 "1 " 0 # line from KEARNEY 230.00 BRKR to BRKR HERNDON
230.00
3 34600 0 "***" 0 # Trip Helms 1 for Herndon - Kearney 230 kV line outage
HTT/RAS
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (387) L-1/G-1 OVERLAPPING OUTAGE
# Herndon - Ashlan 230 kV Line and Kerckhoff
1 30835 30840 "1 " 0 # line from HERNDON 230.00 BRKR to (3) FGRDN T1
230.00
1 30840 30841 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR FIGRDN 1
230.00
1 30840 30850 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR ASHLAN
230.00
4 30841 0 "1 " 0 # LOAD-DROP FIGRDN 1 230.00 LOAD==73.45(14.92)
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30841 0 "***" 1 # Restore Load at Figarden 1
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (388) L-1/G-1 OVERLAPPING OUTAGE
# Haas - McCall 230 kV Line and Kerckhoff
1 30855 30860 "1 " 0 # line from HAAS 230.00 (2) to (3) BALCH3TP
230.00

```

```

2 30855 34610 "1 " 0 # TRAN from HAAS 230.00 (2) to (1) HAAS
13.80
1 30860 30875 "1 " 0 # line from BALCH3TP 230.00 (3) to BRKR MC CALL
230.00
2 30860 34614 "1 " 0 # TRAN from BALCH3TP 230.00 (3) to (1) BLCH 2-3
13.80
3 34610 0 "1 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34610 0 "2 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34614 0 "1 " 0 # GEN-DROP BLCH 2-3 13.80 GEN==50.00(7.64)
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (389) L-1/G-1 OVERLAPPING OUTAGE
# Balch - McCall 230 kV Line and Kerckhoff
1 30865 30870 "1 " 0 # line from BALCH 230.00 (2) to (3) PINE FLT
230.00
2 30865 34612 "1 " 0 # TRAN from BALCH 230.00 (2) to (1) BLCH 2-2
13.80
1 30870 30875 "1 " 0 # line from PINE FLT 230.00 (3) to BRKR MC CALL
230.00
2 30870 38720 "1 " 0 # TRAN from PINE FLT 230.00 (3) to (1) PINE FLT
13.80
3 34612 0 "1 " 0 # GEN-DROP BLCH 2-2 13.80 GEN==50.00(0.66)
3 38720 0 "1 " 0 # GEN-DROP PINE FLT 13.80 GEN==57.00(23.30)
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (390) L-1/G-1 OVERLAPPING OUTAGE
# Gates - McCall 230 kV Line and Kerckhoff
1 30875 30880 "1 " 0 # line from MC CALL 230.00 BRKR to (2) HENTAP2
230.00
1 30880 30900 "1 " 0 # line from HENTAP2 230.00 (2) to BRKR GATES
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (391) L-1/G-1 OVERLAPPING OUTAGE
# Templeton - Gates 230 kV Line and Kerckhoff
1 30900 30905 "1 " 0 # line from GATES 230.00 BRKR to BRKR TEMPLETN
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (392) L-1/G-1 OVERLAPPING OUTAGE
# Morro Bay - Gates 230 kV Line and Kerckhoff
1 30900 30915 "1 " 0 # line from GATES 230.00 BRKR to BRKR MORROBAY
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (393) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Arco 230 kV Line and Kerckhoff
1 30900 30935 "1 " 0 # line from GATES 230.00 BRKR to BRKR ARCO
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (394) L-1/G-1 OVERLAPPING OUTAGE

```

```

# Gates - Midway 230 kV Line and Kerckhoff
1 30900 30970 "1 " 0 # line from GATES 230.00 BRKR to BRKR MIDWAY
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (395) L-1/G-1 OVERLAPPING OUTAGE
# Helm - McCall 230 kV Line and Helms Unit 1
1 30873 30875 "1 " 0 # line from HELM 230.00 BRKR to BRKR MC CALL
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (396) L-1/G-1 OVERLAPPING OUTAGE
# Helms - Gregg #1 230 kV Line and Helms Unit 1 sumop outage
1 30810 30820 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Helm - Gregg #1 line sumop
3 34602 0 "***" 0 # Drop unit#2 with a loss Helm - Gregg #1 line sumop
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (397) L-1/G-1 OVERLAPPING OUTAGE
# Helms - Gregg #2 230 kV Line and Helms Unit 1 sumop outage
1 30810 30820 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Helm - Gregg #2 line sumop
3 34602 0 "***" 0 # Drop unit#2 with a loss Helm - Gregg #2 line sumop
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (398) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Herndon #1 230 kV Line and Helms Unit 1
1 30810 30835 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #1 line
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (399) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Herndon #2 230 kV Line and Helms Unit 1
1 30810 30835 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #2 line
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (400) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Ashlan 230 kV Line and Helms Unit 1
1 30810 30845 "1 " 0 # line from GREGG 230.00 BRKR to (3) FGRDN T2
230.00
1 30845 30846 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR FIGRDN 2
230.00
1 30845 30850 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR ASHLAN
230.00
4 30846 0 "1 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==52.57(10.67)
4 30846 0 "2 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==36.77(7.47)
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Figarden line

```

```

1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30846 0 "***" 1 # Restore Load at Figarden 2
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (401) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Gregg 230 kV Line and Helms Unit 1 sumop outage
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00
1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
3 34600 0 "***" 0 # Trip Helms 1 for Gates - Gregg 230 kV line outage
HTT/RAS
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (402) L-1/G-1 OVERLAPPING OUTAGE
# Herndon - Kearney 230 kV Line and Helms Unit 1 sumop outage
1 30830 30835 "1 " 0 # line from KEARNEY 230.00 BRKR to BRKR HERNDON
230.00
3 34600 0 "***" 0 # Trip Helms 1 for Herndon - Kearney 230 kV line outage
HTT/RAS
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (403) L-1/G-1 OVERLAPPING OUTAGE
# Herndon - Ashlan 230 kV Line and Helms Unit 1
1 30835 30840 "1 " 0 # line from HERNDON 230.00 BRKR to (3) FGRDN T1
230.00
1 30840 30841 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR FIGRDN 1
230.00
1 30840 30850 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR ASHLAN
230.00
4 30841 0 "1 " 0 # LOAD-DROP FIGRDN 1 230.00 LOAD==73.45(14.92)
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30841 0 "***" 1 # Restore Load at Figarden 1
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (404) L-1/G-1 OVERLAPPING OUTAGE
# Haas - McCall 230 kV Line and Helms Unit 1
1 30855 30860 "1 " 0 # line from HAAS 230.00 (2) to (3) BALCH3TP
230.00
2 30855 34610 "1 " 0 # TRAN from HAAS 230.00 (2) to (1) HAAS
13.80
1 30860 30875 "1 " 0 # line from BALCH3TP 230.00 (3) to BRKR MC CALL
230.00
2 30860 34614 "1 " 0 # TRAN from BALCH3TP 230.00 (3) to (1) BLCH 2-3
13.80
3 34610 0 "1 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34610 0 "2 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34614 0 "1 " 0 # GEN-DROP BLCH 2-3 13.80 GEN==50.00(7.64)
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (405) L-1/G-1 OVERLAPPING OUTAGE

```

```

# Balch - McCall 230 kV Line and Helms Unit 1
1 30865 30870 "1 " 0 # line from BALCH 230.00 (2) to (3) PINE FLT
230.00
2 30865 34612 "1 " 0 # TRAN from BALCH 230.00 (2) to (1) BLCH 2-2
13.80
1 30870 30875 "1 " 0 # line from PINE FLT 230.00 (3) to BRKR MC CALL
230.00
2 30870 38720 "1 " 0 # TRAN from PINE FLT 230.00 (3) to (1) PINE FLT
13.80
3 34612 0 "1 " 0 # GEN-DROP BLCH 2-2 13.80 GEN==50.00(0.66)
3 38720 0 "1 " 0 # GEN-DROP PINE FLT 13.80 GEN==57.00(23.30)
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (406) L-1/G-1 OVERLAPPING OUTAGE
# Gates - McCall 230 kV Line and Helms Unit 1
1 30875 30880 "1 " 0 # line from MC CALL 230.00 BRKR to (2) HENTAP2
230.00
1 30880 30900 "1 " 0 # line from HENTAP2 230.00 (2) to BRKR GATES
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (407) L-1/G-1 OVERLAPPING OUTAGE
# Templeton - Gates 230 kV Line and Helms Unit 1
1 30900 30905 "1 " 0 # line from GATES 230.00 BRKR to BRKR TEMPLETN
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (408) L-1/G-1 OVERLAPPING OUTAGE
# Morro Bay - Gates 230 kV Line and Helms Unit 1
1 30900 30915 "1 " 0 # line from GATES 230.00 BRKR to BRKR MORROBAY
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (409) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Arco 230 kV Line and Helms Unit 1
1 30900 30935 "1 " 0 # line from GATES 230.00 BRKR to BRKR ARCO
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (410) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Midway 230 kV Line and Helms Unit 1
1 30900 30970 "1 " 0 # line from GATES 230.00 BRKR to BRKR MIDWAY
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (411) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Kearney 230 kV Line and Melones Unit 1 sumop outage
1 30790 30825 "1 " 0 # line from PANOCHE 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)

```

```

3 34600 0 "***" 0 # Trip Helms 1 for Panoche - Kearney 230 kV line outage
HTT/RAS
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (412) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Helm 230 kV Line and Melones Unit 1
1 30790 30873 "1 " 0 # line from PANOCH 230.00 BRKR to BRKR HELM
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (413) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Panoche #1 230 kV Line and Melones Unit 1
1 30790 30900 "1 " 0 # line from PANOCH 230.00 BRKR to BRKR GATES
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (414) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Panoche #2 230 kV Line and Melones Unit 1
1 30790 30900 "2 " 0 # line from PANOCH 230.00 BRKR to BRKR GATES
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (415) L-1/G-1 OVERLAPPING OUTAGE
# Helm - McCall 230 kV Line and Melones Unit 1
1 30873 30875 "1 " 0 # line from HELM 230.00 BRKR to BRKR MC CALL
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (416) L-1/G-1 OVERLAPPING OUTAGE
# Helms - Gregg #1 230 kV Line and Melones Unit 1 sumop outage
1 30810 30820 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Helm - Gregg #1 line sumop
3 34602 0 "***" 0 # Drop unit#2 with a loss Helm - Gregg #1 line sumop
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (417) L-1/G-1 OVERLAPPING OUTAGE
# Helms - Gregg #2 230 kV Line and Melones Unit 1 sumop outage
1 30810 30820 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Helm - Gregg #2 line sumop
3 34602 0 "***" 0 # Drop unit#2 with a loss Helm - Gregg #2 line sumop
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (418) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Herndon #1 230 kV Line and Melones Unit 1
1 30810 30835 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #1 line

```

```

#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (419) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Herndon #2 230 kV Line and Melones Unit 1
1 30810 30835 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #2 line
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (420) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Ashlan 230 kV Line and Melones Unit 1
1 30810 30845 "1 " 0 # line from GREGG 230.00 BRKR to (3) FGRDN T2
230.00
1 30845 30846 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR FIGRDN 2
230.00
1 30845 30850 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR ASHLAN
230.00
4 30846 0 "1 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==52.57(10.67)
4 30846 0 "2 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==36.77(7.47)
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Figarden line
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30846 0 "***" 1 # Restore Load at Figarden 2
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (421) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Gregg 230 kV Line and Melones Unit 1 sumop outage
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00
1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
3 34600 0 "***" 0 # Trip Helms 1 for Gates - Gregg 230 kV line outage
HTT/RAS
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (422) L-1/G-1 OVERLAPPING OUTAGE
# Herndon - Kearney 230 kV Line and Melones Unit 1 sumop outage
1 30830 30835 "1 " 0 # line from KEARNEY 230.00 BRKR to BRKR HERNDON
230.00
3 34600 0 "***" 0 # Trip Helms 1 for Herndon - Kearney 230 kV line outage
HTT/RAS
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (423) L-1/G-1 OVERLAPPING OUTAGE
# Herndon - Ashlan 230 kV Line and Melones Unit 1
1 30835 30840 "1 " 0 # line from HERNDON 230.00 BRKR to (3) FGRDN T1
230.00
1 30840 30841 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR FIGRDN 1
230.00
1 30840 30850 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR ASHLAN
230.00
4 30841 0 "1 " 0 # LOAD-DROP FIGRDN 1 230.00 LOAD==73.45(14.92)

```



```

1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30841 0 "***" 1 # Restore Load at Figarden 1
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (424) L-1/G-1 OVERLAPPING OUTAGE
# Haas - McCall 230 kV Line and Melones Unit 1
1 30855 30860 "1 " 0 # line from HAAS 230.00 (2) to (3) BALCH3TP
230.00
2 30855 34610 "1 " 0 # TRAN from HAAS 230.00 (2) to (1) HAAS
13.80
1 30860 30875 "1 " 0 # line from BALCH3TP 230.00 (3) to BRKR MC CALL
230.00
2 30860 34614 "1 " 0 # TRAN from BALCH3TP 230.00 (3) to (1) BLCH 2-3
13.80
3 34610 0 "1 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34610 0 "2 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34614 0 "1 " 0 # GEN-DROP BLCH 2-3 13.80 GEN==50.00(7.64)
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (425) L-1/G-1 OVERLAPPING OUTAGE
# Balch - McCall 230 kV Line and Melones Unit 1
1 30865 30870 "1 " 0 # line from BALCH 230.00 (2) to (3) PINE FLT
230.00
2 30865 34612 "1 " 0 # TRAN from BALCH 230.00 (2) to (1) BLCH 2-2
13.80
1 30870 30875 "1 " 0 # line from PINE FLT 230.00 (3) to BRKR MC CALL
230.00
2 30870 38720 "1 " 0 # TRAN from PINE FLT 230.00 (3) to (1) PINE FLT
13.80
3 34612 0 "1 " 0 # GEN-DROP BLCH 2-2 13.80 GEN==50.00(0.66)
3 38720 0 "1 " 0 # GEN-DROP PINE FLT 13.80 GEN==57.00(23.30)
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (426) L-1/G-1 OVERLAPPING OUTAGE
# Gates - McCall 230 kV Line and Melones Unit 1
1 30875 30880 "1 " 0 # line from MC CALL 230.00 BRKR to (2) HENTAP2
230.00
1 30880 30900 "1 " 0 # line from HENTAP2 230.00 (2) to BRKR GATES
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (427) L-1/G-1 OVERLAPPING OUTAGE
# Templeton - Gates 230 kV Line and Melones Unit 1
1 30900 30905 "1 " 0 # line from GATES 230.00 BRKR to BRKR TEMPLETN
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (428) L-1/G-1 OVERLAPPING OUTAGE
# Morro Bay - Gates 230 kV Line and Melones Unit 1
1 30900 30915 "1 " 0 # line from GATES 230.00 BRKR to BRKR MORROBAY
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#

```

```

#
# (429) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Arco 230 kV Line and Melones Unit 1
1 30900 30935 "1 " 0 # line from GATES 230.00 BRKR to BRKR ARCO
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (430) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Midway 230 kV Line and Melones Unit 1
1 30900 30970 "1 " 0 # line from GATES 230.00 BRKR to BRKR MIDWAY
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
-1
# EOF

```

## Summer Off-Peak Category C Contingencies

```

# Q299 2013 sumop category c contingency list (dctl and bus outages)
# Yosemite and Fresno Divisions Zones 313 and 314
#
# 2013 sumop category c contingency list
# Yosemite Zone 313
#
# (1) C5 DCTL OUTAGE
# Wilson - Atwater and El Capitan - Wilson 115 kV Lines
1 34134 34104 "1 " 0 # line from WILSON A 115.00 BRKR to BRKR ATWATER
115.00
#
1 34136 34138 "1 " 0 # line from WILSON B 115.00 BRKR to BRKR EL CAPTN
115.00
0
#
# (2) C5 DCTL OUTAGE
# Wilson - Atwater and Atwater - El Capitan 115 kV Lines
1 34134 34104 "1 " 0 # line from WILSON A 115.00 BRKR to BRKR ATWATER
115.00
#
1 34104 34106 "1 " 0 # line from ATWATER 115.00 BRKR to (2) CASTLE
115.00
1 34106 34138 "1 " 0 # line from CASTLE 115.00 (2) to BRKR EL CAPTN
115.00
0
#
# (3) C5 DCTL OUTAGE
# Wilson - Merced #2 and Wilson - Oro Loma 115 kV Lines
1 34134 34144 "1 " 0 # line from WILSON A 115.00 BRKR to BRKR MERCED
115.00
#
1 34118 34136 "1 " 0 # line from LE GRNDJ 115.00 (2) to BRKR WILSON B
115.00
1 34118 34168 "1 " 0 # line from LE GRNDJ 115.00 (2) to (2) EL NIDO
115.00
1 34168 34162 "1 " 0 # line from EL NIDO 115.00 (2) to BRKR ORO LOMA
115.00
4 34168 0 "1 " 0 # LOAD-DROP EL NIDO 115.00 LOAD==12.49(2.54)
4 34168 0 "2 " 0 # LOAD-DROP EL NIDO 115.00 LOAD==15.00(3.05)
0
#
# (4) C5 DCTL OUTAGE
# Panoche - Schindler #1 and #2 115 kV Lines
1 34158 34350 "1 " 0 # line from PANOCH 115.00 BRKR to (2) KAMM
115.00
1 34350 34352 "1 " 0 # line from KAMM 115.00 (2) to (2) CANTUA
115.00
1 34352 34432 "1 " 0 # line from CANTUA 115.00 (2) to (2) WESTLNDS
115.00
1 34432 34354 "1 " 0 # line from WESTLNDS 115.00 (2) to BRKR SCHINDLR
115.00
4 34350 0 "1 " 0 # LOAD-DROP KAMM 115.00 LOAD==3.85(1.75)
4 34352 0 "1 " 0 # LOAD-DROP CANTUA 115.00 LOAD==16.79(3.41)
4 34432 0 "16" 0 # LOAD-DROP WESTLNDS 115.00 LOAD==0.94(0.23)
4 34432 0 "18" 0 # LOAD-DROP WESTLNDS 115.00 LOAD==1.21(0.32)
#
1 34141 34148 "1 " 0 # line from PAN2_TAP 115.00 (2) to (2) CHENY
115.00
2 34141 34142 "1 " 0 # TRAN from PAN2_TAP 115.00 (2) to (1) WHD_PAN2
13.80

```

```

1 34148 34149 "1 " 0 # line from CHENY 115.00 (2) to (3) CHENYT
115.00
1 34149 34158 "1 " 0 # line from CHENYT 115.00 (3) to BRKR PANOCHE
115.00
1 34149 34354 "1 " 0 # line from CHENYT 115.00 (3) to BRKR SCHINDLR
115.00
4 34148 0 "1 " 0 # LOAD-DROP CHENY 115.00 LOAD==13.12(2.66)
3 34142 0 "1 " 0 # GEN-DROP WHD_PAN2 13.80 GEN==49.00(4.03)
0
#
#
# (5) C5 DCTL OUTAGE
# Gates - Panoche #1 and #2 230 kV Lines
1 30790 30900 "1 " 0 # line from PANOCHE 230.00 BRKR to BRKR GATES
230.00
#
1 30790 30900 "2 " 0 # line from PANOCHE 230.00 BRKR to BRKR GATES
230.00
0
#
#
# (6) C5 DCTL OUTAGE
# Los Banos - Panoche #2 and Los Banos - Dos Amigos 230 kV Lines
1 30765 30790 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR PANOCHE
230.00
#
1 30765 38615 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR DS AMIGO
230.00
0
#
#
# (7) C5 DCTL OUTAGE
# Los Banos - Panoche #2 and Dos Amigos - Panoche 230 kV Lines
1 30765 30790 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR PANOCHE
230.00
#
1 38615 30790 "1 " 0 # line from DS AMIGO 230.00 BRKR to BRKR PANOCHE
230.00
0
#
#
# (8) C5 DCTL OUTAGE
# Los Banos - San Luis PGP #1 and #2 230 kV Lines
1 30765 38625 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
#
1 30765 38625 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
0
#
#
# (9) C5 DCTL OUTAGE
# Bellota - Melones and Bellota - Warnerville 230 kV Lines
1 30500 38206 "1 " 0 # line from BELLOTA 230.00 BRKR to (2) COTTLE A
230.00
1 38206 37563 "1 " 0 # line from COTTLE A 230.00 (2) to BRKR MELONES
230.00
4 38206 0 "1 " 0 # LOAD-DROP COTTLE A 230.00 LOAD==19.23(0.00)
3 34604 0 "***" 0 # Drop Helms unit#3 with a loss Bellota - Melones line
#
1 30500 38208 "1 " 0 # line from BELLOTA 230.00 BRKR to (3) COTTLE B
230.00
1 38208 30515 "1 " 0 # line from COTTLE B 230.00 (3) to BRKR WARNERVL
230.00
4 38208 0 "2 " 0 # LOAD-DROP COTTLE B 230.00 LOAD==21.32(7.38)
0
#
#
# (10) C5 DCTL OUTAGE
# Bellota - Melones and Warnerville - Wilson 230 kV Lines

```

```

1 30500 38206 "1 " 0 # line from BELLOTA 230.00 BRKR to (2) COTTLE A
230.00
1 38206 37563 "1 " 0 # line from COTTLE A 230.00 (2) to BRKR MELONES
230.00
4 38206 0 "1 " 0 # LOAD-DROP COTTLE A 230.00 LOAD==19.23(0.00)
3 34604 0 "***" 0 # Drop Helms unit#3 with a loss Bellota - Melones line
#
1 30515 30800 "1 " 0 # line from WARNERVL 230.00 BRKR to BRKR WILSON
230.00
0
#
#
# (11) C5 DCTL OUTAGE
# Bellota - Melones and Melones - Wilson 230 kV Lines
1 30500 38206 "1 " 0 # line from BELLOTA 230.00 BRKR to (2) COTTLE A
230.00
1 38206 37563 "1 " 0 # line from COTTLE A 230.00 (2) to BRKR MELONES
230.00
4 38206 0 "1 " 0 # LOAD-DROP COTTLE A 230.00 LOAD==19.23(0.00)
3 34604 0 "***" 0 # Drop Helms unit#3 with a loss Bellota - Melones line
#
1 37563 30800 "1 " 0 # line from MELONES 230.00 BRKR to BRKR WILSON
230.00
3 34604 0 "***" 0 # Drop Helms unit#3 with a loss Melones - Wilson line
0
#
#
# (12) C5 DCTL OUTAGE
# Melones - Wilson and Warnerville - Wilson 230 kV Lines
1 37563 30800 "1 " 0 # line from MELONES 230.00 BRKR to BRKR WILSON
230.00
3 34604 0 "***" 0 # Drop Helms unit#3 with a loss Melones - Wilson line
#
1 30515 30800 "1 " 0 # line from WARNERVL 230.00 BRKR to BRKR WILSON
230.00
0
#
#
# (13) C5 DCTL OUTAGE
# Wilson - Borden #1 and #2 230 kV Lines
1 30795 30805 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR BORDEN
230.00
1 30795 30800 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR WILSON
230.00
4 30795 0 "2 " 0 # LOAD-DROP STOREY 2 230.00 LOAD==33.89(6.88)
#
1 30796 30800 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR WILSON
230.00
1 30796 30805 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR BORDEN
230.00
4 30796 0 "1 " 0 # LOAD-DROP STOREY 1 230.00 LOAD==37.87(7.69)
0
#
#
# (14) C5 DCTL OUTAGE
# Borden - Gregg #1 and #2 230 kV Lines
1 30805 30810 "1 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden line
#
1 30805 30810 "2 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden #2 line
0
#
#
# (15) C5 DCTL OUTAGE
# Moss Landing - Panoche and Coburn - Panoche 230 kV Lines
1 30750 30790 "1 " 0 # line from MOSSLND2 230.00 BRKR to BRKR PANOCHE
230.00

```

```

#
1 30760 30790 "1 " 0 # line from COBURN 230.00 BRKR to BRKR PANOCH
230.00
0
#
#
# (16) C5 DCTL OUTAGE
# Panoche - Helm and Panoche - Kearney 230 kV Lines sumop outage
1 30790 30873 "1 " 0 # line from PANOCH 230.00 BRKR to BRKR HELM
230.00
#
1 30790 30825 "1 " 0 # line from PANOCH 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
3 34600 0 "***" 0 # Trip Helms 1 for Panoche - Kearney 230 kV line outage
HTT/RAS
0
#
#
# (17) BUS FAULT 30765 "LOSBANOS" Bus Section 1
#
1 30765 30670 "1" 0 # LINE from LOSBANOS 230.00 to WESTLEY 230.00
1 30765 30790 "2" 0 # LINE from LOSBANOS 230.00 to PANOCH 230.00
1 30765 38625 "1" 0 # LINE from LOSBANOS 230.00 to SN LS PP 230.00
1 30765 38625 "2" 0 # LINE from LOSBANOS 230.00 to SN LS PP 230.00
2 30765 34214 "3" 0 # TRAN from LOSBANOS 230.00 to LOS BANS 70.00
6 30765 0 "v" 0 # drop Los Banos 230 kV shunt Caps
0
#
#
# (18) BUS FAULT 30765 "LOSBANOS" Bus Section 2
#
1 30765 30790 "1" 0 # LINE from LOSBANOS 230.00 to PANOCH 230.00
1 30765 38615 "1" 0 # LINE from LOSBANOS 230.00 to DS AMIGO 230.00
2 30765 34214 "4" 0 # TRAN from LOSBANOS 230.00 to LOS BANS 70.00
0
#
#
# (19) BUS FAULT 30790 "PANOCH" Bus Section 1
#
1 30790 30760 "1" 0 # LINE from PANOCH 230.00 to COBURN 230.00
1 30790 30765 "1" 0 # LINE from PANOCH 230.00 to LOSBANOS 230.00
1 30790 30765 "2" 0 # LINE from PANOCH 230.00 to LOSBANOS 230.00
1 30790 30825 "1" 0 # LINE from PANOCH 230.00 to MCMULLN1 230.00
1 30790 30900 "1" 0 # LINE from PANOCH 230.00 to GATES 230.00
2 30790 30791 "1" 0 # TRAN from PANOCH 230.00 to PNCHE 1M 230.00
0
#
#
# (20) BUS FAULT 30790 "PANOCH" Bus Section 2
#
1 30790 30750 "1" 0 # LINE from PANOCH 230.00 to MOSSLND2 230.00
1 30790 30793 "1" 0 # LINE from PANOCH 230.00 to PANO_EC 230.00
1 30790 30873 "1" 0 # LINE from PANOCH 230.00 to HELM 230.00
1 30790 30900 "2" 0 # LINE from PANOCH 230.00 to GATES 230.00
1 30790 38615 "1" 0 # LINE from PANOCH 230.00 to DS AMIGO 230.00
2 30790 34158 "2" 0 # TRAN from PANOCH 230.00 to PANOCH 115.00
0
#
#
# (21) BUS FAULT 34100 "CHWCHLLA"
#
1 34100 34101 "1" 0 # LINE from CHWCHLLA 115.00 to CERTAN T 115.00
1 34100 34105 "1" 0 # LINE from CHWCHLLA 115.00 to CERTANJ1 115.00
4 34100 0 "1 " 0 # LOAD-DROP CHWCHLLA 115.00 LOAD==10.13(2.06)
4 34100 0 "2 " 0 # LOAD-DROP CHWCHLLA 115.00 LOAD==13.86(2.82)
0
#

```

```

#
# (22) BUS FAULT 34104 "ATWATER"
#
1 34104 34106 "1" 0 # LINE from ATWATER 115.00 to CASTLE 115.00
1 34104 34108 "1" 0 # LINE from ATWATER 115.00 to CRESEY T 115.00
1 34104 34134 "1" 0 # LINE from ATWATER 115.00 to WILSON A 115.00
4 34104 0 "1 " 0 # LOAD-DROP ATWATER 115.00 LOAD==32.40(6.57)
4 34104 0 "2 " 0 # LOAD-DROP ATWATER 115.00 LOAD==28.36(5.76)
0
#
#
# (23) BUS FAULT 34112 "EXCHEQR"
#
1 34112 34116 "1" 0 # LINE from EXCHEQR 115.00 to LE GRAND 115.00
2 34112 34176 "1" 0 # TRAN from EXCHEQR 115.00 to EXCHQRTP 115.00
0
#
#
# (24) BUS FAULT 34116 "LE GRAND"
#
1 34116 34101 "1" 0 # LINE from LE GRAND 115.00 to CERTAN T 115.00
1 34116 34112 "1" 0 # LINE from LE GRAND 115.00 to EXCHEQR 115.00
1 34116 34134 "1" 0 # LINE from LE GRAND 115.00 to WILSON A 115.00
1 34116 34154 "1" 0 # LINE from LE GRAND 115.00 to DAIRYLND 115.00
4 34116 0 "1 " 0 # LOAD-DROP LE GRAND 115.00 LOAD==13.41(2.72)
0
#
#
# (25) BUS FAULT 34134 "WILSON A"
#
1 34134 34116 "1" 0 # LINE from WILSON A 115.00 to LE GRAND 115.00
1 34134 34104 "1" 0 # LINE from WILSON A 115.00 to ATWATER 115.00
1 34134 34136 "1" 0 # LINE from WILSON A 115.00 to WILSON B 115.00
1 34134 34144 "1" 0 # LINE from WILSON A 115.00 to MERCED 115.00
2 34134 30800 "1" 0 # TRAN from WILSON A 115.00 to WILSON 230.00
4 34134 0 "3 " 0 # LOAD-DROP WILSON A 115.00 LOAD==18.66(3.79)
6 34134 0 "v" 0 # drop Wilson A 115 kV shunt Caps
0
#
#
# (26) BUS FAULT 34136 "WILSON B"
#
1 34136 34118 "1" 0 # LINE from WILSON B 115.00 to LE GRNDJ 115.00
1 34136 34134 "1" 0 # LINE from WILSON B 115.00 to WILSON A 115.00
1 34136 34138 "1" 0 # LINE from WILSON B 115.00 to EL CAPTN 115.00
1 34136 34144 "2" 0 # LINE from WILSON B 115.00 to MERCED 115.00
2 34136 30800 "2" 0 # TRAN from WILSON B 115.00 to WILSON 230.00
0
#
#
# (27) BUS FAULT 34138 "EL CAPTN"
#
1 34138 34106 "1" 0 # LINE from EL CAPTN 115.00 to CASTLE 115.00
1 34138 34136 "1" 0 # LINE from EL CAPTN 115.00 to WILSON B 115.00
4 34138 0 "1 " 0 # LOAD-DROP EL CAPTN 115.00 LOAD==19.47(3.95)
4 34138 0 "2 " 0 # LOAD-DROP EL CAPTN 115.00 LOAD==25.91(5.26)
4 34138 0 "3 " 0 # LOAD-DROP EL CAPTN 115.00 LOAD==33.05(6.71)
0
#
#
# (28) BUS FAULT 34144 "MERCED"
#
1 34144 34110 "1" 0 # LINE from MERCED 115.00 to ATWATR J 115.00
1 34144 34134 "1" 0 # LINE from MERCED 115.00 to WILSON A 115.00
1 34144 34136 "2" 0 # LINE from MERCED 115.00 to WILSON B 115.00
2 34144 34146 "2" 0 # TRAN from MERCED 115.00 to MERCED M 115.00
4 34144 0 "1 " 0 # LOAD-DROP MERCED 115.00 LOAD==37.10(7.53)
4 34144 0 "3 " 0 # LOAD-DROP MERCED 115.00 LOAD==19.45(3.95)
0
#

```

```

#
# (29) BUS FAULT 34154 "DAIRYLND"
#
1 34154 34116 "1" 0 # LINE from DAIRYLND 115.00 to LE GRAND 115.00
1 34154 34150 "1" 0 # LINE from DAIRYLND 115.00 to NEWHALL 115.00
4 34154 0 "1 " 0 # LOAD-DROP DAIRYLND 115.00 LOAD==25.82(5.24)
0
#
#
# (30) BUS FAULT 34158 "PANOCHE" Bus Section 1
#
1 34158 34149 "1" 0 # LINE from PANOCHE 115.00 to CHENYT 115.00
1 34158 34159 "1" 0 # LINE from PANOCHE 115.00 to PANOCHEJ 115.00
2 34158 30790 "2" 0 # TRAN from PANOCHE 115.00 to PANOCHE 230.00
2 34158 34186 "1" 0 # TRAN from PANOCHE 115.00 to DG_PAN1 13.80
0
#
#
# (31) BUS FAULT 34158 "PANOCHE" Bus Section 2
#
1 34158 34157 "1" 0 # LINE from PANOCHE 115.00 to PANOCHEJ 115.00
1 34158 34189 "1" 0 # LINE from PANOCHE 115.00 to STARWOOD 115.00
1 34158 34350 "1" 0 # LINE from PANOCHE 115.00 to KAMM 115.00
2 34158 30791 "1" 0 # TRAN from PANOCHE 115.00 to PNCHE 1M 230.00
0
#
#
# (32) BUS FAULT 34200 "ORO LOMA"
#
1 34200 34218 "1" 0 # LINE from ORO LOMA 70.00 to DOS PALS 70.00
1 34200 34222 "1" 0 # LINE from ORO LOMA 70.00 to MRCYSPRS 70.00
1 34200 34234 "1" 0 # LINE from ORO LOMA 70.00 to POSO J1 70.00
2 34200 34162 "2" 0 # TRAN from ORO LOMA 70.00 to ORO LOMA 115.00
4 34200 0 "1 " 0 # LOAD-DROP ORO LOMA 70.00 LOAD==8.64(1.75)
0
#
#
# (33) BUS FAULT 34202 "MERCED"
#
1 34202 34203 "1" 0 # LINE from MERCED 70.00 to ELNIDOTP 70.00
1 34202 34230 "1" 0 # LINE from MERCED 70.00 to MRCDFLLS 70.00
2 34202 34146 "2" 0 # TRAN from MERCED 70.00 to MERCED M 115.00
0
#
#
# (34) BUS FAULT 34206 "CANAL"
#
1 34206 34212 "1" 0 # LINE from CANAL 70.00 to LVNGSTNT 70.00
1 34206 34216 "1" 0 # LINE from CANAL 70.00 to SNTA RTA 70.00
1 34206 34220 "1" 0 # LINE from CANAL 70.00 to ORTIGA 70.00
4 34206 0 "1 " 0 # LOAD-DROP CANAL 70.00 LOAD==30.56(6.21)
4 34206 0 "2 " 0 # LOAD-DROP CANAL 70.00 LOAD==31.27(6.35)
0
#
#
# (35) BUS FAULT 34214 "LOS BANS"
#
1 34214 34208 "1" 0 # LINE from LOS BANS 70.00 to CHEVPIPE 70.00
1 34214 34272 "1" 0 # LINE from LOS BANS 70.00 to WRGHT PP 70.00
1 34214 34278 "1" 0 # LINE from LOS BANS 70.00 to PCHCO PP 70.00
1 34214 34282 "1" 0 # LINE from LOS BANS 70.00 to ONLL PMP 69.00
2 34214 30765 "3" 0 # TRAN from LOS BANS 70.00 to LOSBANOS 230.00
2 34214 30765 "4" 0 # TRAN from LOS BANS 70.00 to LOSBANOS 230.00
0
#
#
# (36) BUS FAULT 34216 "SNTA RTA"
#
1 34216 34206 "1" 0 # LINE from SNTA RTA 70.00 to CANAL 70.00
1 34216 34218 "1" 0 # LINE from SNTA RTA 70.00 to DOS PALS 70.00

```



```

4 34216      0 "1 "  0      # LOAD-DROP   SNTA RTA  70.00  LOAD==7.48(1.52)
0
#
#
# (37) BUS FAULT  34230  "MRCDFLLS"
#
1 34230 34202 "1"  0      # LINE from  MRCDFLLS  70.00  to  MERCED    70.00
1 34230 34321 "1"  0      # LINE from  MRCDFLLS  70.00  to  MCSWAINJ  70.00
2 34230 34322 "1"  0      # TRAN from  MRCDFLLS  70.00  to  MERCEDFL  9.11
2 34230 34322 "2"  0      # TRAN from  MRCDFLLS  70.00  to  MERCEDFL  9.11
4 34230      0 "2 "  0      # LOAD-DROP   MRCDFLLS  70.00  LOAD==8.94(1.82)
0
#
#
# (38) BUS FAULT  34238  "BONITA"
#
1 34238 34236 "1"  0      # LINE from  BONITA    70.00  to  POSO J2   70.00
1 34238 34255 "1"  0      # LINE from  BONITA    70.00  to  TRIGO J    70.00
4 34238      0 "1 "  0      # LOAD-DROP   BONITA    70.00  LOAD==14.37(2.92)
0
#
#
# (39) BUS FAULT  34240  "GLASS"
#
1 34240 34237 "1"  0      # LINE from  GLASS     70.00  to  CANANDGA  70.00
1 34240 34256 "1"  0      # LINE from  GLASS     70.00  to  BORDEN    70.00
4 34240      0 "1 "  0      # LOAD-DROP   GLASS     70.00  LOAD==9.05(4.89)
0
#
#
# (40) BUS FAULT  34252  "MADERA"
#
1 34252 34254 "1"  0      # LINE from  MADERA    70.00  to  TRIGO     70.00
1 34252 34256 "1"  0      # LINE from  MADERA    70.00  to  BORDEN    70.00
1 34252 34256 "2"  0      # LINE from  MADERA    70.00  to  BORDEN    70.00
4 34252      0 "1 "  0      # LOAD-DROP   MADERA    70.00  LOAD==17.99(3.65)
4 34252      0 "2 "  0      # LOAD-DROP   MADERA    70.00  LOAD==23.16(4.71)
6 34252      0 "v"  0      # drop Madera 70 kV shunt Caps
0
#
#
# (41) BUS FAULT  34256  "BORDEN"
#
1 34256 34252 "1"  0      # LINE from  BORDEN    70.00  to  MADERA    70.00
1 34256 34252 "2"  0      # LINE from  BORDEN    70.00  to  MADERA    70.00
1 34256 34240 "1"  0      # LINE from  BORDEN    70.00  to  GLASS     70.00
1 34256 34262 "1"  0      # LINE from  BORDEN    70.00  to  CASSIDY   70.00
2 34256 30805 "1"  0      # TRAN from  BORDEN    70.00  to  BORDEN    230.00
2 34256 30805 "2"  0      # TRAN from  BORDEN    70.00  to  BORDEN    230.00
0
#
#
# (42) BUS FAULT  34268  "MENDOTA"
#
1 34268 34267 "1"  0      # LINE from  MENDOTA    70.00  to  TOMATAK   70.00
1 34268 34269 "1"  0      # LINE from  MENDOTA    70.00  to  BIOMSJCT  70.00
2 34268 34156 "1"  0      # TRAN from  MENDOTA    70.00  to  MENDOTA   115.00
0
#
#
# 2013 sumop category c contingency list
# Fresno Zone 314
#
#
# (43) C5 DCTL OUTAGE
# Gates - Schindler and Gates - Huron #1 70 kV Lines
1 34558 34560 "1 "  0      # line from  HURON     70.00  BRKR to (2)  CALFLAX
70.00
1 34560 34562 "1 "  0      # line from  CALFLAX   70.00  (2) to BRKR  SCHLNDLR
70.00

```

```

4 34560      0 "1 " 0 # LOAD-DROP CALFLAX 70.00 LOAD==6.53(1.33)
1 34552 34558 "2 " 0 # Must include Gates - Huron #2 in this outage
#
1 34552 34558 "1 " 0 # line from GATES 70.00 BRKR to BRKR HURON
70.00
0
#
#
# (44) C5 DCTL OUTAGE
# Barton - Sanger and Manchester - Sanger 115 kV Lines
1 34359 34361 "1 " 0 # line from AIRWAYJ2 115.00 (3) to BRKR AIRWAYS
115.00
1 34359 34408 "1 " 0 # line from AIRWAYJ2 115.00 (3) to BRKR BARTON
115.00
1 34359 34366 "1 " 0 # line from AIRWAYJ2 115.00 (3) to BRKR SANGER
115.00
#
1 34357 34361 "1 " 0 # line from AIRWAYJ1 115.00 (3) to BRKR AIRWAYS
115.00
1 34357 34368 "1 " 0 # line from AIRWAYJ1 115.00 (3) to (2) LASPALMS
115.00
1 34357 34410 "1 " 0 # line from AIRWAYJ1 115.00 (3) to BRKR MANCHSTR
115.00
1 34368 34366 "1 " 0 # line from LASPALMS 115.00 (2) to BRKR SANGER
115.00
4 34368      0 "1 " 0 # LOAD-DROP LASPALMS 115.00 LOAD==13.90(11.89)
0
#
#
# (45) C5 DCTL OUTAGE
# Herndon - Barton and Herndon - Manchester 115 kV Lines
1 34408 34412 "1 " 0 # line from BARTON 115.00 BRKR to BRKR HERNDON
115.00
#
1 34410 34412 "1 " 0 # line from MANCHSTR 115.00 BRKR to BRKR HERNDON
115.00
0
#
#
# (46) C5 DCTL OUTAGE
# Herndon - Barton and Manchester - Sanger 115 kV Lines
1 34408 34412 "1 " 0 # line from BARTON 115.00 BRKR to BRKR HERNDON
115.00
#
1 34357 34361 "1 " 0 # line from AIRWAYJ1 115.00 (3) to BRKR AIRWAYS
115.00
1 34357 34368 "1 " 0 # line from AIRWAYJ1 115.00 (3) to (2) LASPALMS
115.00
1 34357 34410 "1 " 0 # line from AIRWAYJ1 115.00 (3) to BRKR MANCHSTR
115.00
1 34368 34366 "1 " 0 # line from LASPALMS 115.00 (2) to BRKR SANGER
115.00
4 34368      0 "1 " 0 # LOAD-DROP LASPALMS 115.00 LOAD==13.90(11.89)
0
#
#
# (47) C5 DCTL OUTAGE
# Herndon - Bullard #1 and #2 115 kV Lines
1 34411 34416 "1 " 0 # line from PNDLJ1 115.00 (2) to BRKR BULLARD
115.00
1 34411 34412 "1 " 0 # line from PNDLJ1 115.00 (2) to BRKR HERNDON
115.00
#
1 34409 34413 "1 " 0 # line from PNDLJ2 115.00 (3) to BRKR PNEDELE
115.00
1 34409 34416 "1 " 0 # line from PNDLJ2 115.00 (3) to BRKR BULLARD
115.00
1 34409 34412 "1 " 0 # line from PNDLJ2 115.00 (3) to BRKR HERNDON
115.00
4 34413      0 "2 " 0 # LOAD-DROP PNEDELE 115.00 LOAD==30.74(6.25)

```

```

4 34413 0 "3 " 0 # LOAD-DROP PNEBLE 115.00 LOAD==40.42(8.20)
1 34411 34413 "1 " 1 # Switches in Pindale CB#12 to transfer load
4 34413 0 "***" 1 # Restore load at Pindale
0
#
#
# (48) C5 DCTL OUTAGE
# Kerckhoff - Clovis - Sanger #1 and #2 115 kV Lines
1 34358 34360 "1 " 0 # line from KERCKHF2 115.00 BRKR to (3) WWARD JT
115.00
1 34360 34414 "1 " 0 # line from WWARD JT 115.00 (3) to BRKR WOODWARD
115.00
1 34360 34363 "1 " 0 # line from WWARD JT 115.00 (3) to (3) CLOVISJ1
115.00
1 34363 34362 "1 " 0 # line from CLOVISJ1 115.00 (3) to BRKR CLOVIS-1
115.00
1 34363 34366 "1 " 0 # line from CLOVISJ1 115.00 (3) to BRKR SANGER
115.00
4 34362 0 "1 " 0 # LOAD-DROP CLOVIS-1 115.00 LOAD==51.01(10.36)
4 34362 0 "2 " 0 # LOAD-DROP CLOVIS-1 115.00 LOAD==50.20(10.20)
1 34362 34364 "1 " 1 # Switches in Clovis SW 387 to transfer load
4 34362 0 "***" 1 # Restore Load at Clovis 1
#
1 34364 34365 "1 " 0 # line from CLOVIS-2 115.00 BRKR to (3) CLOVISJ2
115.00
1 34365 34358 "1 " 0 # line from CLOVISJ2 115.00 (3) to BRKR KERCKHF2
115.00
1 34365 34366 "1 " 0 # line from CLOVISJ2 115.00 (3) to BRKR SANGER
115.00
4 34364 0 "3 " 0 # LOAD-DROP CLOVIS-2 115.00 LOAD==44.76(9.09)
1 34362 34364 "1 " 1 # Switches in Clovis SW 387 to transfer load
4 34364 0 "***" 1 # Restore Load at Clovis 2
0
#
#
# (49) C5 DCTL OUTAGE
# Kingburg - Corcoran #1 and #2 115 kV Lines
1 34418 34420 "1 " 0 # line from KINGSBRG 115.00 BRKR to BRKR CORCORAN
115.00
#
1 34418 34420 "2 " 0 # line from KINGSBRG 115.00 BRKR to BRKR CORCORAN
115.00
0
#
#
# (50) C5 DCTL OUTAGE
# Kings River - Sanger - Reedley and Balch - Sanger 115 kV Lines
1 34366 34389 "1 " 0 # line from SANGER 115.00 BRKR to (3) RAINBWTP
115.00
1 34389 34388 "1 " 0 # line from RAINBWTP 115.00 (3) to (1) RAINBW
115.00
1 34389 34394 "1 " 0 # line from RAINBWTP 115.00 (3) to (3) PIEDRA 1
115.00
1 34394 34380 "1 " 0 # line from PIEDRA 1 115.00 (3) to BRKR REEDLEY
115.00
1 34394 34400 "1 " 0 # line from PIEDRA 1 115.00 (3) to BRKR KNGSRVR1
115.00
4 34388 0 "1 " 0 # LOAD-DROP RAINBW 115.00 LOAD==16.20(3.29)
#
1 34366 34396 "1 " 0 # line from SANGER 115.00 BRKR to (2) PIEDRA 2
115.00
1 34396 34398 "1 " 0 # line from PIEDRA 2 115.00 (2) to (2) BALCH
115.00
2 34398 34624 "1 " 0 # TRAN from BALCH 115.00 (2) to (1) BALCH 1
13.20
4 34624 0 "1 " 0 # LOAD-DROP BALCH 1 13.20 LOAD==0.26(0.00)
3 34624 0 "1 " 0 # GEN-DROP BALCH 1 13.20 GEN==27.00(8.33)
0
#
#

```

```

# (51) C5 DCTL OUTAGE
# McCall - Kingsburg #1 and #2 115 kV Lines
1 34370 34385 "1 " 0 # line from MC CALL 115.00 BRKR to (3) KINGS J1
115.00
1 34385 34417 "1 " 0 # line from KINGS J1 115.00 (3) to (2) KINGS J2
115.00
1 34385 34425 "1 " 0 # line from KINGS J1 115.00 (3) to (3) KCOGNJCT
115.00
1 34417 34418 "1 " 0 # line from KINGS J2 115.00 (2) to BRKR KINGSBRG
115.00
1 34425 34387 "1 " 0 # line from KCOGNJCT 115.00 (3) to (1) SUNMAID
115.00
1 34425 34427 "1 " 0 # line from KCOGNJCT 115.00 (3) to (2) GRDNGLS2
115.00
1 34427 34386 "1 " 0 # line from GRDNGLS2 115.00 (2) to (2) KNGSCOGN
115.00
2 34386 34642 "1 " 0 # TRAN from KNGSCOGN 115.00 (2) to BRKR KINGSBUR
9.11
4 34387 0 "1 " 0 # LOAD-DROP SUNMAID 115.00 LOAD==3.40(3.28)
3 34642 0 "1 " 0 # GEN-DROP KINGSBUR 9.11 GEN==34.00(17.30)
#
1 34418 34423 "1 " 0 # line from KINGSBRG 115.00 BRKR to (3) GAURD J1
115.00
1 34423 34370 "1 " 0 # line from GAURD J1 115.00 (3) to BRKR MC CALL
115.00
1 34423 34421 "1 " 0 # line from GAURD J1 115.00 (3) to (2) GAURD J2
115.00
1 34421 34424 "1 " 0 # line from GAURD J2 115.00 (2) to (1) GRDN GLS
115.00
4 34424 0 "1 " 0 # LOAD-DROP GRDN GLS 115.00 LOAD==3.50(1.15)
4 34418 0 "3 " 0 # Kingsburg Bank #3 will also be dropped on this outage
0
#
#
# (52) C5 DCTL OUTAGE
# McCall - Sanger #1 and #2 115 kV Lines
1 34366 34370 "1 " 0 # line from SANGER 115.00 BRKR to BRKR MC CALL
115.00
#
1 34366 34370 "2 " 0 # line from SANGER 115.00 BRKR to BRKR MC CALL
115.00
0
#
#
# (53) C5 DCTL OUTAGE
# McCall - West Fresno and California Ave. - West Fresno 115 kV Lines
1 34404 34370 "1 " 0 # line from WST FRSO 115.00 BRKR to BRKR MC CALL
115.00
#
1 34402 34404 "1 " 0 # line from CAL AVE 115.00 BRKR to BRKR WST FRSO
115.00
0
#
#
# (54) C5 DCTL OUTAGE
# McCall - West Fresno and California Ave. - McCall 115 kV Lines
1 34404 34370 "1 " 0 # line from WST FRSO 115.00 BRKR to BRKR MC CALL
115.00
#
1 34390 34370 "1 " 0 # line from DANISHCM 115.00 (2) to BRKR MC CALL
115.00
1 34390 34402 "1 " 0 # line from DANISHCM 115.00 (2) to BRKR CAL AVE
115.00
4 34390 0 "1 " 0 # LOAD-DROP DANISHCM 115.00 LOAD==4.10(3.51)
0
#
#
# (55) C5 DCTL OUTAGE
# Gates - Gregg and Gates - McCall 230 kV Lines sumop outage

```

```

1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00
1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
3 34600 0 "***" 0 # Trip Helms 1 for Gates - Gregg 230 kV line outage
HTT/RAS
#
1 30875 30880 "1 " 0 # line from MC CALL 230.00 BRKR to (2) HENTAP2
230.00
1 30880 30900 "1 " 0 # line from HENTAP2 230.00 (2) to BRKR GATES
230.00
0
#
#
# (56) C5 DCTL OUTAGE
# Panoche - Kearney and Gates - Gregg 230 kV Lines sumop outage
1 30790 30825 "1 " 0 # line from PANOCHE 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
3 34600 0 "***" 0 # Trip Helms 1 for Panoche - Kearney 230 kV line outage
HTT/RAS
#
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00
1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
3 34600 0 "***" 0 # Trip Helms 1 for Gates - Gregg 230 kV line outage
HTT/RAS
0
#
#
# (57) C5 DCTL OUTAGE
# Panoche - Kearney and Panoche - Helm 230 kV Lines sumop outage
1 30790 30825 "1 " 0 # line from PANOCHE 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
3 34600 0 "***" 0 # Trip Helms 1 for Panoche - Q055BUS1 230 kV line outage
HTT/RAS
#
1 30790 30873 "1 " 0 # line from PANOCHE 230.00 BRKR to BRKR HELM
230.00
0
#
#
# (58) C5 DCTL OUTAGE
# Panoche - Kearney and Helm - McCall 230 kV Lines sumop outage
1 30790 30825 "1 " 0 # line from PANOCHE 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
3 34600 0 "***" 0 # Trip Helms 1 for Panoche - Kearney 230 kV line outage
HTT/RAS
#
1 30873 30875 "1 " 0 # line from HELM 230.00 BRKR to BRKR MC CALL
230.00
0
#

```

```

#
# (59) C5 DCTL OUTAGE
# Helm - McCall and Gates - McCall 230 kV Lines
1 30873 30875 "1 " 0 # line from HELM 230.00 BRKR to BRKR MC CALL
230.00
#
1 30875 30880 "1 " 0 # line from MC CALL 230.00 BRKR to (2) HENTAP2
230.00
1 30880 30900 "1 " 0 # line from HENTAP2 230.00 (2) to BRKR GATES
230.00
0
#
#
# (60) C5 DCTL OUTAGE
# Helms - Gregg #1 and #2 230 kV Lines
1 30810 30820 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Helm - Gregg #1 line sumop
3 34602 0 "***" 0 # Drop unit#2 with a loss Helm - Gregg #1 line sumop
#
1 30810 30820 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Helm - Gregg #2 line sumop
3 34602 0 "***" 0 # Drop unit#2 with a loss Helm - Gregg #2 line sumop
0
#
#
# (61) C5 DCTL OUTAGE
# Gregg - Herndon #1 and #2 230 kV Lines
1 30810 30835 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #1 line
#
1 30810 30835 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #2 line
0
#
#
# (62) C5 DCTL OUTAGE
# Herndon - Kearney and Herndon - Ashlan 230 kV Lines sumop outage
1 30830 30835 "1 " 0 # line from KEARNEY 230.00 BRKR to BRKR HERNDON
230.00
3 34600 0 "***" 0 # Trip Helms 1 for Herndon - Kearney 230 kV line outage
HTT/RAS
#
1 30835 30840 "1 " 0 # line from HERNDON 230.00 BRKR to (3) FGRDN T1
230.00
1 30840 30841 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR FIGRDN 1
230.00
1 30840 30850 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR ASHLAN
230.00
4 30841 0 "1 " 0 # LOAD-DROP FIGRDN 1 230.00 LOAD==73.45(14.92)
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30841 0 "***" 1 # Restore Load at Figarden 1
0
#
#
# (63) C5 DCTL OUTAGE
# Herndon - Kearney and Gates - Gregg 230 kV Lines sumop outage
1 30830 30835 "1 " 0 # line from KEARNEY 230.00 BRKR to BRKR HERNDON
230.00
3 34600 0 "***" 0 # Trip Helms 1 for Herndon - Kearney 230 kV line outage
HTT/RAS
#
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00
1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00

```

```

1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
3 34600 0 "***" 0 # Trip Helms 1 for Gates - Gregg 230 kV line outage
HTT/RAS
0
#
#
# (64) C5 DCTL OUTAGE
# Gates - Gregg and Gregg - Ashlan 230 kV Lines sumop outage
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00
1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
3 34600 0 "***" 0 # Trip Helms 1 for Gates - Gregg 230 kV line outage
HTT/RAS
#
1 30810 30845 "1 " 0 # line from GREGG 230.00 BRKR to (3) FGRDN T2
230.00
1 30845 30846 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR FIGRDN 2
230.00
1 30845 30850 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR ASHLAN
230.00
4 30846 0 "1 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==52.57(10.67)
4 30846 0 "2 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==36.77(7.47)
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Figarden line
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30846 0 "***" 1 # Restore Load at Figarden 2
0
#
#
# (65) C5 DCTL OUTAGE
# Herndon - Ashlan and Gregg - Ashlan 230 kV Lines
1 30835 30840 "1 " 0 # line from HERNDON 230.00 BRKR to (3) FGRDN T1
230.00
1 30840 30841 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR FIGRDN 1
230.00
1 30840 30850 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR ASHLAN
230.00
4 30841 0 "1 " 0 # LOAD-DROP FIGRDN 1 230.00 LOAD==73.45(14.92)
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30841 0 "***" 1 # Restore Load at Figarden 1
#
1 30810 30845 "1 " 0 # line from GREGG 230.00 BRKR to (3) FGRDN T2
230.00
1 30845 30846 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR FIGRDN 2
230.00
1 30845 30850 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR ASHLAN
230.00
4 30846 0 "1 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==52.57(10.67)
4 30846 0 "2 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==36.77(7.47)
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Figarden line
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30846 0 "***" 1 # Restore Load at Figarden 2
0
#
#
# (66) C5 DCTL OUTAGE
# Haas - McCall and Balch - McCall 230 kV Lines
1 30855 30860 "1 " 0 # line from HAAS 230.00 (2) to (3) BALCH3TP
230.00
2 30855 34610 "1 " 0 # TRAN from HAAS 230.00 (2) to (1) HAAS
13.80
1 30860 30875 "1 " 0 # line from BALCH3TP 230.00 (3) to BRKR MC CALL
230.00

```

```

2 30860 34614 "1 " 0 # TRAN from BALCH3TP 230.00 (3) to (1) BLCH 2-3
13.80
3 34610 0 "1 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34610 0 "2 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34614 0 "1 " 0 # GEN-DROP BLCH 2-3 13.80 GEN==50.00(7.64)
#
1 30865 30870 "1 " 0 # line from BALCH 230.00 (2) to (3) PINE FLT
230.00
2 30865 34612 "1 " 0 # TRAN from BALCH 230.00 (2) to (1) BLCH 2-2
13.80
1 30870 30875 "1 " 0 # line from PINE FLT 230.00 (3) to BRKR MC CALL
230.00
2 30870 38720 "1 " 0 # TRAN from PINE FLT 230.00 (3) to (1) PINE FLT
13.80
3 34612 0 "1 " 0 # GEN-DROP BLCH 2-2 13.80 GEN==50.00(0.66)
3 38720 0 "1 " 0 # GEN-DROP PINE FLT 13.80 GEN==57.00(23.30)
0
#
#
# (67) C5 DCTL OUTAGE
# Morro Bay - Gates and Templeton - Gates 230 kV Lines
1 30900 30915 "1 " 0 # line from GATES 230.00 BRKR to BRKR MORROBAY
230.00
#
1 30900 30905 "1 " 0 # line from GATES 230.00 BRKR to BRKR TEMPLETN
230.00
0
#
#
# (68) C5 DCTL OUTAGE
# Gates - Midway and Gates - Arco 230 kV Lines
1 30900 30970 "1 " 0 # line from GATES 230.00 BRKR to BRKR MIDWAY
230.00
#
1 30900 30935 "1 " 0 # line from GATES 230.00 BRKR to BRKR ARCO
230.00
0
#
#
# (69) BUS FAULT 30820 "HELMS PP"
#
1 30820 30810 "1" 0 # LINE from HELMS PP 230.00 to GREGG 230.00
1 30820 30810 "2" 0 # LINE from HELMS PP 230.00 to GREGG 230.00
2 30820 34600 "1" 0 # TRAN from HELMS PP 230.00 to HELMS 1 18.00
2 30820 34602 "1" 0 # TRAN from HELMS PP 230.00 to HELMS 2 18.00
2 30820 34604 "1" 0 # TRAN from HELMS PP 230.00 to HELMS 3 18.00
0
#
#
# (70) BUS FAULT 30830 "KEARNEY"
#
1 30830 30825 "1" 0 # LINE from KEARNEY 230.00 to MCMULLN1 230.00
1 30830 30835 "1" 0 # LINE from KEARNEY 230.00 to HERNDON 230.00
2 30830 34480 "2" 0 # TRAN from KEARNEY 230.00 to KEARNEY 70.00
0
#
#
# (71) BUS FAULT 30835 "HERNDON" 230 kV Bus Section 1
#
1 30835 30810 "1" 0 # LINE from HERNDON 230.00 to GREGG 230.00
1 30835 30830 "1" 0 # LINE from HERNDON 230.00 to KEARNEY 230.00
2 30835 30882 "1" 0 # TRAN from HERNDON 230.00 to HERNDN1M 115.00
0
#
#
# (72) BUS FAULT 30835 "HERNDON" 230 kV Bus Section 2
#
1 30835 30810 "2" 0 # LINE from HERNDON 230.00 to GREGG 230.00
1 30835 30840 "1" 0 # LINE from HERNDON 230.00 to FGRDN T1 230.00
2 30835 30883 "2" 0 # TRAN from HERNDON 230.00 to HERNDN2M 115.00

```



```

0
#
#
# (73) BUS FAULT 30841 "FIGRDN 1"
#
1 30841 30840 "1" 0 # LINE from FIGRDN 1 230.00 to FGRDN T1 230.00
1 30841 30846 "1" 0 # LINE from FIGRDN 1 230.00 to FIGRDN 2 230.00
4 30841 0 "1 " 0 # LOAD-DROP FIGRDN 1 230.00 LOAD==73.45(14.92)
0
#
#
# (74) BUS FAULT 30846 "FIGRDN 2"
#
1 30846 30841 "1" 0 # LINE from FIGRDN 2 230.00 to FIGRDN 1 230.00
1 30846 30845 "1" 0 # LINE from FIGRDN 2 230.00 to FGRDN T2 230.00
4 30846 0 "1 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==52.57(10.67)
4 30846 0 "2 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==36.77(7.47)
0
#
#
# (75) BUS FAULT 30850 "ASHLAN"
#
1 30850 30840 "1" 0 # LINE from ASHLAN 230.00 to FGRDN T1 230.00
1 30850 30845 "1" 0 # LINE from ASHLAN 230.00 to FGRDN T2 230.00
4 30850 0 "1 " 0 # LOAD-DROP ASHLAN 230.00 LOAD==69.20(13.40)
4 30850 0 "2 " 0 # LOAD-DROP ASHLAN 230.00 LOAD==64.54(12.84)
4 30850 0 "3 " 0 # LOAD-DROP ASHLAN 230.00 LOAD==65.51(12.49)
0
#
#
# (76) BUS FAULT 30873 "HELM"
#
1 30873 30790 "1" 0 # LINE from HELM 230.00 to PANOCHE 230.00
1 30873 30875 "1" 0 # LINE from HELM 230.00 to MC CALL 230.00
2 30873 34474 "1" 0 # TRAN from HELM 230.00 to HELM 70.00
0
#
#
# (77) BUS FAULT 30874 "P0615STN"
#
1 30874 30875 "1" 0 # LINE from P0615STN 230.00 to MC CALL 230.00
1 30874 30875 "2" 0 # LINE from P0615STN 230.00 to MC CALL 230.00
2 30874 34685 "1" 0 # TRAN from P0615STN 230.00 to P0615CT1 16.50
2 30874 34686 "1" 0 # TRAN from P0615STN 230.00 to P0615CT2 16.50
2 30874 34687 "1" 0 # TRAN from P0615STN 230.00 to P0615STG 16.50
0
#
#
# (78) BUS FAULT 30875 "MC CALL" 230 kV Bus Section 1
#
1 30875 30870 "1" 0 # LINE from MC CALL 230.00 to PINE FLT 230.00
1 30875 30874 "1" 0 # LINE from MC CALL 230.00 to P0615STN 230.00
1 30875 30880 "1" 0 # LINE from MC CALL 230.00 to HENTAP2 230.00
2 30875 30877 "2" 0 # TRAN from MC CALL 230.00 to MCCALL2M 115.00
6 30875 0 "v" 0 # SVD from MC CALL 230.00
0
#
#
# (79) BUS FAULT 30875 "MC CALL" 230 kV Bus Section 2
#
1 30875 30873 "1" 0 # LINE from MC CALL 230.00 to HELM 230.00
1 30875 30860 "1" 0 # LINE from MC CALL 230.00 to BALCH3TP 230.00
1 30875 30874 "2" 0 # LINE from MC CALL 230.00 to P0615STN 230.00
2 30875 30876 "1" 0 # TRAN from MC CALL 230.00 to MCCALL1M 115.00
2 30875 30878 "3" 0 # TRAN from MC CALL 230.00 to MCCALL3M 115.00
0
#
#
# (80) BUS FAULT 30881 "HENRIETA"
#

```

```

1 30881 30879 "1" 0 # LINE from HENRIETA 230.00 to HENTAP1 230.00
1 30881 30880 "1" 0 # LINE from HENRIETA 230.00 to HENTAP2 230.00
2 30881 34430 "3" 0 # TRAN from HENRIETA 230.00 to HENRETTA 115.00
2 30881 34540 "2" 0 # TRAN from HENRIETA 230.00 to HENRITTA 70.00
2 30881 34540 "4" 0 # TRAN from HENRIETA 230.00 to HENRITTA 70.00
0
#
#
# (81) BUS FAULT 30900 "GATES" 230 kV Bus Section 1D
#
1 30900 30790 "1" 0 # LINE from GATES 230.00 to PANOCHE 230.00
1 30900 30905 "1" 0 # LINE from GATES 230.00 to TEMPLETN 230.00
2 30900 30901 "1" 0 # TRAN from GATES 230.00 to GATES 1M 230.00
6 30900 0 "v" 0 # SVD from GATES 230.00
0
#
#
# (82) BUS FAULT 30900 "GATES" 230 kV Bus Section 2D
#
1 30900 30790 "2" 0 # LINE from GATES 230.00 to PANOCHE 230.00
1 30900 30915 "1" 0 # LINE from GATES 230.00 to MORROBAY 230.00
0
#
#
# (83) BUS FAULT 30900 "GATES" 230 kV Bus Section 1E
#
1 30900 30879 "1" 0 # LINE from GATES 230.00 to HENTAP1 230.00
1 30900 30935 "1" 0 # LINE from GATES 230.00 to ARCO 230.00
0
#
#
# (84) BUS FAULT 30900 "GATES" 230 kV Bus Section 2E
#
1 30900 30880 "1" 0 # LINE from GATES 230.00 to HENTAP2 230.00
1 30900 30970 "1" 0 # LINE from GATES 230.00 to MIDWAY 230.00
0
#
#
# (85) BUS FAULT 34356 "KERCKHF1"
#
1 34356 34123 "2" 0 # LINE from KERCKHF1 115.00 to K1-JCT 115.00
1 34356 34358 "1" 0 # LINE from KERCKHF1 115.00 to KERCKHF2 115.00
2 34356 34344 "1" 0 # TRAN from KERCKHF1 115.00 to KERCKHOF 6.60
0
#
#
# (86) BUS FAULT 34358 "KERCKHF2"
#
1 34358 34123 "2" 0 # LINE from KERCKHF2 115.00 to K1-JCT 115.00
1 34358 34356 "1" 0 # LINE from KERCKHF2 115.00 to KERCKHF1 115.00
1 34358 34360 "1" 0 # LINE from KERCKHF2 115.00 to WWARD JT 115.00
1 34358 34365 "1" 0 # LINE from KERCKHF2 115.00 to CLOVISJ2 115.00
2 34358 34308 "1" 0 # TRAN from KERCKHF2 115.00 to KERCKHOF 13.80
0
#
#
# (87) BUS FAULT 34361 "AIRWAYS"
#
1 34361 34357 "1" 0 # LINE from AIRWAYS 115.00 to AIRWAYJ1 115.00
1 34361 34359 "1" 0 # LINE from AIRWAYS 115.00 to AIRWAYJ2 115.00
4 34361 0 "1" 0 # LOAD-DROP AIRWAYS 115.00 LOAD==38.39(7.43)
4 34361 0 "2" 0 # LOAD-DROP AIRWAYS 115.00 LOAD==12.60(2.56)
0
#
#
# (88) BUS FAULT 34362 "CLOVIS-1"
#
1 34362 34363 "1" 0 # LINE from CLOVIS-1 115.00 to CLOVISJ1 115.00
1 34362 34364 "1" 0 # LINE from CLOVIS-1 115.00 to CLOVIS-2 115.00
4 34362 0 "1" 0 # LOAD-DROP CLOVIS-1 115.00 LOAD==51.01(10.36)

```

```

4 34362      0 "2 "    0      # LOAD-DROP      CLOVIS-1 115.00  LOAD==50.20(10.20)
0
#
#
# (89) BUS FAULT  34364  "CLOVIS-2"
#
1 34364 34362 "1"    0      # LINE from  CLOVIS-2 115.00  to  CLOVIS-1 115.00
1 34364 34365 "1"    0      # LINE from  CLOVIS-2 115.00  to  CLOVISJ2 115.00
4 34364      0 "3 "    0      # LOAD-DROP      CLOVIS-2 115.00  LOAD==44.76(9.09)
0
#
#
# (90) BUS FAULT  34366  "SANGER"
#
1 34366 34363 "1"    0      # LINE from  SANGER   115.00  to  CLOVISJ1 115.00
1 34366 34365 "1"    0      # LINE from  SANGER   115.00  to  CLOVISJ2 115.00
1 34366 34359 "1"    0      # LINE from  SANGER   115.00  to  AIRWAYJ2 115.00
1 34366 34368 "1"    0      # LINE from  SANGER   115.00  to  LASPALMS 115.00
1 34366 34370 "1"    0      # LINE from  SANGER   115.00  to  MC CALL  115.00
1 34366 34370 "2"    0      # LINE from  SANGER   115.00  to  MC CALL  115.00
1 34366 34370 "3"    0      # LINE from  SANGER   115.00  to  MC CALL  115.00
1 34366 34372 "1"    0      # LINE from  SANGER   115.00  to  MALAGA   115.00
1 34366 34389 "1"    0      # LINE from  SANGER   115.00  to  RAINBWTP 115.00
1 34366 34396 "1"    0      # LINE from  SANGER   115.00  to  PIEDRA 2 115.00
1 34366 34488 "1"    0      # LINE from  SANGER   115.00  to  SANGER    70.00
2 34366 34590 "1"    0      # TRAN from  SANGER   115.00  to  SANGR3T 115.00
4 34366      0 "1 "    0      # LOAD-DROP      SANGER   115.00  LOAD==24.26(4.93)
0
#
#
# (91) BUS FAULT  34372  "MALAGA"
#
1 34372 34366 "1"    0      # LINE from  MALAGA   115.00  to  SANGER    115.00
1 34372 34376 "1"    0      # LINE from  MALAGA   115.00  to  PPG        115.00
1 34372 34379 "1"    0      # LINE from  MALAGA   115.00  to  MALAGATP 115.00
1 34372 34381 "1"    0      # LINE from  MALAGA   115.00  to  KRCDP     115.00
4 34372      0 "1 "    0      # LOAD-DROP      MALAGA   115.00  LOAD==25.25(5.12)
4 34372      0 "2 "    0      # LOAD-DROP      MALAGA   115.00  LOAD==22.76(4.62)
4 34372      0 "3 "    0      # LOAD-DROP      MALAGA   115.00  LOAD==23.13(4.69)
0
#
#
# (92) BUS FAULT  34378  "GATES"
#
2 34378 30901 "1"    0      # TRAN from  GATES    115.00  to  GATES 1M 230.00
2 34378 34552 "2"    0      # TRAN from  GATES    115.00  to  GATES    70.00
4 34378      0 "3 "    0      # LOAD-DROP      GATES    115.00  LOAD==19.45(3.95)
0
#
#
# (93) BUS FAULT  34380  "REEDLEY"
#
1 34380 34384 "1"    0      # LINE from  REEDLEY  115.00  to  GERAWAN  115.00
1 34380 34394 "1"    0      # LINE from  REEDLEY  115.00  to  PIEDRA 1 115.00
2 34380 34492 "1"    0      # TRAN from  REEDLEY  115.00  to  REEDLEY   70.00
2 34380 34492 "2"    0      # TRAN from  REEDLEY  115.00  to  REEDLEY   70.00
4 34380      0 "3 "    0      # LOAD-DROP      REEDLEY  115.00  LOAD==26.17(5.31)
0
#
#
# (94) BUS FAULT  34382  "WAHTOKE"
#
1 34382 34370 "1"    0      # LINE from  WAHTOKE  115.00  to  MC CALL  115.00
1 34382 34384 "1"    0      # LINE from  WAHTOKE  115.00  to  GERAWAN  115.00
4 34382      0 "2 "    0      # LOAD-DROP      WAHTOKE  115.00  LOAD==30.36(6.17)
4 34382      0 "3 "    0      # LOAD-DROP      WAHTOKE  115.00  LOAD==20.84(4.24)
0
#
#
# (95) BUS FAULT  34400  "KNGSRVR1"

```

```

#
1 34400 34394 "1" 0 # LINE from KNGSRVR1 115.00 to PIEDRA 1 115.00
2 34400 34616 "1" 0 # TRAN from KNGSRVR1 115.00 to KINGSRIV 13.80
0
#
#
# (96) BUS FAULT 34402 "CAL AVE"
#
1 34402 34390 "1" 0 # LINE from CAL AVE 115.00 to DANISHCM 115.00
1 34402 34404 "1" 0 # LINE from CAL AVE 115.00 to WST FRSO 115.00
4 34402 0 "1 " 0 # LOAD-DROP CAL AVE 115.00 LOAD==28.95(5.87)
4 34402 0 "2 " 0 # LOAD-DROP CAL AVE 115.00 LOAD==31.26(6.35)
4 34402 0 "3 " 0 # LOAD-DROP CAL AVE 115.00 LOAD==24.42(4.96)
0
#
#
# (97) BUS FAULT 34404 "WST FRSO"
#
1 34404 34370 "1" 0 # LINE from WST FRSO 115.00 to MC CALL 115.00
1 34404 34402 "1" 0 # LINE from WST FRSO 115.00 to CAL AVE 115.00
4 34404 0 "1 " 0 # LOAD-DROP WST FRSO 115.00 LOAD==37.55(7.63)
4 34404 0 "2 " 0 # LOAD-DROP WST FRSO 115.00 LOAD==39.04(7.93)
0
#
#
# (98) BUS FAULT 34408 "BARTON"
#
1 34408 34359 "1" 0 # LINE from BARTON 115.00 to AIRWAYJ2 115.00
1 34408 34412 "1" 0 # LINE from BARTON 115.00 to HERNDON 115.00
4 34408 0 "1 " 0 # LOAD-DROP BARTON 115.00 LOAD==43.27(8.79)
4 34408 0 "2 " 0 # LOAD-DROP BARTON 115.00 LOAD==37.15(7.54)
4 34408 0 "3 " 0 # LOAD-DROP BARTON 115.00 LOAD==26.96(5.47)
0
#
#
# (99) BUS FAULT 34410 "MANCHSTR"
#
1 34410 34357 "1" 0 # LINE from MANCHSTR 115.00 to AIRWAYJ1 115.00
1 34410 34412 "1" 0 # LINE from MANCHSTR 115.00 to HERNDON 115.00
4 34410 0 "1 " 0 # LOAD-DROP MANCHSTR 115.00 LOAD==25.28(5.13)
4 34410 0 "2 " 0 # LOAD-DROP MANCHSTR 115.00 LOAD==25.47(5.18)
4 34410 0 "3 " 0 # LOAD-DROP MANCHSTR 115.00 LOAD==36.21(7.36)
0
#
#
# (100) BUS FAULT 34412 "HERNDON" 115 kV Bus Section 1
#
1 34412 34408 "1" 0 # LINE from HERNDON 115.00 to BARTON 115.00
1 34412 34409 "1" 0 # LINE from HERNDON 115.00 to PNDLJ2 115.00
2 34412 30882 "1" 0 # TRAN from HERNDON 115.00 to HERNDN1M 115.00
0
#
#
# (101) BUS FAULT 34412 "HERNDON" 115 kV Bus Section 2
#
1 34412 34410 "1" 0 # LINE from HERNDON 115.00 to MANCHSTR 115.00
1 34412 34411 "1" 0 # LINE from HERNDON 115.00 to PNDLJ1 115.00
1 34412 34422 "1" 0 # LINE from HERNDON 115.00 to CHLDHOSP 115.00
0
#
#
# (102) BUS FAULT 34413 "PNEDLE"
#
1 34413 34409 "1" 0 # LINE from PNEDLE 115.00 to PNDLJ2 115.00
1 34413 34411 "1" 0 # LINE from PNEDLE 115.00 to PNDLJ1 115.00
4 34413 0 "2 " 0 # LOAD-DROP PNEDLE 115.00 LOAD==30.74(6.25)
4 34413 0 "3 " 0 # LOAD-DROP PNEDLE 115.00 LOAD==40.42(8.20)
0
#
#

```

```

# (103) BUS FAULT 34414 "WOODWARD"
#
1 34414 34360 "1" 0 # LINE from WOODWARD 115.00 to WWARD JT 115.00
1 34414 34422 "1" 0 # LINE from WOODWARD 115.00 to CHLDHOSP 115.00
4 34414 0 "1 " 0 # LOAD-DROP WOODWARD 115.00 LOAD==42.25(8.58)
4 34414 0 "2 " 0 # LOAD-DROP WOODWARD 115.00 LOAD==52.69(10.70)
4 34414 0 "3 " 0 # LOAD-DROP WOODWARD 115.00 LOAD==44.09(8.95)
0
#
#
# (104) BUS FAULT 34416 "BULLARD"
#
1 34416 34409 "1" 0 # LINE from BULLARD 115.00 to PNDLJ2 115.00
1 34416 34411 "1" 0 # LINE from BULLARD 115.00 to PNDLJ1 115.00
4 34416 0 "1 " 0 # LOAD-DROP BULLARD 115.00 LOAD==44.87(9.11)
4 34416 0 "2 " 0 # LOAD-DROP BULLARD 115.00 LOAD==44.65(9.07)
4 34416 0 "3 " 0 # LOAD-DROP BULLARD 115.00 LOAD==42.52(8.63)
0
#
#
# (105) BUS FAULT 34418 "KINGSBRG" 115 kV Bus Section D
#
1 34418 34417 "1" 0 # LINE from KINGSBRG 115.00 to KINGS J2 115.00
1 34418 34428 "1" 0 # LINE from KINGSBRG 115.00 to CONTADNA 115.00
1 34418 34420 "2" 0 # LINE from KINGSBRG 115.00 to CORCORAN 115.00
4 34418 0 "1 " 0 # LOAD-DROP KINGSBRG 115.00 LOAD==39.24(7.96)
0
#
#
# (106) BUS FAULT 34418 "KINGSBRG" 115 kV Bus Section E
#
1 34418 34420 "1" 0 # LINE from KINGSBRG 115.00 to CORCORAN 115.00
1 34418 34423 "1" 0 # LINE from KINGSBRG 115.00 to GAURD J1 115.00
2 34418 34576 "2" 0 # TRAN from KINGSBRG 115.00 to KINGLOBUS 70.00
4 34418 0 "3 " 0 # LOAD-DROP KINGSBRG 115.00 LOAD==24.32(4.94)
0
#
#
# (107) BUS FAULT 34420 "CORCORAN"
#
1 34420 34391 "1" 0 # LINE from CORCORAN 115.00 to QUEBECTP 115.00
1 34420 34418 "1" 0 # LINE from CORCORAN 115.00 to KINGSBRG 115.00
1 34420 34418 "2" 0 # LINE from CORCORAN 115.00 to KINGSBRG 115.00
2 34420 34528 "2" 0 # TRAN from CORCORAN 115.00 to CORCORAN 70.00
4 34420 0 "3 " 0 # LOAD-DROP CORCORAN 115.00 LOAD==16.21(3.30)
4 34420 0 "4 " 0 # LOAD-DROP CORCORAN 115.00 LOAD==17.81(3.61)
0
#
#
# (108) BUS FAULT 34426 "ALPAUGH"
#
1 34426 34391 "1" 0 # LINE from ALPAUGH 115.00 to QUEBECTP 115.00
1 34426 34700 "1" 0 # LINE from ALPAUGH 115.00 to SMYRNA 115.00
4 34426 0 "2 " 0 # LOAD-DROP ALPAUGH 115.00 LOAD==5.62(1.14)
0
#
#
# (109) BUS FAULT 34430 "HENRETTA"
#
1 34430 34521 "1" 0 # LINE from HENRETTA 115.00 to LEPRNOFD 115.00
2 34430 30881 "3" 0 # TRAN from HENRETTA 115.00 to HENRIETA 230.00
0
#
#
# (110) BUS FAULT 34452 "WISHON"
#
1 34452 34260 "1" 0 # LINE from WISHON 70.00 to SJNO2 70.00
1 34452 34491 "1" 0 # LINE from WISHON 70.00 to AUBRYTP 70.00
2 34452 34658 "1" 0 # TRAN from WISHON 70.00 to WISHON 2.30
0

```

```

#
#
# (111) BUS FAULT 34460 "GUERNSEY"
#
1 34460 34462 "1" 0 # LINE from GUERNSEY 70.00 to GUR3TPT 70.00
1 34460 34528 "1" 0 # LINE from GUERNSEY 70.00 to CORCORAN 70.00
4 34460 0 "1 " 0 # LOAD-DROP GUERNSEY 70.00 LOAD==10.51(2.13)
0
#
#
# (112) BUS FAULT 34464 "COPPRMNE"
#
1 34464 34454 "1" 0 # LINE from COPPRMNE 70.00 to RIVERROC 70.00
1 34464 34478 "1" 0 # LINE from COPPRMNE 70.00 to TVY VLLY 70.00
1 34464 34638 "1" 0 # LINE from COPPRMNE 70.00 to FRANTDM 70.00
1 34464 34491 "1" 0 # LINE from COPPRMNE 70.00 to AUBRYTP 70.00
4 34464 0 "1 " 0 # LOAD-DROP COPPRMNE 70.00 LOAD==22.96(4.67)
0
#
#
# (113) BUS FAULT 34466 "BIOLA"
#
1 34466 34264 "1" 0 # LINE from BIOLA 70.00 to EL PECO 70.00
1 34466 34482 "1" 0 # LINE from BIOLA 70.00 to OLDKERN 70.00
4 34466 0 "1 " 0 # LOAD-DROP BIOLA 70.00 LOAD==21.80(4.43)
0
#
#
# (114) BUS FAULT 34472 "SAN JOQN"
#
1 34472 34471 "1" 0 # LINE from SAN JOQN 70.00 to SNJQJCT 70.00
1 34472 34473 "1" 0 # LINE from SAN JOQN 70.00 to SNJQTP 70.00
4 34472 0 "1 " 0 # LOAD-DROP SAN JOQN 70.00 LOAD==6.44(1.31)
4 34472 0 "2 " 0 # LOAD-DROP SAN JOQN 70.00 LOAD==3.92(0.79)
0
#
#
# (115) BUS FAULT 34474 "HELM"
#
1 34474 34471 "1" 0 # LINE from HELM 70.00 to SNJQJCT 70.00
1 34474 34473 "1" 0 # LINE from HELM 70.00 to SNJQTP 70.00
1 34474 34556 "1" 0 # LINE from HELM 70.00 to STRD JCT 70.00
1 34474 34564 "1" 0 # LINE from HELM 70.00 to STROUD 70.00
2 34474 30873 "1" 0 # TRAN from HELM 70.00 to HELM 230.00
0
#
#
# (116) BUS FAULT 34478 "TVY VLLY"
#
1 34478 34464 "1" 0 # LINE from TVY VLLY 70.00 to COPPRMNE 70.00
1 34478 34492 "1" 0 # LINE from TVY VLLY 70.00 to REEDLEY 70.00
4 34478 0 "1 " 0 # LOAD-DROP TVY VLLY 70.00 LOAD==10.27(2.09)
0
#
#
# (117) BUS FAULT 34480 "KEARNEY"
#
1 34480 34481 "1" 0 # LINE from KEARNEY 70.00 to FRWWTAP 70.00
1 34480 34482 "1" 0 # LINE from KEARNEY 70.00 to OLDKERN 70.00
1 34480 34512 "1" 0 # LINE from KEARNEY 70.00 to CARUTHRS 70.00
2 34480 30830 "2" 0 # TRAN from KEARNEY 70.00 to KEARNEY 230.00
0
#
#
# (118) BUS FAULT 34484 "KERMAN"
#
1 34484 34475 "1" 0 # LINE from KERMAN 70.00 to AGRCJCT 70.00
1 34484 34481 "1" 0 # LINE from KERMAN 70.00 to FRWWTAP 70.00
4 34484 0 "1 " 0 # LOAD-DROP KERMAN 70.00 LOAD==19.44(3.95)
4 34484 0 "2 " 0 # LOAD-DROP KERMAN 70.00 LOAD==11.78(2.39)

```

```

0
#
#
# (119) BUS FAULT 34486 "CALIFRNV"
#
1 34486 34488 "1" 0 # LINE from CALIFRNV 70.00 to SANGER 70.00
1 34486 34488 "2" 0 # LINE from CALIFRNV 70.00 to SANGER 70.00
0
#
#
# (120) BUS FAULT 34488 "SANGER"
#
1 34488 34486 "1" 0 # LINE from SANGER 70.00 to CALIFRNV 70.00
1 34488 34486 "2" 0 # LINE from SANGER 70.00 to CALIFRNV 70.00
1 34488 34366 "1" 0 # LINE from SANGER 70.00 to SANGER 115.00
1 34488 34487 "1" 0 # LINE from SANGER 70.00 to SNGRJCT 70.00
2 34488 34590 "1" 0 # TRAN from SANGER 70.00 to SANGR3T 115.00
0
#
#
# (121) BUS FAULT 34492 "REEDLEY"
#
1 34492 34478 "1" 0 # LINE from REEDLEY 70.00 to TVY VLLY 70.00
1 34492 34490 "1" 0 # LINE from REEDLEY 70.00 to PARLIER 70.00
1 34492 34497 "1" 0 # LINE from REEDLEY 70.00 to DNUBAJCT 70.00
1 34492 34526 "1" 0 # LINE from REEDLEY 70.00 to ORSI JCT 70.00
2 34492 34380 "1" 0 # TRAN from REEDLEY 70.00 to REEDLEY 115.00
2 34492 34380 "2" 0 # TRAN from REEDLEY 70.00 to REEDLEY 115.00
4 34492 0 "1 " 0 # LOAD-DROP REEDLEY 70.00 LOAD==17.42(3.54)
0
#
#
# (122) BUS FAULT 34500 "DINUBA"
#
1 34500 34496 "1" 0 # LINE from DINUBA 70.00 to STCRRL J 70.00
1 34500 34497 "1" 0 # LINE from DINUBA 70.00 to DNUBAJCT 70.00
4 34500 0 "1 " 0 # LOAD-DROP DINUBA 70.00 LOAD==19.23(3.91)
4 34500 0 "2 " 0 # LOAD-DROP DINUBA 70.00 LOAD==9.33(1.90)
0
#
#
# (123) BUS FAULT 34512 "CARUTHRS"
#
1 34512 34480 "1" 0 # LINE from CARUTHRS 70.00 to KEARNEY 70.00
1 34512 34510 "1" 0 # LINE from CARUTHRS 70.00 to CMDN JCT 70.00
4 34512 0 "1 " 0 # LOAD-DROP CARUTHRS 70.00 LOAD==19.63(3.98)
0
#
#
# (124) BUS FAULT 34518 "LEMOORE"
#
1 34518 34520 "1" 0 # LINE from LEMOORE 70.00 to LPRNO TP 70.00
1 34518 34522 "1" 0 # LINE from LEMOORE 70.00 to HNF RD SW 70.00
4 34518 0 "1 " 0 # LOAD-DROP LEMOORE 70.00 LOAD==18.86(3.83)
4 34518 0 "2 " 0 # LOAD-DROP LEMOORE 70.00 LOAD==32.81(6.66)
0
#
#
# (125) BUS FAULT 34528 "CORCORAN"
#
1 34528 34460 "1" 0 # LINE from CORCORAN 70.00 to GUERNSEY 70.00
1 34528 34530 "1" 0 # LINE from CORCORAN 70.00 to BSWLL TP 70.00
2 34528 34420 "2" 0 # TRAN from CORCORAN 70.00 to CORCORAN 115.00
0
#
#
# (126) BUS FAULT 34540 "HENRITTA"
#
1 34540 34514 "1" 0 # LINE from HENRITTA 70.00 to MUSLSLGH 70.00
1 34540 34520 "1" 0 # LINE from HENRITTA 70.00 to LPRNO TP 70.00

```

```

1 34540 34537 "1" 0 # LINE from HENRITTA 70.00 to GWF_HENR 70.00
1 34540 34542 "1" 0 # LINE from HENRITTA 70.00 to JCBSCRNR 70.00
1 34540 34544 "1" 0 # LINE from HENRITTA 70.00 to TLRE LKE 70.00
2 34540 30881 "2" 0 # TRAN from HENRITTA 70.00 to HENRIETA 230.00
2 34540 30881 "4" 0 # TRAN from HENRITTA 70.00 to HENRIETA 230.00
4 34540 0 "1 " 0 # LOAD-DROP HENRITTA 70.00 LOAD==8.20(1.67)
0
#
#
# (127) BUS FAULT 34544 "TLRE LKE"
#
1 34544 34540 "1" 0 # LINE from TLRE LKE 70.00 to HENRITTA 70.00
1 34544 34550 "1" 0 # LINE from TLRE LKE 70.00 to CHEVPLIN 70.00
1 34544 34580 "1" 0 # LINE from TLRE LKE 70.00 to BDGR HLL 70.00
4 34544 0 "1 " 0 # LOAD-DROP TLRE LKE 70.00 LOAD==6.79(1.38)
0
#
#
# (128) BUS FAULT 34552 "GATES"
#
1 34552 34548 "1" 0 # LINE from GATES 70.00 to KETTLEMN 70.00
1 34552 34184 "1" 0 # LINE from GATES 70.00 to GATS2_TP 70.00
1 34552 34558 "1" 0 # LINE from GATES 70.00 to HURON 70.00
1 34552 34558 "2" 0 # LINE from GATES 70.00 to HURON 70.00
1 34552 34578 "1" 0 # LINE from GATES 70.00 to JACALITO 70.00
2 34552 34378 "2" 0 # TRAN from GATES 70.00 to GATES 115.00
0
#
#
# (129) BUS FAULT 34558 "HURON"
#
1 34558 34552 "1" 0 # LINE from HURON 70.00 to GATES 70.00
1 34558 34552 "2" 0 # LINE from HURON 70.00 to GATES 70.00
1 34558 34560 "1" 0 # LINE from HURON 70.00 to CALFLAX 70.00
4 34558 34552 "1 " 1 # LOAD-TRANSFER HURON 70.00 TO GATES 70.00
LOAD==15.33(3.11)
0
#
#
# (130) BUS FAULT 34562 "SCHLNDLR"
#
1 34562 34556 "1" 0 # LINE from SCHLNDLR 70.00 to STRD JCT 70.00
1 34562 34560 "1" 0 # LINE from SCHLNDLR 70.00 to CALFLAX 70.00
1 34562 34566 "1" 0 # LINE from SCHLNDLR 70.00 to PLSNTVLY 70.00
2 34562 34354 "1" 0 # TRAN from SCHLNDLR 70.00 to SCHINDLR 115.00
4 34562 0 "1 " 0 # LOAD-DROP SCHLNDLR 70.00 LOAD==9.59(1.95)
0
#
#
# (131) BUS FAULT 34564 "STROUD"
#
1 34564 34556 "1" 0 # LINE from STROUD 70.00 to STRD JCT 70.00
1 34564 34474 "1" 0 # LINE from STROUD 70.00 to HELM 70.00
4 34564 0 "1 " 0 # LOAD-DROP STROUD 70.00 LOAD==13.09(2.66)
0
#
#
# (132) BUS FAULT 34570 "COLNGA 2"
#
1 34570 34184 "1" 0 # LINE from COLNGA 2 70.00 to GATS2_TP 70.00
1 34570 34566 "1" 0 # LINE from COLNGA 2 70.00 to PLSNTVLY 70.00
1 34570 34572 "1" 0 # LINE from COLNGA 2 70.00 to TORNADO 70.00
2 34570 34652 "1" 0 # TRAN from COLNGA 2 70.00 to CHV.COAL 9.11
4 34570 0 "1 " 0 # LOAD-DROP COLNGA 2 70.00 LOAD==8.23(1.67)
0
#
#
# (133) BUS FAULT 34574 "COLNGA 1"
#
1 34574 34572 "1" 0 # LINE from COLNGA 1 70.00 to TORNADO 70.00

```



```

1 34574 34578 "1" 0 # LINE from COLNGA 1 70.00 to JACALITO 70.00
1 34574 36354 "1" 0 # LINE from COLNGA 1 70.00 to SAN MIGL 70.00
4 34574 0 "1 " 0 # LOAD-DROP COLNGA 1 70.00 LOAD==9.34(1.90)
4 34574 0 "2 " 0 # LOAD-DROP COLNGA 1 70.00 LOAD==9.99(2.03)
0
#
#
# (134) BUS FAULT 34576 "KNGLOBUS"
#
1 34576 34456 "1" 0 # LINE from KNGLOBUS 70.00 to HRDWK TP 70.00
1 34576 34508 "1" 0 # LINE from KNGLOBUS 70.00 to CAMDEN 70.00
2 34576 34418 "2" 0 # TRAN from KNGLOBUS 70.00 to KINGSBRG 115.00
0
#
#
-1
# EOF

```

# Spring Peak Category B Contingencies

```
# Q299 2013 sprpk category b contingency list
# Yosemite and Fresno Divisions Zones 313 and 314
#
# 2013 sprpk category b contingency list
# Yosemite Zone 313
#
# (1) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30515 30800 "1 " 0 # line from WARNERVL 230.00 BRKR to BRKR WILSON
230.00
0
#
# (2) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30670 30765 "1 " 0 # line from WESTLEY 230.00 BRKR to BRKR LOSBANOS
230.00
0
#
# (3) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30750 30790 "1 " 0 # line from MOSSLND2 230.00 BRKR to BRKR PANOCHE
230.00
0
#
# (4) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30760 30790 "1 " 0 # line from COBURN 230.00 BRKR to BRKR PANOCHE
230.00
0
#
# (5) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30765 30790 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR PANOCHE
230.00
0
#
# (6) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30765 30790 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR PANOCHE
230.00
0
#
# (7) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30765 38615 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR DS AMIGO
230.00
0
#
# (8) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30765 38625 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
0
#
# (9) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
```

```

1 30765 38625 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
0
#
#
# (10) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30790 30793 "1 " 0 # line from PANOCHE 230.00 BRKR to (3) PANO_EC
230.00
2 30793 34326 "1 " 0 # TRAN from PANO_EC 230.00 (3) to (1) PANO_BS1
13.80
2 30793 34327 "1 " 0 # TRAN from PANO_EC 230.00 (3) to (1) PANO_BS2
13.80
4 34326 0 "ss" 0 # LOAD-DROP PANO_BS1 13.80 LOAD==4.50(2.49)
4 34327 0 "ss" 0 # LOAD-DROP PANO_BS2 13.80 LOAD==4.50(2.49)
3 34326 0 "1 " 0 # GEN-DROP PANO_BS1 13.80 GEN==102.50(20.25)
3 34326 0 "2 " 0 # GEN-DROP PANO_BS1 13.80 GEN==102.50(20.25)
3 34327 0 "3 " 0 # GEN-DROP PANO_BS2 13.80 GEN==102.50(20.25)
3 34327 0 "4 " 0 # GEN-DROP PANO_BS2 13.80 GEN==102.50(20.25)
0
#
#
# (11) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30790 30825 "1 " 0 # line from PANOCHE 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
0
#
#
# (12) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30790 30873 "1 " 0 # line from PANOCHE 230.00 BRKR to BRKR HELM
230.00
0
#
#
# (13) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30790 30900 "1 " 0 # line from PANOCHE 230.00 BRKR to BRKR GATES
230.00
0
#
#
# (14) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30790 30900 "2 " 0 # line from PANOCHE 230.00 BRKR to BRKR GATES
230.00
0
#
#
# (15) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30795 30805 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR BORDEN
230.00
1 30795 30800 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR WILSON
230.00
4 30795 0 "2 " 0 # LOAD-DROP STOREY 2 230.00 LOAD==33.89(6.88)
0
#
#
# (16) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30796 30800 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR WILSON
230.00
1 30796 30805 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR BORDEN
230.00
4 30796 0 "1 " 0 # LOAD-DROP STOREY 1 230.00 LOAD==37.87(7.69)

```

```

0
#
#
# (17) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30805 30806 "1 " 0 # line from BORDEN 230.00 BRKR to BRKR Q196
230.00
0
#
#
# (18) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30805 30806 "2 " 0 # line from BORDEN 230.00 BRKR to BRKR Q196
230.00
0
#
#
# (19) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30805 30810 "1 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden line
0
#
#
# (20) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30805 30810 "2 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden #2 line
0
#
#
# (21) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34017 34010 "1 " 0 # line from CRWS LDG 60.00 (1) to (3) CRWS LDJ
60.00
1 34010 34006 "1 " 0 # line from CRWS LDJ 60.00 (3) to BRKR PATTERNS
60.00
1 34010 34012 "1 " 0 # line from CRWS LDJ 60.00 (3) to (2) GUSTN JT
60.00
1 34012 34014 "1 " 0 # line from GUSTN JT 60.00 (2) to BRKR NEWMAN
60.00
4 34017 0 "1 " 0 # LOAD-DROP CRWS LDG 60.00 LOAD==3.73(0.17)
1 34016 34017 "1 " 1 # Switches in Crows Landing SW 57 to transfer load
4 34017 0 "***" 1 # Restore Load at Crows Landing
0
#
#
# (22) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34100 34101 "1 " 0 # line from CHWCHLLA 115.00 BRKR to (3) CERTAN T
115.00
1 34101 34116 "1 " 0 # line from CERTAN T 115.00 (3) to BRKR LE GRAND
115.00
1 34101 34107 "1 " 0 # line from CERTAN T 115.00 (3) to (2) CERTANJ2
115.00
1 34107 34103 "1 " 0 # line from CERTANJ2 115.00 (2) to (3) CHWCGNJ2
115.00
1 34103 34102 "1 " 0 # line from CHWCGNJ2 115.00 (3) to (1) CERTTEED
115.00
1 34103 34109 "1 " 0 # line from CHWCGNJ2 115.00 (3) to (3) CHWCGN
115.00
1 34109 34111 "1 " 0 # line from CHWCGN 115.00 (3) to (2) CHWCHLA2
115.00
2 34109 34301 "1 " 0 # TRAN from CHWCGN 115.00 (3) to (1) CHOWCOGN
13.80
2 34111 34305 "1 " 0 # TRAN from CHWCHLA2 115.00 (2) to (1) CHWCHLA2
13.80
4 34102 0 "1 " 0 # LOAD-DROP CERTTEED 115.00 LOAD==9.94(6.94)

```

```

4 34305      0 "ss"    0      # LOAD-DROP   CHWCHLA2  13.80  LOAD==2.00(1.11)
3 34301      0 "1 "    0      # GEN-DROP    CHOWCOGN  13.80  GEN==50.00(4.33)
3 34305      0 "1 "    0      # GEN-DROP    CHWCHLA2  13.80  GEN==12.50(7.30)
0
#
#
# (23) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34104 34106 "1 "    0      # line from  ATWATER  115.00  BRKR to (2)  CASTLE
115.00
1 34106 34138 "1 "    0      # line from  CASTLE    115.00  (2) to BRKR  EL CAPTN
115.00
0
#
#
# (24) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34104 34108 "1 "    0      # line from  ATWATER  115.00  BRKR to (3)  CRESEY T
115.00
1 34108 34110 "1 "    0      # line from  CRESEY T  115.00  BRKR to (1)  ATWATR J
115.00
1 34108 34114 "1 "    0      # line from  CRESEY T  115.00  (3) to (3)  JRWD GEN
115.00
1 34114 34124 "1 "    0      # line from  JRWD GEN  115.00  (3) to (2)  JR WOOD
115.00
2 34114 34332 "1 "    0      # TRAN from  JRWD GEN  115.00  (3) to (1)  JRWCOGEN
9.11
1 34124 34140 "1 "    0      # line from  JR WOOD   115.00  (2) to (1)  CRESSEY
115.00
4 34124      0 "1 "    0      # LOAD-DROP   JR WOOD   115.00  LOAD==11.70(10.32)
4 34140      0 "1 "    0      # LOAD-DROP   CRESSEY   115.00  LOAD==19.02(3.86)
3 34332      0 "1 "    0      # GEN-DROP    JRWCOGEN   9.11  GEN==3.80(5.40)
0
#
#
# (25) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34105 34100 "1 "    0      # line from  CERTANJ1  115.00  (2) to BRKR  CHWCHLLA
115.00
1 34105 34121 "1 "    0      # line from  CERTANJ1  115.00  (2) to (3)  SHARON T
115.00
1 34121 34120 "1 "    0      # line from  SHARON T  115.00  (3) to (1)  SHARON
115.00
1 34121 34128 "1 "    0      # line from  SHARON T  115.00  (3) to (3)  OAKH_JCT
115.00
1 34128 34126 "1 "    0      # line from  OAKH_JCT  115.00  (3) to (2)  CORSGOLD
115.00
1 34128 34123 "1 "    0      # line from  OAKH_JCT  115.00  (3) to (2)  K1-JCT
115.00
1 34126 34122 "1 "    0      # line from  CORSGOLD  115.00  (2) to (1)  OAKHURST
115.00
1 34123 34358 "2 "    0      # line from  K1-JCT    115.00  (2) to BRKR  KERCKHF2
115.00
4 34120      0 "1 "    0      # LOAD-DROP   SHARON    115.00  LOAD==7.10(4.96)
4 34126      0 "1 "    0      # LOAD-DROP   CORSGOLD  115.00  LOAD==2.21(0.45)
4 34126      0 "2 "    0      # LOAD-DROP   CORSGOLD  115.00  LOAD==26.19(5.32)
4 34122      0 "1 "    0      # LOAD-DROP   OAKHURST  115.00  LOAD==11.68(2.37)
4 34122      0 "2 "    0      # LOAD-DROP   OAKHURST  115.00  LOAD==15.01(3.05)
0
#
#
# (26) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34108 34110 "1 "    0      # line from  CRESEY T  115.00  BRKR to (3)  ATWATR J
115.00
1 34110 34130 "1 "    0      # line from  ATWATR J  115.00  (3) to (2)  LIVNGSTN
115.00
1 34110 34144 "1 "    0      # line from  ATWATR J  115.00  (3) to BRKR  MERCED
115.00

```

```

1 34130 34132 "1 " 0 # line from LIVNGSTN 115.00 (2) to (1) GALLO
115.00
4 34130 0 "3 " 0 # LOAD-DROP LIVNGSTN 115.00 LOAD==24.58(5.00)
4 34132 0 "1 " 0 # LOAD-DROP GALLO 115.00 LOAD==4.30(3.68)
0
#
#
# (27) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34112 34116 "1 " 0 # line from EXCHEQUR 115.00 BRKR to BRKR LE GRAND
115.00
3 34306 0 "1 " 0 # Exchequer Unit will trip for this outage
4 34228 0 "***" 0 # Mariposa Loads will drop if bus is below 64 kV, this is
anticipate
0
#
#
# (28) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34116 34134 "1 " 0 # line from LE GRAND 115.00 BRKR to BRKR WILSON A
115.00
0
#
#
# (29) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34116 34154 "1 " 0 # line from LE GRAND 115.00 BRKR to BRKR DAIRYLND
115.00
0
#
#
# (30) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34118 34136 "1 " 0 # line from LE GRNDJ 115.00 (2) to BRKR WILSON B
115.00
1 34118 34168 "1 " 0 # line from LE GRNDJ 115.00 (2) to (2) EL NIDO
115.00
1 34168 34162 "1 " 0 # line from EL NIDO 115.00 (2) to BRKR ORO LOMA
115.00
4 34168 0 "1 " 0 # LOAD-DROP EL NIDO 115.00 LOAD==12.49(2.54)
4 34168 0 "2 " 0 # LOAD-DROP EL NIDO 115.00 LOAD==15.00(3.05)
0
#
#
# (31) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34134 34104 "1 " 0 # line from WILSON A 115.00 BRKR to BRKR ATWATER
115.00
0
#
#
# (32) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34134 34136 "1 " 0 # line from WILSON A 115.00 BRKR to BRKR WILSON B
115.00
0
#
#
# (33) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34134 34144 "1 " 0 # line from WILSON A 115.00 BRKR to BRKR MERCED
115.00
0
#
#
# (34) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34136 34138 "1 " 0 # line from WILSON B 115.00 BRKR to BRKR EL CAPTN
115.00
0

```

```

#
#
# (35) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34136 34144 "2 " 0 # line from WILSON B 115.00 BRKR to BRKR MERCED
115.00
0
#
#
# (36) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34141 34148 "1 " 0 # line from PAN2_TAP 115.00 (2) to (2) CHENY
115.00
2 34141 34142 "1 " 0 # TRAN from PAN2_TAP 115.00 (2) to (1) WHD_PAN2
13.80
1 34148 34149 "1 " 0 # line from CHENY 115.00 (2) to (3) CHENYT
115.00
1 34149 34158 "1 " 0 # line from CHENYT 115.00 (3) to BRKR PANOCHE
115.00
1 34149 34354 "1 " 0 # line from CHENYT 115.00 (3) to BRKR SCHINDLR
115.00
4 34148 0 "1 " 0 # LOAD-DROP CHENY 115.00 LOAD==13.12(2.66)
3 34142 0 "1 " 0 # GEN-DROP WHD_PAN2 13.80 GEN==49.00(4.03)
0
#
#
# (37) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34150 34154 "1 " 0 # line from NEWHALL 115.00 (2) to BRKR DAIRYLND
115.00
1 34150 34178 "1 " 0 # line from NEWHALL 115.00 (2) to (3) MADERAPR
115.00
1 34178 34156 "1 " 0 # line from MADERAPR 115.00 (3) to BRKR MENDOTA
115.00
2 34178 34179 "1 " 0 # TRAN from MADERAPR 115.00 (3) to (1) MADERA_G
13.80
4 34150 0 "2 " 0 # LOAD-DROP NEWHALL 115.00 LOAD==8.55(1.73)
4 34150 0 "3 " 0 # LOAD-DROP NEWHALL 115.00 LOAD==10.62(2.16)
4 34179 0 "ss" 0 # LOAD-DROP MADERA_G 13.80 LOAD==3.60(0.85)
3 34179 0 "1 " 0 # GEN-DROP MADERA_G 13.80 GEN==28.60(6.34)
0
#
#
# (38) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34157 34156 "1 " 0 # line from PANOCHET 115.00 (2) to BRKR MENDOTA
115.00
1 34157 34158 "1 " 0 # line from PANOCHET 115.00 (2) to BRKR PANOCHE
115.00
3 34186 0 "1 " 0 # DG_PAN Unit trips for Panoche - Mendota 115 kV outage
0
#
#
# (39) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34158 34189 "1 " 0 # line from PANOCHE 115.00 BRKR to (3) STARWOOD
115.00
2 34189 34328 "1 " 0 # TRAN from STARWOOD 115.00 (3) to (1) STARGET1
13.80
2 34189 34329 "1 " 0 # TRAN from STARWOOD 115.00 (3) to (1) STARGET2
13.80
4 34328 0 "ss" 0 # LOAD-DROP STARGET1 13.80 LOAD==1.00(0.55)
4 34329 0 "ss" 0 # LOAD-DROP STARGET2 13.80 LOAD==1.00(0.55)
3 34328 0 "1 " 0 # GEN-DROP STARGET1 13.80 GEN==60.94(9.59)
3 34329 0 "2 " 0 # GEN-DROP STARGET2 13.80 GEN==60.94(9.59)
0
#
#
# (40) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#

```

```

1 34158 34350 "1 " 0 # line from PANOCHE 115.00 BRKR to (2) KAMM
115.00
1 34350 34352 "1 " 0 # line from KAMM 115.00 (2) to (2) CANTUA
115.00
1 34352 34432 "1 " 0 # line from CANTUA 115.00 (2) to (2) WESTLNDS
115.00
1 34432 34354 "1 " 0 # line from WESTLNDS 115.00 (2) to BRKR SCHINDLR
115.00
4 34350 0 "1 " 0 # LOAD-DROP KAMM 115.00 LOAD==3.85(1.75)
4 34352 0 "1 " 0 # LOAD-DROP CANTUA 115.00 LOAD==16.79(3.41)
4 34432 0 "16" 0 # LOAD-DROP WESTLNDS 115.00 LOAD==0.94(0.23)
4 34432 0 "18" 0 # LOAD-DROP WESTLNDS 115.00 LOAD==1.21(0.32)
0
#
#
# (41) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34159 34158 "1 " 0 # line from PANOCHEJ 115.00 (3) to BRKR PANOCHE
115.00
1 34159 34160 "1 " 0 # line from PANOCHEJ 115.00 (3) to (2) HAMMONDS
115.00
1 34159 34180 "1 " 0 # line from PANOCHEJ 115.00 (3) to (3) OXFRDJCT
115.00
1 34160 34161 "1 " 0 # line from HAMMONDS 115.00 (2) to (3) DFSTP
115.00
1 34161 34162 "1 " 0 # line from DFSTP 115.00 (3) to BRKR ORO LOMA
115.00
1 34161 34164 "1 " 0 # line from DFSTP 115.00 (3) to (1) DFS
115.00
1 34180 34166 "1 " 0 # line from OXFRDJCT 115.00 (3) to (1) OXFORD
115.00
1 34180 34181 "1 " 0 # line from OXFRDJCT 115.00 (3) to (3) WSTLDJCT
115.00
1 34181 34182 "1 " 0 # line from WSTLDJCT 115.00 (3) to (1) WSTLD1RA
115.00
1 34181 34183 "1 " 0 # line from WSTLDJCT 115.00 (3) to (3) LUISJCT
115.00
1 34183 34163 "1 " 0 # line from LUISJCT 115.00 (3) to (1) LUIS_#3
115.00
1 34183 34165 "1 " 0 # line from LUISJCT 115.00 (3) to (1) LUIS_#5
115.00
4 34160 0 "1 " 0 # LOAD-DROP HAMMONDS 115.00 LOAD==10.00(2.03)
4 34164 0 "1 " 0 # LOAD-DROP DFS 115.00 LOAD==1.37(1.06)
4 34166 0 "1 " 0 # LOAD-DROP OXFORD 115.00 LOAD==3.87(1.76)
4 34182 0 "1 " 0 # LOAD-DROP WSTLD1RA 115.00 LOAD==2.98(0.71)
4 34163 0 "1 " 0 # LOAD-DROP LUIS_#3 115.00 LOAD==3.30(0.78)
4 34165 0 "1 " 0 # LOAD-DROP LUIS_#5 115.00 LOAD==3.40(0.81)
0
#
#
# (42) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34172 34170 "1 " 0 # line from WESTLAND 70.00 (2) to (1) WESIX
70.00
1 34172 34271 "1 " 0 # line from WESTLAND 70.00 (2) to (3) WSTLDJCT
70.00
1 34271 34269 "1 " 0 # line from WSTLDJCT 70.00 (3) to (3) BIOMSJCT
70.00
1 34271 34469 "1 " 0 # line from WSTLDJCT 70.00 (3) to (3) GFFNJCT
70.00
1 34269 34268 "1 " 0 # line from BIOMSJCT 70.00 (3) to BRKR MENDOTA
70.00
1 34269 34270 "1 " 0 # line from BIOMSJCT 70.00 (3) to (2) BIOMASS
70.00
2 34270 34334 "1 " 0 # TRAN from BIOMASS 70.00 (2) to (1) BIO PWR
9.11
1 34469 34470 "1 " 0 # line from GFFNJCT 70.00 (3) to (1) GIFFEN
70.00
1 34469 34471 "1 " 0 # line from GFFNJCT 70.00 (3) to (3) SNJQJCT
70.00

```



```

1 34471 34472 "1 " 0 # line from SNJQJCT 70.00 (3) to BRKR SAN JOQN
70.00
1 34471 34474 "1 " 0 # line from SNJQJCT 70.00 (3) to BRKR HELM
70.00
4 34172 0 "1 " 0 # LOAD-DROP WESTLAND 70.00 LOAD==3.20(0.76)
4 34170 0 "1 " 0 # LOAD-DROP WESIX 70.00 LOAD==1.60(0.38)
4 34470 0 "1 " 0 # LOAD-DROP GIFFEN 70.00 LOAD==9.59(1.95)
3 34334 0 "1 " 0 # GEN-DROP BIO PWR 9.11 GEN==21.80(10.99)
1 34472 34473 "1 " 1 # Switches in San Joaquin CB22 to transfer load
4 34472 0 "***" 1 # Restore Load at San Joaquin
0
#
#
# (43) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34200 34218 "1 " 0 # line from ORO LOMA 70.00 BRKR to (2) DOS PALS
70.00
1 34218 34216 "1 " 0 # line from DOS PALS 70.00 (2) to BRKR SNTA RTA
70.00
4 34218 0 "1 " 0 # LOAD-DROP DOS PALS 70.00 LOAD==10.29(2.09)
0
#
#
# (44) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34200 34222 "1 " 0 # line from ORO LOMA 70.00 BRKR to (3) MRCYSPRS
70.00
1 34222 34220 "1 " 0 # line from MRCYSPRS 70.00 (3) to (2) ORTIGA
70.00
1 34222 34224 "1 " 0 # line from MRCYSPRS 70.00 (3) to (2) ARBURUA
70.00
1 34220 34206 "1 " 0 # line from ORTIGA 70.00 (2) to BRKR CANAL
70.00
1 34224 34272 "1 " 0 # line from ARBURUA 70.00 (2) to (2) WRGHT PP
70.00
1 34272 34214 "1 " 0 # line from WRGHT PP 70.00 (2) to BRKR LOS BANS
70.00
4 34220 0 "1 " 0 # LOAD-DROP ORTIGA 70.00 LOAD==6.88(1.40)
4 34224 0 "1 " 0 # LOAD-DROP ARBURUA 70.00 LOAD==3.77(1.83)
4 34272 0 "1 " 0 # LOAD-DROP WRGHT PP 70.00 LOAD==9.50(1.93)
0
#
#
# (45) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34200 34234 "1 " 0 # line from ORO LOMA 70.00 BRKR to (2) POSO J1
70.00
1 34234 34266 "1 " 0 # line from POSO J1 70.00 (2) to (2) FIREBAGH
70.00
1 34266 34267 "1 " 0 # line from FIREBAGH 70.00 (2) to (2) TOMATAK
70.00
1 34267 34268 "1 " 0 # line from TOMATAK 70.00 (2) to BRKR MENDOTA
70.00
4 34266 0 "1 " 0 # LOAD-DROP FIREBAGH 70.00 LOAD==11.13(2.26)
4 34267 0 "1 " 0 # LOAD-DROP TOMATAK 70.00 LOAD==6.40(4.97)
0
#
#
# (46) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34202 34203 "1 " 0 # line from MERCED 70.00 BRKR to (3) ELNIDOTP
70.00
1 34203 34205 "1 " 0 # line from ELNIDOTP 70.00 (3) to (2) ELNIDO
70.00
1 34203 34236 "1 " 0 # line from ELNIDOTP 70.00 (3) to (1) POSO J2
70.00
2 34205 34330 "1 " 0 # TRAN from ELNIDO 70.00 (2) to (1) ELNIDO
13.80
4 34330 0 "ss" 0 # LOAD-DROP ELNIDO 13.80 LOAD==2.00(1.11)
3 34330 0 "1 " 0 # GEN-DROP ELNIDO 13.80 GEN==12.50(5.69)

```

```

0
#
#
# (47) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34202 34230 "1 " 0 # line from MERCED 70.00 BRKR to BRKR MRCDLFLS
70.00
0
#
#
# (48) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34204 34212 "1 " 0 # line from LIVNGSTN 70.00 (1) to (3) LVNGSTNT
70.00
1 34212 34206 "1 " 0 # line from LVNGSTNT 70.00 (3) to BRKR CANAL
70.00
1 34212 34210 "1 " 0 # line from LVNGSTNT 70.00 (3) to (2) SNTA NLA
70.00
1 34210 34208 "1 " 0 # line from SNTA NLA 70.00 (2) to (2) CHEVPIPE
70.00
1 34208 34214 "1 " 0 # line from CHEVPIPE 70.00 (2) to BRKR LOS BANS
70.00
4 34204 0 "2 " 0 # LOAD-DROP LIVNGSTN 70.00 LOAD==5.51(1.12)
4 34210 0 "1 " 0 # LOAD-DROP SNTA NLA 70.00 LOAD==6.75(1.37)
4 34210 0 "2 " 0 # LOAD-DROP SNTA NLA 70.00 LOAD==9.50(1.93)
4 34208 0 "1 " 0 # LOAD-DROP CHEVPIPE 70.00 LOAD==0.63(0.42)
0
#
#
# (49) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34206 34216 "1 " 0 # line from CANAL 70.00 BRKR to BRKR SNTA RTA
70.00
0
#
#
# (50) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34214 34278 "1 " 0 # line from LOS BANS 70.00 BRKR to (2) PCHCO PP
70.00
1 34278 34280 "1 " 0 # line from PCHCO PP 70.00 (2) to (2) INTL TUR
70.00
2 34280 34342 "1 " 0 # TRAN from INTL TUR 70.00 (2) to (1) INT.TURB
9.11
4 34278 0 "1 " 0 # LOAD-DROP PCHCO PP 70.00 LOAD==18.00(4.10)
3 34342 0 "1 " 0 # GEN-DROP INT.TURB 9.11 GEN==1.10(0.00)
0
#
#
# (51) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34214 34282 "1 " 0 # line from LOS BANS 70.00 BRKR to (2) ONLL PMP
69.00
2 34282 34316 "1 " 0 # TRAN from ONLL PMP 69.00 (2) to (1) ONEILPMP
9.11
4 34282 0 "1 " 0 # LOAD-DROP ONLL PMP 69.00 LOAD==6.00(1.20)
3 34316 0 "1 " 0 # GEN-DROP ONEILPMP 9.11 GEN==0.50(0.00)
0
#
#
# (52) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34228 34232 "1 " 0 # line from MARIPOS2 70.00 (1) to BRKR EXCHEQR
70.00
4 34228 0 "1 " 0 # LOAD-DROP MARIPOS2 70.00 LOAD==9.01(1.83)
4 34228 0 "2 " 0 # LOAD-DROP MARIPOS2 70.00 LOAD==9.37(1.90)
1 34228 34244 "1 " 1 # Switches in Mariposa SW 39 to transfer load
4 34228 0 "***" 1 # Restore Load at Mariposa
0
#

```

```

#
# (53) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34232 34242 "1 " 0 # line from EXCHEQUR 70.00 BRKR to (2) BER VLLY
70.00
1 34242 34244 "1 " 0 # line from BER VLLY 70.00 (2) to (2) BRCEBG J
70.00
1 34244 34246 "1 " 0 # line from BRCEBG J 70.00 (2) to (3) SAXONCRK
70.00
1 34246 34248 "1 " 0 # line from SAXONCRK 70.00 (3) to (2) INDN FLT
70.00
2 34246 34346 "1 " 0 # TRAN from SAXONCRK 70.00 (3) to (1) SAXNCK L
4.16
1 34248 34250 "1 " 0 # line from INDN FLT 70.00 (2) to (1) YOSEMITE
70.00
4 34242 0 "1 " 0 # LOAD-DROP BER VLLY 70.00 LOAD==5.91(1.20)
4 34246 0 "1 " 0 # LOAD-DROP SAXONCRK 70.00 LOAD==0.03(0.02)
4 34248 0 "1 " 0 # LOAD-DROP INDN FLT 70.00 LOAD==2.02(0.41)
4 34250 0 "1 " 0 # LOAD-DROP YOSEMITE 70.00 LOAD==2.90(0.00)
0
#
#
# (54) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34237 34255 "1 " 0 # line from CANANDGA 70.00 (2) to (3) TRIGO J
70.00
1 34237 34240 "1 " 0 # line from CANANDGA 70.00 (2) to BRKR GLASS
70.00
1 34255 34238 "1 " 0 # line from TRIGO J 70.00 (3) to BRKR BONITA
70.00
1 34255 34254 "1 " 0 # line from TRIGO J 70.00 (3) to (3) TRIGO
70.00
1 34254 34252 "1 " 0 # line from TRIGO 70.00 (3) to BRKR MADERA
70.00
1 34254 34264 "1 " 0 # line from TRIGO 70.00 (3) to (1) EL PECO
70.00
4 34237 0 "1 " 0 # LOAD-DROP CANANDGA 70.00 LOAD==7.60(5.70)
4 34238 0 "1 " 0 # LOAD-DROP BONITA 70.00 LOAD==14.37(2.92)
4 34264 0 "1 " 0 # LOAD-DROP EL PECO 70.00 LOAD==9.86(2.01)
4 34264 0 "2 " 0 # LOAD-DROP EL PECO 70.00 LOAD==7.26(1.48)
1 34238 34236 "1 " 1 # Switches in Bonita SW23 to transfer load
4 34238 0 "1 " 1 # Restore Load at Bonita
0
#
#
# (55) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34252 34256 "1 " 0 # line from MADERA 70.00 BRKR to BRKR BORDEN
70.00
0
#
#
# (56) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34252 34256 "2 " 0 # line from MADERA 70.00 BRKR to BRKR BORDEN
70.00
0
#
#
# (57) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34256 34240 "1 " 0 # line from BORDEN 70.00 BRKR to BRKR GLASS
70.00
0
#
#
# (58) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34256 34262 "1 " 0 # line from BORDEN 70.00 BRKR to (2) CASSIDY
70.00

```

```

1 34262 34454 "1 " 0 # line from CASSIDY 70.00 (2) to (2) RIVERROC
70.00
1 34454 34464 "1 " 0 # line from RIVERROC 70.00 (2) to BRKR COPPRMNE
70.00
4 34262 0 "1 " 0 # LOAD-DROP CASSIDY 70.00 LOAD==14.31(2.90)
4 34454 0 "1 " 0 # LOAD-DROP RIVERROC 70.00 LOAD==2.01(1.83)
0
#
#
# (59) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34259 34261 "1 " 0 # line from NRTHFORK 70.00 (3) to (2) SJNO3
70.00
1 34259 34260 "1 " 0 # line from NRTHFORK 70.00 (3) to (3) SJNO2
70.00
2 34259 34340 "1 " 0 # TRAN from NRTHFORK 70.00 (3) to (1) N.FORK E
9.11
2 34261 34633 "1 " 0 # TRAN from SJNO3 70.00 (2) to (1) SJ3GEN
9.11
1 34260 34452 "1 " 0 # line from SJNO2 70.00 (3) to BRKR WISHON
70.00
2 34260 34631 "1 " 0 # TRAN from SJNO2 70.00 (3) to (1) SJ2GEN
9.11
4 34261 0 "2 " 0 # LOAD-DROP SJNO3 70.00 LOAD==6.95(1.41)
4 34260 0 "2 " 0 # LOAD-DROP SJNO2 70.00 LOAD==3.22(0.66)
4 34340 0 "1 " 0 # LOAD-DROP N.FORK E 9.11 LOAD==1.21(0.25)
3 34633 0 "1 " 0 # GEN-DROP SJ3GEN 9.11 GEN==1.00(0.00)
3 34631 0 "1 " 0 # GEN-DROP SJ2GEN 9.11 GEN==2.00(0.00)
0
#
#
# (60) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34321 34226 "1 " 0 # line from MCSWAINJ 70.00 (3) to (2) MC SWAIN
70.00
1 34321 34230 "1 " 0 # line from MCSWAINJ 70.00 (3) to BRKR MRCDFLLS
70.00
1 34321 34232 "1 " 0 # line from MCSWAINJ 70.00 (3) to BRKR EXCHEQUR
70.00
2 34226 34320 "1 " 0 # TRAN from MC SWAIN 70.00 (2) to (1) MCSWAIN
9.11
3 34320 0 "1 " 0 # GEN-DROP MCSWAIN 9.11 GEN==10.00(2.00)
0
#
#
# (61) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 37563 30800 "1 " 0 # line from MELONES 230.00 BRKR to BRKR WILSON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Melones - Wilson line
0
#
#
# (62) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 38615 30790 "1 " 0 # line from DS AMIGO 230.00 BRKR to BRKR PANOCHE
230.00
0
#
#
# (63) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
# **** 3-WINDING TRANSFORMER 30765 (30069) 30050 34302 :
2 30765 30050 "1 " 0 # TRAN from LOSBANOS 230.00 BRKR to (1) LOSBANOS
500.00
0
#
#
# (64) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#

```

```

#      **** 3-WINDING TRANSFORMER 30790 (30791) 34158 34310 :
2 30790 34158 "1 " 0 # TRAN from PANOCHE 230.00 BRKR to (1) PANOCHE
115.00
0
#
#
# (65) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 30790 34158 "2 " 0 # TRAN from PANOCHE 230.00 BRKR to BRKR PANOCHE
115.00
0
#
#
# (66) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
#      **** 3-WINDING TRANSFORMER 34112 (34176) 34232 34306 :
2 34112 34232 "1 " 0 # TRAN from EXCHEQUR 115.00 BRKR to (4) EXCHEQUR
70.00
1 34232 34228 "1 " 0 # line from EXCHEQUR 70.00 BRKR to (1) MARIPOS2
70.00
1 34232 34242 "1 " 0 # line from EXCHEQUR 70.00 BRKR to (1) BER VLLY
70.00
1 34232 34321 "1 " 0 # line from EXCHEQUR 70.00 BRKR to (1) MCSWAINJ
70.00
4 34228 0 "1 " 0 # LOAD-DROP MARIPOS2 70.00 LOAD==9.01(1.83)
4 34228 0 "2 " 0 # LOAD-DROP MARIPOS2 70.00 LOAD==9.37(1.90)
1 34228 34244 "1 " 1 # Switches in Mariposa SW 39 to transfer load
4 34228 0 "***" 1 # Restore Load at Mariposa
0
#
#
# (67) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34134 30800 "1 " 0 # TRAN from WILSON A 115.00 BRKR to BRKR WILSON
230.00
0
#
#
# (68) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34136 30800 "2 " 0 # TRAN from WILSON B 115.00 BRKR to BRKR WILSON
230.00
0
#
#
# (69) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
#      **** 3-WINDING TRANSFORMER 34144 (34146) 34202 34312 :
2 34144 34202 "2 " 0 # TRAN from MERCED 115.00 BRKR to (1) MERCED
70.00
0
#
#
# (70) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34200 34162 "2 " 0 # TRAN from ORO LOMA 70.00 BRKR to (3) ORO LOMA
115.00
1 34162 34161 "1 " 0 # line from ORO LOMA 115.00 BRKR to (1) DFSTP
115.00
1 34162 34168 "1 " 0 # line from ORO LOMA 115.00 BRKR to (1) EL NIDO
115.00
0
#
#
# (71) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34214 30765 "3 " 0 # TRAN from LOS BANS 70.00 BRKR to BRKR LOSBANOS
230.00
0
#

```

```

#
# (72) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34214 30765 "4 " 0 # TRAN from LOS BANS 70.00 BRKR to BRKR LOSBANOS
230.00
0
#
#
# (73) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34256 30805 "1 " 0 # TRAN from BORDEN 70.00 BRKR to BRKR BORDEN
230.00
0
#
#
# (74) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34256 30805 "2 " 0 # TRAN from BORDEN 70.00 BRKR to BRKR BORDEN
230.00
0
#
#
# (75) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34268 34156 "1 " 0 # TRAN from MENDOTA 70.00 BRKR to (3) MENDOTA
115.00
1 34156 34178 "1 " 0 # line from MENDOTA 115.00 BRKR to (1) MADERAPR
115.00
1 34156 34157 "1 " 0 # line from MENDOTA 115.00 BRKR to (1) PANOCHET
115.00
4 34156 0 "1 " 0 # LOAD-DROP MENDOTA 115.00 LOAD==24.55(4.99)
0
#
#
# (76) B1 GENERATOR OUTAGE
#
3 34142 0 "1" 0 # WHD_PAN2 13.80 PGEN=49.00 QGEN=-22.43
0
#
#
# (77) B1 GENERATOR OUTAGE
#
3 34179 0 "1" 0 # MADERA_G 13.80 PGEN=28.60 QGEN=3.67
0
#
#
# (78) B1 GENERATOR OUTAGE
#
3 34186 0 "1" 0 # DG_PAN1 13.80 PGEN=49.00 QGEN=-17.22
0
#
#
# (79) B1 GENERATOR OUTAGE
#
3 34301 0 "1" 0 # CHOWCOGN 13.80 PGEN=50.00 QGEN=0.72
0
#
#
# (80) B1 GENERATOR OUTAGE
#
3 34305 0 "1" 0 # CHWCHLA2 13.80 PGEN=12.50 QGEN=7.35
0
#
#
# (81) B1 GENERATOR OUTAGE
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#

```

```

# (82) B1 GENERATOR OUTAGE
#
3 34316 0 "1" 0 # ONEILPMP 9.11 PGEN=0.52 QGEN=0.00
0
#
#
# (83) B1 GENERATOR OUTAGE
#
3 34320 0 "1" 0 # MCSWAIN 9.11 PGEN=10.00 QGEN=0.00
0
#
#
# (84) B1 GENERATOR OUTAGE
#
3 34322 0 "1" 0 # MERCEDFL 9.11 PGEN=3.50 QGEN=2.00
0
#
#
# (85) B1 GENERATOR OUTAGE
#
3 34326 0 "1" 0 # PANO_BS1 13.80 PGEN=102.50 QGEN=25.42
0
#
#
# (86) B1 GENERATOR OUTAGE
#
3 34326 0 "2" 0 # PANO_BS1 13.80 PGEN=102.50 QGEN=25.42
0
#
#
# (87) B1 GENERATOR OUTAGE
#
3 34327 0 "3" 0 # PANO_BS2 13.80 PGEN=102.50 QGEN=25.42
0
#
#
# (88) B1 GENERATOR OUTAGE
#
3 34327 0 "4" 0 # PANO_BS2 13.80 PGEN=102.50 QGEN=25.42
0
#
#
# (89) B1 GENERATOR OUTAGE
#
3 34328 0 "1" 0 # STARGT1 13.80 PGEN=60.94 QGEN=13.94
0
#
#
# (90) B1 GENERATOR OUTAGE
#
3 34329 0 "2" 0 # STARGT2 13.80 PGEN=60.94 QGEN=13.94
0
#
#
# (91) B1 GENERATOR OUTAGE
#
3 34330 0 "1" 0 # ELNIDO 13.80 PGEN=12.50 QGEN=4.15
0
#
#
# (92) B1 GENERATOR OUTAGE
#
3 34332 0 "1" 0 # JRWCOGEN 9.11 PGEN=3.80 QGEN=5.40
0
#
#
# (93) B1 GENERATOR OUTAGE
#
3 34334 0 "1" 0 # BIO PWR 9.11 PGEN=21.80 QGEN=8.92
0

```

```

#
#
# (94) B1 GENERATOR OUTAGE
#
3 34342      0  "1"      0      # INT.TURB   9.11      PGEN=1.10  QGEN=0.00
0
#
#
# (95) B1 GENERATOR OUTAGE
#
3 34631      0  "1"      0      # SJ2GEN     9.11      PGEN=2.00  QGEN=0.00
0
#
#
# (96) B1 GENERATOR OUTAGE
#
3 34633      0  "1"      0      # SJ3GEN     9.11      PGEN=1.00  QGEN=0.00
0
#
#
# (97) B1 GENERATOR OUTAGE
#
3 34335      0  "1"      0      # Q196GT1   16.50     PGEN=192.50 QGEN=31.08
0
#
#
# (98) B1 GENERATOR OUTAGE
#
3 34336      0  "2"      0      # Q196GT2   16.50     PGEN=192.50 QGEN=31.08
0
#
#
# (99) B1 GENERATOR OUTAGE
#
3 34337      0  "3"      0      # Q196ST1   13.80     PGEN=68.50  QGEN=11.04
0
#
#
# (100) B1 GENERATOR OUTAGE
#
3 34338      0  "4"      0      # Q196ST2   13.80     PGEN=68.50  QGEN=11.04
0
#
#
# (101) B CAPACITOR OUTAGE
#
6 30765      0  "v"      0      # LOSBANOS  230.0    SVD
0
#
#
# (102) B CAPACITOR OUTAGE
#
6 30796      0  "v"      0      # STOREY 1  230.0    SVD
0
#
#
# (103) B CAPACITOR OUTAGE
#
6 34134      0  "v"      0      # WILSON A  115.0    SVD
0
#
#
# (104) B CAPACITOR OUTAGE
#
6 34252      0  "v"      0      # MADERA    70.0     SVD
0
#
#
# (105) B CAPACITOR OUTAGE
#

```



```

6 34302      0 "v"      0      # L.BANS T   13.8  SVD
0
#
#
# (106) L-1/G-1 OVERLAPPING OUTAGE
# Le Grand - Chowchilla 115 kV Line and Exchequer
1 34100 34101 "1 "      0      # line from  CHWCHLLA 115.00  BRKR to (3)  CERTAN T
115.00
1 34101 34116 "1 "      0      # line from  CERTAN T 115.00  (3) to BRKR  LE GRAND
115.00
1 34101 34107 "1 "      0      # line from  CERTAN T 115.00  (3) to (2)  CERTANJ2
115.00
1 34107 34103 "1 "      0      # line from  CERTANJ2 115.00  (2) to (3)  CHWCGNJT
115.00
1 34103 34102 "1 "      0      # line from  CHWCGNJT 115.00  (3) to (1)  CERTTEED
115.00
1 34103 34109 "1 "      0      # line from  CHWCGNJT 115.00  (3) to (3)  CHWCGN
115.00
1 34109 34111 "1 "      0      # line from  CHWCGN   115.00  (3) to (2)  CHWCHLA2
115.00
2 34109 34301 "1 "      0      # TRAN from  CHWCGN   115.00  (3) to (1)  CHOWCOGN
13.80
2 34111 34305 "1 "      0      # TRAN from  CHWCHLA2 115.00  (2) to (1)  CHWCHLA2
13.80
4 34102      0 "1 "      0      # LOAD-DROP  CERTTEED 115.00  LOAD==9.94(6.94)
4 34305      0 "ss"      0      # LOAD-DROP  CHWCHLA2  13.80  LOAD==2.00(1.11)
3 34301      0 "1 "      0      # GEN-DROP   CHOWCOGN  13.80  GEN==50.00(4.33)
3 34305      0 "1 "      0      # GEN-DROP   CHWCHLA2  13.80  GEN==12.50(7.30)
#
3 34306      0 "1"      0      # EXCHQUER  13.80          PGEN=94.50  QGEN=8.77
0
#
#
# (107) L-1/G-1 OVERLAPPING OUTAGE
# Chowchilla - Kerckhoff #2 115 kV Line and Exchequer
1 34105 34100 "1 "      0      # line from  CERTANJ1 115.00  (2) to BRKR  CHWCHLLA
115.00
1 34105 34121 "1 "      0      # line from  CERTANJ1 115.00  (2) to (3)  SHARON T
115.00
1 34121 34120 "1 "      0      # line from  SHARON T 115.00  (3) to (1)  SHARON
115.00
1 34121 34128 "1 "      0      # line from  SHARON T 115.00  (3) to (3)  OAKH_JCT
115.00
1 34128 34126 "1 "      0      # line from  OAKH_JCT 115.00  (3) to (2)  CORSGOLD
115.00
1 34128 34123 "1 "      0      # line from  OAKH_JCT 115.00  (3) to (2)  K1-JCT
115.00
1 34126 34122 "1 "      0      # line from  CORSGOLD 115.00  (2) to (1)  OAKHURST
115.00
1 34123 34358 "2 "      0      # line from  K1-JCT   115.00  (2) to BRKR  KERCKHF2
115.00
4 34120      0 "1 "      0      # LOAD-DROP  SHARON   115.00  LOAD==7.10(4.96)
4 34126      0 "1 "      0      # LOAD-DROP  CORSGOLD  115.00  LOAD==2.21(0.45)
4 34126      0 "2 "      0      # LOAD-DROP  CORSGOLD  115.00  LOAD==26.19(5.32)
4 34122      0 "1 "      0      # LOAD-DROP  OAKHURST  115.00  LOAD==11.68(2.37)
4 34122      0 "2 "      0      # LOAD-DROP  OAKHURST  115.00  LOAD==15.01(3.05)
#
3 34306      0 "1"      0      # EXCHQUER  13.80          PGEN=94.50  QGEN=8.77
0
#
#
# (108) L-1/G-1 OVERLAPPING OUTAGE
# Atwater - El Capitan 115 kV Line and Exchequer
1 34104 34106 "1 "      0      # line from  ATWATER  115.00  BRKR to (2)  CASTLE
115.00
1 34106 34138 "1 "      0      # line from  CASTLE   115.00  (2) to BRKR  EL CAPTN
115.00
#
3 34306      0 "1"      0      # EXCHQUER  13.80          PGEN=94.50  QGEN=8.77
0

```

```

#
#
# (109) L-1/G-1 OVERLAPPING OUTAGE
# Atwater - Merced 115 kV Line and Exchequer
1 34104 34108 "1 " 0 # line from ATWATER 115.00 BRKR to (3) CRESEY T
115.00
1 34108 34110 "1 " 0 # line from CRESEY T 115.00 BRKR to (1) ATWATR J
115.00
1 34108 34114 "1 " 0 # line from CRESEY T 115.00 (3) to (3) JRWD GEN
115.00
1 34114 34124 "1 " 0 # line from JRWD GEN 115.00 (3) to (2) JR WOOD
115.00
2 34114 34332 "1 " 0 # TRAN from JRWD GEN 115.00 (3) to (1) JRWCOGEN
9.11
1 34124 34140 "1 " 0 # line from JR WOOD 115.00 (2) to (1) CRESSEY
115.00
4 34124 0 "1 " 0 # LOAD-DROP JR WOOD 115.00 LOAD==11.70(10.32)
4 34140 0 "1 " 0 # LOAD-DROP CRESSEY 115.00 LOAD==19.02(3.86)
3 34332 0 "1 " 0 # GEN-DROP JRWCOGEN 9.11 GEN==3.80(5.40)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (110) L-1/G-1 OVERLAPPING OUTAGE
# Cressy Tap 115 kV Line and Exchequer
1 34108 34110 "1 " 0 # line from CRESEY T 115.00 BRKR to (3) ATWATR J
115.00
1 34110 34130 "1 " 0 # line from ATWATR J 115.00 (3) to (2) LIVNGSTN
115.00
1 34110 34144 "1 " 0 # line from ATWATR J 115.00 (3) to BRKR MERCED
115.00
1 34130 34132 "1 " 0 # line from LIVNGSTN 115.00 (2) to (1) GALLO
115.00
4 34130 0 "3 " 0 # LOAD-DROP LIVNGSTN 115.00 LOAD==24.58(5.00)
4 34132 0 "1 " 0 # LOAD-DROP GALLO 115.00 LOAD==4.30(3.68)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (111) L-1/G-1 OVERLAPPING OUTAGE
# Le Grand - Dairyland 115 kV Line and Exchequer
1 34116 34154 "1 " 0 # line from LE GRAND 115.00 BRKR to BRKR DAIRYLND
115.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (112) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Oro Loma 115 kV Line and Exchequer
1 34118 34136 "1 " 0 # line from LE GRNDJ 115.00 (2) to BRKR WILSON B
115.00
1 34118 34168 "1 " 0 # line from LE GRNDJ 115.00 (2) to (2) EL NIDO
115.00
1 34168 34162 "1 " 0 # line from EL NIDO 115.00 (2) to BRKR ORO LOMA
115.00
4 34168 0 "1 " 0 # LOAD-DROP EL NIDO 115.00 LOAD==12.49(2.54)
4 34168 0 "2 " 0 # LOAD-DROP EL NIDO 115.00 LOAD==15.00(3.05)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (113) L-1/G-1 OVERLAPPING OUTAGE
# El Capitan - Wilson 115 kV Line and Exchequer
1 34136 34138 "1 " 0 # line from WILSON B 115.00 BRKR to BRKR EL CAPTN
115.00
#

```

```

3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (114) L-1/G-1 OVERLAPPING OUTAGE
# Dairyland - Mendota 115 kV Line and Exchequer
1 34150 34154 "1 " 0 # line from NEWHALL 115.00 (2) to BRKR DAIRYLND
115.00
1 34150 34178 "1 " 0 # line from NEWHALL 115.00 (2) to (3) MADERAPR
115.00
1 34178 34156 "1 " 0 # line from MADERAPR 115.00 (3) to BRKR MENDOTA
115.00
2 34178 34179 "1 " 0 # TRAN from MADERAPR 115.00 (3) to (1) MADERA_G
13.80
4 34150 0 "2 " 0 # LOAD-DROP NEWHALL 115.00 LOAD==8.55(1.73)
4 34150 0 "3 " 0 # LOAD-DROP NEWHALL 115.00 LOAD==10.62(2.16)
4 34179 0 "ss" 0 # LOAD-DROP MADERA_G 13.80 LOAD==3.60(0.85)
3 34179 0 "1 " 0 # GEN-DROP MADERA_G 13.80 GEN==28.60(6.34)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (115) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Mendota 115 kV Line and Exchequer
1 34157 34156 "1 " 0 # line from PANOCHET 115.00 (2) to BRKR MENDOTA
115.00
1 34157 34158 "1 " 0 # line from PANOCHET 115.00 (2) to BRKR PANOCHET
115.00
3 34186 0 "1 " 0 # DG_PAN Unit trips for Panoche - Mendota 115 kV outage
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (116) L-1/G-1 OVERLAPPING OUTAGE
# Glass - Biola - Madera 70 kV Line and Exchequer
1 34237 34255 "1 " 0 # line from CANANDGA 70.00 (2) to (3) TRIGO J
70.00
1 34237 34240 "1 " 0 # line from CANANDGA 70.00 (2) to BRKR GLASS
70.00
1 34255 34238 "1 " 0 # line from TRIGO J 70.00 (3) to BRKR BONITA
70.00
1 34255 34254 "1 " 0 # line from TRIGO J 70.00 (3) to (3) TRIGO
70.00
1 34254 34252 "1 " 0 # line from TRIGO 70.00 (3) to BRKR MADERA
70.00
1 34254 34264 "1 " 0 # line from TRIGO 70.00 (3) to (1) EL PECO
70.00
4 34237 0 "1 " 0 # LOAD-DROP CANANDGA 70.00 LOAD==7.60(5.70)
4 34238 0 "1 " 0 # LOAD-DROP BONITA 70.00 LOAD==14.37(2.92)
4 34264 0 "1 " 0 # LOAD-DROP EL PECO 70.00 LOAD==9.86(2.01)
4 34264 0 "2 " 0 # LOAD-DROP EL PECO 70.00 LOAD==7.26(1.48)
1 34238 34236 "1 " 1 # Switches in Bonita SW23 to transfer load
4 34238 0 "1 " 1 # Restore Load at Bonita
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (117) L-1/G-1 OVERLAPPING OUTAGE
# Merced Falls - Exchequer 70 kV Line and Exchequer
1 34321 34226 "1 " 0 # line from MCSWAINJ 70.00 (3) to (2) MC SWAIN
70.00
1 34321 34230 "1 " 0 # line from MCSWAINJ 70.00 (3) to BRKR MRCDFLLS
70.00
1 34321 34232 "1 " 0 # line from MCSWAINJ 70.00 (3) to BRKR EXCHEQUER
70.00
2 34226 34320 "1 " 0 # TRAN from MC SWAIN 70.00 (2) to (1) MCSWAIN
9.11

```

```

3 34320      0 "1 "  0      # GEN-DROP      MCSWAIN      9.11  GEN==10.00(2.00)
#
3 34306      0 "1"   0      # EXCHQUER     13.80          PGEN=94.50  QGEN=8.77
0
#
#
# (118) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Canal - Oro Loma 70 kV Line and Exchequer
1 34200 34222 "1 "  0      # line from    ORO LOMA   70.00  BRKR to (3)  MRCYSPRS
70.00
1 34222 34220 "1 "  0      # line from    MRCYSPRS   70.00  (3) to (2)  ORTIGA
70.00
1 34222 34224 "1 "  0      # line from    MRCYSPRS   70.00  (3) to (2)  ARBURUA
70.00
1 34220 34206 "1 "  0      # line from    ORTIGA     70.00  (2) to BRKR  CANAL
70.00
1 34224 34272 "1 "  0      # line from    ARBURUA    70.00  (2) to (2)  WRGHT PP
70.00
1 34272 34214 "1 "  0      # line from    WRGHT PP   70.00  (2) to BRKR  LOS BANS
70.00
4 34220      0 "1 "  0      # LOAD-DROP    ORTIGA     70.00  LOAD==6.88(1.40)
4 34224      0 "1 "  0      # LOAD-DROP    ARBURUA    70.00  LOAD==3.77(1.83)
4 34272      0 "1 "  0      # LOAD-DROP    WRGHT PP   70.00  LOAD==9.50(1.93)
#
3 34306      0 "1"   0      # EXCHQUER     13.80          PGEN=94.50  QGEN=8.77
0
#
#
# (119) L-1/G-1 OVERLAPPING OUTAGE
# Atwater - El Capitan 115 kV Line and JR Wood Cogen
1 34104 34106 "1 "  0      # line from    ATWATER   115.00  BRKR to (2)  CASTLE
115.00
1 34106 34138 "1 "  0      # line from    CASTLE    115.00  (2) to BRKR  EL CAPTN
115.00
#
3 34332      0 "1"   0      # JRWCOGEN     9.11          PGEN=4.00   QGEN=5.40
0
#
#
# (120) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Atwater #2 115 kV Line and JR Wood Cogen
1 34134 34104 "1 "  0      # line from    WILSON A  115.00  BRKR to BRKR  ATWATER
115.00
#
3 34332      0 "1"   0      # JRWCOGEN     9.11          PGEN=4.00   QGEN=5.40
0
#
#
# (121) L-1/G-1 OVERLAPPING OUTAGE
# Le Grand - Chowchilla 115 kV Line and Kerckhoff
1 34100 34101 "1 "  0      # line from    CHWCHLLA  115.00  BRKR to (3)  CERTAN T
115.00
1 34101 34116 "1 "  0      # line from    CERTAN T  115.00  (3) to BRKR  LE GRAND
115.00
1 34101 34107 "1 "  0      # line from    CERTAN T  115.00  (3) to (2)  CERTANJ2
115.00
1 34107 34103 "1 "  0      # line from    CERTANJ2  115.00  (2) to (3)  CHWCGNJT
115.00
1 34103 34102 "1 "  0      # line from    CHWCGNJT  115.00  (3) to (1)  CERTTEED
115.00
1 34103 34109 "1 "  0      # line from    CHWCGNJT  115.00  (3) to (3)  CHWCGN
115.00
1 34109 34111 "1 "  0      # line from    CHWCGN    115.00  (3) to (2)  CHWCHLA2
115.00
2 34109 34301 "1 "  0      # TRAN from    CHWCGN    115.00  (3) to (1)  CHOWCOGN
13.80
2 34111 34305 "1 "  0      # TRAN from    CHWCHLA2  115.00  (2) to (1)  CHWCHLA2
13.80
4 34102      0 "1 "  0      # LOAD-DROP    CERTTEED  115.00  LOAD==9.94(6.94)
4 34305      0 "ss"  0      # LOAD-DROP    CHWCHLA2  13.80   LOAD==2.00(1.11)

```

```

3 34301 0 "1 " 0 # GEN-DROP CHOWCOGN 13.80 GEN==50.00(4.33)
3 34305 0 "1 " 0 # GEN-DROP CHWCHLA2 13.80 GEN==12.50(7.30)
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (122) L-1/G-1 OVERLAPPING OUTAGE
# Exchequer - Le Grand 115 kV Line and Kerckhoff
1 34112 34116 "1 " 0 # line from EXCHEQUR 115.00 BRKR to BRKR LE GRAND
115.00
3 34306 0 "1 " 0 # Exchequer Unit will trip for this outage
4 34228 0 "***" 0 # Mariposa Loads will drop if bus is below 64 kV, this is
anticipate
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (123) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
# Le Grand - Dairyland 115 kV Line and Kerckhoff
1 34116 34154 "1 " 0 # line from LE GRAND 115.00 BRKR to BRKR DAIRYLND
115.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (124) L-1/G-1 OVERLAPPING OUTAGE
# Glass - Biola - Madera 70 kV Line and Kerckhoff
1 34237 34255 "1 " 0 # line from CANANDGA 70.00 (2) to (3) TRIGO J
70.00
1 34237 34240 "1 " 0 # line from CANANDGA 70.00 (2) to BRKR GLASS
70.00
1 34255 34238 "1 " 0 # line from TRIGO J 70.00 (3) to BRKR BONITA
70.00
1 34255 34254 "1 " 0 # line from TRIGO J 70.00 (3) to (3) TRIGO
70.00
1 34254 34252 "1 " 0 # line from TRIGO 70.00 (3) to BRKR MADERA
70.00
1 34254 34264 "1 " 0 # line from TRIGO 70.00 (3) to (1) EL PECO
70.00
4 34237 0 "1 " 0 # LOAD-DROP CANANDGA 70.00 LOAD==7.60(5.70)
4 34238 0 "1 " 0 # LOAD-DROP BONITA 70.00 LOAD==14.37(2.92)
4 34264 0 "1 " 0 # LOAD-DROP EL PECO 70.00 LOAD==9.86(2.01)
4 34264 0 "2 " 0 # LOAD-DROP EL PECO 70.00 LOAD==7.26(1.48)
1 34238 34236 "1 " 1 # Switches in Bonita SW23 to transfer load
4 34238 0 "1 " 1 # Restore Load at Bonita
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (125) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Canal - Oro Loma 70 kV Line and Oneil Pump
1 34200 34222 "1 " 0 # line from ORO LOMA 70.00 BRKR to (3) MRCYSPRS
70.00
1 34222 34220 "1 " 0 # line from MRCYSPRS 70.00 (3) to (2) ORTIGA
70.00
1 34222 34224 "1 " 0 # line from MRCYSPRS 70.00 (3) to (2) ARBURUA
70.00
1 34220 34206 "1 " 0 # line from ORTIGA 70.00 (2) to BRKR CANAL
70.00
1 34224 34272 "1 " 0 # line from ARBURUA 70.00 (2) to (2) WRGHT PP
70.00
1 34272 34214 "1 " 0 # line from WRGHT PP 70.00 (2) to BRKR LOS BANS
70.00
4 34220 0 "1 " 0 # LOAD-DROP ORTIGA 70.00 LOAD==6.88(1.40)
4 34224 0 "1 " 0 # LOAD-DROP ARBURUA 70.00 LOAD==3.77(1.83)
4 34272 0 "1 " 0 # LOAD-DROP WRGHT PP 70.00 LOAD==9.50(1.93)

```

```

#
3 34316      0 "1"      0      # ONEILPMP   9.11      PGEN=0.52  QGEN=0.00
0
#
#
# (126) L-1/G-1 OVERLAPPING OUTAGE
# Warnerville - Wilson 230 kV Line and Melones Unit 1
1 30515 30800 "1 "      0      # line from WARNERVL 230.00  BRKR to BRKR  WILSON
230.00
#
3 37561      0 "1"      0      # MELONE1   13.80      PGEN=119.00  QGEN=60.00
0
#
#
# (127) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Borden #1 230 kV Line and Melones Unit 1
1 30795 30805 "1 "      0      # line from STOREY 2 230.00  (2) to BRKR  BORDEN
230.00
1 30795 30800 "1 "      0      # line from STOREY 2 230.00  (2) to BRKR  WILSON
230.00
4 30795      0 "2 "      0      # LOAD-DROP   STOREY 2 230.00  LOAD==33.89(6.88)
#
3 37561      0 "1"      0      # MELONE1   13.80      PGEN=119.00  QGEN=60.00
0
#
#
# (128) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Borden #2 230 kV Line and Melones Unit 1
1 30796 30800 "1 "      0      # line from STOREY 1 230.00  (2) to BRKR  WILSON
230.00
1 30796 30805 "1 "      0      # line from STOREY 1 230.00  (2) to BRKR  BORDEN
230.00
4 30796      0 "1 "      0      # LOAD-DROP   STOREY 1 230.00  LOAD==37.87(7.69)
#
3 37561      0 "1"      0      # MELONE1   13.80      PGEN=119.00  QGEN=60.00
0
#
#
# (129) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Gregg #1 230 kV Line and Melones Unit 1
1 30805 30810 "1 "      0      # line from BORDEN   230.00  BRKR to BRKR  GREGG
230.00
3 34604      0 "***"     0      # Drop unit#3 with loss of Gregg - Borden line
#
3 37561      0 "1"      0      # MELONE1   13.80      PGEN=119.00  QGEN=60.00
0
#
#
# (130) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Gregg #2 230 kV Line and Melones Unit 1
1 30805 30810 "2 "      0      # line from BORDEN   230.00  BRKR to BRKR  GREGG
230.00
3 34604      0 "***"     0      # Drop unit#3 with loss of Gregg - Borden #2 line
#
3 37561      0 "1"      0      # MELONE1   13.80      PGEN=119.00  QGEN=60.00
0
#
#
# (131) L-1/G-1 OVERLAPPING OUTAGE
# Melones - Wilson 230 kV Line and Melones Unit 1
1 37563 30800 "1 "      0      # line from MELONES 230.00  (2) to BRKR  WILSON  230.00
#
3 37561      0 "1"      0      # MELONE1   13.80      PGEN=119.00  QGEN=60.00
0
#
#
# (132) L-1/G-1 OVERLAPPING OUTAGE
# Warnerville - Wilson 230 kV Line and Helms Unit 1
1 30515 30800 "1 "      0      # line from WARNERVL 230.00  BRKR to BRKR  WILSON
230.00

```

```

#
3 34600      0 "1"      0      # HELMS 1   18.00      PGEN=404.00  QGEN=66.02
0
#
#
# (133) L-1/G-1 OVERLAPPING OUTAGE
# Westley - Los Banos 230 kV Line and Helms Unit 1
1 30670 30765 "1 "      0      # line from WESTLEY 230.00 BRKR to BRKR  LOSBANOS
230.00
#
3 34600      0 "1"      0      # HELMS 1   18.00      PGEN=404.00  QGEN=66.02
0
#
#
# (134) L-1/G-1 OVERLAPPING OUTAGE
# Moss Landing - Panoche 230 kV Line and Helms Unit 1
1 30750 30790 "1 "      0      # line from MOSSLND2 230.00 BRKR to BRKR  PANOCHE
230.00
#
3 34600      0 "1"      0      # HELMS 1   18.00      PGEN=404.00  QGEN=66.02
0
#
#
# (135) L-1/G-1 OVERLAPPING OUTAGE
# Coburn - Panoche 230 kV Line and Helms Unit 1
1 30760 30790 "1 "      0      # line from COBURN   230.00 BRKR to BRKR  PANOCHE
230.00
#
3 34600      0 "1"      0      # HELMS 1   18.00      PGEN=404.00  QGEN=66.02
0
#
#
# (136) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Panoche #1 230 kV Line and Helms Unit 1
1 30765 30790 "1 "      0      # line from LOSBANOS 230.00 BRKR to BRKR  PANOCHE
230.00
#
3 34600      0 "1"      0      # HELMS 1   18.00      PGEN=404.00  QGEN=66.02
0
#
#
# (137) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Panoche #2 230 kV Line and Helms Unit 1
1 30765 30790 "2 "      0      # line from LOSBANOS 230.00 BRKR to BRKR  PANOCHE
230.00
#
3 34600      0 "1"      0      # HELMS 1   18.00      PGEN=404.00  QGEN=66.02
0
#
#
# (138) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Dos Amigos 230 kV Line and Helms Unit 1
1 30765 38615 "1 "      0      # line from LOSBANOS 230.00 BRKR to BRKR  DS AMIGO
230.00
#
3 34600      0 "1"      0      # HELMS 1   18.00      PGEN=404.00  QGEN=66.02
0
#
#
# (139) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - San Luis PGP #1 230 kV Line and Helms Unit 1
1 30765 38625 "1 "      0      # line from LOSBANOS 230.00 BRKR to BRKR  SN LS PP
230.00
#
3 34600      0 "1"      0      # HELMS 1   18.00      PGEN=404.00  QGEN=66.02
0
#
#
# (140) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - San Luis PGP #2 230 kV Line and Helms Unit 1

```

```

1 30765 38625 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (141) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Kearney 230 kV Line and Helms Unit 1
1 30790 30825 "1 " 0 # line from PANOCH 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (142) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Helm 230 kV Line and Helms Unit 1
1 30790 30873 "1 " 0 # line from PANOCH 230.00 BRKR to BRKR HELM
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (143) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Panoche #1 230 kV Line and Helms Unit 1
1 30790 30900 "1 " 0 # line from PANOCH 230.00 BRKR to BRKR GATES
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (144) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Panoche #2 230 kV Line and Helms Unit 1
1 30790 30900 "2 " 0 # line from PANOCH 230.00 BRKR to BRKR GATES
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (145) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Borden #1 230 kV Line and Helms Unit 1
1 30795 30805 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR BORDEN
230.00
1 30795 30800 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR WILSON
230.00
4 30795 0 "2 " 0 # LOAD-DROP STOREY 2 230.00 LOAD==33.89(6.88)
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (146) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Borden #2 230 kV Line and Helms Unit 1
1 30796 30800 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR WILSON
230.00
1 30796 30805 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR BORDEN
230.00
4 30796 0 "1 " 0 # LOAD-DROP STOREY 1 230.00 LOAD==37.87(7.69)
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#

```



```

# (147) L-1/G-1 OVERLAPPING OUTAGE
# Melones - Wilson 230 kV Line and Helms Unit 1
1 37563 30800 "1 " 0 # line from MELONES 230.00 (2) to BRKR WILSON 230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (148) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Gregg #1 230 kV Line and Helms Unit 1
1 30805 30810 "1 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden line
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (149) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Gregg #2 230 kV Line and Helms Unit 1
1 30805 30810 "2 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden #2 line
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (150) L-1/G-1 OVERLAPPING OUTAGE
# Dos Amigos - Panoche 230 kV Line and Helms Unit 1
1 38615 30790 "1 " 0 # line from DS AMIGO 230.00 BRKR to BRKR PANOCHE
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (151) L-1/G-1 OVERLAPPING OUTAGE
# Warnerville - Wilson 230 kV Line and Exchequer
1 30515 30800 "1 " 0 # line from WARNERVL 230.00 BRKR to BRKR WILSON
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (152) L-1/G-1 OVERLAPPING OUTAGE
# Westley - Los Banos 230 kV Line and Exchequer
1 30670 30765 "1 " 0 # line from WESTLEY 230.00 BRKR to BRKR LOSBANOS
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (153) L-1/G-1 OVERLAPPING OUTAGE
# Moss Landing - Panoche 230 kV Line and Exchequer
1 30750 30790 "1 " 0 # line from MOSSLND2 230.00 BRKR to BRKR PANOCHE
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (154) L-1/G-1 OVERLAPPING OUTAGE
# Coburn - Panoche 230 kV Line and Exchequer
1 30760 30790 "1 " 0 # line from COBURN 230.00 BRKR to BRKR PANOCHE
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77

```

```

0
#
#
# (155) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Panoche #1 230 kV Line and Exchequer
1 30765 30790 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR PANOCH
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (156) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Panoche #2 230 kV Line and Exchequer
1 30765 30790 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR PANOCH
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (157) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Dos Amigos 230 kV Line and Exchequer
1 30765 38615 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR DS AMIGO
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (158) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - San Luis PGP #1 230 kV Line and Exchequer
1 30765 38625 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (159) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - San Luis PGP #2 230 kV Line and Exchequer
1 30765 38625 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (160) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Kearney 230 kV Line and Exchequer
1 30790 30825 "1 " 0 # line from PANOCH 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (161) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Helm 230 kV Line and Exchequer
1 30790 30873 "1 " 0 # line from PANOCH 230.00 BRKR to BRKR HELM
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (162) L-1/G-1 OVERLAPPING OUTAGE

```

```

# Gates - Panoche #1 230 kV Line and Exchequer
1 30790 30900 "1 " 0 # line from PANOCH 230.00 BRKR to BRKR GATES
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (163) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Panoche #2 230 kV Line and Exchequer
1 30790 30900 "2 " 0 # line from PANOCH 230.00 BRKR to BRKR GATES
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (164) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Borden #1 230 kV Line and Exchequer
1 30795 30805 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR BORDEN
230.00
1 30795 30800 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR WILSON
230.00
4 30795 0 "2 " 0 # LOAD-DROP STOREY 2 230.00 LOAD==33.89(6.88)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (165) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Borden #2 230 kV Line and Exchequer
1 30796 30800 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR WILSON
230.00
1 30796 30805 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR BORDEN
230.00
4 30796 0 "1 " 0 # LOAD-DROP STOREY 1 230.00 LOAD==37.87(7.69)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (166) L-1/G-1 OVERLAPPING OUTAGE
# Melones - Wilson 230 kV Line and Exchequer
1 37563 30800 "1 " 0 # line from MELONES 230.00 (2) to BRKR WILSON 230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (167) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Gregg #1 230 kV Line and Exchequer
1 30805 30810 "1 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden line
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (168) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Gregg #2 230 kV Line and Exchequer
1 30805 30810 "2 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden #2 line
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (169) L-1/G-1 OVERLAPPING OUTAGE

```

```

# Dos Amigos - Panoche 230 kV Line and Exchequer
1 38615 30790 "1 " 0 # line from DS AMIGO 230.00 BRKR to BRKR PANOCH
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (170) L-1/G-1 OVERLAPPING OUTAGE
# Warnerville - Wilson 230 kV Line and Kerckhoff
1 30515 30800 "1 " 0 # line from WARNERVL 230.00 BRKR to BRKR WILSON
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (171) L-1/G-1 OVERLAPPING OUTAGE
# Westley - Los Banos 230 kV Line and Kerckhoff
1 30670 30765 "1 " 0 # line from WESTLEY 230.00 BRKR to BRKR LOSBANOS
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (172) L-1/G-1 OVERLAPPING OUTAGE
# Moss Landing - Panoche 230 kV Line and Kerckhoff
1 30750 30790 "1 " 0 # line from MOSSLND2 230.00 BRKR to BRKR PANOCH
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (173) L-1/G-1 OVERLAPPING OUTAGE
# Coburn - Panoche 230 kV Line and Kerckhoff
1 30760 30790 "1 " 0 # line from COBURN 230.00 BRKR to BRKR PANOCH
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (174) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Panoche #1 230 kV Line and Kerckhoff
1 30765 30790 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR PANOCH
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (175) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Panoche #2 230 kV Line and Kerckhoff
1 30765 30790 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR PANOCH
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (176) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - Dos Amigos 230 kV Line and Kerckhoff
1 30765 38615 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR DS AMIGO
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#

```

```

#
# (177) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - San Luis PGP #1 230 kV Line and Kerckhoff
1 30765 38625 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (178) L-1/G-1 OVERLAPPING OUTAGE
# Los Banos - San Luis PGP #2 230 kV Line and Kerckhoff
1 30765 38625 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (179) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Kearney 230 kV Line and Kerckhoff
1 30790 30825 "1 " 0 # line from PANOCH 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (180) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Helm 230 kV Line and Kerckhoff
1 30790 30873 "1 " 0 # line from PANOCH 230.00 BRKR to BRKR HELM
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (181) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Panoche #1 230 kV Line and Kerckhoff
1 30790 30900 "1 " 0 # line from PANOCH 230.00 BRKR to BRKR GATES
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (182) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Panoche #2 230 kV Line and Kerckhoff
1 30790 30900 "2 " 0 # line from PANOCH 230.00 BRKR to BRKR GATES
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (183) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Borden #1 230 kV Line and Kerckhoff
1 30795 30805 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR BORDEN
230.00
1 30795 30800 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR WILSON
230.00
4 30795 0 "2 " 0 # LOAD-DROP STOREY 2 230.00 LOAD==33.89(6.88)
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#

```

```

# (184) L-1/G-1 OVERLAPPING OUTAGE
# Wilson - Borden #2 230 kV Line and Kerckhoff
1 30796 30800 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR WILSON
230.00
1 30796 30805 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR BORDEN
230.00
4 30796 0 "1 " 0 # LOAD-DROP STOREY 1 230.00 LOAD==37.87(7.69)
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (185) L-1/G-1 OVERLAPPING OUTAGE
# Melones - Wilson 230 kV Line and Kerckhoff
1 37563 30800 "1 " 0 # line from MELONES 230.00 (2) to BRKR WILSON 230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (186) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Gregg #1 230 kV Line and Kerckhoff
1 30805 30810 "1 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden line
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (187) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Gregg #2 230 kV Line and Kerckhoff
1 30805 30810 "2 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden #2 line
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (188) L-1/G-1 OVERLAPPING OUTAGE
# Dos Amigos - Panoche 230 kV Line and Kerckhoff
1 38615 30790 "1 " 0 # line from DS AMIGO 230.00 BRKR to BRKR PANOCHE
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# 2013 sprpk category b contingency list
# Fresno Zone 314
#
#
# (189) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30873 30875 "1 " 0 # line from HELM 230.00 BRKR to BRKR MC CALL
230.00
0
#
#
# (190) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30810 30820 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34600 0 "***" 0 # Drop unit#1 with a loss Helm - Gregg #1 line
0
#
#
# (191) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#

```

```

1 30810 30820 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Helm - Gregg #2 line
0
#
#
# (192) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30810 30835 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #1 line
0
#
#
# (193) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30810 30835 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #2 line
0
#
#
# (194) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30810 30845 "1 " 0 # line from GREGG 230.00 BRKR to (3) FGRDN T2
230.00
1 30845 30846 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR FIGRDN 2
230.00
1 30845 30850 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR ASHLAN
230.00
4 30846 0 "1 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==52.57(10.67)
4 30846 0 "2 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==36.77(7.47)
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Figarden line
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30846 0 "***" 1 # Restore Load at Figarden 2
0
#
#
# (195) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00
1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
0
#
#
# (196) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30830 30835 "1 " 0 # line from KEARNEY 230.00 BRKR to BRKR HERNDON
230.00
0
#
#
# (197) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30835 30840 "1 " 0 # line from HERNDON 230.00 BRKR to (3) FGRDN T1
230.00
1 30840 30841 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR FIGRDN 1
230.00
1 30840 30850 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR ASHLAN
230.00
4 30841 0 "1 " 0 # LOAD-DROP FIGRDN 1 230.00 LOAD==73.45(14.92)
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30841 0 "***" 1 # Restore Load at Figarden 1
0

```

```

#
#
# (198) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30855 30860 "1 " 0 # line from HAAS 230.00 (2) to (3) BALCH3TP
230.00
2 30855 34610 "1 " 0 # TRAN from HAAS 230.00 (2) to (1) HAAS
13.80
1 30860 30875 "1 " 0 # line from BALCH3TP 230.00 (3) to BRKR MC CALL
230.00
2 30860 34614 "1 " 0 # TRAN from BALCH3TP 230.00 (3) to (1) BLCH 2-3
13.80
3 34610 0 "1 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34610 0 "2 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34614 0 "1 " 0 # GEN-DROP BLCH 2-3 13.80 GEN==50.00(7.64)
0
#
#
# (199) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30865 30870 "1 " 0 # line from BALCH 230.00 (2) to (3) PINE FLT
230.00
2 30865 34612 "1 " 0 # TRAN from BALCH 230.00 (2) to (1) BLCH 2-2
13.80
1 30870 30875 "1 " 0 # line from PINE FLT 230.00 (3) to BRKR MC CALL
230.00
2 30870 38720 "1 " 0 # TRAN from PINE FLT 230.00 (3) to (1) PINE FLT
13.80
3 34612 0 "1 " 0 # GEN-DROP BLCH 2-2 13.80 GEN==50.00(0.66)
3 38720 0 "1 " 0 # GEN-DROP PINE FLT 13.80 GEN==57.00(23.30)
0
#
#
# (200) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30875 30874 "1 " 0 # line from MC CALL 230.00 BRKR to BRKR P0615STN
230.00
0
#
#
# (201) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30875 30874 "2 " 0 # line from MC CALL 230.00 BRKR to BRKR P0615STN
230.00
0
#
#
# (202) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30875 30880 "1 " 0 # line from MC CALL 230.00 BRKR to (2) HENTAP2
230.00
1 30880 30900 "1 " 0 # line from HENTAP2 230.00 (2) to BRKR GATES
230.00
0
#
#
# (203) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30900 30905 "1 " 0 # line from GATES 230.00 BRKR to BRKR TEMPLETN
230.00
0
#
#
# (204) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30900 30915 "1 " 0 # line from GATES 230.00 BRKR to BRKR MORROBAY
230.00
0
#
#

```



```

# (205) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30900 30935 "1 " 0 # line from GATES 230.00 BRKR to BRKR ARCO
230.00
0
#
#
# (206) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30900 30970 "1 " 0 # line from GATES 230.00 BRKR to BRKR MIDWAY
230.00
0
#
#
# (207) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34123 34358 "2 " 0 # line from K1-JCT 115.00 (2) to BRKR KERCKHF2
115.00
1 34123 34128 "1 " 0 # line from K1-JCT 115.00 (2) to (3) OAKH_JCT
115.00
1 34128 34121 "1 " 0 # line from OAKH_JCT 115.00 (3) to (3) SHARON T
115.00
1 34128 34126 "1 " 0 # line from OAKH_JCT 115.00 (3) to (2) CORSGOLD
115.00
1 34121 34105 "1 " 0 # line from SHARON T 115.00 (3) to (2) CERTANJ1
115.00
1 34121 34120 "1 " 0 # line from SHARON T 115.00 (3) to (1) SHARON
115.00
1 34105 34100 "1 " 0 # line from CERTANJ1 115.00 (2) to BRKR CHWCHLLA
115.00
1 34126 34122 "1 " 0 # line from CORSGOLD 115.00 (2) to (1) OAKHURST
115.00
4 34126 0 "1 " 0 # LOAD-DROP CORSGOLD 115.00 LOAD==2.21(0.45)
4 34126 0 "2 " 0 # LOAD-DROP CORSGOLD 115.00 LOAD==26.19(5.32)
4 34120 0 "1 " 0 # LOAD-DROP SHARON 115.00 LOAD==7.10(4.96)
4 34122 0 "1 " 0 # LOAD-DROP OAKHURST 115.00 LOAD==11.68(2.37)
4 34122 0 "2 " 0 # LOAD-DROP OAKHURST 115.00 LOAD==15.01(3.05)
0
#
#
# (208) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34149 34354 "1 " 0 # line from CHENYT 115.00 (3) to BRKR SCHINDLR
115.00
1 34149 34148 "1 " 0 # line from CHENYT 115.00 (3) to (2) CHENY
115.00
1 34149 34158 "1 " 0 # line from CHENYT 115.00 (3) to BRKR PANOCHÉ
115.00
1 34148 34141 "1 " 0 # line from CHENY 115.00 (2) to (2) PAN2_TAP
115.00
2 34141 34142 "1 " 0 # TRAN from PAN2_TAP 115.00 (2) to (1) WHD_PAN2
13.80
4 34148 0 "1 " 0 # LOAD-DROP CHENY 115.00 LOAD==13.12(2.66)
3 34142 0 "1 " 0 # GEN-DROP WHD_PAN2 13.80 GEN==49.00(4.03)
0
#
#
# (209) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34184 34570 "1 " 0 # line from GATS2_TP 70.00 (3) to BRKR COLNGA 2
70.00
1 34184 34552 "1 " 0 # line from GATS2_TP 70.00 (3) to BRKR GATES
70.00
2 34184 34553 "1 " 0 # TRAN from GATS2_TP 70.00 (3) to (1) WHD_GAT2
13.80
3 34553 0 "1 " 0 # GEN-DROP WHD_GAT2 13.80 GEN==49.00(-25.30)
0
#
#
# (210) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

```

```

#
1 34356 34358 "1 " 0 # line from KERCKHF1 115.00 BRKR to BRKR KERCKHF2
115.00
0
#
#
# (211) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34357 34361 "1 " 0 # line from AIRWAYJ1 115.00 (3) to BRKR AIRWAYS
115.00
1 34357 34368 "1 " 0 # line from AIRWAYJ1 115.00 (3) to (2) LASPALMS
115.00
1 34357 34410 "1 " 0 # line from AIRWAYJ1 115.00 (3) to BRKR MANCHSTR
115.00
1 34368 34366 "1 " 0 # line from LASPALMS 115.00 (2) to BRKR SANGER
115.00
4 34368 0 "1 " 0 # LOAD-DROP LASPALMS 115.00 LOAD==13.90(11.89)
0
#
#
# (212) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34358 34360 "1 " 0 # line from KERCKHF2 115.00 BRKR to (3) WWARD JT
115.00
1 34360 34414 "1 " 0 # line from WWARD JT 115.00 (3) to BRKR WOODWARD
115.00
1 34360 34363 "1 " 0 # line from WWARD JT 115.00 (3) to (3) CLOVISJ1
115.00
1 34363 34362 "1 " 0 # line from CLOVISJ1 115.00 (3) to BRKR CLOVIS-1
115.00
1 34363 34366 "1 " 0 # line from CLOVISJ1 115.00 (3) to BRKR SANGER
115.00
4 34362 0 "1 " 0 # LOAD-DROP CLOVIS-1 115.00 LOAD==51.01(10.36)
4 34362 0 "2 " 0 # LOAD-DROP CLOVIS-1 115.00 LOAD==50.20(10.20)
1 34362 34364 "1 " 1 # Switches in Clovis SW 387 to transfer load
4 34362 0 "***" 1 # Restore Load at Clovis 1
0
#
#
# (213) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34359 34361 "1 " 0 # line from AIRWAYJ2 115.00 (3) to BRKR AIRWAYS
115.00
1 34359 34408 "1 " 0 # line from AIRWAYJ2 115.00 (3) to BRKR BARTON
115.00
1 34359 34366 "1 " 0 # line from AIRWAYJ2 115.00 (3) to BRKR SANGER
115.00
0
#
#
# (214) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34364 34365 "1 " 0 # line from CLOVIS-2 115.00 BRKR to (3) CLOVISJ2
115.00
1 34365 34358 "1 " 0 # line from CLOVISJ2 115.00 (3) to BRKR KERCKHF2
115.00
1 34365 34366 "1 " 0 # line from CLOVISJ2 115.00 (3) to BRKR SANGER
115.00
4 34364 0 "3 " 0 # LOAD-DROP CLOVIS-2 115.00 LOAD==44.76(9.09)
1 34362 34364 "1 " 1 # Switches in Clovis SW 387 to transfer load
4 34364 0 "***" 1 # Restore Load at Clovis 2
0
#
#
# (215) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34366 34370 "1 " 0 # line from SANGER 115.00 BRKR to BRKR MC CALL
115.00
0
#

```

```

#
# (216) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34366 34370 "2 " 0 # line from SANGER 115.00 BRKR to BRKR MC CALL
115.00
0
#
#
# (217) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34366 34370 "3 " 0 # line from SANGER 115.00 BRKR to BRKR MC CALL
115.00
0
#
#
# (218) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34366 34372 "1 " 0 # line from SANGER 115.00 BRKR to BRKR MALAGA
115.00
0
#
#
# (219) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34366 34389 "1 " 0 # line from SANGER 115.00 BRKR to (3) RAINBWTP
115.00
1 34389 34388 "1 " 0 # line from RAINBWTP 115.00 (3) to (1) RAINBW
115.00
1 34389 34394 "1 " 0 # line from RAINBWTP 115.00 (3) to (3) PIEDRA 1
115.00
1 34394 34380 "1 " 0 # line from PIEDRA 1 115.00 (3) to BRKR REEDLEY
115.00
1 34394 34400 "1 " 0 # line from PIEDRA 1 115.00 (3) to BRKR KNGSRVR1
115.00
4 34388 0 "1 " 0 # LOAD-DROP RAINBW 115.00 LOAD==16.20(3.29)
0
#
#
# (220) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34366 34396 "1 " 0 # line from SANGER 115.00 BRKR to (2) PIEDRA 2
115.00
1 34396 34398 "1 " 0 # line from PIEDRA 2 115.00 (2) to (2) BALCH
115.00
2 34398 34624 "1 " 0 # TRAN from BALCH 115.00 (2) to (1) BALCH 1
13.20
4 34624 0 "1 " 0 # LOAD-DROP BALCH 1 13.20 LOAD==0.26(0.00)
3 34624 0 "1 " 0 # GEN-DROP BALCH 1 13.20 GEN==27.00(8.33)
0
#
#
# (221) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34369 34370 "1 " 0 # line from P0418 115.00 (5) to BRKR MC CALL
115.00
2 34369 34661 "1 " 0 # TRAN from P0418 115.00 (5) to (1) P0418GT1
13.80
2 34369 34663 "1 " 0 # TRAN from P0418 115.00 (5) to (1) P0418GT2
13.80
2 34369 34665 "1 " 0 # TRAN from P0418 115.00 (5) to (1) P0418GT3
13.80
2 34369 34667 "1 " 0 # TRAN from P0418 115.00 (5) to (1) P0418GT4
13.80
4 34661 0 "ss" 0 # LOAD-DROP P0418GT1 13.80 LOAD==3.00(1.66)
4 34663 0 "ss" 0 # LOAD-DROP P0418GT2 13.80 LOAD==3.00(1.66)
4 34665 0 "ss" 0 # LOAD-DROP P0418GT3 13.80 LOAD==3.00(1.66)
4 34667 0 "ss" 0 # LOAD-DROP P0418GT4 13.80 LOAD==3.00(1.66)
3 34661 0 "1 " 0 # GEN-DROP P0418GT1 13.80 GEN==78.80(13.93)
3 34663 0 "2 " 0 # GEN-DROP P0418GT2 13.80 GEN==78.80(13.93)
3 34665 0 "3 " 0 # GEN-DROP P0418GT3 13.80 GEN==78.80(13.93)

```

```

3 34667      0 "4 "  0      # GEN-DROP      P0418GT4  13.80  GEN==78.80(13.93)
0
#
#
# (222)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34370 34382 "1 "  0      # line from MC CALL  115.00  BRKR to BRKR  WAHTOKE
115.00
0
#
#
# (223)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34370 34385 "1 "  0      # line from MC CALL  115.00  BRKR to (3)   KINGS J1
115.00
1 34385 34417 "1 "  0      # line from KINGS J1 115.00  (3) to (2)   KINGS J2
115.00
1 34385 34425 "1 "  0      # line from KINGS J1 115.00  (3) to (3)   KCOGNJCT
115.00
1 34417 34418 "1 "  0      # line from KINGS J2 115.00  (2) to BRKR  KINGSBRG
115.00
1 34425 34387 "1 "  0      # line from KCOGNJCT 115.00  (3) to (1)   SUNMAID
115.00
1 34425 34427 "1 "  0      # line from KCOGNJCT 115.00  (3) to (2)   GRDNGLS2
115.00
1 34427 34386 "1 "  0      # line from GRDNGLS2 115.00  (2) to (2)   KNGSCOGN
115.00
2 34386 34642 "1 "  0      # TRAN from KNGSCOGN 115.00  (2) to BRKR  KINGSBUR
9.11
4 34387      0 "1 "  0      # LOAD-DROP      SUNMAID  115.00  LOAD==3.40(3.28)
3 34642      0 "1 "  0      # GEN-DROP      KINGSBUR   9.11  GEN==34.00(17.30)
0
#
#
# (224)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34402 34404 "1 "  0      # line from CAL AVE  115.00  BRKR to BRKR  WST FRSO
115.00
0
#
#
# (225)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34372 34376 "1 "  0      # line from MALAGA   115.00  BRKR to (1)   PPG
115.00
4 34376      0 "1 "  0      # LOAD-DROP      PPG        115.00  LOAD==6.25(3.87)
0
#
#
# (226)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34372 34379 "1 "  0      # line from MALAGA   115.00  BRKR to (3)   MALAGATP
115.00
1 34379 34373 "1 "  0      # line from MALAGATP 115.00  (3) to (3)   SCWAXJCT
115.00
1 34379 34375 "1 "  0      # line from MALAGATP 115.00  (3) to (3)   ULTPWRJ
115.00
1 34373 34371 "1 "  0      # line from SCWAXJCT 115.00  (3) to (1)   SCWAX
115.00
1 34373 34374 "1 "  0      # line from SCWAXJCT 115.00  (3) to (1)   RANCHRS
115.00
1 34375 34377 "1 "  0      # line from ULTPWRJ  115.00  (3) to (2)   AIRPROD
115.00
2 34375 34640 "1 "  0      # TRAN from ULTPWRJ  115.00  (3) to (1)   ULTR.PWR
9.11
1 34377 34370 "1 "  0      # line from AIRPROD  115.00  (2) to BRKR  MC CALL
115.00
4 34371      0 "1 "  0      # LOAD-DROP      SCWAX      115.00  LOAD==2.70(1.53)
4 34374      0 "1 "  0      # LOAD-DROP      RANCHRS    115.00  LOAD==9.16(1.86)
4 34377      0 "1 "  0      # LOAD-DROP      AIRPROD    115.00  LOAD==5.10(2.02)

```

```

3 34640      0 "1 "  0      # GEN-DROP    ULTR.PWR    9.11  GEN==14.50(13.00)
0
#
#
# (227)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34372 34381 "1 "  0      # line from  MALAGA    115.00  BRKR to (3)  KRCDP
115.00
2 34381 34671 "1 "  0      # TRAN from  KRCDP      115.00  (3) to (1)  KRCDPCT1
13.80
2 34381 34672 "1 "  0      # TRAN from  KRCDP      115.00  (3) to (1)  KRCDPCT2
13.80
4 34671      0 "ss"  0      # LOAD-DROP   KRCDPCT1   13.80  LOAD==1.05(0.65)
4 34672      0 "ss"  0      # LOAD-DROP   KRCDPCT2   13.80  LOAD==1.05(0.65)
3 34671      0 "1 "  0      # GEN-DROP   KRCDPCT1   13.80  GEN==50.00(7.14)
3 34672      0 "1 "  0      # GEN-DROP   KRCDPCT2   13.80  GEN==50.00(7.14)
0
#
#
# (228)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34380 34384 "1 "  0      # line from  REEDLEY    115.00  BRKR to (2)  GERAWAN
115.00
1 34384 34382 "1 "  0      # line from  GERAWAN    115.00  (2) to BRKR  WAHTOKE
115.00
0
#
#
# (229)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34390 34370 "1 "  0      # line from  DANISHCM   115.00  (2) to BRKR  MC CALL
115.00
1 34390 34402 "1 "  0      # line from  DANISHCM   115.00  (2) to BRKR  CAL AVE
115.00
4 34390      0 "1 "  0      # LOAD-DROP   DANISHCM   115.00  LOAD==4.10(3.51)
0
#
#
# (230)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34391 34392 "1 "  0      # line from  QUEBECTP   115.00  (2) to (1)  QUEBEC
115.00
1 34391 34426 "1 "  0      # line from  QUEBECTP   115.00  (2) to BRKR  ALPAUGH
115.00
4 34392      0 "1 "  0      # LOAD-DROP   QUEBEC     115.00  LOAD==11.20(7.82)
0
#
#
# (231)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34404 34370 "1 "  0      # line from  WST FRSO   115.00  BRKR to BRKR  MC CALL
115.00
0
#
#
# (232)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34408 34412 "1 "  0      # line from  BARTON     115.00  BRKR to BRKR  HERNDON
115.00
0
#
#
# (233)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34409 34413 "1 "  0      # line from  PNDLJ2     115.00  (3) to BRKR  PNEDLE
115.00
1 34409 34416 "1 "  0      # line from  PNDLJ2     115.00  (3) to BRKR  BULLARD
115.00
1 34409 34412 "1 "  0      # line from  PNDLJ2     115.00  (3) to BRKR  HERNDON
115.00

```

```

4 34413 0 "2 " 0 # LOAD-DROP PNEBLE 115.00 LOAD==30.74(6.25)
4 34413 0 "3 " 0 # LOAD-DROP PNEBLE 115.00 LOAD==40.42(8.20)
1 34411 34413 "1 " 1 # Switches in Pindale CB#12 to transfer load
4 34413 0 "***" 1 # Restore load at Pindale
0
#
#
# (234) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34410 34412 "1 " 0 # line from MANCHSTR 115.00 BRKR to BRKR HERNDON
115.00
0
#
#
# (235) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34411 34416 "1 " 0 # line from PNDLJ1 115.00 (2) to BRKR BULLARD
115.00
1 34411 34412 "1 " 0 # line from PNDLJ1 115.00 (2) to BRKR HERNDON
115.00
0
#
#
# (236) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34412 34422 "1 " 0 # line from HERNDON 115.00 BRKR to (2) CHLDHOSP
115.00
1 34422 34414 "1 " 0 # line from CHLDHOSP 115.00 (2) to BRKR WOODWARD
115.00
4 34422 0 "1 " 0 # LOAD-DROP CHLDHOSP 115.00 LOAD==3.50(1.60)
0
#
#
# (237) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34418 34420 "1 " 0 # line from KINGSBRG 115.00 BRKR to BRKR CORCORAN
115.00
0
#
#
# (238) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34418 34420 "2 " 0 # line from KINGSBRG 115.00 BRKR to BRKR CORCORAN
115.00
0
#
#
# (239) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34418 34423 "1 " 0 # line from KINGSBRG 115.00 BRKR to (3) GAURD J1
115.00
1 34423 34370 "1 " 0 # line from GAURD J1 115.00 (3) to BRKR MC CALL
115.00
1 34423 34421 "1 " 0 # line from GAURD J1 115.00 (3) to (2) GAURD J2
115.00
1 34421 34424 "1 " 0 # line from GAURD J2 115.00 (2) to (1) GRDN GLS
115.00
4 34424 0 "1 " 0 # LOAD-DROP GRDN GLS 115.00 LOAD==3.50(1.15)
4 34418 0 "3 " 0 # Kingsburg Bank #3 will also be dropped on this outage
0
#
#
# (240) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34418 34428 "1 " 0 # line from KINGSBRG 115.00 BRKR to (2) CONTADNA
115.00
1 34428 34429 "1 " 0 # line from CONTADNA 115.00 (2) to (4) GWF_HEP
115.00
1 34429 34521 "1 " 0 # line from GWF_HEP 115.00 (4) to (2) LEPRNOFD
115.00

```

```

2 34429 34431 "1 " 0 # TRAN from GWF_HEP 115.00 (4) to (1) GWF_HEP1
13.80
2 34429 34433 "1 " 0 # TRAN from GWF_HEP 115.00 (4) to (1) GWF_HEP2
13.80
1 34521 34430 "1 " 0 # line from LEPRNOFD 115.00 (2) to BRKR HENRETTA
115.00
4 34428 0 "1 " 0 # LOAD-DROP CONTADNA 115.00 LOAD==7.60(5.70)
4 34429 0 "ss" 0 # LOAD-DROP GWF_HEP 115.00 LOAD==3.00(0.68)
4 34521 0 "1 " 0 # LOAD-DROP LEPRNOFD 115.00 LOAD==6.65(4.30)
3 34431 0 "1 " 0 # GEN-DROP GWF_HEP1 13.80 GEN==50.00(21.27)
3 34433 0 "1 " 0 # GEN-DROP GWF_HEP2 13.80 GEN==50.00(21.27)
0
#
#
# (241) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34426 34700 "1 " 0 # line from ALPAUGH 115.00 BRKR to BRKR SMYRNA
115.00
0
#
#
# (242) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34452 34260 "1 " 0 # line from WISHON 70.00 BRKR to (3) SJNO2
70.00
1 34260 34259 "1 " 0 # line from SJNO2 70.00 (3) to (3) NRTHFORK
70.00
2 34260 34631 "1 " 0 # TRAN from SJNO2 70.00 (3) to (1) SJ2GEN
9.11
1 34259 34261 "1 " 0 # line from NRTHFORK 70.00 (3) to (2) SJNO3
70.00
2 34259 34340 "1 " 0 # TRAN from NRTHFORK 70.00 (3) to (1) N.FORK E
9.11
2 34261 34633 "1 " 0 # TRAN from SJNO3 70.00 (2) to (1) SJ3GEN
9.11
4 34260 0 "2 " 0 # LOAD-DROP SJNO2 70.00 LOAD==3.22(0.66)
4 34261 0 "2 " 0 # LOAD-DROP SJNO3 70.00 LOAD==6.95(1.41)
4 34340 0 "1 " 0 # LOAD-DROP N.FORK E 9.11 LOAD==1.21(0.25)
3 34631 0 "1 " 0 # GEN-DROP SJ2GEN 9.11 GEN==2.00(0.00)
3 34633 0 "1 " 0 # GEN-DROP SJ3GEN 9.11 GEN==1.00(0.00)
0
#
#
# (243) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34452 34491 "1 " 0 # line from WISHON 70.00 BRKR to (3) AUBRYTP
70.00
1 34491 34464 "1 " 0 # line from AUBRYTP 70.00 (3) to BRKR COPPRMNE
70.00
1 34491 34493 "1 " 0 # line from AUBRYTP 70.00 (3) to (1) AUBERRY
70.00
4 34493 0 "1 " 0 # LOAD-DROP AUBERRY 70.00 LOAD==6.07(1.23)
4 34493 0 "2 " 0 # LOAD-DROP AUBERRY 70.00 LOAD==7.15(1.45)
0
#
#
# (244) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
# spring outage
1 34456 34458 "1 " 0 # line from HRDWK TP 70.00 (3) to (1) HARDWICK
70.00
1 34456 34522 "1 " 0 # line from HRDWK TP 70.00 (3) to (2) HNF RD SW
70.00
1 34456 34576 "1 " 0 # line from HRDWK TP 70.00 (3) to BRKR KNGLOBUS
70.00
1 34522 34518 "1 " 0 # line from HNF RD SW 70.00 (2) to BRKR LEMOORE
70.00
4 34458 0 "1 " 0 # LOAD-DROP HARDWICK 70.00 LOAD==12.86(2.61)
0
#
#

```

```

# (245) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34460 34462 "1 " 0 # line from GUERNSEY 70.00 BRKR to (3) GUR3TPT
70.00
1 34462 34542 "1 " 0 # line from GUR3TPT 70.00 (3) to (2) JCBSCRNR
70.00
1 34462 34554 "1 " 0 # line from GUR3TPT 70.00 (3) to BRKR AMSTG SW
70.00
1 34542 34540 "1 " 0 # line from JCBSCRNR 70.00 (2) to BRKR HENRITTA
70.00
4 34460 0 "1 " 0 # LOAD-DROP GUERNSEY 70.00 LOAD==10.51(2.13)
4 34542 0 "1 " 0 # LOAD-DROP JCBSCRNR 70.00 LOAD==12.05(2.45)
4 34542 0 "2 " 0 # LOAD-DROP JCBSCRNR 70.00 LOAD==9.54(1.94)
0
#
#
# (246) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34464 34478 "1 " 0 # line from COPPRMNE 70.00 BRKR to BRKR TVY VLLY
70.00
0
#
#
# (247) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34464 34638 "1 " 0 # line from COPPRMNE 70.00 BRKR to (2) FRANTDM
70.00
2 34638 34636 "1 " 0 # TRAN from FRANTDM 70.00 (2) to (1) FRIANTDM
6.60
3 34636 0 "2 " 0 # GEN-DROP FRIANTDM 6.60 GEN==14.70(5.86)
3 34636 0 "3 " 0 # GEN-DROP FRIANTDM 6.60 GEN==7.80(3.11)
3 34636 0 "4 " 0 # GEN-DROP FRIANTDM 6.60 GEN==2.30(0.92)
0
#
#
# (248) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34466 34482 "1 " 0 # line from BIOLA 70.00 BRKR to BRKR OLDKERN
70.00
4 34466 0 "1 " 0 # LOAD-DROP BIOLA 70.00 LOAD==21.80(4.43)
0
#
#
# (249) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34468 34482 "1 " 0 # line from BOWLES 70.00 (1) to BRKR OLDKERN
70.00
4 34468 0 "1 " 0 # LOAD-DROP BOWLES 70.00 LOAD==18.29(3.72)
0
#
#
# (250) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34469 34271 "1 " 0 # line from GFFNJCT 70.00 (3) to (3) WSTLDJCT
70.00
1 34469 34470 "1 " 0 # line from GFFNJCT 70.00 (3) to (1) GIFFEN
70.00
1 34469 34471 "1 " 0 # line from GFFNJCT 70.00 (3) to (3) SNJQJCT
70.00
1 34271 34172 "1 " 0 # line from WSTLDJCT 70.00 (3) to (2) WESTLAND
70.00
1 34271 34269 "1 " 0 # line from WSTLDJCT 70.00 (3) to (3) BIOMSJCT
70.00
1 34471 34472 "1 " 0 # line from SNJQJCT 70.00 (3) to BRKR SAN JOQN
70.00
1 34471 34474 "1 " 0 # line from SNJQJCT 70.00 (3) to BRKR HELM
70.00
1 34172 34170 "1 " 0 # line from WESTLAND 70.00 (2) to (1) WESIX
70.00

```



```

1 34269 34268 "1 " 0 # line from BIOMSJCT 70.00 (3) to BRKR MENDOTA
70.00
1 34269 34270 "1 " 0 # line from BIOMSJCT 70.00 (3) to (2) BIOMASS
70.00
2 34270 34334 "1 " 0 # TRAN from BIOMASS 70.00 (2) to (1) BIO PWR
9.11
4 34470 0 "1 " 0 # LOAD-DROP GIFFEN 70.00 LOAD==9.59(1.95)
4 34172 0 "1 " 0 # LOAD-DROP WESTLAND 70.00 LOAD==3.20(0.76)
4 34170 0 "1 " 0 # LOAD-DROP WESIX 70.00 LOAD==1.60(0.38)
3 34334 0 "1 " 0 # GEN-DROP BIO PWR 9.11 GEN==21.80(10.99)
1 34472 34473 "1 " 1 # Switches in San Joaquin CB22 to transfer load
4 34472 0 "***" 1 # Restore Load at San Joaquin
0
#
#
# (251) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34473 34472 "1 " 0 # line from SNJQTP 70.00 (2) to BRKR SAN JOQN
70.00
1 34473 34475 "1 " 0 # line from SNJQTP 70.00 (2) to (3) AGRCJCT
70.00
1 34475 34476 "1 " 0 # line from AGRCJCT 70.00 (3) to (2) AGRICO
70.00
1 34475 34484 "1 " 0 # line from AGRCJCT 70.00 (3) to BRKR KERMAN
70.00
2 34476 34608 "1 " 0 # TRAN from AGRICO 70.00 (2) to (1) AGRICO
13.80
4 34484 0 "1 " 0 # LOAD-DROP KERMAN 70.00 LOAD==19.44(3.95)
4 34484 0 "2 " 0 # LOAD-DROP KERMAN 70.00 LOAD==11.78(2.39)
3 34608 0 "2 " 0 # GEN-DROP AGRICO 13.80 GEN==7.00(1.08)
3 34608 0 "3 " 0 # GEN-DROP AGRICO 13.80 GEN==18.10(2.80)
3 34608 0 "4 " 0 # GEN-DROP AGRICO 13.80 GEN==26.00(4.02)
0
#
#
# (252) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34474 34556 "1 " 0 # line from HELM 70.00 BRKR to BRKR STRD JCT
70.00
0
#
#
# (253) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34478 34492 "1 " 0 # line from TVY VLLY 70.00 BRKR to BRKR REEDLEY
70.00
0
#
#
# (254) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
# spring outage
1 34480 34481 "1 " 0 # line from KEARNEY 70.00 BRKR to (4) FRWWTAP
70.00
1 34481 34483 "1 " 0 # line from FRWWTAP 70.00 (4) to (3) FRESNOWW
70.00
1 34481 34483 "2 " 0 # line from FRWWTAP 70.00 (4) to (3) FRESNOWW
70.00
1 34481 34484 "1 " 0 # line from FRWWTAP 70.00 (4) to BRKR KERMAN
70.00
2 34483 34485 "1 " 0 # TRAN from FRESNOWW 70.00 (3) to (1) FRESNOWW
12.47
4 34485 0 "1 " 0 # LOAD-DROP FRESNOWW 12.47 LOAD==7.91(0.00)
3 34485 0 "1 " 0 # GEN-DROP FRESNOWW 12.47 GEN==9.00(0.00)
0
#
#
# (255) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34480 34482 "1 " 0 # line from KEARNEY 70.00 BRKR to (3) OLDKERN
70.00

```

```

1 34482 34466 "1 " 0 # line from OLDKERN 70.00 BRKR to BRKR BIOLA
70.00
1 34482 34468 "1 " 0 # line from OLDKERN 70.00 BRKR to (1) BOWLES
70.00
4 34482 0 "1 " 0 # LOAD-DROP OLDKERN 70.00 LOAD==18.75(3.81)
4 34482 0 "3 " 0 # LOAD-DROP OLDKERN 70.00 LOAD==7.57(1.54)
4 34466 0 "1 " 0 # LOAD-DROP BIOLA 70.00 LOAD==21.80(4.43)
4 34468 0 "1 " 0 # LOAD-DROP BOWLES 70.00 LOAD==18.29(3.72)
0
#
#
# (256) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34480 34512 "1 " 0 # line from KEARNEY 70.00 BRKR to BRKR CARUTHRS
70.00
4 34512 0 "1 " 0 # LOAD-DROP CARUTHRS 70.00 LOAD==19.63(3.98)
0
#
#
# (257) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34487 34489 "1 " 0 # line from SNGRJCT 70.00 (3) to (2) SNGRCOGN
70.00
1 34487 34490 "1 " 0 # line from SNGRJCT 70.00 (3) to (2) PARLIER
70.00
1 34487 34488 "1 " 0 # line from SNGRJCT 70.00 (3) to BRKR SANGER
70.00
2 34489 34646 "1 " 0 # TRAN from SNGRCOGN 70.00 (2) to (1) SANGERCO
9.11
1 34490 34492 "1 " 0 # line from PARLIER 70.00 (2) to BRKR REEDLEY
70.00
4 34490 0 "1 " 0 # LOAD-DROP PARLIER 70.00 LOAD==20.24(4.11)
3 34646 0 "1 " 0 # GEN-DROP SANGERCO 9.11 GEN==37.50(1.40)
0
#
#
# (258) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34488 34366 "1 " 0 # line from SANGER 70.00 BRKR to BRKR SANGER
115.00
0
#
#
# (259) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34492 34497 "1 " 0 # line from REEDLEY 70.00 BRKR to (3) DNUBAJCT
70.00
1 34497 34499 "1 " 0 # line from DNUBAJCT 70.00 (3) to (2) DNUBAEGY
70.00
1 34497 34500 "1 " 0 # line from DNUBAJCT 70.00 (3) to BRKR DINUBA
70.00
2 34499 34648 "1 " 0 # TRAN from DNUBAEGY 70.00 (2) to (1) DINUBA E
13.80
4 34648 0 "ss" 0 # LOAD-DROP DINUBA E 13.80 LOAD==0.30(0.26)
3 34648 0 "1 " 0 # GEN-DROP DINUBA E 13.80 GEN==12.00(7.00)
0
#
#
# (260) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34492 34526 "1 " 0 # line from REEDLEY 70.00 BRKR to (3) ORSI JCT
70.00
1 34526 34495 "1 " 0 # line from ORSI JCT 70.00 (3) to (2) SANDCRK
70.00
1 34526 34502 "1 " 0 # line from ORSI JCT 70.00 (3) to BRKR OROSI
70.00
1 34495 34494 "1 " 0 # line from SANDCRK 70.00 (2) to (1) DUNLAP
70.00
4 34495 0 "1 " 0 # LOAD-DROP SANDCRK 70.00 LOAD==3.14(0.64)
4 34494 0 "1 " 0 # LOAD-DROP DUNLAP 70.00 LOAD==4.46(0.91)

```

```

0
#
#
# (261) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34496 34498 "1 " 0 # line from STCRRL J 70.00 (3) to (1) STONCRRL
70.00
1 34496 34500 "1 " 0 # line from STCRRL J 70.00 (3) to BRKR DINUBA
70.00
1 34496 34502 "1 " 0 # line from STCRRL J 70.00 (3) to (2) OROSI
70.00
1 34502 34526 "1 " 0 # line from OROSI 70.00 BRKR to (1) ORSI JCT
70.00
4 34498 0 "2 " 0 # LOAD-DROP STONCRRL 70.00 LOAD==3.37(0.68)
4 34498 0 "3 " 0 # LOAD-DROP STONCRRL 70.00 LOAD==2.68(0.54)
4 34502 0 "1 " 0 # LOAD-DROP OROSI 70.00 LOAD==8.38(1.70)
4 34502 0 "2 " 0 # LOAD-DROP OROSI 70.00 LOAD==7.43(1.51)
0
#
#
# (262) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
# spring outage
1 34508 34510 "1 " 0 # line from CAMDEN 70.00 (2) to (2) CMDN JCT
70.00
1 34508 34576 "1 " 0 # line from CAMDEN 70.00 (2) to BRKR KNGLOBUS
70.00
1 34510 34512 "1 " 0 # line from CMDN JCT 70.00 (2) to BRKR CARUTHRS
70.00
4 34508 0 "1 " 0 # LOAD-DROP CAMDEN 70.00 LOAD==6.87(1.40)
4 34508 0 "2 " 0 # LOAD-DROP CAMDEN 70.00 LOAD==10.90(2.22)
0
#
#
# (263) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34514 34540 "1 " 0 # line from MUSLSLGH 70.00 (1) to BRKR HENRITTA
70.00
4 34514 0 "1 " 0 # LOAD-DROP MUSLSLGH 70.00 LOAD==22.00(13.60)
0
#
#
# (264) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34516 34520 "1 " 0 # line from LEPRINO 70.00 (1) to (4) LPRNO TP
70.00
1 34520 34518 "1 " 0 # line from LPRNO TP 70.00 (4) to BRKR LEMOORE
70.00
1 34520 34524 "1 " 0 # line from LPRNO TP 70.00 (4) to (1) CANDLEWK
70.00
1 34520 34540 "1 " 0 # line from LPRNO TP 70.00 (4) to BRKR HENRITTA
70.00
4 34516 0 "1 " 0 # LOAD-DROP LEPRINO 70.00 LOAD==16.10(9.12)
4 34518 0 "1 " 0 # LOAD-DROP LEMOORE 70.00 LOAD==18.86(3.83)
4 34518 0 "2 " 0 # LOAD-DROP LEMOORE 70.00 LOAD==32.81(6.66)
0
#
#
# (265) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34528 34530 "1 " 0 # line from CORCORAN 70.00 BRKR to (3) BSWLL TP
70.00
1 34530 34531 "1 " 0 # line from BSWLL TP 70.00 (3) to (2) JGBSWLL
70.00
1 34530 34538 "1 " 0 # line from BSWLL TP 70.00 (3) to (1) BOSWELL
70.00
1 34531 34536 "1 " 0 # line from JGBSWLL 70.00 (2) to (1) ANGIOLA
70.00
4 34538 0 "1 " 0 # LOAD-DROP BOSWELL 70.00 LOAD==2.37(1.53)
4 34536 0 "1 " 0 # LOAD-DROP ANGIOLA 70.00 LOAD==7.24(1.47)
0

```

```

#
#
# (266) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34532 34554 "1 " 0 # line from ARMSTRNG 70.00 (1) to (4) AMSTG SW
70.00
1 34554 34462 "1 " 0 # line from AMSTG SW 70.00 BRKR to (1) GUR3TPT
70.00
1 34554 34534 "1 " 0 # line from AMSTG SW 70.00 (4) to (1) RESERVE
70.00
2 34554 34650 "1 " 0 # TRAN from AMSTG SW 70.00 BRKR to (1) GWF-PWR.
13.80
4 34534 0 "1 " 0 # LOAD-DROP RESERVE 70.00 LOAD==2.03(0.41)
3 34650 0 "1 " 0 # GEN-DROP GWF-PWR. 13.80 GEN==23.00(12.00)
0
#
#
# (267) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34537 34540 "1 " 0 # line from GWF_HENR 70.00 (5) to BRKR HENRITTA
70.00
2 34537 34539 "1 " 0 # TRAN from GWF_HENR 70.00 (5) to (1) GWF_GT1
13.80
2 34537 34541 "1 " 0 # TRAN from GWF_HENR 70.00 (5) to (1) GWF_GT2
13.80
2 34537 34691 "1 " 0 # TRAN from GWF_HENR 70.00 (5) to (1) Q272_ST1
13.80
2 34537 34692 "1 " 0 # TRAN from GWF_HENR 70.00 (5) to (1) Q272SLST
13.80
4 34539 0 "ss" 0 # LOAD-DROP GWF_GT1 13.80 LOAD==1.10(0.25)
4 34541 0 "ss" 0 # LOAD-DROP GWF_GT2 13.80 LOAD==1.10(0.25)
4 34691 0 "ss" 0 # LOAD-DROP Q272_ST1 13.80 LOAD==2.00(1.11)
4 34692 0 "ss" 0 # LOAD-DROP Q272SLST 13.80 LOAD==14.00(7.75)
3 34539 0 "1 " 0 # GEN-DROP GWF_GT1 13.80 GEN==50.00(4.51)
3 34541 0 "1 " 0 # GEN-DROP GWF_GT2 13.80 GEN==50.00(4.51)
3 34691 0 "1 " 0 # GEN-DROP Q272_ST1 13.80 GEN==27.00(1.87)
3 34692 0 "1 " 0 # GEN-DROP Q272SLST 13.80 GEN==139.00(35.74)
0
#
#
# (268) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34544 34550 "1 " 0 # line from TLRE LKE 70.00 BRKR to (2) CHEVPLIN
70.00
1 34550 34546 "1 " 0 # line from CHEVPLIN 70.00 (2) to (2) AVENAL
70.00
1 34546 34548 "1 " 0 # line from AVENAL 70.00 (2) to BRKR KETTLEMN
70.00
4 34544 0 "1 " 0 # LOAD-DROP TLRE LKE 70.00 LOAD==6.79(1.38)
4 34550 0 "1 " 0 # LOAD-DROP CHEVPLIN 70.00 LOAD==1.01(0.73)
4 34546 0 "1 " 0 # LOAD-DROP AVENAL 70.00 LOAD==7.72(1.57)
0
#
#
# (269) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34548 34552 "1 " 0 # line from KETTLEMN 70.00 (2) to BRKR GATES
70.00
1 34548 34546 "1 " 0 # line from KETTLEMN 70.00 BRKR to (1) AVENAL
70.00
4 34548 0 "1 " 0 # LOAD-DROP KETTLEMN 70.00 LOAD==6.32(1.29)
0
#
#
# (270) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34552 34558 "1 " 0 # line from GATES 70.00 BRKR to BRKR HURON
70.00
0
#

```

```

#
# (271) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34552 34558 "2 " 0 # line from GATES 70.00 BRKR to BRKR HURON
70.00
0
#
#
# (272) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34552 34578 "1 " 0 # line from GATES 70.00 BRKR to (2) JACALITO
70.00
1 34578 34574 "1 " 0 # line from JACALITO 70.00 (2) to BRKR COLNGA 1
70.00
4 34578 0 "1 " 0 # LOAD-DROP JACALITO 70.00 LOAD==4.45(2.99)
0
#
#
# (273) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34556 34562 "1 " 0 # line from STRD JCT 70.00 BRKR to BRKR SCHLNDLR
70.00
0
#
#
# (274) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34556 34564 "1 " 0 # line from STRD JCT 70.00 (3) to BRKR STROUD
70.00
1 34556 34474 "1 " 0 # line from STRD JCT 70.00 BRKR to BRKR HELM
70.00
1 34556 34562 "1 " 0 # line from STRD JCT 70.00 BRKR to BRKR SCHLNDLR
70.00
4 34564 0 "1 " 0 # LOAD-DROP STROUD 70.00 LOAD==13.09(2.66)
0
#
#
# (275) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34558 34560 "1 " 0 # line from HURON 70.00 BRKR to (2) CALFLAX
70.00
1 34560 34562 "1 " 0 # line from CALFLAX 70.00 (2) to BRKR SCHLNDLR
70.00
4 34560 0 "1 " 0 # LOAD-DROP CALFLAX 70.00 LOAD==6.53(1.33)
1 34552 34558 "2 " 0 # Must include Gates - Huron in this outage
0
#
#
# (276) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34562 34566 "1 " 0 # line from SCHLNDLR 70.00 BRKR to (2) PLSNTVLY
70.00
1 34566 34570 "1 " 0 # line from PLSNTVLY 70.00 (2) to BRKR COLNGA 2
70.00
4 34566 0 "1 " 0 # LOAD-DROP PLSNTVLY 70.00 LOAD==10.00(2.51)
0
#
#
# (277) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34570 34572 "1 " 0 # line from COLNGA 2 70.00 BRKR to (3) TORNADO
70.00
1 34572 34574 "1 " 0 # line from TORNADO 70.00 (3) to BRKR COLNGA 1
70.00
2 34572 34654 "1 " 0 # TRAN from TORNADO 70.00 (3) to (1) COLNGAGN
9.11
4 34572 0 "1 " 0 # LOAD-DROP TORNADO 70.00 LOAD==1.74(1.44)
3 34654 0 "1 " 0 # GEN-DROP COLNGAGN 9.11 GEN==34.00(5.40)
2 34570 34652 "1 " 0 # Must include Colinga2 - Chv.coal in this outage -
modeled on bus,

```

```

3 34652 0 "***" 0 # Drops units on Derrick Sub
4 34652 0 "***" 0 # Drops load at Derrick Sub
0
#
#
# (278) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 36354 34574 "1 " 0 # line from SAN MIGL 70.00 BRKR to BRKR COLNGA 1
70.00
0
#
#
# (279) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
# **** 3-WINDING TRANSFORMER 30835 (30882) 34412 34630 :
2 30835 34412 "1 " 0 # TRAN from HERNDON 230.00 BRKR to (1) HERNDON
115.00
0
#
#
# (280) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
# **** 3-WINDING TRANSFORMER 30835 (30883) 34412 34632 :
2 30835 34412 "2 " 0 # TRAN from HERNDON 230.00 BRKR to (1) HERNDON
115.00
0
#
#
# (281) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
# **** 3-WINDING TRANSFORMER 30875 (30876) 34370 34618 :
2 30875 34370 "1 " 0 # TRAN from MC CALL 230.00 BRKR to (1) MC CALL
115.00
0
#
#
# (282) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
# **** 3-WINDING TRANSFORMER 30875 (30877) 34370 34620 :
2 30875 34370 "2 " 0 # TRAN from MC CALL 230.00 BRKR to (1) MC CALL
115.00
0
#
#
# (283) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
# **** 3-WINDING TRANSFORMER 30875 (30878) 34370 34621 :
2 30875 34370 "3 " 0 # TRAN from MC CALL 230.00 BRKR to (1) MC CALL
115.00
0
#
#
# (284) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 30881 34430 "3 " 0 # TRAN from HENRIETA 230.00 BRKR to BRKR HENRETTA
115.00
0
#
#
# (285) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
# **** 3-WINDING TRANSFORMER 30900 (34607) 30055 34606 :
2 30900 30055 "11" 0 # TRAN from GATES 230.00 BRKR to (1) GATES
500.00
0
#
#
# (286) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#

```

```

2 30900 30901 "1 " 0 # TRAN from GATES 230.00 BRKR to (3) GATES 1M
230.00
2 30901 34378 "1 " 0 # TRAN from GATES 1M 230.00 (3) to BRKR GATES
115.00
2 30901 34622 "1 " 0 # TRAN from GATES 1M 230.00 (3) to (1) GATES 1T
13.20
4 34378 0 "3 " 0 # Drop Gates Bank #3
0
#
#
# (287) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34356 34344 "1 " 0 # TRAN from KERCKHF1 115.00 BRKR to (1) KERCKHOF
6.60
4 34344 0 "4 " 0 # LOAD-DROP KERCKHOF 6.60 LOAD==3.24(0.66)
3 34344 0 "2 " 0 # GEN-DROP KERCKHOF 6.60 GEN==6.80(-4.00)
0
#
#
# (288) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34366 34590 "1 " 0 # TRAN from SANGER 115.00 BRKR to (2) SANGR3T
115.00
2 34590 34488 "1 " 0 # TRAN from SANGR3T 115.00 (2) to BRKR SANGER
70.00
4 34590 0 "3 " 0 # LOAD-DROP SANGR3T 115.00 LOAD==20.55(4.17)
0
#
#
# (289) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34418 34576 "2 " 0 # TRAN from KINGSBRG 115.00 BRKR to BRKR KINGLOBUS
70.00
0
#
#
# (290) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34474 30873 "1 " 0 # TRAN from HELM 70.00 BRKR to BRKR HELM
230.00
0
#
#
# (291) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34480 30830 "2 " 0 # TRAN from KEARNEY 70.00 BRKR to BRKR KEARNEY
230.00
0
#
#
# (292) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34492 34380 "1 " 0 # TRAN from REEDLEY 70.00 BRKR to BRKR REEDLEY
115.00
0
#
#
# (293) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34492 34380 "2 " 0 # TRAN from REEDLEY 70.00 BRKR to BRKR REEDLEY
115.00
0
#
#
# (294) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34528 34420 "2 " 0 # TRAN from CORCORAN 70.00 BRKR to BRKR CORCORAN
115.00
1 34420 34391 "1 " 0 # Must include Corcoran - Quebec (Corcoran CB 142) in
this outage

```

```

1 34420 34418 "2 " 0 # Must include Corcoran - Kingburg (Corcoran CB 162) in
this outage
1 34528 34460 "1 " 0 # Must include Corcorna - Guernsey (Corcoran CB 42) in
this outage
0
#
#
# (295) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34540 30881 "2 " 0 # TRAN from HENRITTA 70.00 BRKR to BRKR HENRIETA
230.00
0
#
#
# (296) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34540 30881 "4 " 0 # TRAN from HENRITTA 70.00 BRKR to BRKR HENRIETA
230.00
0
#
#
# (297) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34552 34378 "2 " 0 # TRAN from GATES 70.00 BRKR to BRKR GATES
115.00
0
#
#
# (298) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34562 34354 "1 " 0 # TRAN from SCHLNDLR 70.00 BRKR to (3) SCHINDLR
115.00
1 34354 34149 "1 " 0 # line from SCHINDLR 115.00 BRKR to (1) CHENYT
115.00
1 34354 34432 "1 " 0 # line from SCHINDLR 115.00 BRKR to (1) WESTLNDS
115.00
4 34354 0 "1 " 0 # LOAD-DROP SCHINDLR 115.00 LOAD==11.22(2.28)
0
#
#
# (299) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34652 34570 "1 " 0 # TRAN from CHV.COAL 9.11 (1) to BRKR COLNGA 2
70.00
4 34652 0 "S1" 0 # LOAD-DROP CHV.COAL 9.11 LOAD==5.12(2.48)
4 34652 0 "SG" 0 # LOAD-DROP CHV.COAL 9.11 LOAD==0.94(0.46)
3 34652 0 "1 " 0 # GEN-DROP CHV.COAL 9.11 GEN==2.50(8.30)
3 34652 0 "2 " 0 # GEN-DROP CHV.COAL 9.11 GEN==8.00(4.00)
0
#
#
# (300) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34658 34452 "1 " 0 # TRAN from WISHON 2.30 (1) to BRKR WISHON
70.00
3 34658 0 "3 " 0 # GEN-DROP WISHON 2.30 GEN==4.50(1.00)
3 34658 0 "4 " 0 # GEN-DROP WISHON 2.30 GEN==4.50(1.00)
0
#
#
# (301) B1 GENERATOR OUTAGE
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (302) B1 GENERATOR OUTAGE
#
3 34344 0 "2" 0 # KERCKHOF 6.60 PGEN=6.80 QGEN=-4.00
0

```



```

#
#
# (303) B1 GENERATOR OUTAGE
#
3 34431 0 "1" 0 # GWF_HEP1 13.80 PGEN=50.00 QGEN=21.57
0
#
#
# (304) B1 GENERATOR OUTAGE
#
3 34433 0 "1" 0 # GWF_HEP2 13.80 PGEN=50.00 QGEN=21.57
0
#
#
# (305) B1 GENERATOR OUTAGE
#
3 34485 0 "1" 0 # FRESNOWW 12.47 PGEN=9.00 QGEN=0.00
0
#
#
# (306) B1 GENERATOR OUTAGE
#
3 34539 0 "1" 0 # GWF_CT1 13.80 PGEN=50.00 QGEN=1.23
0
#
#
# (307) B1 GENERATOR OUTAGE
#
3 34541 0 "1" 0 # GWF_CT2 13.80 PGEN=50.00 QGEN=1.23
0
#
#
# (308) B1 GENERATOR OUTAGE
#
3 34553 0 "1" 0 # WHD_GAT2 13.80 PGEN=49.00 QGEN=-25.30
0
#
#
# (309) B1 GENERATOR OUTAGE
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (310) B1 GENERATOR OUTAGE
#
3 34602 0 "1" 0 # HELMS 2 18.00 PGEN=404.00 QGEN=66.06
0
#
#
# (311) B1 GENERATOR OUTAGE
#
3 34604 0 "1" 0 # HELMS 3 18.00 PGEN=404.00 QGEN=66.12
0
#
#
# (312) B1 GENERATOR OUTAGE
#
3 34608 0 "2" 0 # AGRICO 13.80 PGEN=7.00 QGEN=1.64
0
#
#
# (313) B1 GENERATOR OUTAGE
#
3 34608 0 "3" 0 # AGRICO 13.80 PGEN=18.10 QGEN=4.24
0
#
#
# (314) B1 GENERATOR OUTAGE
#

```

3	34608	0	"4"	0	# AGRICO	13.80	PGEN=26.00	QGEN=6.09
0	#	#	# (315)	B1	GENERATOR	OUTAGE		
3	34610	0	"1"	0	# HAAS	13.80	PGEN=70.00	QGEN=18.75
0	#	#	# (316)	B1	GENERATOR	OUTAGE		
3	34610	0	"2"	0	# HAAS	13.80	PGEN=70.00	QGEN=18.75
0	#	#	# (317)	B1	GENERATOR	OUTAGE		
3	34612	0	"1"	0	# BLCH 2-2	13.80	PGEN=50.00	QGEN=9.61
0	#	#	# (318)	B1	GENERATOR	OUTAGE		
3	34614	0	"1"	0	# BLCH 2-3	13.80	PGEN=50.00	QGEN=13.00
0	#	#	# (319)	B1	GENERATOR	OUTAGE		
3	34616	0	"1"	0	# KINGSRIV	13.80	PGEN=47.00	QGEN=9.00
0	#	#	# (320)	B1	GENERATOR	OUTAGE		
3	34618	0	"1"	0	# MCCALL1T	13.20	PGEN=0.00	QGEN=36.40
0	#	#	# (321)	B1	GENERATOR	OUTAGE		
3	34621	0	"1"	0	# MCCALL3T	13.20	PGEN=0.00	QGEN=4.85
0	#	#	# (322)	B1	GENERATOR	OUTAGE		
3	34624	0	"1"	0	# BALCH 1	13.20	PGEN=27.00	QGEN=10.00
0	#	#	# (323)	B1	GENERATOR	OUTAGE		
3	34630	0	"1"	0	# HERNDN1T	13.20	PGEN=0.00	QGEN=20.26
0	#	#	# (324)	B1	GENERATOR	OUTAGE		
3	34632	0	"1"	0	# HERNDN2T	13.20	PGEN=0.00	QGEN=32.58
0	#	#	# (325)	B1	GENERATOR	OUTAGE		
3	34636	0	"2"	0	# FRIANTDM	6.60	PGEN=14.70	QGEN=6.14
0	#	#						

#	(326)	B1	GENERATOR	OUTAGE				
3	34636	0	"3"	0	# FRIANTDM	6.60	PGEN=7.80	QGEN=3.26
0								
#								
#	(327)	B1	GENERATOR	OUTAGE				
3	34636	0	"4"	0	# FRIANTDM	6.60	PGEN=2.30	QGEN=0.96
0								
#								
#	(328)	B1	GENERATOR	OUTAGE				
3	34640	0	"1"	0	# ULTR.PWR	9.11	PGEN=14.50	QGEN=13.00
0								
#								
#	(329)	B1	GENERATOR	OUTAGE				
3	34642	0	"1"	0	# KINGSBUR	9.11	PGEN=34.00	QGEN=17.30
0								
#								
#	(330)	B1	GENERATOR	OUTAGE				
3	34646	0	"1"	0	# SANGERCO	9.11	PGEN=37.50	QGEN=4.31
0								
#								
#	(331)	B1	GENERATOR	OUTAGE				
3	34648	0	"1"	0	# DINUBA E	13.80	PGEN=12.00	QGEN=7.00
0								
#								
#	(332)	B1	GENERATOR	OUTAGE				
3	34650	0	"1"	0	# GWF-PWR.	13.80	PGEN=23.00	QGEN=12.00
0								
#								
#	(333)	B1	GENERATOR	OUTAGE				
3	34652	0	"1"	0	# CHV.COAL	9.11	PGEN=2.50	QGEN=8.30
0								
#								
#	(334)	B1	GENERATOR	OUTAGE				
3	34652	0	"2"	0	# CHV.COAL	9.11	PGEN=8.00	QGEN=4.00
0								
#								
#	(335)	B1	GENERATOR	OUTAGE				
3	34654	0	"1"	0	# COLNGAGN	9.11	PGEN=34.00	QGEN=-3.48
0								
#								
#	(336)	B1	GENERATOR	OUTAGE				
3	34658	0	"3"	0	# WISHON	2.30	PGEN=4.50	QGEN=1.00
0								
#								
#	(337)	B1	GENERATOR	OUTAGE				
3	34658	0	"4"	0	# WISHON	2.30	PGEN=4.50	QGEN=1.00
0								

```

#
#
# (338) B1 GENERATOR OUTAGE
#
3 34671 0 "1" 0 # KRCDPCT1 13.80 PGEN=50.00 QGEN=10.75
0
#
#
# (339) B1 GENERATOR OUTAGE
#
3 34672 0 "1" 0 # KRCDPCT2 13.80 PGEN=50.00 QGEN=10.75
0
#
#
# (340) B1 GENERATOR OUTAGE
#
3 38720 0 "1" 0 # PINE FLT 13.80 PGEN=57.00 QGEN=23.30
0
#
#
# (341) B1 GENERATOR OUTAGE
#
3 34661 0 "1" 0 # P0418GT1 13.80 PGEN=78.80 QGEN=13.93
0
#
#
# (342) B1 GENERATOR OUTAGE
#
3 34663 0 "2" 0 # P0418GT2 13.80 PGEN=78.80 QGEN=13.93
0
#
#
# (343) B1 GENERATOR OUTAGE
#
3 34665 0 "3" 0 # P0418GT3 13.80 PGEN=78.80 QGEN=13.93
0
#
#
# (344) B1 GENERATOR OUTAGE
#
3 34667 0 "4" 0 # P0418GT4 13.80 PGEN=78.80 QGEN=13.93
0
#
#
# (345) B1 GENERATOR OUTAGE
#
3 34685 0 "1" 0 # P0615CT1 16.50 PGEN=192.00 QGEN=35.45
0
#
#
# (346) B1 GENERATOR OUTAGE
#
3 34686 0 "1" 0 # P0615CT2 16.50 PGEN=192.00 QGEN=35.45
0
#
#
# (347) B1 GENERATOR OUTAGE
#
3 34687 0 "1" 0 # P0615STG 16.50 PGEN=193.00 QGEN=35.57
0
#
#
# (348) B1 GENERATOR OUTAGE
#
3 34688 0 "1" 0 # Q254CTG1 18.00 PGEN=172.40 QGEN=41.25
0
#
#
# (349) B1 GENERATOR OUTAGE
#

```

```

3 34689      0 "2"      0      # Q254CTG2  18.00      PGEN=172.40  QGEN=41.25
0
#
#
# (350) B1 GENERATOR OUTAGE
3 34690      0 "3"      0      # Q254STG1  18.00      PGEN=290.80  QGEN=67.53
0
#
#
# (351) B1 GENERATOR OUTAGE
3 34691      0 "1"      0      # Q272_ST1  13.80      PGEN=27.00   QGEN=1.87
0
#
#
# (352) B1 GENERATOR OUTAGE
3 34692      0 "1"      0      # Q272SLST  13.80      PGEN=139.00  QGEN=35.74
0
#
#
# (353) L-1/G-1 OVERLAPPING OUTAGE
# Smyrna - Semitropic - Midway 115 kV Line and Exchequer
1 34700 34708 "1 "      0      # line from SMYRNA  115.00  BRKR to (2)  MCKIBBEN
115.00
1 34708 34742 "1 "      0      # line from MCKIBBEN 115.00  (2) to (2)  SEMITRPJ
115.00
1 34742 34746 "1 "      0      # line from SEMITRPJ 115.00  (2) to (2)  GANSO
115.00
1 34746 34774 "1 "      0      # line from GANSO    115.00  (2) to BRKR  MIDWAY
115.00
4 34746      0 "1 "      0      # LOAD-DROP      GANSO    115.00  LOAD==5.34(1.22)
#
3 34306      0 "1"      0      # EXCHQUER  13.80      PGEN=89.95   QGEN=18.49
0
#
#
# (354) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Coalinga #2 70 kV Line and Chevron Coalinga Unit 1
1 34184 34570 "1 "      0      # line from GATS2_TP 70.00  (3) to BRKR  COLNGA 2
70.00
1 34184 34552 "1 "      0      # line from GATS2_TP 70.00  (3) to BRKR  GATES
70.00
2 34184 34553 "1 "      0      # TRAN from GATS2_TP 70.00  (3) to (1)  WHD_GAT2
13.80
3 34553      0 "1 "      0      # GEN-DROP      WHD_GAT2  13.80  GEN==49.00(-25.30)
#
3 34652      0 "1"      0      # CHV.COAL     9.11      PGEN=17.00   QGEN=8.30
0
#
#
# (355) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Coalinga #1 70 kV Line and Chevron Coalinga Unit 1
1 34552 34578 "1 "      0      # line from GATES    70.00  BRKR to (2)  JACALITO
70.00
1 34578 34574 "1 "      0      # line from JACALITO 70.00  (2) to BRKR  COLNGA 1
70.00
4 34578      0 "1 "      0      # LOAD-DROP      JACALITO  70.00  LOAD==4.03(2.5) 0
#
3 34652      0 "1"      0      # CHV.COAL     9.11      PGEN=17.00   QGEN=8.30
0
#
#
# (356) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Coalinga #2 70 kV Line and Coalinga Cogen
1 34184 34570 "1 "      0      # line from GATS2_TP 70.00  (3) to BRKR  COLNGA 2
70.00
1 34184 34552 "1 "      0      # line from GATS2_TP 70.00  (3) to BRKR  GATES
70.00

```

```

2 34184 34553 "1 " 0 # TRAN from GATS2_TP 70.00 (3) to (1) WHD_GAT2
13.80
3 34553 0 "1 " 0 # GEN-DROP WHD_GAT2 13.80 GEN==49.00(-25.30)
#
3 34654 0 "1" 0 # COLNGAGN 9.11 PGEN=34.22 QGEN=-13.50
0
#
#
# (357) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Coalinga #1 70 kV Line and Coalinga Cogen
1 34552 34578 "1 " 0 # line from GATES 70.00 BRKR to (2) JACALITO
70.00
1 34578 34574 "1 " 0 # line from JACALITO 70.00 (2) to BRKR COLNGA 1
70.00
4 34578 0 "1 " 0 # LOAD-DROP JACALITO 70.00 LOAD==4.03(2.5) 0
#
3 34654 0 "1" 0 # COLNGAGN 9.11 PGEN=34.22 QGEN=-13.50
0
#
#
# (358) L-1/G-1 OVERLAPPING OUTAGE
# Borden - Coppermine 70 kV Line and Friant PP Unit 2
1 34262 34454 "1 " 0 # line from CASSIDY 70.00 (2) to (2) RIVERROC
70.00
1 34262 34256 "1 " 0 # line from CASSIDY 70.00 (2) to BRKR BORDEN
70.00
1 34454 34464 "1 " 0 # line from RIVERROC 70.00 (2) to BRKR COPPRMNE
70.00
4 34262 0 "1 " 0 # LOAD-DROP CASSIDY 70.00 LOAD==14.31(2.90)
4 34454 0 "1 " 0 # LOAD-DROP RIVERROC 70.00 LOAD==2.01(1.83)
#
3 34636 0 "2" 0 # FRIANTDM 6.60 PGEN=14.70 QGEN=6.14
0
#
#
# (359) L-1/G-1 OVERLAPPING OUTAGE
# Henrietta - Lemoore 70 kV Line and GWF Hanford
1 34516 34520 "1 " 0 # line from LEPRINO 70.00 (1) to (4) LPRNO TP
70.00
1 34520 34518 "1 " 0 # line from LPRNO TP 70.00 (4) to BRKR LEMOORE
70.00
1 34520 34524 "1 " 0 # line from LPRNO TP 70.00 (4) to (1) CANDLEWK
70.00
1 34520 34540 "1 " 0 # line from LPRNO TP 70.00 (4) to BRKR HENRITTA
70.00
4 34516 0 "1 " 0 # LOAD-DROP LEPRINO 70.00 LOAD==16.10(9.12)
4 34518 0 "1 " 0 # LOAD-DROP LEMOORE 70.00 LOAD==18.86(3.83)
4 34518 0 "2 " 0 # LOAD-DROP LEMOORE 70.00 LOAD==32.81(6.66)
#
3 34650 0 "1" 0 # GWF-PWR. 13.80 PGEN=23.00 QGEN=12.00
0
#
#
# (360) L-1/G-1 OVERLAPPING OUTAGE
# Henrietta - Lemoore 70 kV Line and GWF Henrietta Unit 1
1 34516 34520 "1 " 0 # line from LEPRINO 70.00 (1) to (4) LPRNO TP
70.00
1 34520 34518 "1 " 0 # line from LPRNO TP 70.00 (4) to BRKR LEMOORE
70.00
1 34520 34524 "1 " 0 # line from LPRNO TP 70.00 (4) to (1) CANDLEWK
70.00
1 34520 34540 "1 " 0 # line from LPRNO TP 70.00 (4) to BRKR HENRITTA
70.00
4 34516 0 "1 " 0 # LOAD-DROP LEPRINO 70.00 LOAD==16.10(9.12)
4 34518 0 "1 " 0 # LOAD-DROP LEMOORE 70.00 LOAD==18.86(3.83)
4 34518 0 "2 " 0 # LOAD-DROP LEMOORE 70.00 LOAD==32.81(6.66)
#
3 34539 0 "1" 0 # GWF_GT1 13.80 PGEN=50.00 QGEN=1.23
0
#

```

```

#
# (361) L-1/G-1 OVERLAPPING OUTAGE
# McCall - Wahtoke 115 kV Line and Sanger Cogen
1 34370 34382 "1 " 0 # line from MC CALL 115.00 BRKR to BRKR WAHTOKE
115.00
#
3 34646 0 "1" 0 # SANGERCO 9.11 PGEN=37.50 QGEN=4.31
0
#
#
# (362) L-1/G-1 OVERLAPPING OUTAGE
# McCall - Wahtoke 115 kV Line and Kings River Power House
1 34370 34382 "1 " 0 # line from MC CALL 115.00 BRKR to BRKR WAHTOKE
115.00
#
3 34616 0 "1" 0 # KINGSRIV 13.80 PGEN=47.00 QGEN=9.00
0
#
#
# (363) L-1/G-1 OVERLAPPING OUTAGE
# Helm - McCall 230 kV Line and Exchequer
1 30873 30875 "1 " 0 # line from HELM 230.00 BRKR to BRKR MC CALL
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (364) L-1/G-1 OVERLAPPING OUTAGE
# Helms - Gregg #1 230 kV Line and Exchequer
1 30810 30820 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34600 0 "***" 0 # Drop unit#1 with a loss Helm - Gregg #1 line
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (365) L-1/G-1 OVERLAPPING OUTAGE
# Helms - Gregg #2 230 kV Line and Exchequer
1 30810 30820 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Helm - Gregg #2 line
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (366) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Herndon #1 230 kV Line and Exchequer
1 30810 30835 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #1 line
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (367) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Herndon #2 230 kV Line and Exchequer
1 30810 30835 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #2 line
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (368) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Ashlan 230 kV Line and Exchequer

```

```

1 30810 30845 "1 " 0 # line from GREGG 230.00 BRKR to (3) FGRDN T2
230.00
1 30845 30846 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR FIGRDN 2
230.00
1 30845 30850 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR ASHLAN
230.00
4 30846 0 "1 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==52.57(10.67)
4 30846 0 "2 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==36.77(7.47)
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Figarden line
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30846 0 "***" 1 # Restore Load at Figarden 2
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (369) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Gregg 230 kV Line and Exchequer
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00
1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (370) L-1/G-1 OVERLAPPING OUTAGE
# Herndon - Kearney 230 kV Line and Exchequer
1 30830 30835 "1 " 0 # line from KEARNEY 230.00 BRKR to BRKR HERNDON
230.00
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (371) L-1/G-1 OVERLAPPING OUTAGE
# Herndon - Ashlan 230 kV Line and Exchequer
1 30835 30840 "1 " 0 # line from HERNDON 230.00 BRKR to (3) FGRDN T1
230.00
1 30840 30841 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR FIGRDN 1
230.00
1 30840 30850 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR ASHLAN
230.00
4 30841 0 "1 " 0 # LOAD-DROP FIGRDN 1 230.00 LOAD==73.45(14.92)
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30841 0 "***" 1 # Restore Load at Figarden 1
#
3 34306 0 "1" 0 # EXCHQUER 13.80 PGEN=94.50 QGEN=8.77
0
#
#
# (372) L-1/G-1 OVERLAPPING OUTAGE
# Haas - McCall 230 kV Line and Exchequer
1 30855 30860 "1 " 0 # line from HAAS 230.00 (2) to (3) BALCH3TP
230.00
2 30855 34610 "1 " 0 # TRAN from HAAS 230.00 (2) to (1) HAAS
13.80
1 30860 30875 "1 " 0 # line from BALCH3TP 230.00 (3) to BRKR MC CALL
230.00
2 30860 34614 "1 " 0 # TRAN from BALCH3TP 230.00 (3) to (1) BLCH 2-3
13.80
3 34610 0 "1 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34610 0 "2 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34614 0 "1 " 0 # GEN-DROP BLCH 2-3 13.80 GEN==50.00(7.64)
#

```



```

3 34306      0 "1"      0      # EXCHQUER 13.80      PGEN=94.50 QGEN=8.77
0
#
#
# (373) L-1/G-1 OVERLAPPING OUTAGE
# Balch - McCall 230 kV Line and Exchequer
1 30865 30870 "1 "      0      # line from BALCH      230.00      (2) to (3)      PINE FLT
230.00
2 30865 34612 "1 "      0      # TRAN from BALCH      230.00      (2) to (1)      BLCH 2-2
13.80
1 30870 30875 "1 "      0      # line from PINE FLT 230.00      (3) to BRKR MC CALL
230.00
2 30870 38720 "1 "      0      # TRAN from PINE FLT 230.00      (3) to (1)      PINE FLT
13.80
3 34612      0 "1 "      0      # GEN-DROP BLCH 2-2 13.80      GEN==50.00(0.66)
3 38720      0 "1 "      0      # GEN-DROP PINE FLT 13.80      GEN==57.00(23.30)
#
3 34306      0 "1"      0      # EXCHQUER 13.80      PGEN=94.50 QGEN=8.77
0
#
#
# (374) L-1/G-1 OVERLAPPING OUTAGE
# Gates - McCall 230 kV Line and Exchequer
1 30875 30880 "1 "      0      # line from MC CALL 230.00      BRKR to (2)      HENTAP2
230.00
1 30880 30900 "1 "      0      # line from HENTAP2 230.00      (2) to BRKR GATES
230.00
#
3 34306      0 "1"      0      # EXCHQUER 13.80      PGEN=94.50 QGEN=8.77
0
#
#
# (375) L-1/G-1 OVERLAPPING OUTAGE
# Templeton - Gates 230 kV Line and Exchequer
1 30900 30905 "1 "      0      # line from GATES      230.00      BRKR to BRKR TEMPLETN
230.00
#
3 34306      0 "1"      0      # EXCHQUER 13.80      PGEN=94.50 QGEN=8.77
0
#
#
# (376) L-1/G-1 OVERLAPPING OUTAGE
# Morro Bay - Gates 230 kV Line and Exchequer
1 30900 30915 "1 "      0      # line from GATES      230.00      BRKR to BRKR MORROBAY
230.00
#
3 34306      0 "1"      0      # EXCHQUER 13.80      PGEN=94.50 QGEN=8.77
0
#
#
# (377) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Arco 230 kV Line and Exchequer
1 30900 30935 "1 "      0      # line from GATES      230.00      BRKR to BRKR ARCO
230.00
#
3 34306      0 "1"      0      # EXCHQUER 13.80      PGEN=94.50 QGEN=8.77
0
#
#
# (378) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Midway 230 kV Line and Exchequer
1 30900 30970 "1 "      0      # line from GATES      230.00      BRKR to BRKR MIDWAY
230.00
#
3 34306      0 "1"      0      # EXCHQUER 13.80      PGEN=94.50 QGEN=8.77
0
#
#
# (379) L-1/G-1 OVERLAPPING OUTAGE
# Helm - McCall 230 kV Line and Kerckhoff

```

```

1 30873 30875 "1 " 0 # line from HELM 230.00 BRKR to BRKR MC CALL
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (380) L-1/G-1 OVERLAPPING OUTAGE
# Helms - Gregg #1 230 kV Line and Kerckhoff
1 30810 30820 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34600 0 "***" 0 # Drop unit#1 with a loss Helm - Gregg #1 line
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (381) L-1/G-1 OVERLAPPING OUTAGE
# Helms - Gregg #2 230 kV Line and Kerckhoff
1 30810 30820 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Helm - Gregg #2 line
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (382) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Herndon #1 230 kV Line and Kerckhoff
1 30810 30835 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #1 line
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (383) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Herndon #2 230 kV Line and Kerckhoff
1 30810 30835 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #2 line
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (384) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Ashlan 230 kV Line and Kerckhoff
1 30810 30845 "1 " 0 # line from GREGG 230.00 BRKR to (3) FGRDN T2
230.00
1 30845 30846 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR FIGRDN 2
230.00
1 30845 30850 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR ASHLAN
230.00
4 30846 0 "1 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==52.57(10.67)
4 30846 0 "2 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==36.77(7.47)
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Figarden line
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30846 0 "***" 1 # Restore Load at Figarden 2
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (385) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Gregg 230 kV Line and Kerckhoff
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00

```

```

1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (386) L-1/G-1 OVERLAPPING OUTAGE
# Herndon - Kearney 230 kV Line and Kerckhoff
1 30830 30835 "1 " 0 # line from KEARNEY 230.00 BRKR to BRKR HERNDON
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (387) L-1/G-1 OVERLAPPING OUTAGE
# Herndon - Ashlan 230 kV Line and Kerckhoff
1 30835 30840 "1 " 0 # line from HERNDON 230.00 BRKR to (3) FGRDN T1
230.00
1 30840 30841 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR FIGRDN 1
230.00
1 30840 30850 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR ASHLAN
230.00
4 30841 0 "1 " 0 # LOAD-DROP FIGRDN 1 230.00 LOAD==73.45(14.92)
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30841 0 "***" 1 # Restore Load at Figarden 1
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (388) L-1/G-1 OVERLAPPING OUTAGE
# Haas - McCall 230 kV Line and Kerckhoff
1 30855 30860 "1 " 0 # line from HAAS 230.00 (2) to (3) BALCH3TP
230.00
2 30855 34610 "1 " 0 # TRAN from HAAS 230.00 (2) to (1) HAAS
13.80
1 30860 30875 "1 " 0 # line from BALCH3TP 230.00 (3) to BRKR MC CALL
230.00
2 30860 34614 "1 " 0 # TRAN from BALCH3TP 230.00 (3) to (1) BLCH 2-3
13.80
3 34610 0 "1 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34610 0 "2 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34614 0 "1 " 0 # GEN-DROP BLCH 2-3 13.80 GEN==50.00(7.64)
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (389) L-1/G-1 OVERLAPPING OUTAGE
# Balch - McCall 230 kV Line and Kerckhoff
1 30865 30870 "1 " 0 # line from BALCH 230.00 (2) to (3) PINE FLT
230.00
2 30865 34612 "1 " 0 # TRAN from BALCH 230.00 (2) to (1) BLCH 2-2
13.80
1 30870 30875 "1 " 0 # line from PINE FLT 230.00 (3) to BRKR MC CALL
230.00
2 30870 38720 "1 " 0 # TRAN from PINE FLT 230.00 (3) to (1) PINE FLT
13.80
3 34612 0 "1 " 0 # GEN-DROP BLCH 2-2 13.80 GEN==50.00(0.66)
3 38720 0 "1 " 0 # GEN-DROP PINE FLT 13.80 GEN==57.00(23.30)
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#

```

```

#
# (390) L-1/G-1 OVERLAPPING OUTAGE
# Gates - McCall 230 kV Line and Kerckhoff
1 30875 30880 "1 " 0 # line from MC CALL 230.00 BRKR to (2) HENTAP2
230.00
1 30880 30900 "1 " 0 # line from HENTAP2 230.00 (2) to BRKR GATES
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (391) L-1/G-1 OVERLAPPING OUTAGE
# Templeton - Gates 230 kV Line and Kerckhoff
1 30900 30905 "1 " 0 # line from GATES 230.00 BRKR to BRKR TEMPLETN
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (392) L-1/G-1 OVERLAPPING OUTAGE
# Morro Bay - Gates 230 kV Line and Kerckhoff
1 30900 30915 "1 " 0 # line from GATES 230.00 BRKR to BRKR MORROBAY
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (393) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Arco 230 kV Line and Kerckhoff
1 30900 30935 "1 " 0 # line from GATES 230.00 BRKR to BRKR ARCO
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (394) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Midway 230 kV Line and Kerckhoff
1 30900 30970 "1 " 0 # line from GATES 230.00 BRKR to BRKR MIDWAY
230.00
#
3 34308 0 "1" 0 # KERCKHOF 13.80 PGEN=129.00 QGEN=16.00
0
#
#
# (395) L-1/G-1 OVERLAPPING OUTAGE
# Helm - McCall 230 kV Line and Helms Unit 1
1 30873 30875 "1 " 0 # line from HELM 230.00 BRKR to BRKR MC CALL
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (396) L-1/G-1 OVERLAPPING OUTAGE
# Helms - Gregg #1 230 kV Line and Helms Unit 1
1 30810 30820 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34600 0 "***" 0 # Drop unit#1 with a loss Helm - Gregg #1 line
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (397) L-1/G-1 OVERLAPPING OUTAGE
# Helms - Gregg #2 230 kV Line and Helms Unit 1

```

```

1 30810 30820 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Helm - Gregg #2 line
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (398) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Herndon #1 230 kV Line and Helms Unit 1
1 30810 30835 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #1 line
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (399) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Herndon #2 230 kV Line and Helms Unit 1
1 30810 30835 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #2 line
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (400) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Ashlan 230 kV Line and Helms Unit 1
1 30810 30845 "1 " 0 # line from GREGG 230.00 BRKR to (3) FGRDN T2
230.00
1 30845 30846 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR FIGRDN 2
230.00
1 30845 30850 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR ASHLAN
230.00
4 30846 0 "1 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==52.57(10.67)
4 30846 0 "2 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==36.77(7.47)
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Figarden line
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30846 0 "***" 1 # Restore Load at Figarden 2
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (401) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Gregg 230 kV Line and Helms Unit 1
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00
1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (402) L-1/G-1 OVERLAPPING OUTAGE
# Herndon - Kearney 230 kV Line and Helms Unit 1
1 30830 30835 "1 " 0 # line from KEARNEY 230.00 BRKR to BRKR HERNDON
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#

```

```

# (403) L-1/G-1 OVERLAPPING OUTAGE
# Herndon - Ashlan 230 kV Line and Helms Unit 1
1 30835 30840 "1 " 0 # line from HERNDON 230.00 BRKR to (3) FGRDN T1
230.00
1 30840 30841 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR FIGRDN 1
230.00
1 30840 30850 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR ASHLAN
230.00
4 30841 0 "1 " 0 # LOAD-DROP FIGRDN 1 230.00 LOAD==73.45(14.92)
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30841 0 "***" 1 # Restore Load at Figarden 1
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (404) L-1/G-1 OVERLAPPING OUTAGE
# Haas - McCall 230 kV Line and Helms Unit 1
1 30855 30860 "1 " 0 # line from HAAS 230.00 (2) to (3) BALCH3TP
230.00
2 30855 34610 "1 " 0 # TRAN from HAAS 230.00 (2) to (1) HAAS
13.80
1 30860 30875 "1 " 0 # line from BALCH3TP 230.00 (3) to BRKR MC CALL
230.00
2 30860 34614 "1 " 0 # TRAN from BALCH3TP 230.00 (3) to (1) BLCH 2-3
13.80
3 34610 0 "1 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34610 0 "2 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34614 0 "1 " 0 # GEN-DROP BLCH 2-3 13.80 GEN==50.00(7.64)
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (405) L-1/G-1 OVERLAPPING OUTAGE
# Balch - McCall 230 kV Line and Helms Unit 1
1 30865 30870 "1 " 0 # line from BALCH 230.00 (2) to (3) PINE FLT
230.00
2 30865 34612 "1 " 0 # TRAN from BALCH 230.00 (2) to (1) BLCH 2-2
13.80
1 30870 30875 "1 " 0 # line from PINE FLT 230.00 (3) to BRKR MC CALL
230.00
2 30870 38720 "1 " 0 # TRAN from PINE FLT 230.00 (3) to (1) PINE FLT
13.80
3 34612 0 "1 " 0 # GEN-DROP BLCH 2-2 13.80 GEN==50.00(0.66)
3 38720 0 "1 " 0 # GEN-DROP PINE FLT 13.80 GEN==57.00(23.30)
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (406) L-1/G-1 OVERLAPPING OUTAGE
# Gates - McCall 230 kV Line and Helms Unit 1
1 30875 30880 "1 " 0 # line from MC CALL 230.00 BRKR to (2) HENTAP2
230.00
1 30880 30900 "1 " 0 # line from HENTAP2 230.00 (2) to BRKR GATES
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (407) L-1/G-1 OVERLAPPING OUTAGE
# Templeton - Gates 230 kV Line and Helms Unit 1
1 30900 30905 "1 " 0 # line from GATES 230.00 BRKR to BRKR TEMPLETON
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#

```

```

#
# (408) L-1/G-1 OVERLAPPING OUTAGE
# Morro Bay - Gates 230 kV Line and Helms Unit 1
1 30900 30915 "1 " 0 # line from GATES 230.00 BRKR to BRKR MORROBAY
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (409) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Arco 230 kV Line and Helms Unit 1
1 30900 30935 "1 " 0 # line from GATES 230.00 BRKR to BRKR ARCO
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (410) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Midway 230 kV Line and Helms Unit 1
1 30900 30970 "1 " 0 # line from GATES 230.00 BRKR to BRKR MIDWAY
230.00
#
3 34600 0 "1" 0 # HELMS 1 18.00 PGEN=404.00 QGEN=66.02
0
#
#
# (411) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Kearney 230 kV Line and Melones Unit 1
1 30790 30825 "1 " 0 # line from PANOCHE 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (412) L-1/G-1 OVERLAPPING OUTAGE
# Panoche - Helm 230 kV Line and Melones Unit 1
1 30790 30873 "1 " 0 # line from PANOCHE 230.00 BRKR to BRKR HELM
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (413) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Panoche #1 230 kV Line and Melones Unit 1
1 30790 30900 "1 " 0 # line from PANOCHE 230.00 BRKR to BRKR GATES
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (414) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Panoche #2 230 kV Line and Melones Unit 1
1 30790 30900 "2 " 0 # line from PANOCHE 230.00 BRKR to BRKR GATES
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (415) L-1/G-1 OVERLAPPING OUTAGE
# Helm - McCall 230 kV Line and Melones Unit 1

```

```

1 30873 30875 "1 " 0 # line from HELM 230.00 BRKR to BRKR MC CALL
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (416) L-1/G-1 OVERLAPPING OUTAGE
# Helms - Gregg #1 230 kV Line and Melones Unit 1
1 30810 30820 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34600 0 "***" 0 # Drop unit#1 with a loss Helm - Gregg #1 line
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (417) L-1/G-1 OVERLAPPING OUTAGE
# Helms - Gregg #2 230 kV Line and Melones Unit 1
1 30810 30820 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Helm - Gregg #2 line
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (418) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Herndon #1 230 kV Line and Melones Unit 1
1 30810 30835 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #1 line
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (419) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Herndon #2 230 kV Line and Melones Unit 1
1 30810 30835 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #2 line
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (420) L-1/G-1 OVERLAPPING OUTAGE
# Gregg - Ashlan 230 kV Line and Melones Unit 1
1 30810 30845 "1 " 0 # line from GREGG 230.00 BRKR to (3) FGRDN T2
230.00
1 30845 30846 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR FIGRDN 2
230.00
1 30845 30850 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR ASHLAN
230.00
4 30846 0 "1 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==52.57(10.67)
4 30846 0 "2 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==36.77(7.47)
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Figarden line
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30846 0 "***" 1 # Restore Load at Figarden 2
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (421) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Gregg 230 kV Line and Melones Unit 1
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00

```



```

1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (422) L-1/G-1 OVERLAPPING OUTAGE
# Herndon - Kearney 230 kV Line and Melones Unit 1
1 30830 30835 "1 " 0 # line from KEARNEY 230.00 BRKR to BRKR HERNDON
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (423) L-1/G-1 OVERLAPPING OUTAGE
# Herndon - Ashlan 230 kV Line and Melones Unit 1
1 30835 30840 "1 " 0 # line from HERNDON 230.00 BRKR to (3) FGRDN T1
230.00
1 30840 30841 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR FIGRDN 1
230.00
1 30840 30850 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR ASHLAN
230.00
4 30841 0 "1 " 0 # LOAD-DROP FIGRDN 1 230.00 LOAD==73.45(14.92)
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30841 0 "***" 1 # Restore Load at Figarden 1
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (424) L-1/G-1 OVERLAPPING OUTAGE
# Haas - McCall 230 kV Line and Melones Unit 1
1 30855 30860 "1 " 0 # line from HAAS 230.00 (2) to (3) BALCH3TP
230.00
2 30855 34610 "1 " 0 # TRAN from HAAS 230.00 (2) to (1) HAAS
13.80
1 30860 30875 "1 " 0 # line from BALCH3TP 230.00 (3) to BRKR MC CALL
230.00
2 30860 34614 "1 " 0 # TRAN from BALCH3TP 230.00 (3) to (1) BLCH 2-3
13.80
3 34610 0 "1 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34610 0 "2 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34614 0 "1 " 0 # GEN-DROP BLCH 2-3 13.80 GEN==50.00(7.64)
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (425) L-1/G-1 OVERLAPPING OUTAGE
# Balch - McCall 230 kV Line and Melones Unit 1
1 30865 30870 "1 " 0 # line from BALCH 230.00 (2) to (3) PINE FLT
230.00
2 30865 34612 "1 " 0 # TRAN from BALCH 230.00 (2) to (1) BLCH 2-2
13.80
1 30870 30875 "1 " 0 # line from PINE FLT 230.00 (3) to BRKR MC CALL
230.00
2 30870 38720 "1 " 0 # TRAN from PINE FLT 230.00 (3) to (1) PINE FLT
13.80
3 34612 0 "1 " 0 # GEN-DROP BLCH 2-2 13.80 GEN==50.00(0.66)
3 38720 0 "1 " 0 # GEN-DROP PINE FLT 13.80 GEN==57.00(23.30)
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#

```

```

#
# (426) L-1/G-1 OVERLAPPING OUTAGE
# Gates - McCall 230 kV Line and Melones Unit 1
1 30875 30880 "1 " 0 # line from MC CALL 230.00 BRKR to (2) HENTAP2
230.00
1 30880 30900 "1 " 0 # line from HENTAP2 230.00 (2) to BRKR GATES
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (427) L-1/G-1 OVERLAPPING OUTAGE
# Templeton - Gates 230 kV Line and Melones Unit 1
1 30900 30905 "1 " 0 # line from GATES 230.00 BRKR to BRKR TEMPLETN
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (428) L-1/G-1 OVERLAPPING OUTAGE
# Morro Bay - Gates 230 kV Line and Melones Unit 1
1 30900 30915 "1 " 0 # line from GATES 230.00 BRKR to BRKR MORROBAY
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (429) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Arco 230 kV Line and Melones Unit 1
1 30900 30935 "1 " 0 # line from GATES 230.00 BRKR to BRKR ARCO
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
# (430) L-1/G-1 OVERLAPPING OUTAGE
# Gates - Midway 230 kV Line and Melones Unit 1
1 30900 30970 "1 " 0 # line from GATES 230.00 BRKR to BRKR MIDWAY
230.00
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.00 QGEN=60.00
0
#
#
-1
# EOF

```

# Spring Peak Category C Contingencies

```

# Q299 2013 sprpk category c contingency list (dctl and bus outages)
# Yosemite and Fresno Divisions Zones 313 and 314
#
# 2013 sprpk category c contingency list
# Yosemite Zone 313
#
# (1) C5 DCTL OUTAGE
# Wilson - Atwater and El Capitan - Wilson 115 kV Lines
1 34134 34104 "1 " 0 # line from WILSON A 115.00 BRKR to BRKR ATWATER
115.00
#
1 34136 34138 "1 " 0 # line from WILSON B 115.00 BRKR to BRKR EL CAPTN
115.00
0
#
# (2) C5 DCTL OUTAGE
# Wilson - Atwater and Atwater - El Capitan 115 kV Lines
1 34134 34104 "1 " 0 # line from WILSON A 115.00 BRKR to BRKR ATWATER
115.00
#
1 34104 34106 "1 " 0 # line from ATWATER 115.00 BRKR to (2) CASTLE
115.00
1 34106 34138 "1 " 0 # line from CASTLE 115.00 (2) to BRKR EL CAPTN
115.00
0
#
# (3) C5 DCTL OUTAGE
# Wilson - Merced #2 and Wilson - Oro Loma 115 kV Lines
1 34134 34144 "1 " 0 # line from WILSON A 115.00 BRKR to BRKR MERCED
115.00
#
1 34118 34136 "1 " 0 # line from LE GRNDJ 115.00 (2) to BRKR WILSON B
115.00
1 34118 34168 "1 " 0 # line from LE GRNDJ 115.00 (2) to (2) EL NIDO
115.00
1 34168 34162 "1 " 0 # line from EL NIDO 115.00 (2) to BRKR ORO LOMA
115.00
4 34168 0 "1 " 0 # LOAD-DROP EL NIDO 115.00 LOAD==12.49(2.54)
4 34168 0 "2 " 0 # LOAD-DROP EL NIDO 115.00 LOAD==15.00(3.05)
0
#
# (4) C5 DCTL OUTAGE
# Panoche - Schindler #1 and #2 115 kV Lines
1 34158 34350 "1 " 0 # line from PANOCH 115.00 BRKR to (2) KAMM
115.00
1 34350 34352 "1 " 0 # line from KAMM 115.00 (2) to (2) CANTUA
115.00
1 34352 34432 "1 " 0 # line from CANTUA 115.00 (2) to (2) WESTLNDS
115.00
1 34432 34354 "1 " 0 # line from WESTLNDS 115.00 (2) to BRKR SCHINDLR
115.00
4 34350 0 "1 " 0 # LOAD-DROP KAMM 115.00 LOAD==3.85(1.75)
4 34352 0 "1 " 0 # LOAD-DROP CANTUA 115.00 LOAD==16.79(3.41)
4 34432 0 "16" 0 # LOAD-DROP WESTLNDS 115.00 LOAD==0.94(0.23)
4 34432 0 "18" 0 # LOAD-DROP WESTLNDS 115.00 LOAD==1.21(0.32)
#
1 34141 34148 "1 " 0 # line from PAN2_TAP 115.00 (2) to (2) CHENY
115.00
2 34141 34142 "1 " 0 # TRAN from PAN2_TAP 115.00 (2) to (1) WHD_PAN2
13.80

```

```

1 34148 34149 "1 " 0 # line from CHENY 115.00 (2) to (3) CHENYT
115.00
1 34149 34158 "1 " 0 # line from CHENYT 115.00 (3) to BRKR PANOCHE
115.00
1 34149 34354 "1 " 0 # line from CHENYT 115.00 (3) to BRKR SCHINDLR
115.00
4 34148 0 "1 " 0 # LOAD-DROP CHENY 115.00 LOAD==13.12(2.66)
3 34142 0 "1 " 0 # GEN-DROP WHD_PAN2 13.80 GEN==49.00(4.03)
0
#
#
# (5) C5 DCTL OUTAGE
# Gates - Panoche #1 and #2 230 kV Lines
1 30790 30900 "1 " 0 # line from PANOCHE 230.00 BRKR to BRKR GATES
230.00
#
1 30790 30900 "2 " 0 # line from PANOCHE 230.00 BRKR to BRKR GATES
230.00
0
#
#
# (6) C5 DCTL OUTAGE
# Los Banos - Panoche #2 and Los Banos - Dos Amigos 230 kV Lines
1 30765 30790 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR PANOCHE
230.00
#
1 30765 38615 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR DS AMIGO
230.00
0
#
#
# (7) C5 DCTL OUTAGE
# Los Banos - Panoche #2 and Dos Amigos - Panoche 230 kV Lines
1 30765 30790 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR PANOCHE
230.00
#
1 38615 30790 "1 " 0 # line from DS AMIGO 230.00 BRKR to BRKR PANOCHE
230.00
0
#
#
# (8) C5 DCTL OUTAGE
# Los Banos - San Luis PGP #1 and #2 230 kV Lines
1 30765 38625 "1 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
#
1 30765 38625 "2 " 0 # line from LOSBANOS 230.00 BRKR to BRKR SN LS PP
230.00
0
#
#
# (9) C5 DCTL OUTAGE
# Bellota - Melones and Bellota - Warnerville 230 kV Lines
1 30500 38206 "1 " 0 # line from BELLOTA 230.00 BRKR to (2) COTTLE A
230.00
1 38206 37563 "1 " 0 # line from COTTLE A 230.00 (2) to BRKR MELONES
230.00
4 38206 0 "1 " 0 # LOAD-DROP COTTLE A 230.00 LOAD==19.23(0.00)
3 34604 0 "***" 0 # Drop Helms unit#3 with a loss Bellota - Melones line
#
1 30500 38208 "1 " 0 # line from BELLOTA 230.00 BRKR to (3) COTTLE B
230.00
1 38208 30515 "1 " 0 # line from COTTLE B 230.00 (3) to BRKR WARNERVL
230.00
4 38208 0 "2 " 0 # LOAD-DROP COTTLE B 230.00 LOAD==21.32(7.38)
0
#
#
# (10) C5 DCTL OUTAGE
# Bellota - Melones and Warnerville - Wilson 230 kV Lines

```

```

1 30500 38206 "1 " 0 # line from BELLOTA 230.00 BRKR to (2) COTTLE A
230.00
1 38206 37563 "1 " 0 # line from COTTLE A 230.00 (2) to BRKR MELONES
230.00
4 38206 0 "1 " 0 # LOAD-DROP COTTLE A 230.00 LOAD==19.23(0.00)
3 34604 0 "***" 0 # Drop Helms unit#3 with a loss Bellota - Melones line
#
1 30515 30800 "1 " 0 # line from WARNERVL 230.00 BRKR to BRKR WILSON
230.00
0
#
#
# (11) C5 DCTL OUTAGE
# Bellota - Melones and Melones - Wilson 230 kV Lines
1 30500 38206 "1 " 0 # line from BELLOTA 230.00 BRKR to (2) COTTLE A
230.00
1 38206 37563 "1 " 0 # line from COTTLE A 230.00 (2) to BRKR MELONES
230.00
4 38206 0 "1 " 0 # LOAD-DROP COTTLE A 230.00 LOAD==19.23(0.00)
3 34604 0 "***" 0 # Drop Helms unit#3 with a loss Bellota - Melones line
#
1 37563 30800 "1 " 0 # line from MELONES 230.00 BRKR to BRKR WILSON
230.00
3 34604 0 "***" 0 # Drop Helms unit#3 with a loss Melones - Wilson line
0
#
#
# (12) C5 DCTL OUTAGE
# Melones - Wilson and Warnerville - Wilson 230 kV Lines
1 37563 30800 "1 " 0 # line from MELONES 230.00 BRKR to BRKR WILSON
230.00
3 34604 0 "***" 0 # Drop Helms unit#3 with a loss Melones - Wilson line
#
1 30515 30800 "1 " 0 # line from WARNERVL 230.00 BRKR to BRKR WILSON
230.00
0
#
#
# (13) C5 DCTL OUTAGE
# Wilson - Borden #1 and #2 230 kV Lines
1 30795 30805 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR BORDEN
230.00
1 30795 30800 "1 " 0 # line from STOREY 2 230.00 (2) to BRKR WILSON
230.00
4 30795 0 "2 " 0 # LOAD-DROP STOREY 2 230.00 LOAD==33.89(6.88)
#
1 30796 30800 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR WILSON
230.00
1 30796 30805 "1 " 0 # line from STOREY 1 230.00 (2) to BRKR BORDEN
230.00
4 30796 0 "1 " 0 # LOAD-DROP STOREY 1 230.00 LOAD==37.87(7.69)
0
#
#
# (14) C5 DCTL OUTAGE
# Borden - Gregg #1 and #2 230 kV Lines
1 30805 30810 "1 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden line
#
1 30805 30810 "2 " 0 # line from BORDEN 230.00 BRKR to BRKR GREGG
230.00
3 34604 0 "***" 0 # Drop unit#3 with loss of Gregg - Borden #2 line
0
#
#
# (15) C5 DCTL OUTAGE
# Moss Landing - Panoche and Coburn - Panoche 230 kV Lines
1 30750 30790 "1 " 0 # line from MOSSLND2 230.00 BRKR to BRKR PANOCHE
230.00

```

```

#
1 30760 30790 "1 " 0 # line from COBURN 230.00 BRKR to BRKR PANOCHE
230.00
0
#
#
# (16) C5 DCTL OUTAGE
# Panoche - Helm and Panoche - Kearney 230 kV Lines
1 30790 30873 "1 " 0 # line from PANOCHE 230.00 BRKR to BRKR HELM
230.00
#
1 30790 30825 "1 " 0 # line from PANOCHE 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
0
#
#
# (17) BUS FAULT 30765 "LOSBANOS" Bus Section 1
#
1 30765 30670 "1" 0 # LINE from LOSBANOS 230.00 to WESTLEY 230.00
1 30765 30790 "2" 0 # LINE from LOSBANOS 230.00 to PANOCHE 230.00
1 30765 38625 "1" 0 # LINE from LOSBANOS 230.00 to SN LS PP 230.00
1 30765 38625 "2" 0 # LINE from LOSBANOS 230.00 to SN LS PP 230.00
2 30765 34214 "3" 0 # TRAN from LOSBANOS 230.00 to LOS BANS 70.00
6 30765 0 "v" 0 # drop Los Banos 230 kV shunt Caps
0
#
#
# (18) BUS FAULT 30765 "LOSBANOS" Bus Section 2
#
1 30765 30790 "1" 0 # LINE from LOSBANOS 230.00 to PANOCHE 230.00
1 30765 38615 "1" 0 # LINE from LOSBANOS 230.00 to DS AMIGO 230.00
2 30765 34214 "4" 0 # TRAN from LOSBANOS 230.00 to LOS BANS 70.00
0
#
#
# (19) BUS FAULT 30790 "PANOCHE" Bus Section 1
#
1 30790 30760 "1" 0 # LINE from PANOCHE 230.00 to COBURN 230.00
1 30790 30765 "1" 0 # LINE from PANOCHE 230.00 to LOSBANOS 230.00
1 30790 30765 "2" 0 # LINE from PANOCHE 230.00 to LOSBANOS 230.00
1 30790 30825 "1" 0 # LINE from PANOCHE 230.00 to MCMULLN1 230.00
1 30790 30900 "1" 0 # LINE from PANOCHE 230.00 to GATES 230.00
2 30790 30791 "1" 0 # TRAN from PANOCHE 230.00 to PNCHE 1M 230.00
0
#
#
# (20) BUS FAULT 30790 "PANOCHE" Bus Section 2
#
1 30790 30750 "1" 0 # LINE from PANOCHE 230.00 to MOSSLND2 230.00
1 30790 30793 "1" 0 # LINE from PANOCHE 230.00 to PANO_EC 230.00
1 30790 30873 "1" 0 # LINE from PANOCHE 230.00 to HELM 230.00
1 30790 30900 "2" 0 # LINE from PANOCHE 230.00 to GATES 230.00
1 30790 38615 "1" 0 # LINE from PANOCHE 230.00 to DS AMIGO 230.00
2 30790 34158 "2" 0 # TRAN from PANOCHE 230.00 to PANOCHE 115.00
0
#
#
# (21) BUS FAULT 34100 "CHWCHLLA"
#
1 34100 34101 "1" 0 # LINE from CHWCHLLA 115.00 to CERTAN T 115.00
1 34100 34105 "1" 0 # LINE from CHWCHLLA 115.00 to CERTANJ1 115.00
4 34100 0 "1 " 0 # LOAD-DROP CHWCHLLA 115.00 LOAD==10.13(2.06)
4 34100 0 "2 " 0 # LOAD-DROP CHWCHLLA 115.00 LOAD==13.86(2.82)
0
#
#
# (22) BUS FAULT 34104 "ATWATER"

```

```

#
1 34104 34106 "1" 0 # LINE from ATWATER 115.00 to CASTLE 115.00
1 34104 34108 "1" 0 # LINE from ATWATER 115.00 to CRESEY T 115.00
1 34104 34134 "1" 0 # LINE from ATWATER 115.00 to WILSON A 115.00
4 34104 0 "1 " 0 # LOAD-DROP ATWATER 115.00 LOAD==32.40(6.57)
4 34104 0 "2 " 0 # LOAD-DROP ATWATER 115.00 LOAD==28.36(5.76)
0
#
#
# (23) BUS FAULT 34112 "EXCHEQR"
#
1 34112 34116 "1" 0 # LINE from EXCHEQR 115.00 to LE GRAND 115.00
2 34112 34176 "1" 0 # TRAN from EXCHEQR 115.00 to EXCHQRTP 115.00
0
#
#
# (24) BUS FAULT 34116 "LE GRAND"
#
1 34116 34101 "1" 0 # LINE from LE GRAND 115.00 to CERTAN T 115.00
1 34116 34112 "1" 0 # LINE from LE GRAND 115.00 to EXCHEQR 115.00
1 34116 34134 "1" 0 # LINE from LE GRAND 115.00 to WILSON A 115.00
1 34116 34154 "1" 0 # LINE from LE GRAND 115.00 to DAIRYLND 115.00
4 34116 0 "1 " 0 # LOAD-DROP LE GRAND 115.00 LOAD==13.41(2.72)
0
#
#
# (25) BUS FAULT 34134 "WILSON A"
#
1 34134 34116 "1" 0 # LINE from WILSON A 115.00 to LE GRAND 115.00
1 34134 34104 "1" 0 # LINE from WILSON A 115.00 to ATWATER 115.00
1 34134 34136 "1" 0 # LINE from WILSON A 115.00 to WILSON B 115.00
1 34134 34144 "1" 0 # LINE from WILSON A 115.00 to MERCED 115.00
2 34134 30800 "1" 0 # TRAN from WILSON A 115.00 to WILSON 230.00
4 34134 0 "3 " 0 # LOAD-DROP WILSON A 115.00 LOAD==18.66(3.79)
6 34134 0 "v" 0 # drop Wilson A 115 kV shunt Caps
0
#
#
# (26) BUS FAULT 34136 "WILSON B"
#
1 34136 34118 "1" 0 # LINE from WILSON B 115.00 to LE GRNDJ 115.00
1 34136 34134 "1" 0 # LINE from WILSON B 115.00 to WILSON A 115.00
1 34136 34138 "1" 0 # LINE from WILSON B 115.00 to EL CAPTN 115.00
1 34136 34144 "2" 0 # LINE from WILSON B 115.00 to MERCED 115.00
2 34136 30800 "2" 0 # TRAN from WILSON B 115.00 to WILSON 230.00
0
#
#
# (27) BUS FAULT 34138 "EL CAPTN"
#
1 34138 34106 "1" 0 # LINE from EL CAPTN 115.00 to CASTLE 115.00
1 34138 34136 "1" 0 # LINE from EL CAPTN 115.00 to WILSON B 115.00
4 34138 0 "1 " 0 # LOAD-DROP EL CAPTN 115.00 LOAD==19.47(3.95)
4 34138 0 "2 " 0 # LOAD-DROP EL CAPTN 115.00 LOAD==25.91(5.26)
4 34138 0 "3 " 0 # LOAD-DROP EL CAPTN 115.00 LOAD==33.05(6.71)
0
#
#
# (28) BUS FAULT 34144 "MERCED"
#
1 34144 34110 "1" 0 # LINE from MERCED 115.00 to ATWATR J 115.00
1 34144 34134 "1" 0 # LINE from MERCED 115.00 to WILSON A 115.00
1 34144 34136 "2" 0 # LINE from MERCED 115.00 to WILSON B 115.00
2 34144 34146 "2" 0 # TRAN from MERCED 115.00 to MERCED M 115.00
4 34144 0 "1 " 0 # LOAD-DROP MERCED 115.00 LOAD==37.10(7.53)
4 34144 0 "3 " 0 # LOAD-DROP MERCED 115.00 LOAD==19.45(3.95)
0
#
#
# (29) BUS FAULT 34154 "DAIRYLND"

```

```

#
1 34154 34116 "1" 0 # LINE from DAIRYLND 115.00 to LE GRAND 115.00
1 34154 34150 "1" 0 # LINE from DAIRYLND 115.00 to NEWHALL 115.00
4 34154 0 "1 " 0 # LOAD-DROP DAIRYLND 115.00 LOAD==25.82(5.24)
0
#
#
# (30) BUS FAULT 34158 "PANOCHÉ" Bus Section 1
#
1 34158 34149 "1" 0 # LINE from PANOCHÉ 115.00 to CHENYT 115.00
1 34158 34159 "1" 0 # LINE from PANOCHÉ 115.00 to PANOCHÉJ 115.00
2 34158 30790 "2" 0 # TRAN from PANOCHÉ 115.00 to PANOCHÉ 230.00
2 34158 34186 "1" 0 # TRAN from PANOCHÉ 115.00 to DG_PAN1 13.80
0
#
#
# (31) BUS FAULT 34158 "PANOCHÉ" Bus Section 2
#
1 34158 34157 "1" 0 # LINE from PANOCHÉ 115.00 to PANOCHÉT 115.00
1 34158 34189 "1" 0 # LINE from PANOCHÉ 115.00 to STARWOOD 115.00
1 34158 34350 "1" 0 # LINE from PANOCHÉ 115.00 to KAMM 115.00
2 34158 30791 "1" 0 # TRAN from PANOCHÉ 115.00 to PNCHE 1M 230.00
0
#
#
# (32) BUS FAULT 34200 "ORO LOMA"
#
1 34200 34218 "1" 0 # LINE from ORO LOMA 70.00 to DOS PALS 70.00
1 34200 34222 "1" 0 # LINE from ORO LOMA 70.00 to MRCYSPRS 70.00
1 34200 34234 "1" 0 # LINE from ORO LOMA 70.00 to POSO J1 70.00
2 34200 34162 "2" 0 # TRAN from ORO LOMA 70.00 to ORO LOMA 115.00
4 34200 0 "1 " 0 # LOAD-DROP ORO LOMA 70.00 LOAD==8.64(1.75)
0
#
#
# (33) BUS FAULT 34202 "MERCED"
#
1 34202 34203 "1" 0 # LINE from MERCED 70.00 to ELNIDOTP 70.00
1 34202 34230 "1" 0 # LINE from MERCED 70.00 to MRCDFLLS 70.00
2 34202 34146 "2" 0 # TRAN from MERCED 70.00 to MERCED M 115.00
0
#
#
# (34) BUS FAULT 34206 "CANAL"
#
1 34206 34212 "1" 0 # LINE from CANAL 70.00 to LVNGSTNT 70.00
1 34206 34216 "1" 0 # LINE from CANAL 70.00 to SNTA RTA 70.00
1 34206 34220 "1" 0 # LINE from CANAL 70.00 to ORTIGA 70.00
4 34206 0 "1 " 0 # LOAD-DROP CANAL 70.00 LOAD==30.56(6.21)
4 34206 0 "2 " 0 # LOAD-DROP CANAL 70.00 LOAD==31.27(6.35)
0
#
#
# (35) BUS FAULT 34214 "LOS BANS"
#
1 34214 34208 "1" 0 # LINE from LOS BANS 70.00 to CHEVPIPE 70.00
1 34214 34272 "1" 0 # LINE from LOS BANS 70.00 to WRGHT PP 70.00
1 34214 34278 "1" 0 # LINE from LOS BANS 70.00 to PCHCO PP 70.00
1 34214 34282 "1" 0 # LINE from LOS BANS 70.00 to ONLL PMP 69.00
2 34214 30765 "3" 0 # TRAN from LOS BANS 70.00 to LOSBANOS 230.00
2 34214 30765 "4" 0 # TRAN from LOS BANS 70.00 to LOSBANOS 230.00
0
#
#
# (36) BUS FAULT 34216 "SNTA RTA"
#
1 34216 34206 "1" 0 # LINE from SNTA RTA 70.00 to CANAL 70.00
1 34216 34218 "1" 0 # LINE from SNTA RTA 70.00 to DOS PALS 70.00
4 34216 0 "1 " 0 # LOAD-DROP SNTA RTA 70.00 LOAD==7.48(1.52)
0

```



```

#
#
# (37) BUS FAULT 34230 "MRCDFLLS"
#
1 34230 34202 "1" 0 # LINE from MRCDFLLS 70.00 to MERCED 70.00
1 34230 34321 "1" 0 # LINE from MRCDFLLS 70.00 to MCSWAINJ 70.00
2 34230 34322 "1" 0 # TRAN from MRCDFLLS 70.00 to MERCEDFL 9.11
2 34230 34322 "2" 0 # TRAN from MRCDFLLS 70.00 to MERCEDFL 9.11
4 34230 0 "2 " 0 # LOAD-DROP MRCDFLLS 70.00 LOAD==8.94(1.82)
0
#
#
# (38) BUS FAULT 34238 "BONITA"
#
1 34238 34236 "1" 0 # LINE from BONITA 70.00 to POSO J2 70.00
1 34238 34255 "1" 0 # LINE from BONITA 70.00 to TRIGO J 70.00
4 34238 0 "1 " 0 # LOAD-DROP BONITA 70.00 LOAD==14.37(2.92)
0
#
#
# (39) BUS FAULT 34240 "GLASS"
#
1 34240 34237 "1" 0 # LINE from GLASS 70.00 to CANANDGA 70.00
1 34240 34256 "1" 0 # LINE from GLASS 70.00 to BORDEN 70.00
4 34240 0 "1 " 0 # LOAD-DROP GLASS 70.00 LOAD==9.05(4.89)
0
#
#
# (40) BUS FAULT 34252 "MADERA"
#
1 34252 34254 "1" 0 # LINE from MADERA 70.00 to TRIGO 70.00
1 34252 34256 "1" 0 # LINE from MADERA 70.00 to BORDEN 70.00
1 34252 34256 "2" 0 # LINE from MADERA 70.00 to BORDEN 70.00
4 34252 0 "1 " 0 # LOAD-DROP MADERA 70.00 LOAD==17.99(3.65)
4 34252 0 "2 " 0 # LOAD-DROP MADERA 70.00 LOAD==23.16(4.71)
6 34252 0 "v" 0 # drop Madera 70 kV shunt Caps
0
#
#
# (41) BUS FAULT 34256 "BORDEN"
#
1 34256 34252 "1" 0 # LINE from BORDEN 70.00 to MADERA 70.00
1 34256 34252 "2" 0 # LINE from BORDEN 70.00 to MADERA 70.00
1 34256 34240 "1" 0 # LINE from BORDEN 70.00 to GLASS 70.00
1 34256 34262 "1" 0 # LINE from BORDEN 70.00 to CASSIDY 70.00
2 34256 30805 "1" 0 # TRAN from BORDEN 70.00 to BORDEN 230.00
2 34256 30805 "2" 0 # TRAN from BORDEN 70.00 to BORDEN 230.00
0
#
#
# (42) BUS FAULT 34268 "MENDOTA"
#
1 34268 34267 "1" 0 # LINE from MENDOTA 70.00 to TOMATAK 70.00
1 34268 34269 "1" 0 # LINE from MENDOTA 70.00 to BIOMSJCT 70.00
2 34268 34156 "1" 0 # TRAN from MENDOTA 70.00 to MENDOTA 115.00
0
#
#
# 2013 sprpk category c contingency list
# Fresno Zone 314
#
#
# (43) C5 DCTL OUTAGE
# Gates - Schindler and Gates - Huron #1 70 kV Lines
1 34558 34560 "1 " 0 # line from HURON 70.00 BRKR to (2) CALFLAX
70.00
1 34560 34562 "1 " 0 # line from CALFLAX 70.00 (2) to BRKR SCHLNDLR
70.00
4 34560 0 "1 " 0 # LOAD-DROP CALFLAX 70.00 LOAD==6.53(1.33)
1 34552 34558 "2 " 0 # Must include Gates - Huron #2 in this outage

```

```

#
1 34552 34558 "1 " 0 # line from GATES 70.00 BRKR to BRKR HURON
70.00
0
#
#
# (44) C5 DCTL OUTAGE
# Barton - Sanger and Manchester - Sanger 115 kV Lines
1 34359 34361 "1 " 0 # line from AIRWAYJ2 115.00 (3) to BRKR AIRWAYS
115.00
1 34359 34408 "1 " 0 # line from AIRWAYJ2 115.00 (3) to BRKR BARTON
115.00
1 34359 34366 "1 " 0 # line from AIRWAYJ2 115.00 (3) to BRKR SANGER
115.00
#
1 34357 34361 "1 " 0 # line from AIRWAYJ1 115.00 (3) to BRKR AIRWAYS
115.00
1 34357 34368 "1 " 0 # line from AIRWAYJ1 115.00 (3) to (2) LASPALMS
115.00
1 34357 34410 "1 " 0 # line from AIRWAYJ1 115.00 (3) to BRKR MANCHSTR
115.00
1 34368 34366 "1 " 0 # line from LASPALMS 115.00 (2) to BRKR SANGER
115.00
4 34368 0 "1 " 0 # LOAD-DROP LASPALMS 115.00 LOAD==13.90(11.89)
0
#
#
# (45) C5 DCTL OUTAGE
# Herndon - Barton and Herndon - Manchester 115 kV Lines
1 34408 34412 "1 " 0 # line from BARTON 115.00 BRKR to BRKR HERNDON
115.00
#
1 34410 34412 "1 " 0 # line from MANCHSTR 115.00 BRKR to BRKR HERNDON
115.00
0
#
#
# (46) C5 DCTL OUTAGE
# Herndon - Barton and Manchester - Sanger 115 kV Lines
1 34408 34412 "1 " 0 # line from BARTON 115.00 BRKR to BRKR HERNDON
115.00
#
1 34357 34361 "1 " 0 # line from AIRWAYJ1 115.00 (3) to BRKR AIRWAYS
115.00
1 34357 34368 "1 " 0 # line from AIRWAYJ1 115.00 (3) to (2) LASPALMS
115.00
1 34357 34410 "1 " 0 # line from AIRWAYJ1 115.00 (3) to BRKR MANCHSTR
115.00
1 34368 34366 "1 " 0 # line from LASPALMS 115.00 (2) to BRKR SANGER
115.00
4 34368 0 "1 " 0 # LOAD-DROP LASPALMS 115.00 LOAD==13.90(11.89)
0
#
#
# (47) C5 DCTL OUTAGE
# Herndon - Bullard #1 and #2 115 kV Lines
1 34411 34416 "1 " 0 # line from PNDLJ1 115.00 (2) to BRKR BULLARD
115.00
1 34411 34412 "1 " 0 # line from PNDLJ1 115.00 (2) to BRKR HERNDON
115.00
#
1 34409 34413 "1 " 0 # line from PNDLJ2 115.00 (3) to BRKR PNEDELE
115.00
1 34409 34416 "1 " 0 # line from PNDLJ2 115.00 (3) to BRKR BULLARD
115.00
1 34409 34412 "1 " 0 # line from PNDLJ2 115.00 (3) to BRKR HERNDON
115.00
4 34413 0 "2 " 0 # LOAD-DROP PNEDELE 115.00 LOAD==30.74(6.25)
4 34413 0 "3 " 0 # LOAD-DROP PNEDELE 115.00 LOAD==40.42(8.20)
1 34411 34413 "1 " 1 # Switches in Pindale CB#12 to transfer load

```

```

4 34413      0  "***"  1      # Restore load at Pindale
0
#
#
# (48)  C5 DCTL OUTAGE
# Kerckhoff - Clovis - Sanger #1 and #2 115 kV Lines
1 34358 34360 "1 "  0      # line from KERCKHF2 115.00 BRKR to (3)  WWARD JT
115.00
1 34360 34414 "1 "  0      # line from WWARD JT 115.00 (3) to BRKR  WOODWARD
115.00
1 34360 34363 "1 "  0      # line from WWARD JT 115.00 (3) to (3)  CLOVISJ1
115.00
1 34363 34362 "1 "  0      # line from CLOVISJ1 115.00 (3) to BRKR  CLOVIS-1
115.00
1 34363 34366 "1 "  0      # line from CLOVISJ1 115.00 (3) to BRKR  SANGER
115.00
4 34362      0  "1 "  0      # LOAD-DROP CLOVIS-1 115.00 LOAD==51.01(10.36)
4 34362      0  "2 "  0      # LOAD-DROP CLOVIS-1 115.00 LOAD==50.20(10.20)
1 34362 34364 "1 "  1      # Switches in Clovis SW 387 to transfer load
4 34362      0  "***"  1      # Restore Load at Clovis 1
#
1 34364 34365 "1 "  0      # line from CLOVIS-2 115.00 BRKR to (3)  CLOVISJ2
115.00
1 34365 34358 "1 "  0      # line from CLOVISJ2 115.00 (3) to BRKR  KERCKHF2
115.00
1 34365 34366 "1 "  0      # line from CLOVISJ2 115.00 (3) to BRKR  SANGER
115.00
4 34364      0  "3 "  0      # LOAD-DROP CLOVIS-2 115.00 LOAD==44.76(9.09)
1 34362 34364 "1 "  1      # Switches in Clovis SW 387 to transfer load
4 34364      0  "***"  1      # Restore Load at Clovis 2
0
#
#
# (49)  C5 DCTL OUTAGE
# Kingsburg - Corcoran #1 and #2 115 kV Lines
1 34418 34420 "1 "  0      # line from KINGSBRG 115.00 BRKR to BRKR  CORCORAN
115.00
#
1 34418 34420 "2 "  0      # line from KINGSBRG 115.00 BRKR to BRKR  CORCORAN
115.00
0
#
#
# (50)  C5 DCTL OUTAGE
# Kings River - Sanger - Reedley and Balch - Sanger 115 kV Lines
1 34366 34389 "1 "  0      # line from SANGER 115.00 BRKR to (3)  RAINBWTP
115.00
1 34389 34388 "1 "  0      # line from RAINBWTP 115.00 (3) to (1)  RAINBW
115.00
1 34389 34394 "1 "  0      # line from RAINBWTP 115.00 (3) to (3)  PIEDRA 1
115.00
1 34394 34380 "1 "  0      # line from PIEDRA 1 115.00 (3) to BRKR  REEDLEY
115.00
1 34394 34400 "1 "  0      # line from PIEDRA 1 115.00 (3) to BRKR  KNGSRV1
115.00
4 34388      0  "1 "  0      # LOAD-DROP RAINBW 115.00 LOAD==16.20(3.29)
#
1 34366 34396 "1 "  0      # line from SANGER 115.00 BRKR to (2)  PIEDRA 2
115.00
1 34396 34398 "1 "  0      # line from PIEDRA 2 115.00 (2) to (2)  BALCH
115.00
2 34398 34624 "1 "  0      # TRAN from BALCH 115.00 (2) to (1)  BALCH 1
13.20
4 34624      0  "1 "  0      # LOAD-DROP BALCH 1 13.20 LOAD==0.26(0.00)
3 34624      0  "1 "  0      # GEN-DROP BALCH 1 13.20 GEN==27.00(8.33)
0
#
#
# (51)  C5 DCTL OUTAGE
# McCall - Kingsburg #1 and #2 115 kV Lines

```

```

1 34370 34385 "1 " 0 # line from MC CALL 115.00 BRKR to (3) KINGS J1
115.00
1 34385 34417 "1 " 0 # line from KINGS J1 115.00 (3) to (2) KINGS J2
115.00
1 34385 34425 "1 " 0 # line from KINGS J1 115.00 (3) to (3) KCOGNJCT
115.00
1 34417 34418 "1 " 0 # line from KINGS J2 115.00 (2) to BRKR KINGSBRG
115.00
1 34425 34387 "1 " 0 # line from KCOGNJCT 115.00 (3) to (1) SUNMAID
115.00
1 34425 34427 "1 " 0 # line from KCOGNJCT 115.00 (3) to (2) GRDNGLS2
115.00
1 34427 34386 "1 " 0 # line from GRDNGLS2 115.00 (2) to (2) KNGSCOGN
115.00
2 34386 34642 "1 " 0 # TRAN from KNGSCOGN 115.00 (2) to BRKR KINGSBUR
9.11
4 34387 0 "1 " 0 # LOAD-DROP SUNMAID 115.00 LOAD==3.40(3.28)
3 34642 0 "1 " 0 # GEN-DROP KINGSBUR 9.11 GEN==34.00(17.30)
#
1 34418 34423 "1 " 0 # line from KINGSBRG 115.00 BRKR to (3) GAURD J1
115.00
1 34423 34370 "1 " 0 # line from GAURD J1 115.00 (3) to BRKR MC CALL
115.00
1 34423 34421 "1 " 0 # line from GAURD J1 115.00 (3) to (2) GAURD J2
115.00
1 34421 34424 "1 " 0 # line from GAURD J2 115.00 (2) to (1) GRDN GLS
115.00
4 34424 0 "1 " 0 # LOAD-DROP GRDN GLS 115.00 LOAD==3.50(1.15)
4 34418 0 "3 " 0 # Kingsburg Bank #3 will also be dropped on this outage
0
#
#
# (52) C5 DCTL OUTAGE
# McCall - Sanger #1 and #2 115 kV Lines
1 34366 34370 "1 " 0 # line from SANGER 115.00 BRKR to BRKR MC CALL
115.00
#
1 34366 34370 "2 " 0 # line from SANGER 115.00 BRKR to BRKR MC CALL
115.00
0
#
#
# (53) C5 DCTL OUTAGE
# McCall - West Fresno and California Ave. - West Fresno 115 kV Lines
1 34404 34370 "1 " 0 # line from WST FRSO 115.00 BRKR to BRKR MC CALL
115.00
#
1 34402 34404 "1 " 0 # line from CAL AVE 115.00 BRKR to BRKR WST FRSO
115.00
0
#
#
# (54) C5 DCTL OUTAGE
# McCall - West Fresno and California Ave. - McCall 115 kV Lines
1 34404 34370 "1 " 0 # line from WST FRSO 115.00 BRKR to BRKR MC CALL
115.00
#
1 34390 34370 "1 " 0 # line from DANISHCM 115.00 (2) to BRKR MC CALL
115.00
1 34390 34402 "1 " 0 # line from DANISHCM 115.00 (2) to BRKR CAL AVE
115.00
4 34390 0 "1 " 0 # LOAD-DROP DANISHCM 115.00 LOAD==4.10(3.51)
0
#
#
# (55) C5 DCTL OUTAGE
# Gates - Gregg and Gates - McCall 230 kV Lines
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00

```

```

1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
#
1 30875 30880 "1 " 0 # line from MC CALL 230.00 BRKR to (2) HENTAP2
230.00
1 30880 30900 "1 " 0 # line from HENTAP2 230.00 (2) to BRKR GATES
230.00
0
#
#
# (56) C5 DCTL OUTAGE
# Panoche - Kearney and Gates - Gregg 230 kV Lines
1 30790 30825 "1 " 0 # line from PANOCHE 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
#
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00
1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
0
#
#
# (57) C5 DCTL OUTAGE
# Panoche - Kearney and Panoche - Helm 230 kV Lines
1 30790 30825 "1 " 0 # line from PANOCHE 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
#
1 30790 30873 "1 " 0 # line from PANOCHE 230.00 BRKR to BRKR HELM
230.00
0
#
#
# (58) C5 DCTL OUTAGE
# Panoche - Kearney and Helm - McCall 230 kV Lines
1 30790 30825 "1 " 0 # line from PANOCHE 230.00 BRKR to (2) MCMULLN1
230.00
1 30825 30830 "1 " 0 # line from MCMULLN1 230.00 (2) to BRKR KEARNEY
230.00
4 30825 0 "1 " 0 # LOAD-DROP MCMULLN1 230.00 LOAD==20.57(4.18)
#
1 30873 30875 "1 " 0 # line from HELM 230.00 BRKR to BRKR MC CALL
230.00
0
#
#
# (59) C5 DCTL OUTAGE
# Helm - McCall and Gates - McCall 230 kV Lines
1 30873 30875 "1 " 0 # line from HELM 230.00 BRKR to BRKR MC CALL
230.00
#
1 30875 30880 "1 " 0 # line from MC CALL 230.00 BRKR to (2) HENTAP2
230.00
1 30880 30900 "1 " 0 # line from HENTAP2 230.00 (2) to BRKR GATES
230.00
0
#

```

```

#
# (60) C5 DCTL OUTAGE
# Helms - Gregg #1 and #2 230 kV Lines
1 30810 30820 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34600 0 "***" 0 # Drop unit#1 with a loss Helm - Gregg #1 line
#
1 30810 30820 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HELMS PP
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Helm - Gregg #2 line
0
#
#
# (61) C5 DCTL OUTAGE
# Gregg - Herndon #1 and #2 230 kV Lines
1 30830 30835 "1 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #1 line
#
1 30810 30835 "2 " 0 # line from GREGG 230.00 BRKR to BRKR HERNDON
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Herndon #2 line
0
#
#
# (62) C5 DCTL OUTAGE
# Herndon - Kearney and Herndon - Ashlan 230 kV Lines
1 30830 30835 "1 " 0 # line from KEARNEY 230.00 BRKR to BRKR HERNDON
230.00
#
1 30835 30840 "1 " 0 # line from HERNDON 230.00 BRKR to (3) FGRDN T1
230.00
1 30840 30841 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR FIGRDN 1
230.00
1 30840 30850 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR ASHLAN
230.00
4 30841 0 "1 " 0 # LOAD-DROP FIGRDN 1 230.00 LOAD==73.45(14.92)
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30841 0 "***" 1 # Restore Load at Figarden 1
0
#
#
# (63) C5 DCTL OUTAGE
# Herndon - Kearney and Gates - Gregg 230 kV Lines
1 30830 30835 "1 " 0 # line from KEARNEY 230.00 BRKR to BRKR HERNDON
230.00
#
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00
1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
0
#
#
# (64) C5 DCTL OUTAGE
# Gates - Gregg and Gregg - Ashlan 230 kV Lines
1 30810 30879 "1 " 0 # line from GREGG 230.00 BRKR to (3) HENTAP1
230.00
1 30879 30881 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR HENRIETA
230.00
1 30879 30900 "1 " 0 # line from HENTAP1 230.00 (3) to BRKR GATES
230.00
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1 30880 30881 "1 " 1 # Henrietta flip flop (Henrietta CB 222)
#

```

```

1 30810 30845 "1 " 0 # line from GREGG 230.00 BRKR to (3) FGRDN T2
230.00
1 30845 30846 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR FIGRDN 2
230.00
1 30845 30850 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR ASHLAN
230.00
4 30846 0 "1 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==52.57(10.67)
4 30846 0 "2 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==36.77(7.47)
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Figarden line
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30846 0 "***" 1 # Restore Load at Figarden 2
0
#
#
# (65) C5 DCTL OUTAGE
# Herndon - Ashlan and Gregg - Ashlan 230 kV Lines
1 30835 30840 "1 " 0 # line from HERNDON 230.00 BRKR to (3) FGRDN T1
230.00
1 30840 30841 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR FIGRDN 1
230.00
1 30840 30850 "1 " 0 # line from FGRDN T1 230.00 (3) to BRKR ASHLAN
230.00
4 30841 0 "1 " 0 # LOAD-DROP FIGRDN 1 230.00 LOAD==73.45(14.92)
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30841 0 "***" 1 # Restore Load at Figarden 1
#
1 30810 30845 "1 " 0 # line from GREGG 230.00 BRKR to (3) FGRDN T2
230.00
1 30845 30846 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR FIGRDN 2
230.00
1 30845 30850 "1 " 0 # line from FGRDN T2 230.00 (3) to BRKR ASHLAN
230.00
4 30846 0 "1 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==52.57(10.67)
4 30846 0 "2 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==36.77(7.47)
3 34604 0 "***" 0 # Drop unit#3 with a loss Gregg - Figarden line
1 30841 30846 "1 " 1 # Switches in Figarden SW 286 to transfer load
4 30846 0 "***" 1 # Restore Load at Figarden 2
0
#
#
# (66) C5 DCTL OUTAGE
# Haas - McCall and Balch - McCall 230 kV Lines
1 30855 30860 "1 " 0 # line from HAAS 230.00 (2) to (3) BALCH3TP
230.00
2 30855 34610 "1 " 0 # TRAN from HAAS 230.00 (2) to (1) HAAS
13.80
1 30860 30875 "1 " 0 # line from BALCH3TP 230.00 (3) to BRKR MC CALL
230.00
2 30860 34614 "1 " 0 # TRAN from BALCH3TP 230.00 (3) to (1) BLCH 2-3
13.80
3 34610 0 "1 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34610 0 "2 " 0 # GEN-DROP HAAS 13.80 GEN==70.00(10.21)
3 34614 0 "1 " 0 # GEN-DROP BLCH 2-3 13.80 GEN==50.00(7.64)
#
1 30865 30870 "1 " 0 # line from BALCH 230.00 (2) to (3) PINE FLT
230.00
2 30865 34612 "1 " 0 # TRAN from BALCH 230.00 (2) to (1) BLCH 2-2
13.80
1 30870 30875 "1 " 0 # line from PINE FLT 230.00 (3) to BRKR MC CALL
230.00
2 30870 38720 "1 " 0 # TRAN from PINE FLT 230.00 (3) to (1) PINE FLT
13.80
3 34612 0 "1 " 0 # GEN-DROP BLCH 2-2 13.80 GEN==50.00(0.66)
3 38720 0 "1 " 0 # GEN-DROP PINE FLT 13.80 GEN==57.00(23.30)
0
#
#
# (67) C5 DCTL OUTAGE
# Morro Bay - Gates and Templeton - Gates 230 kV Lines

```

```

1 30900 30915 "1 " 0 # line from GATES 230.00 BRKR to BRKR MORROBAY
230.00
#
1 30900 30905 "1 " 0 # line from GATES 230.00 BRKR to BRKR TEMPLETN
230.00
0
#
#
# (68) C5 DCTL OUTAGE
# Gates - Midway and Gates - Arco 230 kV Lines
1 30900 30970 "1 " 0 # line from GATES 230.00 BRKR to BRKR MIDWAY
230.00
#
1 30900 30935 "1 " 0 # line from GATES 230.00 BRKR to BRKR ARCO
230.00
0
#
#
# (69) BUS FAULT 30820 "HELMS PP"
#
1 30820 30810 "1" 0 # LINE from HELMS PP 230.00 to GREGG 230.00
1 30820 30810 "2" 0 # LINE from HELMS PP 230.00 to GREGG 230.00
2 30820 34600 "1" 0 # TRAN from HELMS PP 230.00 to HELMS 1 18.00
2 30820 34602 "1" 0 # TRAN from HELMS PP 230.00 to HELMS 2 18.00
2 30820 34604 "1" 0 # TRAN from HELMS PP 230.00 to HELMS 3 18.00
0
#
#
# (70) BUS FAULT 30830 "KEARNEY"
#
1 30830 30825 "1" 0 # LINE from KEARNEY 230.00 to MCMULLN1 230.00
1 30830 30835 "1" 0 # LINE from KEARNEY 230.00 to HERNDON 230.00
2 30830 34480 "2" 0 # TRAN from KEARNEY 230.00 to KEARNEY 70.00
0
#
#
# (71) BUS FAULT 30835 "HERNDON" 230 kV Bus Section 1
#
1 30835 30810 "1" 0 # LINE from HERNDON 230.00 to GREGG 230.00
1 30835 30830 "1" 0 # LINE from HERNDON 230.00 to KEARNEY 230.00
2 30835 30882 "1" 0 # TRAN from HERNDON 230.00 to HERNDN1M 115.00
0
#
#
# (72) BUS FAULT 30835 "HERNDON" 230 kV Bus Section 2
#
1 30835 30810 "2" 0 # LINE from HERNDON 230.00 to GREGG 230.00
1 30835 30840 "1" 0 # LINE from HERNDON 230.00 to FGRDN T1 230.00
2 30835 30883 "2" 0 # TRAN from HERNDON 230.00 to HERNDN2M 115.00
0
#
#
# (73) BUS FAULT 30841 "FIGRDN 1"
#
1 30841 30840 "1" 0 # LINE from FIGRDN 1 230.00 to FGRDN T1 230.00
1 30841 30846 "1" 0 # LINE from FIGRDN 1 230.00 to FIGRDN 2 230.00
4 30841 0 "1 " 0 # LOAD-DROP FIGRDN 1 230.00 LOAD==73.45(14.92)
0
#
#
# (74) BUS FAULT 30846 "FIGRDN 2"
#
1 30846 30841 "1" 0 # LINE from FIGRDN 2 230.00 to FIGRDN 1 230.00
1 30846 30845 "1" 0 # LINE from FIGRDN 2 230.00 to FGRDN T2 230.00
4 30846 0 "1 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==52.57(10.67)
4 30846 0 "2 " 0 # LOAD-DROP FIGRDN 2 230.00 LOAD==36.77(7.47)
0
#
#
# (75) BUS FAULT 30850 "ASHLAN"

```



```

#
1 30850 30840 "1" 0 # LINE from ASHLAN 230.00 to FGRDN T1 230.00
1 30850 30845 "1" 0 # LINE from ASHLAN 230.00 to FGRDN T2 230.00
4 30850 0 "1 " 0 # LOAD-DROP ASHLAN 230.00 LOAD==69.20(13.40)
4 30850 0 "2 " 0 # LOAD-DROP ASHLAN 230.00 LOAD==64.54(12.84)
4 30850 0 "3 " 0 # LOAD-DROP ASHLAN 230.00 LOAD==65.51(12.49)
0
#
#
# (76) BUS FAULT 30873 "HELM"
#
1 30873 30790 "1" 0 # LINE from HELM 230.00 to PANOCHE 230.00
1 30873 30875 "1" 0 # LINE from HELM 230.00 to MC CALL 230.00
2 30873 34474 "1" 0 # TRAN from HELM 230.00 to HELM 70.00
0
#
#
# (77) BUS FAULT 30874 "P0615STN"
#
1 30874 30875 "1" 0 # LINE from P0615STN 230.00 to MC CALL 230.00
1 30874 30875 "2" 0 # LINE from P0615STN 230.00 to MC CALL 230.00
2 30874 34685 "1" 0 # TRAN from P0615STN 230.00 to P0615CT1 16.50
2 30874 34686 "1" 0 # TRAN from P0615STN 230.00 to P0615CT2 16.50
2 30874 34687 "1" 0 # TRAN from P0615STN 230.00 to P0615STG 16.50
0
#
#
# (78) BUS FAULT 30875 "MC CALL" 230 kV Bus Section 1
#
1 30875 30870 "1" 0 # LINE from MC CALL 230.00 to PINE FLT 230.00
1 30875 30874 "1" 0 # LINE from MC CALL 230.00 to P0615STN 230.00
1 30875 30880 "1" 0 # LINE from MC CALL 230.00 to HENTAP2 230.00
2 30875 30877 "2" 0 # TRAN from MC CALL 230.00 to MCCALL2M 115.00
6 30875 0 "v" 0 # SVD from MC CALL 230.00
0
#
#
# (79) BUS FAULT 30875 "MC CALL" 230 kV Bus Section 2
#
1 30875 30873 "1" 0 # LINE from MC CALL 230.00 to HELM 230.00
1 30875 30860 "1" 0 # LINE from MC CALL 230.00 to BALCH3TP 230.00
1 30875 30874 "2" 0 # LINE from MC CALL 230.00 to P0615STN 230.00
2 30875 30876 "1" 0 # TRAN from MC CALL 230.00 to MCCALL1M 115.00
2 30875 30878 "3" 0 # TRAN from MC CALL 230.00 to MCCALL3M 115.00
0
#
#
# (80) BUS FAULT 30881 "HENRIETA"
#
1 30881 30879 "1" 0 # LINE from HENRIETA 230.00 to HENTAP1 230.00
1 30881 30880 "1" 0 # LINE from HENRIETA 230.00 to HENTAP2 230.00
2 30881 34430 "3" 0 # TRAN from HENRIETA 230.00 to HENRETTA 115.00
2 30881 34540 "2" 0 # TRAN from HENRIETA 230.00 to HENRITTA 70.00
2 30881 34540 "4" 0 # TRAN from HENRIETA 230.00 to HENRITTA 70.00
0
#
#
# (81) BUS FAULT 30900 "GATES" 230 kV Bus Section 1D
#
1 30900 30790 "1" 0 # LINE from GATES 230.00 to PANOCHE 230.00
1 30900 30905 "1" 0 # LINE from GATES 230.00 to TEMPLETN 230.00
2 30900 30901 "1" 0 # TRAN from GATES 230.00 to GATES 1M 230.00
6 30900 0 "v" 0 # SVD from GATES 230.00
0
#
#
# (82) BUS FAULT 30900 "GATES" 230 kV Bus Section 2D
#
1 30900 30790 "2" 0 # LINE from GATES 230.00 to PANOCHE 230.00
1 30900 30915 "1" 0 # LINE from GATES 230.00 to MORROBAY 230.00

```

```

0
#
#
# (83) BUS FAULT 30900 "GATES" 230 kV Bus Section 1E
#
1 30900 30879 "1" 0 # LINE from GATES 230.00 to HENTAP1 230.00
1 30900 30935 "1" 0 # LINE from GATES 230.00 to ARCO 230.00
0
#
#
# (84) BUS FAULT 30900 "GATES" 230 kV Bus Section 2E
#
1 30900 30880 "1" 0 # LINE from GATES 230.00 to HENTAP2 230.00
1 30900 30970 "1" 0 # LINE from GATES 230.00 to MIDWAY 230.00
0
#
#
# (85) BUS FAULT 34356 "KERCKHF1"
#
1 34356 34123 "2" 0 # LINE from KERCKHF1 115.00 to K1-JCT 115.00
1 34356 34358 "1" 0 # LINE from KERCKHF1 115.00 to KERCKHF2 115.00
2 34356 34344 "1" 0 # TRAN from KERCKHF1 115.00 to KERCKHOF 6.60
0
#
#
# (86) BUS FAULT 34358 "KERCKHF2"
#
1 34358 34123 "2" 0 # LINE from KERCKHF2 115.00 to K1-JCT 115.00
1 34358 34356 "1" 0 # LINE from KERCKHF2 115.00 to KERCKHF1 115.00
1 34358 34360 "1" 0 # LINE from KERCKHF2 115.00 to WWARD JT 115.00
1 34358 34365 "1" 0 # LINE from KERCKHF2 115.00 to CLOVISJ2 115.00
2 34358 34308 "1" 0 # TRAN from KERCKHF2 115.00 to KERCKHOF 13.80
0
#
#
# (87) BUS FAULT 34361 "AIRWAYS"
#
1 34361 34357 "1" 0 # LINE from AIRWAYS 115.00 to AIRWAYJ1 115.00
1 34361 34359 "1" 0 # LINE from AIRWAYS 115.00 to AIRWAYJ2 115.00
4 34361 0 "1 " 0 # LOAD-DROP AIRWAYS 115.00 LOAD==38.39(7.43)
4 34361 0 "2 " 0 # LOAD-DROP AIRWAYS 115.00 LOAD==12.60(2.56)
0
#
#
# (88) BUS FAULT 34362 "CLOVIS-1"
#
1 34362 34363 "1" 0 # LINE from CLOVIS-1 115.00 to CLOVISJ1 115.00
1 34362 34364 "1" 0 # LINE from CLOVIS-1 115.00 to CLOVIS-2 115.00
4 34362 0 "1 " 0 # LOAD-DROP CLOVIS-1 115.00 LOAD==51.01(10.36)
4 34362 0 "2 " 0 # LOAD-DROP CLOVIS-1 115.00 LOAD==50.20(10.20)
0
#
#
# (89) BUS FAULT 34364 "CLOVIS-2"
#
1 34364 34362 "1" 0 # LINE from CLOVIS-2 115.00 to CLOVIS-1 115.00
1 34364 34365 "1" 0 # LINE from CLOVIS-2 115.00 to CLOVISJ2 115.00
4 34364 0 "3 " 0 # LOAD-DROP CLOVIS-2 115.00 LOAD==44.76(9.09)
0
#
#
# (90) BUS FAULT 34366 "SANGER"
#
1 34366 34363 "1" 0 # LINE from SANGER 115.00 to CLOVISJ1 115.00
1 34366 34365 "1" 0 # LINE from SANGER 115.00 to CLOVISJ2 115.00
1 34366 34359 "1" 0 # LINE from SANGER 115.00 to AIRWAYJ2 115.00
1 34366 34368 "1" 0 # LINE from SANGER 115.00 to LASPALMS 115.00
1 34366 34370 "1" 0 # LINE from SANGER 115.00 to MC CALL 115.00
1 34366 34370 "2" 0 # LINE from SANGER 115.00 to MC CALL 115.00
1 34366 34370 "3" 0 # LINE from SANGER 115.00 to MC CALL 115.00

```

```

1 34366 34372 "1" 0 # LINE from SANGER 115.00 to MALAGA 115.00
1 34366 34389 "1" 0 # LINE from SANGER 115.00 to RAINBWTP 115.00
1 34366 34396 "1" 0 # LINE from SANGER 115.00 to PIEDRA 2 115.00
1 34366 34488 "1" 0 # LINE from SANGER 115.00 to SANGER 70.00
2 34366 34590 "1" 0 # TRAN from SANGER 115.00 to SANGR3T 115.00
4 34366 0 "1 " 0 # LOAD-DROP SANGER 115.00 LOAD==24.26(4.93)
0
#
#
# (91) BUS FAULT 34372 "MALAGA"
#
1 34372 34366 "1" 0 # LINE from MALAGA 115.00 to SANGER 115.00
1 34372 34376 "1" 0 # LINE from MALAGA 115.00 to PPG 115.00
1 34372 34379 "1" 0 # LINE from MALAGA 115.00 to MALAGATP 115.00
1 34372 34381 "1" 0 # LINE from MALAGA 115.00 to KRCDP 115.00
4 34372 0 "1 " 0 # LOAD-DROP MALAGA 115.00 LOAD==25.25(5.12)
4 34372 0 "2 " 0 # LOAD-DROP MALAGA 115.00 LOAD==22.76(4.62)
4 34372 0 "3 " 0 # LOAD-DROP MALAGA 115.00 LOAD==23.13(4.69)
0
#
#
# (92) BUS FAULT 34378 "GATES"
#
2 34378 30901 "1" 0 # TRAN from GATES 115.00 to GATES 1M 230.00
2 34378 34552 "2" 0 # TRAN from GATES 115.00 to GATES 70.00
4 34378 0 "3 " 0 # LOAD-DROP GATES 115.00 LOAD==19.45(3.95)
0
#
#
# (93) BUS FAULT 34380 "REEDLEY"
#
1 34380 34384 "1" 0 # LINE from REEDLEY 115.00 to GERAWAN 115.00
1 34380 34394 "1" 0 # LINE from REEDLEY 115.00 to PIEDRA 1 115.00
2 34380 34492 "1" 0 # TRAN from REEDLEY 115.00 to REEDLEY 70.00
2 34380 34492 "2" 0 # TRAN from REEDLEY 115.00 to REEDLEY 70.00
4 34380 0 "3 " 0 # LOAD-DROP REEDLEY 115.00 LOAD==26.17(5.31)
0
#
#
# (94) BUS FAULT 34382 "WAHTOKE"
#
1 34382 34370 "1" 0 # LINE from WAHTOKE 115.00 to MC CALL 115.00
1 34382 34384 "1" 0 # LINE from WAHTOKE 115.00 to GERAWAN 115.00
4 34382 0 "2 " 0 # LOAD-DROP WAHTOKE 115.00 LOAD==30.36(6.17)
4 34382 0 "3 " 0 # LOAD-DROP WAHTOKE 115.00 LOAD==20.84(4.24)
0
#
#
# (95) BUS FAULT 34400 "KNGSRVR1"
#
1 34400 34394 "1" 0 # LINE from KNGSRVR1 115.00 to PIEDRA 1 115.00
2 34400 34616 "1" 0 # TRAN from KNGSRVR1 115.00 to KINGSRIV 13.80
0
#
#
# (96) BUS FAULT 34402 "CAL AVE"
#
1 34402 34390 "1" 0 # LINE from CAL AVE 115.00 to DANISHCM 115.00
1 34402 34404 "1" 0 # LINE from CAL AVE 115.00 to WST FRSO 115.00
4 34402 0 "1 " 0 # LOAD-DROP CAL AVE 115.00 LOAD==28.95(5.87)
4 34402 0 "2 " 0 # LOAD-DROP CAL AVE 115.00 LOAD==31.26(6.35)
4 34402 0 "3 " 0 # LOAD-DROP CAL AVE 115.00 LOAD==24.42(4.96)
0
#
#
# (97) BUS FAULT 34404 "WST FRSO"
#
1 34404 34370 "1" 0 # LINE from WST FRSO 115.00 to MC CALL 115.00
1 34404 34402 "1" 0 # LINE from WST FRSO 115.00 to CAL AVE 115.00
4 34404 0 "1 " 0 # LOAD-DROP WST FRSO 115.00 LOAD==37.55(7.63)

```

```

4 34404      0 "2 "    0      # LOAD-DROP      WST FRSO 115.00  LOAD==39.04(7.93)
0
#
#
# (98) BUS FAULT  34408  "BARTON"
#
1 34408  34359  "1"    0      # LINE from  BARTON  115.00  to  AIRWAYJ2 115.00
1 34408  34412  "1"    0      # LINE from  BARTON  115.00  to  HERNDON  115.00
4 34408      0 "1 "    0      # LOAD-DROP      BARTON  115.00  LOAD==43.27(8.79)
4 34408      0 "2 "    0      # LOAD-DROP      BARTON  115.00  LOAD==37.15(7.54)
4 34408      0 "3 "    0      # LOAD-DROP      BARTON  115.00  LOAD==26.96(5.47)
0
#
#
# (99) BUS FAULT  34410  "MANCHSTR"
#
1 34410  34357  "1"    0      # LINE from  MANCHSTR 115.00  to  AIRWAYJ1 115.00
1 34410  34412  "1"    0      # LINE from  MANCHSTR 115.00  to  HERNDON  115.00
4 34410      0 "1 "    0      # LOAD-DROP      MANCHSTR 115.00  LOAD==25.28(5.13)
4 34410      0 "2 "    0      # LOAD-DROP      MANCHSTR 115.00  LOAD==25.47(5.18)
4 34410      0 "3 "    0      # LOAD-DROP      MANCHSTR 115.00  LOAD==36.21(7.36)
0
#
#
# (100) BUS FAULT  34412  "HERNDON" 115 kV Bus Section 1
#
1 34412  34408  "1"    0      # LINE from  HERNDON  115.00  to  BARTON  115.00
1 34412  34409  "1"    0      # LINE from  HERNDON  115.00  to  PNDLJ2  115.00
2 34412  30882  "1"    0      # TRAN from  HERNDON  115.00  to  HERNDN1M 115.00
0
#
#
# (101) BUS FAULT  34412  "HERNDON" 115 kV Bus Section 2
#
1 34412  34410  "1"    0      # LINE from  HERNDON  115.00  to  MANCHSTR 115.00
1 34412  34411  "1"    0      # LINE from  HERNDON  115.00  to  PNDLJ1  115.00
1 34412  34422  "1"    0      # LINE from  HERNDON  115.00  to  CHLDHOSP 115.00
0
#
#
# (102) BUS FAULT  34413  "PNEDLE"
#
1 34413  34409  "1"    0      # LINE from  PNEDLE  115.00  to  PNDLJ2  115.00
1 34413  34411  "1"    0      # LINE from  PNEDLE  115.00  to  PNDLJ1  115.00
4 34413      0 "2 "    0      # LOAD-DROP      PNEDLE  115.00  LOAD==30.74(6.25)
4 34413      0 "3 "    0      # LOAD-DROP      PNEDLE  115.00  LOAD==40.42(8.20)
0
#
#
# (103) BUS FAULT  34414  "WOODWARD"
#
1 34414  34360  "1"    0      # LINE from  WOODWARD 115.00  to  WWARD JT 115.00
1 34414  34422  "1"    0      # LINE from  WOODWARD 115.00  to  CHLDHOSP 115.00
4 34414      0 "1 "    0      # LOAD-DROP      WOODWARD 115.00  LOAD==42.25(8.58)
4 34414      0 "2 "    0      # LOAD-DROP      WOODWARD 115.00  LOAD==52.69(10.70)
4 34414      0 "3 "    0      # LOAD-DROP      WOODWARD 115.00  LOAD==44.09(8.95)
0
#
#
# (104) BUS FAULT  34416  "BULLARD"
#
1 34416  34409  "1"    0      # LINE from  BULLARD  115.00  to  PNDLJ2  115.00
1 34416  34411  "1"    0      # LINE from  BULLARD  115.00  to  PNDLJ1  115.00
4 34416      0 "1 "    0      # LOAD-DROP      BULLARD  115.00  LOAD==44.87(9.11)
4 34416      0 "2 "    0      # LOAD-DROP      BULLARD  115.00  LOAD==44.65(9.07)
4 34416      0 "3 "    0      # LOAD-DROP      BULLARD  115.00  LOAD==42.52(8.63)
0
#
#
# (105) BUS FAULT  34418  "KINGSBRG" 115 kV Bus Section D

```

```

#
1 34418 34417 "1" 0 # LINE from KINGSBRG 115.00 to KINGS J2 115.00
1 34418 34428 "1" 0 # LINE from KINGSBRG 115.00 to CONTADNA 115.00
1 34418 34420 "2" 0 # LINE from KINGSBRG 115.00 to CORCORAN 115.00
4 34418 0 "1 " 0 # LOAD-DROP KINGSBRG 115.00 LOAD==39.24(7.96)
0
#
#
# (106) BUS FAULT 34418 "KINGSBRG" 115 kV Bus Section E
#
1 34418 34420 "1" 0 # LINE from KINGSBRG 115.00 to CORCORAN 115.00
1 34418 34423 "1" 0 # LINE from KINGSBRG 115.00 to GAURD J1 115.00
2 34418 34576 "2" 0 # TRAN from KINGSBRG 115.00 to KNGLOBUS 70.00
4 34418 0 "3 " 0 # LOAD-DROP KINGSBRG 115.00 LOAD==24.32(4.94)
0
#
#
# (107) BUS FAULT 34420 "CORCORAN"
#
1 34420 34391 "1" 0 # LINE from CORCORAN 115.00 to QUEBECTP 115.00
1 34420 34418 "1" 0 # LINE from CORCORAN 115.00 to KINGSBRG 115.00
1 34420 34418 "2" 0 # LINE from CORCORAN 115.00 to KINGSBRG 115.00
2 34420 34528 "2" 0 # TRAN from CORCORAN 115.00 to CORCORAN 70.00
4 34420 0 "3 " 0 # LOAD-DROP CORCORAN 115.00 LOAD==16.21(3.30)
4 34420 0 "4 " 0 # LOAD-DROP CORCORAN 115.00 LOAD==17.81(3.61)
0
#
#
# (108) BUS FAULT 34426 "ALPAUGH"
#
1 34426 34391 "1" 0 # LINE from ALPAUGH 115.00 to QUEBECTP 115.00
1 34426 34700 "1" 0 # LINE from ALPAUGH 115.00 to SMYRNA 115.00
4 34426 0 "2 " 0 # LOAD-DROP ALPAUGH 115.00 LOAD==5.62(1.14)
0
#
#
# (109) BUS FAULT 34430 "HENRETTA"
#
1 34430 34521 "1" 0 # LINE from HENRETTA 115.00 to LEPRNOFD 115.00
2 34430 30881 "3" 0 # TRAN from HENRETTA 115.00 to HENRIETA 230.00
0
#
#
# (110) BUS FAULT 34452 "WISHON"
#
1 34452 34260 "1" 0 # LINE from WISHON 70.00 to SJNO2 70.00
1 34452 34491 "1" 0 # LINE from WISHON 70.00 to AUBRYTP 70.00
2 34452 34658 "1" 0 # TRAN from WISHON 70.00 to WISHON 2.30
0
#
#
# (111) BUS FAULT 34460 "GUERNSEY"
#
1 34460 34462 "1" 0 # LINE from GUERNSEY 70.00 to GUR3TPT 70.00
1 34460 34528 "1" 0 # LINE from GUERNSEY 70.00 to CORCORAN 70.00
4 34460 0 "1 " 0 # LOAD-DROP GUERNSEY 70.00 LOAD==10.51(2.13)
0
#
#
# (112) BUS FAULT 34464 "COPPRMNE"
#
1 34464 34454 "1" 0 # LINE from COPPRMNE 70.00 to RIVERROC 70.00
1 34464 34478 "1" 0 # LINE from COPPRMNE 70.00 to TVY VLLY 70.00
1 34464 34638 "1" 0 # LINE from COPPRMNE 70.00 to FRANTDM 70.00
1 34464 34491 "1" 0 # LINE from COPPRMNE 70.00 to AUBRYTP 70.00
4 34464 0 "1 " 0 # LOAD-DROP COPPRMNE 70.00 LOAD==22.96(4.67)
0
#
#
# (113) BUS FAULT 34466 "BIOLA"

```

```

#
1 34466 34264 "1" 0 # LINE from BIOLA 70.00 to EL PECO 70.00
1 34466 34482 "1" 0 # LINE from BIOLA 70.00 to OLDKERN 70.00
4 34466 0 "1 " 0 # LOAD-DROP BIOLA 70.00 LOAD==21.80(4.43)
0
#
#
# (114) BUS FAULT 34472 "SAN JOQN"
#
1 34472 34471 "1" 0 # LINE from SAN JOQN 70.00 to SNJQJCT 70.00
1 34472 34473 "1" 0 # LINE from SAN JOQN 70.00 to SNJQTP 70.00
4 34472 0 "1 " 0 # LOAD-DROP SAN JOQN 70.00 LOAD==6.44(1.31)
4 34472 0 "2 " 0 # LOAD-DROP SAN JOQN 70.00 LOAD==3.92(0.79)
0
#
#
# (115) BUS FAULT 34474 "HELM"
#
1 34474 34471 "1" 0 # LINE from HELM 70.00 to SNJQJCT 70.00
1 34474 34473 "1" 0 # LINE from HELM 70.00 to SNJQTP 70.00
1 34474 34556 "1" 0 # LINE from HELM 70.00 to STRD JCT 70.00
1 34474 34564 "1" 0 # LINE from HELM 70.00 to STROUD 70.00
2 34474 30873 "1" 0 # TRAN from HELM 70.00 to HELM 230.00
0
#
#
# (116) BUS FAULT 34478 "TVY VLLY"
#
1 34478 34464 "1" 0 # LINE from TVY VLLY 70.00 to COPPRMNE 70.00
1 34478 34492 "1" 0 # LINE from TVY VLLY 70.00 to REEDLEY 70.00
4 34478 0 "1 " 0 # LOAD-DROP TVY VLLY 70.00 LOAD==10.27(2.09)
0
#
#
# (117) BUS FAULT 34480 "KEARNEY"
#
1 34480 34481 "1" 0 # LINE from KEARNEY 70.00 to FRWWTAP 70.00
1 34480 34482 "1" 0 # LINE from KEARNEY 70.00 to OLDKERN 70.00
1 34480 34512 "1" 0 # LINE from KEARNEY 70.00 to CARUTHRS 70.00
2 34480 30830 "2" 0 # TRAN from KEARNEY 70.00 to KEARNEY 230.00
0
#
#
# (118) BUS FAULT 34484 "KERMAN"
#
1 34484 34475 "1" 0 # LINE from KERMAN 70.00 to AGRCJCT 70.00
1 34484 34481 "1" 0 # LINE from KERMAN 70.00 to FRWWTAP 70.00
4 34484 0 "1 " 0 # LOAD-DROP KERMAN 70.00 LOAD==19.44(3.95)
4 34484 0 "2 " 0 # LOAD-DROP KERMAN 70.00 LOAD==11.78(2.39)
0
#
#
# (119) BUS FAULT 34486 "CALIFRNV"
#
1 34486 34488 "1" 0 # LINE from CALIFRNV 70.00 to SANGER 70.00
1 34486 34488 "2" 0 # LINE from CALIFRNV 70.00 to SANGER 70.00
0
#
#
# (120) BUS FAULT 34488 "SANGER"
#
1 34488 34486 "1" 0 # LINE from SANGER 70.00 to CALIFRNV 70.00
1 34488 34486 "2" 0 # LINE from SANGER 70.00 to CALIFRNV 70.00
1 34488 34366 "1" 0 # LINE from SANGER 70.00 to SANGER 115.00
1 34488 34487 "1" 0 # LINE from SANGER 70.00 to SNGRJCT 70.00
2 34488 34590 "1" 0 # TRAN from SANGER 70.00 to SANGR3T 115.00
0
#
#
# (121) BUS FAULT 34492 "REEDLEY"

```

```

#
1 34492 34478 "1" 0 # LINE from REEDLEY 70.00 to TVY VLLY 70.00
1 34492 34490 "1" 0 # LINE from REEDLEY 70.00 to PARLIER 70.00
1 34492 34497 "1" 0 # LINE from REEDLEY 70.00 to DNUBAJCT 70.00
1 34492 34526 "1" 0 # LINE from REEDLEY 70.00 to ORSI JCT 70.00
2 34492 34380 "1" 0 # TRAN from REEDLEY 70.00 to REEDLEY 115.00
2 34492 34380 "2" 0 # TRAN from REEDLEY 70.00 to REEDLEY 115.00
4 34492 0 "1 " 0 # LOAD-DROP REEDLEY 70.00 LOAD==17.42(3.54)
0
#
#
# (122) BUS FAULT 34500 "DINUBA"
#
1 34500 34496 "1" 0 # LINE from DINUBA 70.00 to STCRRL J 70.00
1 34500 34497 "1" 0 # LINE from DINUBA 70.00 to DNUBAJCT 70.00
4 34500 0 "1 " 0 # LOAD-DROP DINUBA 70.00 LOAD==19.23(3.91)
4 34500 0 "2 " 0 # LOAD-DROP DINUBA 70.00 LOAD==9.33(1.90)
0
#
#
# (123) BUS FAULT 34512 "CARUTHRS"
#
1 34512 34480 "1" 0 # LINE from CARUTHRS 70.00 to KEARNEY 70.00
1 34512 34510 "1" 0 # LINE from CARUTHRS 70.00 to CMDN JCT 70.00
4 34512 0 "1 " 0 # LOAD-DROP CARUTHRS 70.00 LOAD==19.63(3.98)
0
#
#
# (124) BUS FAULT 34518 "LEMOORE"
#
1 34518 34520 "1" 0 # LINE from LEMOORE 70.00 to LPRNO TP 70.00
1 34518 34522 "1" 0 # LINE from LEMOORE 70.00 to HNF RD SW 70.00
4 34518 0 "1 " 0 # LOAD-DROP LEMOORE 70.00 LOAD==18.86(3.83)
4 34518 0 "2 " 0 # LOAD-DROP LEMOORE 70.00 LOAD==32.81(6.66)
0
#
#
# (125) BUS FAULT 34528 "CORCORAN"
#
1 34528 34460 "1" 0 # LINE from CORCORAN 70.00 to GUERNSEY 70.00
1 34528 34530 "1" 0 # LINE from CORCORAN 70.00 to BSWLL TP 70.00
2 34528 34420 "2" 0 # TRAN from CORCORAN 70.00 to CORCORAN 115.00
0
#
#
# (126) BUS FAULT 34540 "HENRITTA"
#
1 34540 34514 "1" 0 # LINE from HENRITTA 70.00 to MUSLSLGH 70.00
1 34540 34520 "1" 0 # LINE from HENRITTA 70.00 to LPRNO TP 70.00
1 34540 34537 "1" 0 # LINE from HENRITTA 70.00 to GWF_HENR 70.00
1 34540 34542 "1" 0 # LINE from HENRITTA 70.00 to JCBSCRNR 70.00
1 34540 34544 "1" 0 # LINE from HENRITTA 70.00 to TLRE LKE 70.00
2 34540 30881 "2" 0 # TRAN from HENRITTA 70.00 to HENRIETA 230.00
2 34540 30881 "4" 0 # TRAN from HENRITTA 70.00 to HENRIETA 230.00
4 34540 0 "1 " 0 # LOAD-DROP HENRITTA 70.00 LOAD==8.20(1.67)
0
#
#
# (127) BUS FAULT 34544 "TLRE LKE"
#
1 34544 34540 "1" 0 # LINE from TLRE LKE 70.00 to HENRITTA 70.00
1 34544 34550 "1" 0 # LINE from TLRE LKE 70.00 to CHEVPLIN 70.00
1 34544 34580 "1" 0 # LINE from TLRE LKE 70.00 to BDGR HLL 70.00
4 34544 0 "1 " 0 # LOAD-DROP TLRE LKE 70.00 LOAD==6.79(1.38)
0
#
#
# (128) BUS FAULT 34552 "GATES"
#
1 34552 34548 "1" 0 # LINE from GATES 70.00 to KETTLEMN 70.00

```

```

1 34552 34184 "1" 0 # LINE from GATES 70.00 to GATS2_TP 70.00
1 34552 34558 "1" 0 # LINE from GATES 70.00 to HURON 70.00
1 34552 34558 "2" 0 # LINE from GATES 70.00 to HURON 70.00
1 34552 34578 "1" 0 # LINE from GATES 70.00 to JACALITO 70.00
2 34552 34378 "2" 0 # TRAN from GATES 70.00 to GATES 115.00
0
#
#
# (129) BUS FAULT 34558 "HURON"
#
1 34558 34552 "1" 0 # LINE from HURON 70.00 to GATES 70.00
1 34558 34552 "2" 0 # LINE from HURON 70.00 to GATES 70.00
1 34558 34560 "1" 0 # LINE from HURON 70.00 to CALFLAX 70.00
4 34558 34552 "1 " 1 # LOAD-TRANSFER HURON 70.00 TO GATES 70.00
LOAD==15.33(3.11)
0
#
#
# (130) BUS FAULT 34562 "SCHLNDLR"
#
1 34562 34556 "1" 0 # LINE from SCHLNDLR 70.00 to STRD JCT 70.00
1 34562 34560 "1" 0 # LINE from SCHLNDLR 70.00 to CALFLAX 70.00
1 34562 34566 "1" 0 # LINE from SCHLNDLR 70.00 to PLSNTVLY 70.00
2 34562 34354 "1" 0 # TRAN from SCHLNDLR 70.00 to SCHINDLR 115.00
4 34562 0 "1 " 0 # LOAD-DROP SCHLNDLR 70.00 LOAD==9.59(1.95)
0
#
#
# (131) BUS FAULT 34564 "STROUD"
#
1 34564 34556 "1" 0 # LINE from STROUD 70.00 to STRD JCT 70.00
1 34564 34474 "1" 0 # LINE from STROUD 70.00 to HELM 70.00
4 34564 0 "1 " 0 # LOAD-DROP STROUD 70.00 LOAD==13.09(2.66)
0
#
#
# (132) BUS FAULT 34570 "COLNGA 2"
#
1 34570 34184 "1" 0 # LINE from COLNGA 2 70.00 to GATS2_TP 70.00
1 34570 34566 "1" 0 # LINE from COLNGA 2 70.00 to PLSNTVLY 70.00
1 34570 34572 "1" 0 # LINE from COLNGA 2 70.00 to TORNADO 70.00
2 34570 34652 "1" 0 # TRAN from COLNGA 2 70.00 to CHV.COAL 9.11
4 34570 0 "1 " 0 # LOAD-DROP COLNGA 2 70.00 LOAD==8.23(1.67)
0
#
#
# (133) BUS FAULT 34574 "COLNGA 1"
#
1 34574 34572 "1" 0 # LINE from COLNGA 1 70.00 to TORNADO 70.00
1 34574 34578 "1" 0 # LINE from COLNGA 1 70.00 to JACALITO 70.00
1 34574 36354 "1" 0 # LINE from COLNGA 1 70.00 to SAN MIGL 70.00
4 34574 0 "1 " 0 # LOAD-DROP COLNGA 1 70.00 LOAD==9.34(1.90)
4 34574 0 "2 " 0 # LOAD-DROP COLNGA 1 70.00 LOAD==9.99(2.03)
0
#
#
# (134) BUS FAULT 34576 "KNGLOBUS"
#
1 34576 34456 "1" 0 # LINE from KNGLOBUS 70.00 to HRDWK TP 70.00
1 34576 34508 "1" 0 # LINE from KNGLOBUS 70.00 to CAMDEN 70.00
2 34576 34418 "2" 0 # TRAN from KNGLOBUS 70.00 to KINGSBRG 115.00
0
#
#
-1
# EOF

```



# Appendix B

## Governor Power Flow Switching Sequences

### Table of Content

#### Category B Contingencies

Gates - Los Banos #1 500-kV Single Line Outage .....	1
Gates - Los Banos #3 500-kV Single Line Outage .....	2
Gates - Midway 500-kV Single Line Outage .....	3
Los Banos - Gates #1 500-kV Single Line Outage .....	4
Los Banos - Gates #3 500-kV Single Line Outage .....	5
Diablo - Midway 500-kV Single Line Outage .....	6
Tracy - Los Banos 500-kV Single Line Outage .....	7
Tesla - Los Banos 500-kV Single Line Outage .....	8
Los Banos - Midway 500-kV Single Line Outage .....	9
Moss Landing - Los Banos 500-kV Single Line Outage .....	10

#### Category C Contingencies

Diablo - Midway #2 & #3 500-kV Double Line Outage .....	11
Los Banos - Tesla & Los Banos – Tracy 500-kV Double Line Outage (North-to-South Flow) .....	12
Los Banos - Midway and Los Banos – Gates 500-kV Double Line Outage (North-to-South Flow) .....	13
Midway - Gates and Midway - Los Banos Double Line Outage (North-to-South Flow) .....	15
Los Banos - Tesla & Los Banos – Tracy 500-kV Double Line Outage (South-to-North Flow) .....	16
Los Banos - Midway and Los Banos – Gates 500-kV Double Line Outage (South-to-North Flow) .....	20
Midway - Gates and Midway - Los Banos Double Line Outage (South-to-North Flow) .....	24

## Gates - Los Banos #1 500-kV Single Line Outage

```
*  
* CC cards for post-transient only  
*  
* Readjust Northwest SVC's  
CC MSV 0.0 "KEEL-SVC" 19.60 "1 " 350. -300.  
CC MSV 0.0 "MV-SVC " 19.60 "1 " 350. -300.  
*  
DL 4.0 "GATES " 500. "LOSBANOS" 500. "1 "  
*
```

## Gates - Los Banos #3 500-kV Single Line Outage

```
*
* CC cards for post-transient only
*
* Readjust Northwest SVC's
CC MSV 0.0 "KEEL-SVC" 19.60 "1 " 350. -300.
CC MSV 0.0 "MV-SVC " 19.60 "1 " 350. -300.
*
DL 4.0 "GATES " 500. "LOSBANOS" 500. "3 "
*
```

## Gates - Midway 500-kV Single Line Outage

```
*
* CC cards for post-transient only
*
* Readjust Northwest SVC's
CC MSV 0.0 "KEEL-SVC" 19.60 "1 " 350. -300.
CC MSV 0.0 "MV-SVC " 19.60 "1 " 350. -300.
*
DL 4.0 "GATES " 500. "MIDWAY " 500. "1 "
*
```

## Los Banos - Gates #1 500-kV Single Line Outage

```
*
* CC cards for post-transient only
*
* Readjust Northwest SVC's
CC MSV 0.0 "KEEL-SVC" 19.60 "1 " 350. -300.
CC MSV 0.0 "MV-SVC " 19.60 "1 " 350. -300.
*
DL 4.0 "LOSBANOS " 500. "GATES" 500. "1 "
*
```

## Los Banos - Gates #3 500-kV Single Line Outage

```
*
* CC cards for post-transient only
*
*   Readjust Northwest SVC's
CC MSV 0.0 "KEEL-SVC" 19.60 "1 " 350. -300.
CC MSV 0.0 "MV-SVC  " 19.60 "1 " 350. -300.
*
DL  4.0 "LOSBANOS " 500. "GATES" 500. "3 "
*
```

## Diablo - Midway 500-kV Single Line Outage

```
*
* CC cards for post-transient only
*
* Readjust Northwest SVC's
CC MSV 0.0 "KEEL-SVC" 19.60 "1 " 350. -300.
CC MSV 0.0 "MV-SVC " 19.60 "1 " 350. -300.
*
DL 4.0 "DIABLO " 500. "MIDWAY" 500. "2 "
*
```

## Tracy - Los Banos 500-kV Single Line Outage

```
*
*   CC cards for post-transient only
*
CC MSV 0.0 "KEEL-SVC" 19.60 "1 " 350. -300.
CC MSV 0.0 "MV-SVC " 19.60 "1 " 350. -300.
*
DL  4.0 "TRACY   " 500.0 "LOSBANOS" 500.0 "1 "
*
*   THE 454 MVar TABLE MT MSC TAKES MORE THAN ONE SECOND
*   TO INSERT AND IS NOT USUALLY MODELED FOR STABILITY
*
CC MSD 17.5 "TABLE MT" 500.0 "v " "C" 4.54
*
```



## Tesla - Los Banos 500-kV Single Line Outage

```
*
*   CC cards for post-transient only
*
*   Readjust Northwest SVC's
*
CC MSV 0.0 "KEEL-SVC" 19.60 "1 " 350. -300.
CC MSV 0.0 "MV-SVC  " 19.60 "1 " 350. -300.
*
DL  4.0  "TESLA   " 500.0  "LOSBANOS" 500.0  "1  "
*
*   THE 454 MVar TABLE MT MSC TAKES MORE THAN ONE SECOND
*   TO INSERT AND IS NOT USUALLY MODELED FOR STABILITY
*
CC MSD 17.5  "TABLE MT"  500.0  "v  "  "C"  4.54
*
*
```

## Los Banos - Midway 500-kV Single Line Outage

```
*
* CC cards for post-transient only
*
* Readjust Northwest SVC's
CC MSV 0.0 "KEEL-SVC" 19.60 "1 " 350. -300.
CC MSV 0.0 "MV-SVC " 19.60 "1 " 350. -300.
*
DL 4.0 "LOSBANOS " 500. "MIDWAY" 500. "1 "
```

## Moss Landing - Los Banos 500-kV Single Line Outage

```
*
*   CC cards for post-transient only
*
*   Readjust Northwest SVC's
*
CC MSV 0.0 "KEEL-SVC" 19.60 "1 " 350. -300.
CC MSV 0.0 "MV-SVC  " 19.60 "1 " 350. -300.
*
DL  4.0  "MOSSLAND" 500.0  "LOSBANOS" 500.0  "1 "
```

## Diablo - Midway #2 & #3 500-kV Double Line Outage

```
*
* CC cards for post-transient only
*
*   Readjust Northwest SVC's
CC MSV 0.0 "KEEL-SVC" 19.60 "1 " 350. -300.
CC MSV 0.0 "MV-SVC " 19.60 "1 " 350. -300.
*
DL 4.0 "DIABLO " 500. "MIDWAY" 500. "2 "
DL 4.0 "DIABLO " 500. "MIDWAY" 500. "3 "
*
*   THE 454 MVAR TABLE MT MSC TAKES MORE THAN ONE SECOND
*   TO INSERT AND IS NOT USUALLY MODELED FOR STABILITY
*
CC MSD 90.0 "TABLE MT" 500.0 "v " "C" 4.54
CC MLS 90.0 "TABLE MT" 500.0 "TESLA " 500.0 "1 " 1 "f" D
```

## Los Banos - Tesla & Los Banos – Tracy 500-kV Double Line Outage (North-to-South Flow)

```
*
* CC cards for post-transient only
*
*   Readjust Northwest SVC's
*
CC MSV 0.0 "KEEL-SVC" 19.60 "1 " 350. -300.
CC MSV 0.0 "MV-SVC " 19.60 "1 " 350. -300.
*
*   Trip Los Banos North lines
*
DL 4.0 "TESLA " 500. "LOSBANOS " 500. "1 "
DL 4.0 "TRACY " 500. "LOSBANOS " 500. "1 "
*
```

## Los Banos - Midway and Los Banos – Gates 500-kV Double Line Outage (North-to-South Flow)

```

*
*   Readjust Northwest SVC's
*
CC MSV 0.0 "KEEL-SVC" 19.60 "1 " 350. -300.
CC MSV 0.0 "MV-SVC " 19.60 "1 " 350. -300.
* CC RG 0.0 "DALLES 3" 13.8 "1 " 180. -270.
*
*   Fault bus at Los Banos
FB 0.0 "LOSBANOS" 500.
*
*   Clear fault at Los Banos
CFB 4.0 "LOSBANOS " 500.
*
*   Trip Los Banos South lines
DL 4.0 "LOSBANOS " 500. "GATES " 500. "1 "
DL 4.0 "LOSBANOS " 500. "MIDWAY" 500. "1 "
*
*   Drop CDWR/Feather River Generation
TG 13.0 "HYATT 1 " 12.5 "***"
TG 13.0 "HYATT 2 " 12.5 "***"
TG 13.0 "HYATT 3 " 12.5 "***"
TG 13.0 "HYATT 4 " 12.5 "***"
TG 13.0 "HYATT 5 " 12.5 "***"
TG 13.0 "HYATT 6 " 12.5 "***"
TG 13.0 "THERMLT1" 13.8 "***"
TG 13.0 "THERMLT2" 13.8 "***"
TG 13.0 "THERMLT3" 13.8 "***"
TG 13.0 "THERMLT4" 13.8 "***"
*
*
*   Drop CDWR/Feather River Generation
TG 15.0 "CRBOU2-3" 11.5 "***"
*
*   Drop CDWR Pumps
TG 15.0 "DELTA A " 13.2 "***"
TG 15.0 "DELTA B " 13.2 "***"
TG 15.0 "DELTA C " 13.2 "***"
TG 15.0 "DELTA D " 13.2 "***"
TG 15.0 "DELTA E " 13.2 "***"
*
TG 15.0 "WINDGAP1 " 13.2 "***"
TG 15.0 "WINDGAP2 " 13.2 "***"
TG 15.0 "WINDGAP3 " 13.2 "***"
TG 15.0 "WINDGAP4 " 13.2 "***"
*
TG 15.0 "BUENAVS1 " 13.2 "***"
TG 15.0 "BUENAVS2 " 13.2 "***"
*
TG 15.0 "WHLR RD1" 13.2 "***"
TG 15.0 "WHLR RD2" 13.2 "***"
*
TG 18.0 "DOS AMG1" 13.2 "***"
TG 18.0 "DOS AMG2" 13.2 "***"
*
TG 18.0 "PEARBMAP" 13.2 "***"
TG 18.0 "PEARBMBP" 13.2 "***"
*
*   INSERT 200 MVar CAPACITORS AT OLINDA 500 kV
*   REMOVE 380 MVar REACTORS AT OLINDA 500 kV
*
CC MSD 18.0 "OLINDA " 500.0 "v " "C" 2.00
CC MLS 17.5 "OLINDA " 500.0 "MAXWELL " 500.0 "1 " 1 "t" "D"
CC MLS 17.5 "CAPTJACK" 500.0 "OLINDA " 500.0 "1 " 3 "f" "D"
*   Switch on Table Mountain Shunt cap
*   2 x 217 caps (91 Mvar reactor modeled separately)

```

```

*
CC MSD 90.0 "TABLE MT" 500.0 "v " "C" 4.54
CC MLS 90.0 "TABLE MT" 500.0 "TESLA " 500.0 "1 " 1 "f" D
*
* Bypass capacitors
*
FC 300. "OLINDA " 500. "MAXWELL " 500. "1 " 3
FC 300. "TABLE MT" 500. "TESLA " 500. "1 " 1
FC 300. "TABLE MT" 500. "VACA-DIX" 500. "1 " 1
FC 300. "TABLE MT" 500. "VACA-DIX" 500. "1 " 3
*
* Drop PGE Generation
TG 310. "BUTTVLLY" 13.8 "***"
*
* Edmonston & Pear Blossom CDWR pumps have a 5 minutes ramp down time, not modeled for
transient
*
CC TG 9999.0 "EDMON1AP " 14.4 "***"
CC TG 9999.0 "EDMON2AP " 14.4 "***"
CC TG 9999.0 "EDMON3AP " 14.4 "***"
CC TG 9999.0 "EDMON4AP " 14.4 "***"
CC TG 9999.0 "EDMON5AP " 14.4 "***"
CC TG 9999.0 "EDMON6AP " 14.4 "***"
CC TG 9999.0 "EDMON7AP " 14.4 "***"
CC TG 9999.0 "EDMON8AP " 14.4 "***"
*

```

## Midway - Gates and Midway - Los Banos Double Line Outage (North-to-South Flow)

```
*
* CC cards for post-transient only
*
*   Readjust Northwest SVC's
*
CC MSV 0.0 "KEEL-SVC" 19.60 "1 " 350. -300.
CC MSV 0.0 "MV-SVC " 19.60 "1 " 350. -300.
* CC RG 0.0 "DALLES 3" 13.8 "1 " 180. -270.
*
* Fault bus at Midway
FB 0.0 "MIDWAY " 500.
*
* Clear fault at Midway
CFB 4.0 "MIDWAY " 500.
*
* Trip Midway North lines
DL 4.0 "MIDWAY " 500. "GATES " 500. "1 "
DL 4.0 "MIDWAY " 500. "LOSBANOS" 500. "1 "
*
* Drop CDWR Pumps
TG 15.0 "DELTA A " 13.2 "***"
TG 15.0 "DELTA B " 13.2 "***"
TG 15.0 "DELTA C " 13.2 "***"
TG 15.0 "DELTA D " 13.2 "***"
TG 15.0 "DELTA E " 13.2 "***"
*
TG 15.0 "WINDGAP1 " 13.2 "***"
TG 15.0 "WINDGAP2 " 13.2 "***"
TG 15.0 "WINDGAP3 " 13.2 "***"
TG 15.0 "WINDGAP4 " 13.2 "***"
*
TG 15.0 "BUENAVS1 " 13.2 "***"
TG 15.0 "BUENAVS2 " 13.2 "***"
*
TG 15.0 "WHLR RD1" 13.2 "***"
TG 15.0 "WHLR RD2" 13.2 "***"
```



## Los Banos - Tesla & Los Banos – Tracy 500-kV Double Line Outage (South-to-North Flow)

```

*
*   CC cards for post-transient only
*
*   Readjust Northwest SVC's
*
CC MSV 0.0 "KEEL-SVC" 19.60 "1 " 350. -300.
CC MSV 0.0 "MV-SVC " 19.60 "1 " 350. -300.
*
*   FAULT ON LOS BANOS 500 KV BUS
*
FB 0.0 "LOSBANOS" 500.0
*
*
*   CLEAR FAULT AND OPEN LINES - 4 CYCLES
*
CFB 4.0 "LOS BANOS" 500.0
DL 4.0 "TESLA" 500.0 "LOSBANOS" 500.0 "1 "
DL 4.0 "TRACY" 500.0 "LOSBANOS" 500.0 "1 "
*
*
* CDWR Pumps *
TG 22.0 "DOS AMG1" 13.20 "1 " */gen drop is -30.00 MW 0.00 MVar
TG 22.0 "DOS AMG1" 13.20 "2 " */gen drop is -30.00 MW 0.00 MVar
TG 22.0 "DOS AMG1" 13.20 "3 " */gen drop is -30.00 MW 0.00 MVar
TG 22.0 "DELTA E " 13.20 "11" */gen drop is -1.00 MW 0.00 MVar
* Gen Group 1 *
MBL 22.0 "SUNST " 230.00 "SG" "D" */ 11.79 MW 4.28 MVar
TG 22.0 "SUNSET G" 13.80 "1 " */gen drop is 75.00 MW 26.70 MVar
TG 22.0 "SUNSET G" 13.80 "2 " */gen drop is 75.00 MW 26.70 MVar
TG 22.0 "SUNSET G" 13.80 "3 " */gen drop is 75.00 MW 26.70 MVar
MBL 22.0 "DEXEL + " 13.80 "SG" "D" */ 0.32 MW 0.08 MVar
TG 22.0 "DEXEL + " 13.80 "1 " */gen drop is 28.60 MW 6.42 MVar
TG 22.0 "DOUBLE C" 13.80 "1 " */gen drop is 42.50 MW 5.96 MVar
MBL 22.0 "KERNFRNT" 9.11 "SG" "D" */ 0.70 MW 0.34 MVar
TG 22.0 "KERNFRNT" 9.11 "1 " */gen drop is 47.70 MW 16.00 MVar
TG 22.0 "HISIERRA" 13.80 "1 " */gen drop is 47.90 MW 6.87 MVar
TG 22.0 "BADGERCK" 13.80 "1 " */gen drop is 46.30 MW 6.59 MVar
TG 22.0 "TEXCO_NM" 9.11 "1 " */gen drop is 5.40 MW 5.50 MVar
TG 22.0 "TEXCO_NM" 9.11 "2 " */gen drop is 2.70 MW 5.00 MVar
MBL 22.0 "CHV-CYMR" 9.11 "SG" "D" */ 0.41 MW 0.10 MVar
TG 22.0 "CHV-CYMR" 9.11 "1 " */gen drop is 13.50 MW -1.24 MVar
TG 22.0 "MIDSUN +" 13.80 "1 " */gen drop is 24.50 MW 15.20 MVar
* Load Group 1 *
MBL 22.0 "EL CRRTO" 115.00 "1 " "D" */ 20.73 MW 4.72 MVar
MBL 22.0 "EL CRRTO" 115.00 "2 " "D" */ 25.79 MW 5.88 MVar
MBL 22.0 "EL CRRTO" 115.00 "4 " "D" */ 45.19 MW 10.30 MVar
MBL 22.0 "CORDELIA" 115.00 "2 " "D" */ 15.10 MW 0.68 MVar
MBL 22.0 "VACAVLL2" 115.00 "2 " "D" */ 38.30 MW 1.71 MVar
MBL 22.0 "VACAVLL2" 115.00 "3 " "D" */ 37.61 MW 1.68 MVar
MBL 22.0 "HALE " 115.00 "1 " "D" */ 2.39 MW 1.42 MVar
MBL 22.0 "VACAVLL1" 115.00 "1 " "D" */ 26.13 MW 1.17 MVar
MBL 22.0 "JAMESON " 115.00 "1 " "D" */ 33.35 MW 1.49 MVar
MBL 22.0 "SCHMLBCH" 115.00 "1 " "D" */ 10.08 MW 6.77 MVar
MBL 22.0 "SUISUN " 115.00 "1 " "D" */ 25.41 MW 1.14 MVar
MBL 22.0 "SUISUN " 115.00 "2 " "D" */ 27.60 MW 1.23 MVar
MBL 22.0 "SUISUN " 115.00 "3 " "D" */ 22.48 MW 1.01 MVar
TG 22.0 "CTY FAIR" 9.11 "1 " */gen drop is 0.80 MW 0.07 MVar
TG 22.0 "CTY FAIR" 9.11 "2 " */gen drop is 1.50 MW 0.13 MVar
MBL 22.0 "FREMNT " 115.00 "1 " "D" */ 29.09 MW 6.63 MVar
MBL 22.0 "FREMNT " 115.00 "2 " "D" */ 17.77 MW 4.05 MVar
MBL 22.0 "FREMNT " 115.00 "3 " "D" */ 25.24 MW 5.75 MVar
MBL 22.0 "JARVIS " 115.00 "1 " "D" */ 16.23 MW 3.70 MVar
MBL 22.0 "JARVIS " 115.00 "2 " "D" */ 24.39 MW 5.56 MVar
MBL 22.0 "JARVIS " 115.00 "3 " "D" */ 31.32 MW 7.14 MVar
MBL 22.0 "JV BART " 115.00 "1 " "D" */ 7.10 MW 1.44 MVar

```

MBL	22.0	"CRYOGEN "	115.00	"1 "	"D"	*/	0.17 MW	0.04 MVA	
MBL	22.0	"WHISMAN "	115.00	"1 "	"D"	*/	19.38 MW	4.42 MVA	
MBL	22.0	"WHISMAN "	115.00	"2 "	"D"	*/	20.85 MW	4.75 MVA	
MBL	22.0	"WHISMAN "	115.00	"3 "	"D"	*/	17.65 MW	4.02 MVA	
MBL	22.0	"MT VIEW "	115.00	"1 "	"D"	*/	26.30 MW	6.00 MVA	
MBL	22.0	"MT VIEW "	115.00	"2 "	"D"	*/	27.95 MW	6.37 MVA	
MBL	22.0	"MT VIEW "	115.00	"3 "	"D"	*/	25.27 MW	5.76 MVA	
MBL	22.0	"STELLING"	115.00	"1 "	"D"	*/	26.98 MW	6.15 MVA	
MBL	22.0	"STELLING"	115.00	"2 "	"D"	*/	27.53 MW	6.27 MVA	
MBL	22.0	"STELLING"	115.00	"3 "	"D"	*/	28.16 MW	6.42 MVA	
MBL	22.0	"WOLFE "	115.00	"1 "	"D"	*/	21.97 MW	5.01 MVA	
MBL	22.0	"WOLFE "	115.00	"2 "	"D"	*/	27.70 MW	6.31 MVA	
MBL	22.0	"WOLFE "	115.00	"3 "	"D"	*/	14.27 MW	3.25 MVA	
MBL	22.0	"MOFT.FLD"	115.00	"1 "	"D"	*/	4.46 MW	1.12 MVA	
MBL	22.0	"LOCKHD 1"	115.00	"1 "	"D"	*/	18.14 MW	15.03 MVA	
MBL	22.0	"LAWRENCE"	115.00	"1 "	"D"	*/	43.73 MW	9.97 MVA	
MBL	22.0	"LAWRENCE"	115.00	"2 "	"D"	*/	17.31 MW	3.94 MVA	
MBL	22.0	"LAWRENCE"	115.00	"3 "	"D"	*/	30.52 MW	6.96 MVA	
MBL	22.0	"PHILLIPS"	115.00	"1 "	"D"	*/	1.74 MW	0.00 MVA	
MBL	22.0	"LOCKHD 2"	115.00	"1 "	"D"	*/	16.06 MW	12.46 MVA	
MBL	22.0	"LOCKHD 2"	115.00	"2 "	"D"	*/	8.08 MW	1.84 MVA	
MBL	22.0	"A.M.D "	115.00	"1 "	"D"	*/	7.85 MW	5.48 MVA	
MBL	22.0	"BRITTN "	115.00	"1 "	"D"	*/	24.09 MW	5.49 MVA	
MBL	22.0	"BRITTN "	115.00	"2 "	"D"	*/	41.32 MW	9.42 MVA	
MBL	22.0	"BRITTN "	115.00	"3 "	"D"	*/	20.35 MW	4.64 MVA	
MBL	22.0	"APP MAT "	115.00	"1 "	"D"	*/	12.24 MW	3.07 MVA	
* Gen Group 2 *									
MBL	22.0	"ELKHIL1G"	18.00	"ss"	"D"	*/	6.70 MW	1.68 MVA	
TG	22.0	"ELKHIL1G"	18.00	"1 "		*/gen drop is		185.00 MW	61.32 MVA
MBL	22.0	"ELKHIL2G"	18.00	"ss"	"D"	*/	6.70 MW	1.68 MVA	
TG	22.0	"ELKHIL2G"	18.00	"1 "		*/gen drop is		185.00 MW	61.32 MVA
TG	22.0	"ELKHIL3G"	18.00	"1 "		*/gen drop is		225.50 MW	65.14 MVA
* Load Group 2 *									
MBL	22.0	"MARTIN C"	115.00	"4 "	"D"	*/	31.16 MW	1.97 MVA	
MBL	22.0	"MARTIN C"	115.00	"1 "	"D"	*/	31.16 MW	1.97 MVA	
MBL	22.0	"CLAYTN "	115.00	"1 "	"D"	*/	24.22 MW	5.52 MVA	
MBL	22.0	"CLAYTN "	115.00	"2 "	"D"	*/	38.65 MW	8.81 MVA	
MBL	22.0	"CLAYTN "	115.00	"3 "	"D"	*/	41.05 MW	9.36 MVA	
MBL	22.0	"CLAYTN "	115.00	"5 "	"D"	*/	8.55 MW	1.95 MVA	
MBL	22.0	"MEDW LNE"	115.00	"1 "	"D"	*/	35.45 MW	8.08 MVA	
MBL	22.0	"MEDW LNE"	115.00	"2 "	"D"	*/	42.22 MW	9.62 MVA	
MBL	22.0	"MEDW LNE"	115.00	"3 "	"D"	*/	39.54 MW	9.01 MVA	
MBL	22.0	"EBMUDGRY"	115.00	"1 "	"D"	*/	5.64 MW	1.85 MVA	
MBL	22.0	"LAKEWD-C"	115.00	"5 "	"D"	*/	17.55 MW	4.00 MVA	
MBL	22.0	"LAKEWD-C"	115.00	"6 "	"D"	*/	39.82 MW	9.08 MVA	
MBL	22.0	"LAKEWD-M"	115.00	"1 "	"D"	*/	34.30 MW	7.82 MVA	
MBL	22.0	"LAKEWD-M"	115.00	"2 "	"D"	*/	23.18 MW	5.28 MVA	
MBL	22.0	"LAKEWD-M"	115.00	"4 "	"D"	*/	43.34 MW	9.88 MVA	
MBL	22.0	"LAKEWD-M"	115.00	"LW"	"D"	*/	5.66 MW	1.15 MVA	
MBL	22.0	"DALY CTY"	115.00	"1 "	"D"	*/	32.76 MW	7.47 MVA	
MBL	22.0	"DALY CTY"	115.00	"2 "	"D"	*/	19.77 MW	4.50 MVA	
MBL	22.0	"SERRMNTTE"	115.00	"1 "	"D"	*/	7.44 MW	1.69 MVA	
* Gen Group 3 *									
TG	22.0	"LAPLM_G1"	21.00	"1 "		*/gen drop is		230.00 MW	101.64 MVA
TG	22.0	"LAPLM_G2"	21.00	"1 "		*/gen drop is		230.00 MW	101.64 MVA
* Load Group 3 *									
MBL	22.0	"ELDORAD "	115.00	"1 "	"D"	*/	9.95 MW	0.45 MVA	
MBL	22.0	"APPLE HL"	115.00	"1 "	"D"	*/	15.59 MW	0.70 MVA	
MBL	22.0	"APPLE HL"	115.00	"2 "	"D"	*/	9.85 MW	0.44 MVA	
MBL	22.0	"PLCRVLB2"	115.00	"2 "	"D"	*/	9.60 MW	0.43 MVA	
MBL	22.0	"PLCRVLB3"	115.00	"3 "	"D"	*/	27.61 MW	1.24 MVA	
MBL	22.0	"DMND SPR"	115.00	"1 "	"D"	*/	10.49 MW	0.47 MVA	
MBL	22.0	"DMND SPR"	115.00	"2 "	"D"	*/	29.87 MW	1.33 MVA	
MBL	22.0	"SHPRING "	115.00	"1 "	"D"	*/	20.82 MW	0.93 MVA	
MBL	22.0	"SHPRING "	115.00	"2 "	"D"	*/	22.87 MW	1.02 MVA	
#MBL	22.0	"CPM "	115.00	"1 "	"D"	*/	0.00 MW	0.00 MVA	Load Status Off
MBL	22.0	"SPICAMIN"	115.00	"1 "	"D"	*/	4.19 MW	3.70 MVA	
TG	22.0	"CHILIBAR"	4.16	"1 "		*/gen drop is		5.50 MW	4.00 MVA
MBL	22.0	"ELDRADO1"	21.60	"SG"	"D"	*/	0.04 MW	0.01 MVA	

TG	22.0	"ELDRADO1"	21.60	"1 "		*/gen drop is	10.00 MW	-0.51 MVar	
MBL	22.0	"ELDRADO2"	21.60	"SG"	"D"	*/	0.04 MW	0.01 MVar	
TG	22.0	"ELDRADO2"	21.60	"1 "		*/gen drop is	10.00 MW	-0.51 MVar	
MBL	22.0	"CLRKSULE"	115.00	"1 "	"D"	*/	47.44 MW	2.13 MVar	
MBL	22.0	"CLRKSULE"	115.00	"2 "	"D"	*/	50.42 MW	2.25 MVar	
MBL	22.0	"CLRKSULE"	115.00	"3 "	"D"	*/	48.18 MW	2.16 MVar	
MBL	22.0	"BAY MDWS"	115.00	"1 "	"D"	*/	27.94 MW	6.37 MVar	
MBL	22.0	"BAY MDWS"	115.00	"2 "	"D"	*/	22.32 MW	5.09 MVar	
MBL	22.0	"BAY MDWS"	115.00	"3 "	"D"	*/	13.20 MW	3.01 MVar	
MBL	22.0	"BAY MDWS"	115.00	"5 "	"D"	*/	12.14 MW	2.77 MVar	
* Gen Group 4 *									
TG	22.0	"TEXSUN1G"	18.00	"1 "		*/gen drop is	169.00 MW	13.12 MVar	
TG	22.0	"TEXSUN2G"	18.00	"1 "		*/gen drop is	169.00 MW	13.12 MVar	
TG	22.0	"TEXSUNST"	18.00	"1 "		*/gen drop is	222.00 MW	60.83 MVar	
* Load Group 4 *									
MBL	22.0	"GUALALA "	60.00	"1 "	"D"	*/	2.86 MW	0.58 MVar	
MBL	22.0	"GUALALA "	60.00	"2 "	"D"	*/	1.39 MW	0.28 MVar	
MBL	22.0	"ANNAPOLS"	60.00	"1 "	"D"	*/	0.24 MW	0.05 MVar	
MBL	22.0	"FORT RSS"	60.00	"1 "	"D"	*/	0.81 MW	0.17 MVar	
MBL	22.0	"SLMN CRK"	60.00	"1 "	"D"	*/	3.15 MW	0.64 MVar	
MBL	22.0	"MONTE RO"	60.00	"1 "	"D"	*/	3.72 MW	0.76 MVar	
MBL	22.0	"MONTE RO"	60.00	"2 "	"D"	*/	4.77 MW	0.97 MVar	
MBL	22.0	"WOHLER "	60.00	"1 "	"D"	*/	4.54 MW	1.93 MVar	
MBL	22.0	"MIRABEL "	60.00	"1 "	"D"	*/	9.76 MW	1.98 MVar	
MBL	22.0	"MOLINO "	60.00	"1 "	"D"	*/	7.01 MW	1.42 MVar	
MBL	22.0	"MOLINO "	60.00	"2 "	"D"	*/	18.02 MW	3.66 MVar	
MBL	22.0	"LAGUNA "	60.00	"1 "	"D"	*/	5.94 MW	1.49 MVar	
MBL	22.0	"COTATI "	60.00	"1 "	"D"	*/	6.58 MW	1.34 MVar	
MBL	22.0	"COTATI "	60.00	"2 "	"D"	*/	6.00 MW	1.22 MVar	
TG	22.0	"SONMA LF"	9.11	"1 "		*/gen drop is	4.00 MW	0.00 MVar	
MBL	22.0	"HIGHWAY "	115.00	"1 "	"D"	*/	17.39 MW	3.53 MVar	
MBL	22.0	"HIGHWAY "	115.00	"2 "	"D"	*/	21.35 MW	4.33 MVar	
MBL	22.0	"LS GLLNS"	115.00	"1 "	"D"	*/	12.37 MW	2.51 MVar	
MBL	22.0	"LS GLLNS"	115.00	"2 "	"D"	*/	8.35 MW	1.70 MVar	
MBL	22.0	"LS GLLNS"	115.00	"3 "	"D"	*/	9.33 MW	1.89 MVar	
MBL	22.0	"SAN RAFL"	115.00	"1 "	"D"	*/	22.68 MW	4.61 MVar	
MBL	22.0	"SAN RAFL"	115.00	"2 "	"D"	*/	21.62 MW	4.39 MVar	
MBL	22.0	"SAN RAFL"	115.00	"3 "	"D"	*/	15.02 MW	3.05 MVar	
MBL	22.0	"MEYERS "	115.00	"1 "	"D"	*/	0.24 MW	0.05 MVar	
MBL	22.0	"CARQUINZ"	115.00	"1 "	"D"	*/	11.14 MW	2.26 MVar	
MBL	22.0	"CARQUINZ"	115.00	"2 "	"D"	*/	9.48 MW	1.92 MVar	
MBL	22.0	"MRE IS-Q"	115.00	"1 "	"D"	*/	4.25 MW	0.86 MVar	
* Gen Group 5 *									
TG	22.0	"LAPLM_G3"	21.00	"1 "		*/gen drop is	229.00 MW	101.52 MVar	
TG	22.0	"LAPLM_G4"	21.00	"1 "		*/gen drop is	230.00 MW	101.64 MVar	
* Load Group 5 *									
MBL	22.0	"STAGG "	60.00	"2 "	"D"	*/	18.49 MW	0.82 MVar	
MBL	22.0	"STAGG "	60.00	"3 "	"D"	*/	18.49 MW	0.82 MVar	
MBL	22.0	"CNTRY CB"	60.00	"1 "	"D"	*/	5.82 MW	0.26 MVar	
MBL	22.0	"CNTRY CB"	60.00	"2 "	"D"	*/	9.54 MW	0.42 MVar	
MBL	22.0	"CNTRY CB"	60.00	"3 "	"D"	*/	10.58 MW	0.48 MVar	
MBL	22.0	"CNTRY CB"	60.00	"4 "	"D"	*/	16.21 MW	0.72 MVar	
MBL	22.0	"UOP "	60.00	"1 "	"D"	*/	5.99 MW	4.18 MVar	
MBL	22.0	"HAMMER "	60.00	"1 "	"D"	*/	18.60 MW	0.83 MVar	
MBL	22.0	"HAMMER "	60.00	"2 "	"D"	*/	17.83 MW	0.80 MVar	
MBL	22.0	"HAMMER "	60.00	"3 "	"D"	*/	19.45 MW	0.87 MVar	
MBL	22.0	"METTLER "	60.00	"3 "	"D"	*/	8.13 MW	0.37 MVar	
MBL	22.0	"TERMNOUS"	60.00	"1 "	"D"	*/	4.69 MW	0.21 MVar	
MBL	22.0	"SEBASTIA"	60.00	"1 "	"D"	*/	2.82 MW	2.11 MVar	
MBL	22.0	"NEW HOPE"	60.00	"1 "	"D"	*/	2.65 MW	0.12 MVar	
MBL	22.0	"MSHR 60V"	60.00	"1 "	"D"	*/	19.65 MW	0.88 MVar	
MBL	22.0	"MSHR 60V"	60.00	"2 "	"D"	*/	32.80 MW	1.47 MVar	
MBL	22.0	"STAGG_5 "	21.00	"5 "	"D"	*/	58.29 MW	2.61 MVar	
MBL	22.0	"STAGG_6 "	21.00	"6 "	"D"	*/	51.06 MW	2.28 MVar	
MBL	22.0	"CMP EVRS"	115.00	"1 "	"D"	*/	19.11 MW	3.88 MVar	
MBL	22.0	"CMP EVRS"	115.00	"2 "	"D"	*/	18.61 MW	3.78 MVar	
MBL	22.0	"PAUL SWT"	115.00	"1 "	"D"	*/	26.41 MW	5.36 MVar	
MBL	22.0	"PAUL SWT"	115.00	"2 "	"D"	*/	20.10 MW	4.08 MVar	
MBL	22.0	"PAUL SWT"	115.00	"3 "	"D"	*/	27.66 MW	5.62 MVar	
MBL	22.0	"ROB ROY "	115.00	"1 "	"D"	*/	11.56 MW	2.35 MVar	

TG	22.0	"PSWTSTCM"	8.00	"1 "		*/gen drop is	0.00 MW	41.03 MVar
MBL	22.0	"CSTRVLLE"	115.00	"1 "	"D"	*/	16.97 MW	3.45 MVar
MBL	22.0	"DEL MNTE"	115.00	"1 "	"D"	*/	15.17 MW	3.08 MVar
MBL	22.0	"DEL MNTE"	115.00	"2 "	"D"	*/	23.32 MW	4.74 MVar
MBL	22.0	"FORT ORD"	60.00	"1 "	"D"	*/	25.76 MW	5.23 MVar
MBL	22.0	"MANZANTA"	60.00	"1 "	"D"	*/	0.99 MW	0.20 MVar
MBL	22.0	"MONTEREY"	60.00	"1 "	"D"	*/	3.65 MW	0.74 MVar
MBL	22.0	"NVY SCHL"	60.00	"1 "	"D"	*/	2.13 MW	1.09 MVar
MBL	22.0	"VIEJO "	60.00	"1 "	"D"	*/	11.58 MW	2.35 MVar
MBL	22.0	"VIEJO "	60.00	"2 "	"D"	*/	13.74 MW	2.79 MVar
MBL	22.0	"HATTON "	60.00	"1 "	"D"	*/	10.06 MW	2.04 MVar
MBL	22.0	"NAVY LAB"	60.00	"1 "	"D"	*/	1.64 MW	0.70 MVar
MBL	22.0	"BORONDA "	60.00	"1 "	"D"	*/	7.01 MW	1.42 MVar
MBL	22.0	"RSVTN RD"	60.00	"1 "	"D"	*/	8.85 MW	1.80 MVar
MBL	22.0	"LAURELES"	60.00	"1 "	"D"	*/	4.94 MW	1.00 MVar
MBL	22.0	"OTTER "	60.00	"1 "	"D"	*/	2.90 MW	0.59 MVar
*								
MSD	180.0	"GATES"	230.0	"v "	"D"			
MSD	180.0	"LOSBANOS"	230.0	"v "	"D"			

## Los Banos - Midway and Los Banos – Gates 500-kV Double Line Outage (South-to-North Flow)

```

*
*   CC cards for post-transient only
*
*   Readjust Northwest SVC's
*
CC MSV 0.0 "KEEL-SVC" 19.60 "1 " 350. -300.
CC MSV 0.0 "MV-SVC " 19.60 "1 " 350. -300.
*
*
*   Fault at Los Banos 500 kV bus
*
FB 0.0 "LOSBANOS" 500.0
*
*   CLEAR FAULT AND OPEN LINES - 4 CYCLES
*
CFB 4.0 "LOSBANOS" 500.0
DL 4.0 "LOSBANOS" 500. "MIDWAY " 500. "1 "
DL 4.0 "LOSBANOS" 500. "GATES " 500. "1 "
*
*
* CDWR Pumps *
TG 13.0 "SANLUIS1" 13.80 "1" */
TG 13.0 "SANLUIS1" 13.80 "2" */
TG 13.0 "SANLUIS2" 13.80 "1" */
TG 13.0 "SANLUIS2" 13.80 "2" */
TG 13.0 "SANLUIS3" 13.80 "1" */
TG 13.0 "SANLUIS3" 13.80 "2" */
TG 13.0 "SANLUIS4" 13.80 "1" */
TG 13.0 "SANLUIS4" 13.80 "2" */
*
*   REMOVE OLINDA and TRACY Capacitors
*
MSD 13.0 "OLINDA " 500.0 "v" "D"
MSD 13.0 "TRACY " 500.0 "v" "D"
*
MLS 13.0 "OLINDA " 500.0 "MAXWELL " 500.0 "1 " 1 "f" "R"
MLS 13.0 "CAPTJACK" 500.0 "OLINDA " 500.0 "1 " 3 "t" "R"
MLS 13.0 "MAXWELL " 500.0 "TRACY " 500.0 "1 " 3 "t" "R"
*
TG 14.0 "HELMS 1 " 18.00 "1" */gen drop is -310.00 MW 65.88 MVar
TG 14.0 "HELMS 2 " 18.00 "1" */gen drop is -310.00 MW 155.01 MVar
TG 14.0 "HELMS 3 " 18.00 "1" */gen drop is 310.25 MW 83.10 MVar:
Units Are Off-Line
*
* CDWR Pumps *
TG 22.0 "DOS AMG1" 13.20 "1 " */gen drop is -30.00 MW 0.00 MVar
TG 22.0 "DOS AMG1" 13.20 "2 " */gen drop is -30.00 MW 0.00 MVar
TG 22.0 "DOS AMG1" 13.20 "3 " */gen drop is -30.00 MW 0.00 MVar
TG 22.0 "DELTA E " 13.20 "11" */gen drop is -1.00 MW 0.00 MVar
* Gen Group 1 *
MBL 22.0 "SUNST " 230.00 "SG" "D" */ 9.59 MW 3.48 MVar
TG 22.0 "SUNSET G" 13.80 "1 " */gen drop is 75.00 MW -20.00 MVar
TG 22.0 "SUNSET G" 13.80 "2 " */gen drop is 75.00 MW -20.00 MVar
TG 22.0 "SUNSET G" 13.80 "3 " */gen drop is 75.00 MW -20.00 MVar
MBL 22.0 "KERNFRNT" 9.11 "SG" "D" */ 0.57 MW 0.28 MVar
TG 22.0 "KERNFRNT" 9.11 "1 " */gen drop is 47.70 MW -12.00 MVar
TG 22.0 "DOUBLE C" 13.80 "1 " */gen drop is 42.50 MW 9.69 MVar
TG 22.0 "HISIERRA" 13.80 "1 " */gen drop is 47.90 MW 10.61 MVar
TG 22.0 "BADGERCK" 13.80 "1 " */gen drop is 46.30 MW 10.32 MVar
TG 22.0 "TEXCO_NM" 9.11 "1 " */gen drop is 5.40 MW -3.60 MVar
TG 22.0 "TEXCO_NM" 9.11 "2 " */gen drop is 2.70 MW -3.00 MVar
MBL 22.0 "CHV-CYMR" 9.11 "SG" "D" */ 0.33 MW 0.08 MVar
TG 22.0 "CHV-CYMR" 9.11 "1 " */gen drop is 13.50 MW -0.39 MVar
TG 22.0 "MIDSUN +" 13.80 "1 " */gen drop is 24.50 MW 15.20 MVar
MBL 22.0 "DEXEL + " 13.80 "SG" "D" */ 0.26 MW 0.06 MVar

```

TG	22.0	"DEXEL + "	13.80	"1 "		*/gen drop is	28.60 MW	9.99 MVar
* Load Group 1 *								
MBL	22.0	"EL CRRTO"	115.00	"1 "	"D"	*/	13.64 MW	3.11 MVar
MBL	22.0	"EL CRRTO"	115.00	"2 "	"D"	*/	16.97 MW	3.87 MVar
MBL	22.0	"EL CRRTO"	115.00	"4 "	"D"	*/	29.73 MW	6.77 MVar
MBL	22.0	"WHISMAN "	115.00	"3 "	"D"	*/	9.00 MW	2.05 MVar
MBL	22.0	"WHISMAN "	115.00	"2 "	"D"	*/	10.63 MW	2.42 MVar
MBL	22.0	"WHISMAN "	115.00	"1 "	"D"	*/	9.88 MW	2.25 MVar
MBL	22.0	"MT VIEW "	115.00	"3 "	"D"	*/	12.88 MW	2.93 MVar
MBL	22.0	"MT VIEW "	115.00	"2 "	"D"	*/	14.25 MW	3.25 MVar
MBL	22.0	"MT VIEW "	115.00	"1 "	"D"	*/	13.40 MW	3.06 MVar
MBL	22.0	"HALE "	115.00	"1 "	"D"	*/	1.68 MW	1.00 MVar
MBL	22.0	"VACAVLL1"	115.00	"1 "	"D"	*/	10.33 MW	0.46 MVar
MBL	22.0	"JAMESON "	115.00	"1 "	"D"	*/	13.19 MW	0.59 MVar
MBL	22.0	"CORDELIA"	115.00	"2 "	"D"	*/	5.97 MW	0.27 MVar
MBL	22.0	"VACAVLL2"	115.00	"3 "	"D"	*/	14.87 MW	0.67 MVar
MBL	22.0	"VACAVLL2"	115.00	"2 "	"D"	*/	15.14 MW	0.68 MVar
MBL	22.0	"SCHMLBCH"	115.00	"1 "	"D"	*/	7.10 MW	4.77 MVar
MBL	22.0	"SUISUN "	115.00	"3 "	"D"	*/	8.89 MW	0.40 MVar
MBL	22.0	"SUISUN "	115.00	"2 "	"D"	*/	10.91 MW	0.49 MVar
MBL	22.0	"SUISUN "	115.00	"1 "	"D"	*/	10.04 MW	0.45 MVar
TG	22.0	"CTY FAIR"	9.11	"1 "		*/gen drop is	0.80 MW	0.10 MVar
TG	22.0	"CTY FAIR"	9.11	"2 "		*/gen drop is	1.50 MW	0.10 MVar
MBL	22.0	"WOLFSKIL"	13.80	"ss"	"D"	*/	1.30 MW	0.81 MVar
*TG	22.0	"WOLFSKIL"	13.80	"1 "		*/gen drop is	50.00 MW	-6.30 MVar:
Unit Is Off-Line								
MBL	22.0	"FREMNT "	115.00	"3 "	"D"	*/	10.74 MW	2.45 MVar
MBL	22.0	"FREMNT "	115.00	"2 "	"D"	*/	7.56 MW	1.72 MVar
MBL	22.0	"FREMNT "	115.00	"1 "	"D"	*/	12.38 MW	2.82 MVar
MBL	22.0	"JARVIS "	115.00	"3 "	"D"	*/	13.33 MW	3.04 MVar
MBL	22.0	"JARVIS "	115.00	"2 "	"D"	*/	10.38 MW	2.36 MVar
MBL	22.0	"JARVIS "	115.00	"1 "	"D"	*/	6.91 MW	1.57 MVar
MBL	22.0	"JV BART "	115.00	"1 "	"D"	*/	5.11 MW	1.04 MVar
MBL	22.0	"CRYOGEN "	115.00	"1 "	"D"	*/	0.12 MW	0.03 MVar
MBL	22.0	"STELLING"	115.00	"3 "	"D"	*/	14.35 MW	3.27 MVar
MBL	22.0	"STELLING"	115.00	"2 "	"D"	*/	14.03 MW	3.20 MVar
MBL	22.0	"STELLING"	115.00	"1 "	"D"	*/	13.75 MW	3.13 MVar
MBL	22.0	"WOLFE "	115.00	"3 "	"D"	*/	7.27 MW	1.66 MVar
MBL	22.0	"WOLFE "	115.00	"2 "	"D"	*/	14.12 MW	3.22 MVar
MBL	22.0	"WOLFE "	115.00	"1 "	"D"	*/	11.20 MW	2.55 MVar
MBL	22.0	"MOFT.FLD"	115.00	"1 "	"D"	*/	3.48 MW	0.87 MVar
MBL	22.0	"LOCKHD 1"	115.00	"1 "	"D"	*/	14.14 MW	11.71 MVar
MBL	22.0	"LAWRENCE"	115.00	"3 "	"D"	*/	15.56 MW	3.55 MVar
MBL	22.0	"LAWRENCE"	115.00	"2 "	"D"	*/	8.82 MW	2.01 MVar
MBL	22.0	"LAWRENCE"	115.00	"1 "	"D"	*/	22.29 MW	5.08 MVar
MBL	22.0	"PHILLIPS"	115.00	"1 "	"D"	*/	1.36 MW	0.00 MVar
MBL	22.0	"LOCKHD 2"	115.00	"2 "	"D"	*/	6.18 MW	1.41 MVar
MBL	22.0	"LOCKHD 2"	115.00	"1 "	"D"	*/	12.51 MW	9.71 MVar
MBL	22.0	"A.M.D "	115.00	"1 "	"D"	*/	6.12 MW	4.27 MVar
MBL	22.0	"BRITTN "	115.00	"3 "	"D"	*/	10.37 MW	2.36 MVar
MBL	22.0	"BRITTN "	115.00	"2 "	"D"	*/	21.06 MW	4.80 MVar
MBL	22.0	"BRITTN "	115.00	"1 "	"D"	*/	12.28 MW	2.80 MVar
MBL	22.0	"APP MAT "	115.00	"1 "	"D"	*/	9.54 MW	2.39 MVar
* Gen Group 2 *								
MBL	22.0	"ELKHIL1G"	18.00	"ss"	"D"	*/	6.70 MW	1.68 MVar
TG	22.0	"ELKHIL1G"	18.00	"1 "		*/gen drop is	166.80 MW	59.64 MVar
MBL	22.0	"ELKHIL2G"	18.00	"ss"	"D"	*/	6.70 MW	1.68 MVar
TG	22.0	"ELKHIL2G"	18.00	"1 "		*/gen drop is	166.80 MW	59.64 MVar
TG	22.0	"ELKHIL3G"	18.00	"1 "		*/gen drop is	225.50 MW	65.23 MVar
* Load Group 2 *								
MBL	22.0	"MARTIN C"	115.00	"4 "	"D"	*/	17.44 MW	1.11 MVar
MBL	22.0	"MARTIN C"	115.00	"1 "	"D"	*/	17.44 MW	1.11 MVar
MBL	22.0	"CLAYTN "	115.00	"5 "	"D"	*/	3.27 MW	0.74 MVar
MBL	22.0	"CLAYTN "	115.00	"3 "	"D"	*/	15.68 MW	3.57 MVar
MBL	22.0	"CLAYTN "	115.00	"2 "	"D"	*/	14.76 MW	3.36 MVar
MBL	22.0	"CLAYTN "	115.00	"1 "	"D"	*/	9.25 MW	2.11 MVar
MBL	22.0	"MEDW LNE"	115.00	"3 "	"D"	*/	15.10 MW	3.44 MVar
MBL	22.0	"MEDW LNE"	115.00	"2 "	"D"	*/	16.12 MW	3.67 MVar
MBL	22.0	"MEDW LNE"	115.00	"1 "	"D"	*/	13.54 MW	3.08 MVar
MBL	22.0	"EBMUDGRY"	115.00	"1 "	"D"	*/	4.13 MW	1.36 MVar

MBL	22.0	"LAKPWD-C"	115.00	"6 "	"D"	*/	15.21 MW	3.47 MVA	
MBL	22.0	"LAKPWD-C"	115.00	"5 "	"D"	*/	6.70 MW	1.53 MVA	
MBL	22.0	"LAKPWD-M"	115.00	"LW"	"D"	*/	4.15 MW	0.84 MVA	
MBL	22.0	"LAKPWD-M"	115.00	"4 "	"D"	*/	16.55 MW	3.77 MVA	
MBL	22.0	"LAKPWD-M"	115.00	"2 "	"D"	*/	8.85 MW	2.02 MVA	
MBL	22.0	"LAKPWD-M"	115.00	"1 "	"D"	*/	13.10 MW	2.99 MVA	
MBL	22.0	"DALY CTY"	115.00	"2 "	"D"	*/	11.94 MW	2.72 MVA	
MBL	22.0	"DALY CTY"	115.00	"1 "	"D"	*/	19.78 MW	4.51 MVA	
MBL	22.0	"SERRMNT"	115.00	"1 "	"D"	*/	4.49 MW	1.02 MVA	
* Gen Group 3 *									
TG	22.0	"LAPLM_G1"	21.00	"1 "		*/gen drop is	230.00 MW	101.84 MVA	
TG	22.0	"LAPLM_G2"	21.00	"1 "		*/gen drop is	230.00 MW	101.84 MVA	
* Load Group 3 *									
MBL	22.0	"ELDORAD "	115.00	"1 "	"D"	*/	3.29 MW	0.15 MVA	
MBL	22.0	"APPLE HL"	115.00	"2 "	"D"	*/	3.26 MW	0.14 MVA	
MBL	22.0	"APPLE HL"	115.00	"1 "	"D"	*/	5.15 MW	0.23 MVA	
MBL	22.0	"PLCRVLB2"	115.00	"2 "	"D"	*/	3.17 MW	0.14 MVA	
MBL	22.0	"PLCRVLB3"	115.00	"3 "	"D"	*/	9.12 MW	0.41 MVA	
MBL	22.0	"DMND SPR"	115.00	"2 "	"D"	*/	9.87 MW	0.44 MVA	
MBL	22.0	"DMND SPR"	115.00	"1 "	"D"	*/	3.47 MW	0.16 MVA	
MBL	22.0	"SHPRING "	115.00	"2 "	"D"	*/	7.56 MW	0.34 MVA	
MBL	22.0	"SHPRING "	115.00	"1 "	"D"	*/	6.88 MW	0.31 MVA	
*MBL	22.0	"CPM "	115.00	"1 "	"D"	*/	0.00 MW	0.00 MVA	Load Status
Off									
MBL	22.0	"SPICAMIN"	115.00	"1 "	"D"	*/	2.87 MW	2.53 MVA	
TG	22.0	"CHILIBAR"	4.16	"1 "		*/gen drop is	2.00 MW	-2.00 MVA	
MBL	22.0	"ELDRADO1"	21.60	"SG"	"D"	*/	0.03 MW	0.01 MVA	
TG	22.0	"ELDRADO1"	21.60	"1 "		*/gen drop is	9.96 MW	-3.30 MVA	
MBL	22.0	"ELDRADO2"	21.60	"SG"	"D"	*/	0.03 MW	0.01 MVA	
TG	22.0	"ELDRADO2"	21.60	"1 "		*/gen drop is	9.96 MW	-3.30 MVA	
MBL	22.0	"CLRKSULE"	115.00	"3 "	"D"	*/	15.92 MW	0.71 MVA	
MBL	22.0	"CLRKSULE"	115.00	"2 "	"D"	*/	16.66 MW	0.75 MVA	
MBL	22.0	"CLRKSULE"	115.00	"1 "	"D"	*/	15.68 MW	0.70 MVA	
MBL	22.0	"BAY MDWS"	115.00	"5 "	"D"	*/	7.33 MW	1.67 MVA	
MBL	22.0	"BAY MDWS"	115.00	"3 "	"D"	*/	7.97 MW	1.82 MVA	
MBL	22.0	"BAY MDWS"	115.00	"2 "	"D"	*/	13.47 MW	3.07 MVA	
MBL	22.0	"BAY MDWS"	115.00	"1 "	"D"	*/	16.87 MW	3.85 MVA	
* Gen Group 4 *									
TG	22.0	"TEXSUN2G"	18.00	"1 "		*/gen drop is	169.00 MW	13.22 MVA	
TG	22.0	"TEXSUN1G"	18.00	"1 "		*/gen drop is	169.00 MW	13.22 MVA	
TG	22.0	"TEXSUNST"	18.00	"1 "		*/gen drop is	222.00 MW	60.97 MVA	
* Load Group 4 *									
MBL	22.0	"HIGHWAY "	115.00	"2 "	"D"	*/	11.09 MW	2.25 MVA	
MBL	22.0	"HIGHWAY "	115.00	"1 "	"D"	*/	9.03 MW	1.84 MVA	
MBL	22.0	"MEYERS "	115.00	"1 "	"D"	*/	0.18 MW	0.04 MVA	
MBL	22.0	"CARQUINZ"	115.00	"2 "	"D"	*/	4.92 MW	1.00 MVA	
MBL	22.0	"CARQUINZ"	115.00	"1 "	"D"	*/	5.78 MW	1.17 MVA	
MBL	22.0	"MRE IS-Q"	115.00	"1 "	"D"	*/	4.25 MW	0.86 MVA	
MBL	22.0	"GUALALA "	60.00	"2 "	"D"	*/	0.59 MW	0.12 MVA	
MBL	22.0	"GUALALA "	60.00	"1 "	"D"	*/	1.21 MW	0.25 MVA	
MBL	22.0	"ANNAPOLS"	60.00	"1 "	"D"	*/	0.10 MW	0.02 MVA	
MBL	22.0	"FORT RSS"	60.00	"1 "	"D"	*/	0.34 MW	0.07 MVA	
MBL	22.0	"SLMN CRK"	60.00	"1 "	"D"	*/	1.33 MW	0.27 MVA	
MBL	22.0	"MONTE RO"	60.00	"2 "	"D"	*/	2.02 MW	0.41 MVA	
MBL	22.0	"MONTE RO"	60.00	"1 "	"D"	*/	1.58 MW	0.32 MVA	
MBL	22.0	"WOHLER "	60.00	"1 "	"D"	*/	3.21 MW	1.37 MVA	
MBL	22.0	"MIRABEL "	60.00	"1 "	"D"	*/	4.13 MW	0.84 MVA	
MBL	22.0	"MOLINO "	60.00	"2 "	"D"	*/	7.63 MW	1.55 MVA	
MBL	22.0	"MOLINO "	60.00	"1 "	"D"	*/	2.97 MW	0.60 MVA	
MBL	22.0	"LAGUNA "	60.00	"1 "	"D"	*/	4.20 MW	1.05 MVA	
MBL	22.0	"COTATI "	60.00	"2 "	"D"	*/	2.54 MW	0.51 MVA	
MBL	22.0	"COTATI "	60.00	"1 "	"D"	*/	2.79 MW	0.57 MVA	
TG	22.0	"SONMA LF"	9.11	"1 "		*/gen drop is	4.00 MW	0.00 MVA	
MBL	22.0	"LS GLLNS"	115.00	"3 "	"D"	*/	4.84 MW	0.98 MVA	
MBL	22.0	"LS GLLNS"	115.00	"2 "	"D"	*/	4.33 MW	0.88 MVA	
MBL	22.0	"LS GLLNS"	115.00	"1 "	"D"	*/	6.42 MW	1.30 MVA	
MBL	22.0	"SAN RAFL"	115.00	"3 "	"D"	*/	7.80 MW	1.59 MVA	
MBL	22.0	"SAN RAFL"	115.00	"2 "	"D"	*/	11.23 MW	2.28 MVA	
MBL	22.0	"SAN RAFL"	115.00	"1 "	"D"	*/	11.78 MW	2.39 MVA	
* Gen Group 5 *									

TG	22.0	"LAPLM_G3"	21.00	"1 "		*/gen	drop is	229.00 MW	101.72 MVar
TG	22.0	"LAPLM_G4"	21.00	"1 "		*/gen	drop is	230.00 MW	101.84 MVar
* Load Group 5 *									
MBL	22.0	"NEW HOPE"	60.00	"1 "	"D"	*/	1.21 MW	0.05 MVar	
MBL	22.0	"SEBASTIA"	60.00	"1 "	"D"	*/	2.12 MW	1.59 MVar	
MBL	22.0	"STAGG "	60.00	"3 "	"D"	*/	8.43 MW	0.38 MVar	
MBL	22.0	"STAGG "	60.00	"2 "	"D"	*/	8.43 MW	0.38 MVar	
MBL	22.0	"CNTRY CB"	60.00	"4 "	"D"	*/	7.39 MW	0.33 MVar	
MBL	22.0	"CNTRY CB"	60.00	"3 "	"D"	*/	4.82 MW	0.22 MVar	
MBL	22.0	"CNTRY CB"	60.00	"2 "	"D"	*/	4.34 MW	0.19 MVar	
MBL	22.0	"CNTRY CB"	60.00	"1 "	"D"	*/	2.65 MW	0.12 MVar	
MBL	22.0	"UOP "	60.00	"1 "	"D"	*/	4.51 MW	3.15 MVar	
MBL	22.0	"HAMMER "	60.00	"3 "	"D"	*/	8.86 MW	0.40 MVar	
MBL	22.0	"HAMMER "	60.00	"2 "	"D"	*/	8.13 MW	0.36 MVar	
MBL	22.0	"HAMMER "	60.00	"1 "	"D"	*/	8.47 MW	0.38 MVar	
MBL	22.0	"METTLER "	60.00	"3 "	"D"	*/	3.70 MW	0.17 MVar	
MBL	22.0	"TERMNOUS"	60.00	"1 "	"D"	*/	2.14 MW	0.10 MVar	
MBL	22.0	"MSHR 60V"	60.00	"2 "	"D"	*/	14.95 MW	0.67 MVar	
MBL	22.0	"MSHR 60V"	60.00	"1 "	"D"	*/	8.95 MW	0.40 MVar	
MBL	22.0	"STAGG_5 "	21.00	"5 "	"D"	*/	26.56 MW	1.19 MVar	
MBL	22.0	"STAGG_6 "	21.00	"6 "	"D"	*/	23.27 MW	1.04 MVar	
MBL	22.0	"CMP EVRS"	115.00	"2 "	"D"	*/	11.31 MW	2.30 MVar	
MBL	22.0	"CMP EVRS"	115.00	"1 "	"D"	*/	11.61 MW	2.36 MVar	
MBL	22.0	"PAUL SWT"	115.00	"3 "	"D"	*/	16.81 MW	3.42 MVar	
MBL	22.0	"PAUL SWT"	115.00	"2 "	"D"	*/	12.22 MW	2.48 MVar	
MBL	22.0	"PAUL SWT"	115.00	"1 "	"D"	*/	16.05 MW	3.26 MVar	
MBL	22.0	"ROB ROY "	115.00	"1 "	"D"	*/	7.02 MW	1.43 MVar	
TG	22.0	"PSWTSTCM"	8.00	"1 "		*/gen	drop is	0.00 MW	-18.90 MVar
MBL	22.0	"CSTRVLE"	115.00	"1 "	"D"	*/	10.31 MW	2.10 MVar	
MBL	22.0	"DEL MNTE"	115.00	"2 "	"D"	*/	14.17 MW	2.88 MVar	
MBL	22.0	"DEL MNTE"	115.00	"1 "	"D"	*/	9.22 MW	1.87 MVar	
MBL	22.0	"FORT ORD"	60.00	"1 "	"D"	*/	15.66 MW	3.18 MVar	
MBL	22.0	"MANZANTA"	60.00	"1 "	"D"	*/	0.60 MW	0.12 MVar	
MBL	22.0	"MONTEREY"	60.00	"1 "	"D"	*/	2.22 MW	0.45 MVar	
MBL	22.0	"NVY SCHL"	60.00	"1 "	"D"	*/	1.70 MW	0.87 MVar	
MBL	22.0	"VIEJO "	60.00	"2 "	"D"	*/	8.35 MW	1.70 MVar	
MBL	22.0	"VIEJO "	60.00	"1 "	"D"	*/	7.04 MW	1.43 MVar	
MBL	22.0	"HATTON "	60.00	"1 "	"D"	*/	6.11 MW	1.24 MVar	
MBL	22.0	"NAVY LAB"	60.00	"1 "	"D"	*/	1.30 MW	0.56 MVar	
MBL	22.0	"BORONDA "	60.00	"1 "	"D"	*/	4.26 MW	0.86 MVar	
MBL	22.0	"RSVTN RD"	60.00	"1 "	"D"	*/	5.38 MW	1.09 MVar	
MBL	22.0	"LAURELES"	60.00	"1 "	"D"	*/	3.00 MW	0.61 MVar	
MBL	22.0	"OTTER "	60.00	"1 "	"D"	*/	1.76 MW	0.36 MVar	
* REMOVE GARRISON REACTOR AND INSERT KINPORT CAP									
MBS	180.0	"KINPORT "	345.	"1 "	"R"				
MSD	180.0	"GARRISON"	500.	"s "	"D"				
*									
*									
MSD	180.0	"GATES"	230.0	"v "	"D"				
MSD	180.0	"LOSBANOS"	230.0	"v "	"D"				
*									



## Midway - Gates and Midway - Los Banos Double Line Outage (South-to-North Flow)

```

*
*   CC cards for post-transient only
*
*   Readjust Northwest SVC's
*
CC MSV 0.0 "KEEL-SVC" 19.60 "1 " 350. -300.
CC MSV 0.0 "MV-SVC " 19.60 "1 " 350. -300.
*
*
*   Fault at Midway 500 kV bus
*
FB 0.0 "MIDWAY" 500.0
*
*   CLEAR FAULT AND OPEN LINES - 4 CYCLES
*
CFB 4.0 "MIDWAY" 500.0
DL 4.0 "GATES " 500. "MIDWAY" 500. "1 "
DL 4.0 "LOSBANOS" 500. "MIDWAY" 500. "1 "
*
*
*   CDWR Pumps *
TG 22.0 "DOS AMG1" 13.20 "1 " */gen drop is -30.00 MW 0.00 MVAr
TG 22.0 "DOS AMG1" 13.20 "2 " */gen drop is -30.00 MW 0.00 MVAr
TG 22.0 "DOS AMG1" 13.20 "3 " */gen drop is -30.00 MW 0.00 MVAr
TG 22.0 "DELTA E " 13.20 "11" */gen drop is -1.00 MW 0.00 MVAr
* Helms Pumps *
*TG 22.0 "HELMS 1 "18.00 "1 " */gen drop is -310.00 MW 120.00 MVAr:
TG 22.0 "HELMS 2 " 18.00 "1 " */gen drop is -310.00 MW 120.00 MVAr
TG 22.0 "HELMS 3 " 18.00 "1 " */gen drop is -310.00 MW 120.00 MVAr
* Gen Group 1 *
MBL 22.0 "SUNST " 230.00 "SG" "D" */ 9.59 MW 3.48 MVAr
TG 22.0 "SUNSET G" 13.80 "1 " */gen drop is 75.00 MW -20.00 MVAr
TG 22.0 "SUNSET G" 13.80 "2 " */gen drop is 75.00 MW -20.00 MVAr
TG 22.0 "SUNSET G" 13.80 "3 " */gen drop is 75.00 MW -20.00 MVAr
MBL 22.0 "KERNFRNT" 9.11 "SG" "D" */ 0.57 MW 0.28 MVAr
TG 22.0 "KERNFRNT" 9.11 "1 " */gen drop is 47.70 MW -12.00 MVAr
TG 22.0 "DOUBLE C" 13.80 "1 " */gen drop is 42.50 MW 9.69 MVAr
TG 22.0 "HISIERRA" 13.80 "1 " */gen drop is 47.90 MW 10.61 MVAr
TG 22.0 "BADGERCK" 13.80 "1 " */gen drop is 46.30 MW 10.32 MVAr
TG 22.0 "TEXCO_NM" 9.11 "1 " */gen drop is 5.40 MW -3.60 MVAr
TG 22.0 "TEXCO_NM" 9.11 "2 " */gen drop is 2.70 MW -3.00 MVAr
MBL 22.0 "CHV-CYMR" 9.11 "SG" "D" */ 0.33 MW 0.08 MVAr
TG 22.0 "CHV-CYMR" 9.11 "1 " */gen drop is 13.50 MW -0.39 MVAr
TG 22.0 "MIDSUN +" 13.80 "1 " */gen drop is 24.50 MW 15.20 MVAr
MBL 22.0 "DEXEL + " 13.80 "SG" "D" */ 0.26 MW 0.06 MVAr
TG 22.0 "DEXEL + " 13.80 "1 " */gen drop is 28.60 MW 9.99 MVAr
* Load Group 1 *
MBL 22.0 "EL CRRTO" 115.00 "1 " "D" */ 13.64 MW 3.11 MVAr
MBL 22.0 "EL CRRTO" 115.00 "2 " "D" */ 16.97 MW 3.87 MVAr
MBL 22.0 "EL CRRTO" 115.00 "4 " "D" */ 29.73 MW 6.77 MVAr
MBL 22.0 "WHISMAN " 115.00 "3 " "D" */ 9.00 MW 2.05 MVAr
MBL 22.0 "WHISMAN " 115.00 "2 " "D" */ 10.63 MW 2.42 MVAr
MBL 22.0 "WHISMAN " 115.00 "1 " "D" */ 9.88 MW 2.25 MVAr
MBL 22.0 "MT VIEW " 115.00 "3 " "D" */ 12.88 MW 2.93 MVAr
MBL 22.0 "MT VIEW " 115.00 "2 " "D" */ 14.25 MW 3.25 MVAr
MBL 22.0 "MT VIEW " 115.00 "1 " "D" */ 13.40 MW 3.06 MVAr
MBL 22.0 "HALE " 115.00 "1 " "D" */ 1.68 MW 1.00 MVAr
MBL 22.0 "VACAVLL1" 115.00 "1 " "D" */ 10.33 MW 0.46 MVAr
MBL 22.0 "JAMESON " 115.00 "1 " "D" */ 13.19 MW 0.59 MVAr
MBL 22.0 "CORDELIA" 115.00 "2 " "D" */ 5.97 MW 0.27 MVAr
MBL 22.0 "VACAVLL2" 115.00 "3 " "D" */ 14.87 MW 0.67 MVAr
MBL 22.0 "VACAVLL2" 115.00 "2 " "D" */ 15.14 MW 0.68 MVAr
MBL 22.0 "SCHMLBCH" 115.00 "1 " "D" */ 7.10 MW 4.77 MVAr
MBL 22.0 "SUISUN " 115.00 "3 " "D" */ 8.89 MW 0.40 MVAr

```

MBL	22.0	"SUISUN "	115.00	"2 "	"D"	*/	10.91 MW	0.49 MVA	
MBL	22.0	"SUISUN "	115.00	"1 "	"D"	*/	10.04 MW	0.45 MVA	
TG	22.0	"CTY FAIR"	9.11	"1 "		*/gen drop is		0.80 MW	0.10 MVA
TG	22.0	"CTY FAIR"	9.11	"2 "		*/gen drop is		1.50 MW	0.10 MVA
MBL	22.0	"WOLFSKIL"	13.80	"ss"	"D"	*/	1.30 MW	0.81 MVA	
MBL	22.0	"FREMNT "	115.00	"3 "	"D"	*/	10.74 MW	2.45 MVA	
MBL	22.0	"FREMNT "	115.00	"2 "	"D"	*/	7.56 MW	1.72 MVA	
MBL	22.0	"FREMNT "	115.00	"1 "	"D"	*/	12.38 MW	2.82 MVA	
MBL	22.0	"JARVIS "	115.00	"3 "	"D"	*/	13.33 MW	3.04 MVA	
MBL	22.0	"JARVIS "	115.00	"2 "	"D"	*/	10.38 MW	2.36 MVA	
MBL	22.0	"JARVIS "	115.00	"1 "	"D"	*/	6.91 MW	1.57 MVA	
MBL	22.0	"JV BART "	115.00	"1 "	"D"	*/	5.11 MW	1.04 MVA	
MBL	22.0	"CRYOGEN "	115.00	"1 "	"D"	*/	0.12 MW	0.03 MVA	
MBL	22.0	"STELLING"	115.00	"3 "	"D"	*/	14.35 MW	3.27 MVA	
MBL	22.0	"STELLING"	115.00	"2 "	"D"	*/	14.03 MW	3.20 MVA	
MBL	22.0	"STELLING"	115.00	"1 "	"D"	*/	13.75 MW	3.13 MVA	
MBL	22.0	"WOLFE "	115.00	"3 "	"D"	*/	7.27 MW	1.66 MVA	
MBL	22.0	"WOLFE "	115.00	"2 "	"D"	*/	14.12 MW	3.22 MVA	
MBL	22.0	"WOLFE "	115.00	"1 "	"D"	*/	11.20 MW	2.55 MVA	
MBL	22.0	"MOFT.FLD"	115.00	"1 "	"D"	*/	3.48 MW	0.87 MVA	
MBL	22.0	"LOCKHD 1"	115.00	"1 "	"D"	*/	14.14 MW	11.71 MVA	
MBL	22.0	"LAWRENCE"	115.00	"3 "	"D"	*/	15.56 MW	3.55 MVA	
MBL	22.0	"LAWRENCE"	115.00	"2 "	"D"	*/	8.82 MW	2.01 MVA	
MBL	22.0	"LAWRENCE"	115.00	"1 "	"D"	*/	22.29 MW	5.08 MVA	
MBL	22.0	"PHILLIPS"	115.00	"1 "	"D"	*/	1.36 MW	0.00 MVA	
MBL	22.0	"LOCKHD 2"	115.00	"2 "	"D"	*/	6.18 MW	1.41 MVA	
MBL	22.0	"LOCKHD 2"	115.00	"1 "	"D"	*/	12.51 MW	9.71 MVA	
MBL	22.0	"A.M.D "	115.00	"1 "	"D"	*/	6.12 MW	4.27 MVA	
MBL	22.0	"BRITTN "	115.00	"3 "	"D"	*/	10.37 MW	2.36 MVA	
MBL	22.0	"BRITTN "	115.00	"2 "	"D"	*/	21.06 MW	4.80 MVA	
MBL	22.0	"BRITTN "	115.00	"1 "	"D"	*/	12.28 MW	2.80 MVA	
MBL	22.0	"APP MAT "	115.00	"1 "	"D"	*/	9.54 MW	2.39 MVA	
* Gen Group 2 *									
MBL	22.0	"ELKHIL1G"	18.00	"ss"	"D"	*/	6.70 MW	1.68 MVA	
TG	22.0	"ELKHIL1G"	18.00	"1 "		*/gen drop is		166.80 MW	59.64 MVA
MBL	22.0	"ELKHIL2G"	18.00	"ss"	"D"	*/	6.70 MW	1.68 MVA	
TG	22.0	"ELKHIL2G"	18.00	"1 "		*/gen drop is		166.80 MW	59.64 MVA
TG	22.0	"ELKHIL3G"	18.00	"1 "		*/gen drop is		225.50 MW	65.23 MVA
* Load Group 2 *									
MBL	22.0	"MARTIN C"	115.00	"4 "	"D"	*/	17.44 MW	1.11 MVA	
MBL	22.0	"MARTIN C"	115.00	"1 "	"D"	*/	17.44 MW	1.11 MVA	
MBL	22.0	"CLAYTN "	115.00	"5 "	"D"	*/	3.27 MW	0.74 MVA	
MBL	22.0	"CLAYTN "	115.00	"3 "	"D"	*/	15.68 MW	3.57 MVA	
MBL	22.0	"CLAYTN "	115.00	"2 "	"D"	*/	14.76 MW	3.36 MVA	
MBL	22.0	"CLAYTN "	115.00	"1 "	"D"	*/	9.25 MW	2.11 MVA	
MBL	22.0	"MEDW LNE"	115.00	"3 "	"D"	*/	15.10 MW	3.44 MVA	
MBL	22.0	"MEDW LNE"	115.00	"2 "	"D"	*/	16.12 MW	3.67 MVA	
MBL	22.0	"MEDW LNE"	115.00	"1 "	"D"	*/	13.54 MW	3.08 MVA	
MBL	22.0	"EBMUDGRY"	115.00	"1 "	"D"	*/	4.13 MW	1.36 MVA	
MBL	22.0	"LAKEWD-C"	115.00	"6 "	"D"	*/	15.21 MW	3.47 MVA	
MBL	22.0	"LAKEWD-C"	115.00	"5 "	"D"	*/	6.70 MW	1.53 MVA	
MBL	22.0	"LAKEWD-M"	115.00	"LW"	"D"	*/	4.15 MW	0.84 MVA	
MBL	22.0	"LAKEWD-M"	115.00	"4 "	"D"	*/	16.55 MW	3.77 MVA	
MBL	22.0	"LAKEWD-M"	115.00	"2 "	"D"	*/	8.85 MW	2.02 MVA	
MBL	22.0	"LAKEWD-M"	115.00	"1 "	"D"	*/	13.10 MW	2.99 MVA	
MBL	22.0	"DALY CTY"	115.00	"2 "	"D"	*/	11.94 MW	2.72 MVA	
MBL	22.0	"DALY CTY"	115.00	"1 "	"D"	*/	19.78 MW	4.51 MVA	
MBL	22.0	"SERRMNTTE"	115.00	"1 "	"D"	*/	4.49 MW	1.02 MVA	
* Gen Group 3 *									
TG	22.0	"LAPLM_G1"	21.00	"1 "		*/gen drop is		230.00 MW	101.84 MVA
TG	22.0	"LAPLM_G2"	21.00	"1 "		*/gen drop is		230.00 MW	101.84 MVA
* Load Group 3 *									
MBL	22.0	"ELDORAD "	115.00	"1 "	"D"	*/	3.29 MW	0.15 MVA	
MBL	22.0	"APPLE HL"	115.00	"2 "	"D"	*/	3.26 MW	0.14 MVA	
MBL	22.0	"APPLE HL"	115.00	"1 "	"D"	*/	5.15 MW	0.23 MVA	
MBL	22.0	"PLCRVLB2"	115.00	"2 "	"D"	*/	3.17 MW	0.14 MVA	
MBL	22.0	"PLCRVLB3"	115.00	"3 "	"D"	*/	9.12 MW	0.41 MVA	
MBL	22.0	"DMND SPR"	115.00	"2 "	"D"	*/	9.87 MW	0.44 MVA	
MBL	22.0	"DMND SPR"	115.00	"1 "	"D"	*/	3.47 MW	0.16 MVA	
MBL	22.0	"SHPRING "	115.00	"2 "	"D"	*/	7.56 MW	0.34 MVA	

MBL	22.0	"SHPRING "	115.00	"1 "	"D"	*/	6.88 MW	0.31 MVA	
MBL	22.0	"SPICAMIN"	115.00	"1 "	"D"	*/	2.87 MW	2.53 MVA	
TG	22.0	"CHILIBAR"	4.16	"1 "		*/gen drop is		2.00 MW	-2.00 MVA
MBL	22.0	"ELDRADO1"	21.60	"SG"	"D"	*/	0.03 MW	0.01 MVA	
TG	22.0	"ELDRADO1"	21.60	"1 "		*/gen drop is		9.96 MW	-3.30 MVA
MBL	22.0	"ELDRADO2"	21.60	"SG"	"D"	*/	0.03 MW	0.01 MVA	
TG	22.0	"ELDRADO2"	21.60	"1 "		*/gen drop is		9.96 MW	-3.30 MVA
MBL	22.0	"CLRKSVLE"	115.00	"3 "	"D"	*/	15.92 MW	0.71 MVA	
MBL	22.0	"CLRKSVLE"	115.00	"2 "	"D"	*/	16.66 MW	0.75 MVA	
MBL	22.0	"CLRKSVLE"	115.00	"1 "	"D"	*/	15.68 MW	0.70 MVA	
MBL	22.0	"BAY MDWS"	115.00	"5 "	"D"	*/	7.33 MW	1.67 MVA	
MBL	22.0	"BAY MDWS"	115.00	"3 "	"D"	*/	7.97 MW	1.82 MVA	
MBL	22.0	"BAY MDWS"	115.00	"2 "	"D"	*/	13.47 MW	3.07 MVA	
MBL	22.0	"BAY MDWS"	115.00	"1 "	"D"	*/	16.87 MW	3.85 MVA	
* Gen Group 4 *									
TG	22.0	"TEXSUN2G"	18.00	"1 "		*/gen drop is		169.00 MW	13.22 MVA
TG	22.0	"TEXSUN1G"	18.00	"1 "		*/gen drop is		169.00 MW	13.22 MVA
TG	22.0	"TEXSUNST"	18.00	"1 "		*/gen drop is		222.00 MW	60.97 MVA
* Load Group 4 *									
MBL	22.0	"HIGHWAY "	115.00	"2 "	"D"	*/	11.09 MW	2.25 MVA	
MBL	22.0	"HIGHWAY "	115.00	"1 "	"D"	*/	9.03 MW	1.84 MVA	
MBL	22.0	"MEYERS "	115.00	"1 "	"D"	*/	0.18 MW	0.04 MVA	
MBL	22.0	"CARQUINZ"	115.00	"2 "	"D"	*/	4.92 MW	1.00 MVA	
MBL	22.0	"CARQUINZ"	115.00	"1 "	"D"	*/	5.78 MW	1.17 MVA	
MBL	22.0	"MRE IS-Q"	115.00	"1 "	"D"	*/	4.25 MW	0.86 MVA	
MBL	22.0	"GUALALA "	60.00	"2 "	"D"	*/	0.59 MW	0.12 MVA	
MBL	22.0	"GUALALA "	60.00	"1 "	"D"	*/	1.21 MW	0.25 MVA	
MBL	22.0	"ANNAPOLS"	60.00	"1 "	"D"	*/	0.10 MW	0.02 MVA	
MBL	22.0	"FORT RSS"	60.00	"1 "	"D"	*/	0.34 MW	0.07 MVA	
MBL	22.0	"SLMN CRK"	60.00	"1 "	"D"	*/	1.33 MW	0.27 MVA	
MBL	22.0	"MONTE RO"	60.00	"2 "	"D"	*/	2.02 MW	0.41 MVA	
MBL	22.0	"MONTE RO"	60.00	"1 "	"D"	*/	1.58 MW	0.32 MVA	
MBL	22.0	"WOHLER "	60.00	"1 "	"D"	*/	3.21 MW	1.37 MVA	
MBL	22.0	"MIRABEL "	60.00	"1 "	"D"	*/	4.13 MW	0.84 MVA	
MBL	22.0	"MOLINO "	60.00	"2 "	"D"	*/	7.63 MW	1.55 MVA	
MBL	22.0	"MOLINO "	60.00	"1 "	"D"	*/	2.97 MW	0.60 MVA	
MBL	22.0	"LAGUNA "	60.00	"1 "	"D"	*/	4.20 MW	1.05 MVA	
MBL	22.0	"COTATI "	60.00	"2 "	"D"	*/	2.54 MW	0.51 MVA	
MBL	22.0	"COTATI "	60.00	"1 "	"D"	*/	2.79 MW	0.57 MVA	
TG	22.0	"SONMA LF"	9.11	"1 "		*/gen drop is		4.00 MW	0.00 MVA
MBL	22.0	"LS GLLNS"	115.00	"3 "	"D"	*/	4.84 MW	0.98 MVA	
MBL	22.0	"LS GLLNS"	115.00	"2 "	"D"	*/	4.33 MW	0.88 MVA	
MBL	22.0	"LS GLLNS"	115.00	"1 "	"D"	*/	6.42 MW	1.30 MVA	
MBL	22.0	"SAN RAFL"	115.00	"3 "	"D"	*/	7.80 MW	1.59 MVA	
MBL	22.0	"SAN RAFL"	115.00	"2 "	"D"	*/	11.23 MW	2.28 MVA	
MBL	22.0	"SAN RAFL"	115.00	"1 "	"D"	*/	11.78 MW	2.39 MVA	
* Gen Group 5 *									
TG	22.0	"LAPLM_G3"	21.00	"1 "		*/gen drop is		229.00 MW	101.72 MVA
TG	22.0	"LAPLM_G4"	21.00	"1 "		*/gen drop is		230.00 MW	101.84 MVA
* Load Group 5 *									
MBL	22.0	"NEW HOPE"	60.00	"1 "	"D"	*/	1.21 MW	0.05 MVA	
MBL	22.0	"SEBASTIA"	60.00	"1 "	"D"	*/	2.12 MW	1.59 MVA	
MBL	22.0	"STAGG "	60.00	"3 "	"D"	*/	8.43 MW	0.38 MVA	
MBL	22.0	"STAGG "	60.00	"2 "	"D"	*/	8.43 MW	0.38 MVA	
MBL	22.0	"CNTRY CB"	60.00	"4 "	"D"	*/	7.39 MW	0.33 MVA	
MBL	22.0	"CNTRY CB"	60.00	"3 "	"D"	*/	4.82 MW	0.22 MVA	
MBL	22.0	"CNTRY CB"	60.00	"2 "	"D"	*/	4.34 MW	0.19 MVA	
MBL	22.0	"CNTRY CB"	60.00	"1 "	"D"	*/	2.65 MW	0.12 MVA	
MBL	22.0	"UOP "	60.00	"1 "	"D"	*/	4.51 MW	3.15 MVA	
MBL	22.0	"HAMMER "	60.00	"3 "	"D"	*/	8.86 MW	0.40 MVA	
MBL	22.0	"HAMMER "	60.00	"2 "	"D"	*/	8.13 MW	0.36 MVA	
MBL	22.0	"HAMMER "	60.00	"1 "	"D"	*/	8.47 MW	0.38 MVA	
MBL	22.0	"METTLER "	60.00	"3 "	"D"	*/	3.70 MW	0.17 MVA	
MBL	22.0	"TERMNOUS"	60.00	"1 "	"D"	*/	2.14 MW	0.10 MVA	
MBL	22.0	"MSHR 60V"	60.00	"2 "	"D"	*/	14.95 MW	0.67 MVA	
MBL	22.0	"MSHR 60V"	60.00	"1 "	"D"	*/	8.95 MW	0.40 MVA	
MBL	22.0	"STAGG_5 "	21.00	"5 "	"D"	*/	26.56 MW	1.19 MVA	
MBL	22.0	"STAGG_6 "	21.00	"6 "	"D"	*/	23.27 MW	1.04 MVA	
MBL	22.0	"CMP EVRS"	115.00	"2 "	"D"	*/	11.31 MW	2.30 MVA	
MBL	22.0	"CMP EVRS"	115.00	"1 "	"D"	*/	11.61 MW	2.36 MVA	

MBL	22.0	"PAUL SWT"	115.00	"3 "	"D"	*/	16.81 MW	3.42 MVar	
MBL	22.0	"PAUL SWT"	115.00	"2 "	"D"	*/	12.22 MW	2.48 MVar	
MBL	22.0	"PAUL SWT"	115.00	"1 "	"D"	*/	16.05 MW	3.26 MVar	
MBL	22.0	"ROB ROY "	115.00	"1 "	"D"	*/	7.02 MW	1.43 MVar	
TG	22.0	"PSWTSTCM"	8.00	"1 "		*/gen drop is		0.00 MW	-18.90 MVar
MBL	22.0	"CSTRVLE"	115.00	"1 "	"D"	*/	10.31 MW	2.10 MVar	
MBL	22.0	"DEL MNTE"	115.00	"2 "	"D"	*/	14.17 MW	2.88 MVar	
MBL	22.0	"DEL MNTE"	115.00	"1 "	"D"	*/	9.22 MW	1.87 MVar	
MBL	22.0	"FORT ORD"	60.00	"1 "	"D"	*/	15.66 MW	3.18 MVar	
MBL	22.0	"MANZANTA"	60.00	"1 "	"D"	*/	0.60 MW	0.12 MVar	
MBL	22.0	"MONTEREY"	60.00	"1 "	"D"	*/	2.22 MW	0.45 MVar	
MBL	22.0	"NVY SCHL"	60.00	"1 "	"D"	*/	1.70 MW	0.87 MVar	
MBL	22.0	"VIEJO "	60.00	"2 "	"D"	*/	8.35 MW	1.70 MVar	
MBL	22.0	"VIEJO "	60.00	"1 "	"D"	*/	7.04 MW	1.43 MVar	
MBL	22.0	"HATTON "	60.00	"1 "	"D"	*/	6.11 MW	1.24 MVar	
MBL	22.0	"NAVY LAB"	60.00	"1 "	"D"	*/	1.30 MW	0.56 MVar	
MBL	22.0	"BORONDA "	60.00	"1 "	"D"	*/	4.26 MW	0.86 MVar	
MBL	22.0	"RSVTN RD"	60.00	"1 "	"D"	*/	5.38 MW	1.09 MVar	
MBL	22.0	"LAURELES"	60.00	"1 "	"D"	*/	3.00 MW	0.61 MVar	
MBL	22.0	"OTTER "	60.00	"1 "	"D"	*/	1.76 MW	0.36 MVar	

\*

\*

MSD 180.0 "GATES" 230.0 "v " "D"

MSD 180.0 "LOSBANOS" 230.0 "v " "D"

\*

□

# Appendix C

## Powerflow Results

### Table of Content

Table C-1: Category "A" Normal Overloads.....	1
2013 Summer Peak.....	1
2013 Summer Off-Peak.....	2
2013 Spring Peak.....	2
Table C-2: Category "B" Emergency Overloads.....	3
2013 Summer Peak.....	3
2013 Summer Off-Peak.....	64
2013 Spring Peak.....	84
Table C-3: Category "C" Emergency Overloads.....	127
2013 Summer Peak.....	127
2013 Summer Off-Peak.....	185
2013 Spring Peak.....	202

**Table C-1: Category “A” Normal Overloads**

#	Outage Description	Facility	Rating	Unit	Pre-Project	Post-Project	% Change
					PU	PU	
					Flow	Flow	
<b>2013 Summer Peak</b>							
1	BASE CASE :	BELLTA T-BLLTA 1M 13.80/ 230.00kV Bk#1	40	MVA	100.0	100.0	0.0
1	BASE CASE :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	675.25	Amps	148.2	148.9	0.8
1	BASE CASE :	CARRIZO -TEMBLOR 115.00kV Ckt#1 Sec# 1	376.03	Amps	105.4	105.6	0.2
1	BASE CASE :	CHWCGNJT-CHWCGN 115.00kV Ckt#1 Sec# 1	296.21	Amps	101.5	101.6	0.0
1	BASE CASE :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	675.25	Amps	137.9	138.6	0.7
1	BASE CASE :	E.NICOLS-E.NICOLS 115.00/ 60.00kV Bk#2	58.5	MVA	123.8	123.8	0.0
1	BASE CASE :	LAKE -LAKE 2 230.00/ 69.00kV Bk#1	160	MVA	101.1	101.1	0.0
1	BASE CASE :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	441.8	Amps	111.5	111.9	0.5
1	BASE CASE :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1484.04	Amps	114.2	114.8	0.5
1	BASE CASE :	MORROBAY-GATES 230.00kV Ckt#1 Sec# 1	825.11	Amps	106.7	106.6	-0.2
1	BASE CASE :	ORO LOMA-DOS PALS 70.00kV Ckt#1 Sec# 1	243.31	Amps	106.9	107.2	0.3
1	BASE CASE :	PLACER -PLACER 115.00/ 60.00kV Bk#1	77	MVA	105.4	105.4	0.0
1	BASE CASE :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	825.86	Amps	185.0	185.2	0.2
1	BASE CASE :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	825.86	Amps	186.6	186.8	0.2
1	BASE CASE :	Q194SWST-Q166 230.00kV Ckt#1 Sec# 1	825.86	Amps	129.9	130.0	0.2
1	BASE CASE :	Q238TAP -CARRIZO 115.00kV Ckt#1 Sec# 1	376.53	Amps	105.8	105.9	0.2
1	BASE CASE :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	743.02	Amps	121.6	122.3	0.7
1	BASE CASE :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	675.25	Amps	126.5	127.2	0.7
1	BASE CASE :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	675.25	Amps	113.6	114.3	0.7
1	BASE CASE :	TEMBLOR -BELRIDGE 115.00kV Ckt#1 Sec# 1	632.58	Amps	102.5	102.7	0.1
1	BASE CASE :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	675.25	Amps	149.3	150.0	0.7
1	BASE CASE :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	675.25	Amps	136.7	137.7	1.1

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
<b>2013 Summer Off-Peak</b>							
1	BASE CASE :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	675.25	Amps	106.1	106.8	0.8
1	BASE CASE :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1484.04	Amps	121.8	122.4	0.6
1	BASE CASE :	PITSBG D-VSC_PTSD 230.00/ 180.50kV Bk#1	430	MVA	102.7	102.7	0.0
1	BASE CASE :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	823.35	Amps	109.4	110.3	0.9
1	BASE CASE :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	675.25	Amps	111.3	112.1	0.8
1	BASE CASE :	WHEELBR -COTWDPGE 115.00kV Ckt#1 Sec# 1	441.8	Amps	100.8	100.8	0.0
<b>2013 Spring Peak</b>							
1	BASE CASE :	BELLTA T-BLLTA 1M 13.80/ 230.00kV Bk#1	40	MVA	100.0	100.0	0.0
1	BASE CASE :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	675.25	Amps	135.3	136.1	0.8
1	BASE CASE :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	675.25	Amps	115.6	116.4	0.8
1	BASE CASE :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	825.86	Amps	102.5	102.7	0.2
1	BASE CASE :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	825.86	Amps	102.5	102.7	0.2
1	BASE CASE :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	825.86	Amps	102.5	102.7	0.2
1	BASE CASE :	Q239SWST-Q166 230.00kV Ckt#1 Sec# 1	825.86	Amps	102.5	102.7	0.2
1	BASE CASE :	Q239SWST-Q166 230.00kV Ckt#2 Sec# 1	825.86	Amps	102.5	102.7	0.2
1	BASE CASE :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	743.02	Amps	112.7	113.4	0.7
1	BASE CASE :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	675.25	Amps	115.4	116.0	0.7
1	BASE CASE :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	675.25	Amps	105.3	105.9	0.6
1	BASE CASE :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	675.25	Amps	124.7	125.5	0.8
1	BASE CASE :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	675.25	Amps	126.0	127.1	1.0

**Table C-2: Category “B” Emergency Overloads**

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
<b>2013 Summer Peak</b>							
131	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	142.0	143.1	1.1
285	Open Xfmr GATES 230/GATES 500 #11 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	140.8	141.9	1.1
2	Open Line WESTLEY 230-LOSBANOS 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	135.6	136.6	1.0
185	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.7	131.8	1.1
166	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.8	130.8	1.1
196	Open Line KEARNEY 230-HERNDON 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.6	129.6	1.0
171	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.0	129.1	1.0
152	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	127.4	128.4	1.0
422	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	125.3	126.3	1.0
11	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	123.7	124.8	1.0
Tsl-LB*	Tracy-Los Banos 500-kV	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	123.5	124.5	1.0
LB-Gts1*	Los Banos - Gates #1 500-kV	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	123.5	124.4	1.0
Tcy-LB*	Tracy-Los Banos 500-kV	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	121.9	122.8	0.9



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
189	Open Line HELM 230-MC CALL 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	121.3	122.3	1.0
291	Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	121.2	122.1	0.9
386	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.5	121.6	1.0
62	Open Line DS AMIGO 230-PANOCHE 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.5	121.4	0.9
411	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.4	121.4	1.0
12	Open Line PANOCHE 230-HELM 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.4	121.4	1.0
3	Open Line MOSSLND2 230-PANOCHE 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.4	121.4	0.9
370	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.3	121.3	1.0
5	Open Line LOSBANOS 230-PANOCHE 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.3	121.2	0.9
255	Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line OLDKERN 70-BIOLA 70 #1 : Open Line OLDKERN 70-BOWLES 70 #1 : Drop Load at OLDKERN 70 #1 : 19 MW 3.8 MVAR Dropp : Drop Load at OLDKERN 70 #3 : 7.7 MW 1.5 MVAR Drop : Drop Load at BIOLA 70 #1 : 22 MW 4.4 MVAR Dropped : Drop Load at BOWLES 70 #1 : 18.5 MW 3.7 MVAR Drop :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.2	121.1	0.9
6	Open Line LOSBANOS 230-PANOCHE 230 #2 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.0	120.9	0.9
202	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.5	120.5	1.0
26	Open Line CRESEY T 115-ATWATR J 115 #1 : Open Line ATWATR J 115-LIVNGSTN 115 #1 : Open Line ATWATR J 115-MERCED 115 #1 : Open Line LIVNGSTN 115-GALLO 115 #1 : Drop Load at LIVNGSTN 115 #3 : 24.9 MW 5 MVAR Dro : Drop Load at GALLO 115 #1 : 4.3 MW 3.6 MVAR Dropp :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.1	120.0	0.9
7	Open Line LOSBANOS 230-DS AMIGO 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.1	120.0	0.9

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
24	Open Line ATWATER 115-CRESEY T 115 #1 : Open Line CRESEY T 115-ATWATR J 115 #1 : Open Line CRESEY T 115-JRWD GEN 115 #1 : Open Line JRWD GEN 115-JR WOOD 115 #1 : Open Xfmr JRWD GEN 115/JRWCOGEN 9.11 #1 : Open Line JR WOOD 115-CRESSEY 115 #1 : Drop Load at JR WOOD 115 #1 : 11.7 MW 10.3 MVAR D : Drop Load at CRESSEY 115 #1 : 19.3 MW 3.9 MVAR Dr : Drop Generator at JRWCOGEN 9.11 #1 : 3.8 MW Droppe :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.9	119.8	0.9
233	Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 31.1 MW 6.3 MVAR Dro : Drop Load at PNEDLE 115 #3 : 40.9 MW 8.2 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.8	119.7	0.9
25	Open Line CERTANJ1 115-CHWCHLLA 115 #1 : Open Line CERTANJ1 115-SHARON T 115 #1 : Open Line SHARON T 115-SHARON 115 #1 : Open Line SHARON T 115-OAKH_JCT 115 #1 : Open Line OAKH_JCT 115-CORSGOLD 115 #1 : Open Line OAKH_JCT 115-K1-JCT 115 #1 : Open Line CORSGOLD 115-OAKHURST 115 #1 : Open Line K1-JCT 115-KERCKHF2 115 #2 : Drop Load at SHARON 115 #1 : 7.1 MW 4.9 MVAR Drop : Drop Load at CORSGOLD 115 #1 : 2.2 MW 0.4 MVAR Dr :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.3	119.2	0.9
207	Open Line K1-JCT 115-KERCKHF2 115 #2 : Open Line K1-JCT 115-OAKH_JCT 115 #1 : Open Line OAKH_JCT 115-SHARON T 115 #1 : Open Line OAKH_JCT 115-CORSGOLD 115 #1 : Open Line SHARON T 115-CERTANJ1 115 #1 : Open Line SHARON T 115-SHARON 115 #1 : Open Line CERTANJ1 115-CHWCHLLA 115 #1 : Open Line CORSGOLD 115-OAKHURST 115 #1 : Drop Load at CORSGOLD 115 #1 : 2.2 MW 0.4 MVAR Dr : Drop Load at CORSGOLD 115 #2 : 26.5 MW 5.3 MVAR D :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.3	119.2	0.9
214	Open Line CLOVIS-2 115-CLOVISJ2 115 #1 : Open Line CLOVISJ2 115-KERCKHF2 115 #1 : Open Line CLOVISJ2 115-SANGER 115 #1 : Drop Load at CLOVIS-2 115 #3 : 45.3 MW 9.1 MVAR D : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.2	119.1	0.9

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
264	Open Line LEPRINO 70-LPRNO TP 70 #1 : Open Line LPRNO TP 70-LEMOORE 70 #1 : Open Line LPRNO TP 70-CANDLEWK 70 #1 : Open Line LPRNO TP 70-HENRITTA 70 #1 : Drop Load at LEPRINO 70 #1 : 6.6 MW 4.2 MVAR Drop : Drop Load at LEMOORE 70 #1 : 19.1 MW 3.8 MVAR Dro : Drop Load at LEMOORE 70 #2 : 33.2 MW 6.7 MVAR Dro :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.2	119.1	0.9
67	Open Xfmr WILSON A 115/WILSON 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.8	118.7	0.9
239	Open Line KINGSBRG 115-GAURD J1 115 #1 : Open Line GAURD J1 115-MC CALL 115 #1 : Open Line GAURD J1 115-GAURD J2 115 #1 : Open Line GAURD J2 115-GRDN GLS 115 #1 : Drop Load at GRDN GLS 115 #1 : 3.5 MW 1.1 MVAR Dr : Drop Load at KINGSBRG 115 #3 : 33 MW 6.6 MVAR Dro :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.8	118.7	0.9
68	Open Xfmr WILSON B 115/WILSON 230 #2 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.8	118.7	0.9
58	Open Line BORDEN 70-CASSIDY 70 #1 : Open Line CASSIDY 70-RIVERROC 70 #1 : Open Line RIVERROC 70-COPPRMNE 70 #1 : Drop Load at CASSIDY 70 #1 : 14.5 MW 2.9 MVAR Dro : Drop Load at RIVERROC 70 #1 : 2 MW 1.8 MVAR Dropp :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.7	118.6	0.9
248	Open Line BIOLA 70-OLDKERN 70 #1 : Drop Load at BIOLA 70 #1 : 22 MW 4.4 MVAR Dropped :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.6	118.5	0.9
289	Open Xfmr KINGSBRG 115/KNGLOBUS 70 #2 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.6	118.5	0.9
131	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	152.6	153.4	0.8
285	Open Xfmr GATES 230/GATES 500 #11 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	144.4	145.2	0.8
185	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	140.6	141.4	0.8
166	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	139.7	140.5	0.8
196	Open Line KEARNEY 230-HERNDON 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	134.7	135.4	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
422	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	133.9	134.6	0.7
Tsl-LB*	Tracy-Los Banos 500-kV	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	133.4	134.0	0.7
11	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.7	132.4	0.7
411	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.9	131.6	0.7
291	Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.5	131.1	0.6
3	Open Line MOSSLND2 230-PANOCHE 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.2	130.9	0.7
189	Open Line HELM 230-MC CALL 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.0	130.6	0.7
255	Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line OLDKERN 70-BIOLA 70 #1 : Open Line OLDKERN 70-BOWLES 70 #1 : Drop Load at OLDKERN 70 #1 : 19 MW 3.8 MVAR Dropp : Drop Load at OLDKERN 70 #3 : 7.7 MW 1.5 MVAR Drop : Drop Load at BIOLA 70 #1 : 22 MW 4.4 MVAR Dropped : Drop Load at BOWLES 70 #1 : 18.5 MW 3.7 MVAR Drop :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.8	130.4	0.6
12	Open Line PANOCHE 230-HELM 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.4	130.1	0.7
415	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.4	130.1	0.7
386	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.2	129.9	0.7
202	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.2	129.8	0.7
62	Open Line DS AMIGO 230-PANOCHE 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.2	129.8	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
		1					
26	Open Line CRESEY T 115-ATWATR J 115 #1 : Open Line ATWATR J 115-LIVNGSTN 115 #1 : Open Line ATWATR J 115-MERCED 115 #1 : Open Line LIVNGSTN 115-GALLO 115 #1 : Drop Load at LIVNGSTN 115 #3 : 24.9 MW 5 MVAR Dro : Drop Load at GALLO 115 #1 : 4.3 MW 3.6 MVAR Dropp :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.2	129.8	0.6
5	Open Line LOSBANOS 230-PANOCHE 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.0	129.7	0.6
24	Open Line ATWATER 115-CRESEY T 115 #1 : Open Line CRESEY T 115-ATWATR J 115 #1 : Open Line CRESEY T 115-JRWD GEN 115 #1 : Open Line JRWD GEN 115-JR WOOD 115 #1 : Open Xfmr JRWD GEN 115/JRWCOGEN 9.11 #1 : Open Line JR WOOD 115-CRESSEY 115 #1 : Drop Load at JR WOOD 115 #1 : 11.7 MW 10.3 MVAR D : Drop Load at CRESSEY 115 #1 : 19.3 MW 3.9 MVAR Dr : Drop Generator at JRWCOGEN 9.11 #1 : 3.8 MW Droppe :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.0	129.7	0.6
6	Open Line LOSBANOS 230-PANOCHE 230 #2 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.9	129.5	0.6
370	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.7	129.4	0.7
233	Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 31.1 MW 6.3 MVAR Dro : Drop Load at PNEDLE 115 #3 : 40.9 MW 8.2 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.7	129.4	0.6
25	Open Line CERTANJ1 115-CHWCHLLA 115 #1 : Open Line CERTANJ1 115-SHARON T 115 #1 : Open Line SHARON T 115-SHARON 115 #1 : Open Line SHARON T 115-OAKH_JCT 115 #1 : Open Line OAKH_JCT 115-CORSGOLD 115 #1 : Open Line OAKH_JCT 115-K1-JCT 115 #1 : Open Line CORSGOLD 115-OAKHURST 115 #1 : Open Line K1-JCT 115-KERCKHF2 115 #2 : Drop Load at SHARON 115 #1 : 7.1 MW 4.9 MVAR Drop : Drop Load at CORSGOLD 115 #1 : 2.2 MW 0.4 MVAR Dr :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.6	129.2	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
207	Open Line K1-JCT 115-KERCKHF2 115 #2 : Open Line K1-JCT 115-OAKH_JCT 115 #1 : Open Line OAKH_JCT 115-SHARON T 115 #1 : Open Line OAKH_JCT 115-CORSGOLD 115 #1 : Open Line SHARON T 115-CERTANJ1 115 #1 : Open Line SHARON T 115-SHARON 115 #1 : Open Line CERTANJ1 115-CHWCHLLA 115 #1 : Open Line CORSGOLD 115-OAKHURST 115 #1 : Drop Load at CORSGOLD 115 #1 : 2.2 MW 0.4 MVAR Dr : Drop Load at CORSGOLD 115 #2 : 26.5 MW 5.3 MVAR D :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.6	129.2	0.6
7	Open Line LOSBANOS 230-DS AMIGO 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.5	129.1	0.7
358	Open Line CASSIDY 70-RIVERROC 70 #1 : Open Line CASSIDY 70-BORDEN 70 #1 : Open Line RIVERROC 70-COPPRMNE 70 #1 : Drop Load at CASSIDY 70 #1 : 14.5 MW 2.9 MVAR Dro : Drop Load at RIVERROC 70 #1 : 2 MW 1.8 MVAR Dropp : Drop Generator at FRIANTDM 6.6 #2: 14.7 MW Dropped :	TVY VLLY-REEDLEY 70.00kV Ckt#1 Sec# 1	297.75	Amps	128.3	128.3	0.0
70	Open Xfmr ORO LOMA 70/ORO LOMA 115 #2 : Open Line ORO LOMA 115-DFSTP 115 #1 : Open Line ORO LOMA 115-EL NIDO 115 #1 :	TOMATAK -MENDOTA 70.00kV Ckt#1 Sec# 1	395.9	Amps	108.4	108.8	0.3
41	Open Line PANOCHEJ 115-PANOCHE 115 #1 : Open Line PANOCHEJ 115-HAMMONDS 115 #1 : Open Line PANOCHEJ 115-OXFRDJCT 115 #1 : Open Line HAMMONDS 115-DFSTP 115 #1 : Open Line DFSTP 115-ORO LOMA 115 #1 : Open Line DFSTP 115-DFS 115 #1 : Open Line OXFRDJCT 115-OXFORD 115 #1 : Open Line OXFRDJCT 115-WSTLDJCT 115 #1 : Open Line WSTLDJCT 115-WSTLD1RA 115 #1 : Open Line WSTLDJCT 115-LUISJCT 115 #1 :	TOMATAK -MENDOTA 70.00kV Ckt#1 Sec# 1	395.9	Amps	101.2	101.5	0.2
408	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	TEMPLETN-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	118.6	118.4	-0.2
392	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	TEMPLETN-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	117.2	117.0	-0.2
376	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Drope :	TEMPLETN-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	116.8	116.6	-0.2

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
428	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	TEMPLETN-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	116.6	116.5	-0.2
204	Open Line GATES 230-MORROBAY 230 #1 :	TEMPLETN-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	116.4	116.3	-0.2
204	Open Line GATES 230-MORROBAY 230 #1 :	TEMBLOR -BELRIDGE 115.00kV Ckt#1 Sec# 1	743.02	Amps	100.9	100.9	0.1
428	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	TEMBLOR -BELRIDGE 115.00kV Ckt#1 Sec# 1	743.02	Amps	100.8	100.9	0.1
376	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	TEMBLOR -BELRIDGE 115.00kV Ckt#1 Sec# 1	743.02	Amps	100.7	100.8	0.1
392	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	TEMBLOR -BELRIDGE 115.00kV Ckt#1 Sec# 1	743.02	Amps	100.6	100.6	0.1
285	Open Xfmr GATES 230/GATES 500 #11 :	TEMBLOR -BELRIDGE 115.00kV Ckt#1 Sec# 1	743.02	Amps	100.1	100.3	0.2
203	Open Line GATES 230-TEMPLETN 230 #1 :	TEMBLOR -BELRIDGE 115.00kV Ckt#1 Sec# 1	743.02	Amps	100.1	100.1	0.1
427	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	TEMBLOR -BELRIDGE 115.00kV Ckt#1 Sec# 1	743.02	Amps	100.0	100.1	0.1
408	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	TEMBLOR -BELRIDGE 115.00kV Ckt#1 Sec# 1	743.02	Amps	100.0	100.0	0.1
375	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	TEMBLOR -BELRIDGE 115.00kV Ckt#1 Sec# 1	743.02	Amps	99.9	100.0	0.1
128	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	169.4	170.3	0.9
165	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	168.9	169.8	0.9
16	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	164.1	165.1	0.9

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
184	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	159.5	160.5	0.9
146	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	132.2	133.2	0.9
285	Open Xfmr GATES 230/GATES 500 #11 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.6	112.3	0.7
422	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.7	111.4	0.7
370	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.2	110.8	0.7
196	Open Line KEARNEY 230-HERNDON 230 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.8	108.5	0.7
152	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.3	107.9	0.6
411	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	106.0	106.7	0.7
160	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.6	106.2	0.7
2	Open Line WESTLEY 230-LOSBANOS 230 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.5	105.1	0.6



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
107	Open Line CERTANJ1 115-CHWCHLLA 115 #1 : Open Line CERTANJ1 115-SHARON T 115 #1 : Open Line SHARON T 115-SHARON 115 #1 : Open Line SHARON T 115-OAKH_JCT 115 #1 : Open Line OAKH_JCT 115-CORSGOLD 115 #1 : Open Line OAKH_JCT 115-K1-JCT 115 #1 : Open Line CORSGOLD 115-OAKHURST 115 #1 : Open Line K1-JCT 115-KERCKHF2 115 #2 : Drop Load at SHARON 115 #1 : 7.1 MW 4.9 MVAR Drop : Drop Load at CORSGOLD 115 #1 : 2.2 MW 0.4 MVAR Dr :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.4	105.0	0.6
386	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.2	104.8	0.7
415	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.1	104.8	0.6
363	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.7	104.4	0.6
11	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.2	103.8	0.7
28	Open Line LE GRAND 115-WILSON A 115 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.0	103.5	0.6
412	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.8	103.5	0.6
161	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.4	103.0	0.6
106	Open Line CHWCHLLA 115-CERTAN T 115 #1 : Open Line CERTAN T 115-LE GRAND 115 #1 : Open Line CERTAN T 115-CERTANJ2 115 #1 : Open Line CERTANJ2 115-CHWCGNJT 115 #1 : Open Line CHWCGNJT 115-CERTTEED 115 #1 : Open Line CHWCGNJT 115-CHWCGN 115 #1 : Open Line CHWCGN 115-CHWCHLA2 115 #1 : Open Xfmr CHWCGN 115/CHOWCOGN 13.8 #1 : Open Xfmr CHWCHLA2 115/CHWCHLA2 13.8 #1 : Drop Load at CERTTEED 115 #1 : 9.9 MW 6.9 MVAR Dr :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.4	103.0	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
116	Open Line CANANDGA 70-TRIGO J 70 #1 : Open Line CANANDGA 70-GLASS 70 #1 : Open Line TRIGO J 70-BONITA 70 #1 : Open Line TRIGO J 70-TRIGO 70 #1 : Open Line TRIGO 70-MADERA 70 #1 : Open Line TRIGO 70-EL PECO 70 #1 : Drop Load at CANANDGA 70 #1 : 7.6 MW 5.7 MVAR Dro : Drop Load at BONITA 70 #1 : 14.6 MW 2.9 MVAR Drop : Drop Load at EL PECO 70 #1 : 10 MW 2 MVAR Dropped : Drop Load at EL PECO 70 #2 : 7.3 MW 1.4 MVAR Drop :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.2	102.8	0.6
114	Open Line NEWHALL 115-DAIRYLND 115 #1 : Open Line NEWHALL 115-MADERAPR 115 #1 : Open Line MADERAPR 115-MENDOTA 115 #1 : Open Xfmr MADERAPR 115/MADERA_G 13.8 #1 : Drop Load at NEWHALL 115 #2 : 8.7 MW 1.7 MVAR Dro : Drop Load at NEWHALL 115 #3 : 10.8 MW 2.1 MVAR Dr : Drop Load at MADERA_G 13.8 #ss: 3.6 MW 0.8 MVAR D : Drop Generator at MADERA_G 13.8 #1 : 28.6 MW Dropp : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.9	102.4	0.5
426	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.8	102.4	0.6
171	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.6	102.2	0.6
169	Open Line DS AMIGO 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.5	102.0	0.6
374	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.3	101.9	0.6
155	Open Line LOSBANOS 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.4	101.9	0.6
153	Open Line MOSSLND2 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.3	101.9	0.6
156	Open Line LOSBANOS 230-PANOCHE 230 #2 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.2	101.8	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
189	Open Line HELM 230-MC CALL 230 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.9	101.6	0.6
111	Open Line LE GRAND 115-DAIRYLND 115 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.0	101.5	0.6
157	Open Line LOSBANOS 230-DS AMIGO 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.8	101.4	0.6
115	Open Line PANOCHET 115-MENDOTA 115 #1 : Open Line PANOCHET 115-PANOCHET 115 #1 : Drop Generator at DG_PAN1 13.8 #1 : 49 MW Dropped : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.7	101.3	0.6
207	Open Line K1-JCT 115-KERCKHF2 115 #2 : Open Line K1-JCT 115-OAKH_JCT 115 #1 : Open Line OAKH_JCT 115-SHARON T 115 #1 : Open Line OAKH_JCT 115-CORSGOLD 115 #1 : Open Line SHARON T 115-CERTANJ1 115 #1 : Open Line SHARON T 115-SHARON 115 #1 : Open Line CERTANJ1 115-CHWCHLLA 115 #1 : Open Line CORSGOLD 115-OAKHURST 115 #1 : Drop Load at CORSGOLD 115 #1 : 2.2 MW 0.4 MVAR Dr : Drop Load at CORSGOLD 115 #2 : 26.5 MW 5.3 MVAR D :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.6	101.3	0.6
429	Open Line GATES 230-ARCO 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.4	100.9	0.6
430	Open Line GATES 230-MIDWAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.3	100.8	0.6
112	Open Line LE GRNDJ 115-WILSON B 115 #1 : Open Line LE GRNDJ 115-EL NIDO 115 #1 : Open Line EL NIDO 115-ORO LOMA 115 #1 : Drop Load at EL NIDO 115 #1 : 12.6 MW 2.5 MVAR Dr : Drop Load at EL NIDO 115 #2 : 15.2 MW 3 MVAR Drop : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.2	100.8	0.6
291	Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.2	100.8	0.6
413	Open Line PANOCHET 230-GATES 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.1	100.7	0.5
414	Open Line PANOCHET 230-GATES 230 #2 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.1	100.7	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
154	Open Line COBURN 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.0	100.6	0.6
377	Open Line GATES 230-ARCO 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.0	100.5	0.6
423	Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.9	100.5	0.6
378	Open Line GATES 230-MIDWAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.9	100.4	0.6
117	Open Line MCSWAINJ 70-MC SWAIN 70 #1 : Open Line MCSWAINJ 70-MRCDFLLS 70 #1 : Open Line MCSWAINJ 70-EXCHEQR 70 #1 : Open Xfmr MC SWAIN 70/MCSWAIN 9.11 #1 : Drop Generator at MCSWAIN 9.11 #1 : 9 MW Dropped : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.8	100.4	0.6
353	Open Line SMYRNA 115-MCKIBBEN 115 #1 : Open Line MCKIBBEN 115-SEMITRPJ 115 #1 : Open Line SEMITRPJ 115-GANSO 115 #1 : Open Line GANSO 115-MIDWAY 115 #1 : Drop Load at GANSO 115 #1 : 3.9 MW 0.7 MVAR Dropp : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.7	100.3	0.6
162	Open Line PANOCHE 230-GATES 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.7	100.3	0.6
163	Open Line PANOCHE 230-GATES 230 #2 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.7	100.3	0.6
41	Open Line PANOCHEJ 115-PANOCHE 115 #1 : Open Line PANOCHEJ 115-HAMMONDS 115 #1 : Open Line PANOCHEJ 115-OXFRDJCT 115 #1 : Open Line HAMMONDS 115-DFSTP 115 #1 : Open Line DFSTP 115-ORO LOMA 115 #1 : Open Line DFSTP 115-DFS 115 #1 : Open Line OXFRDJCT 115-OXFORD 115 #1 : Open Line OXFRDJCT 115-WSTLDJCT 115 #1 : Open Line WSTLDJCT 115-WSTLD1RA 115 #1 : Open Line	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.7	100.2	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
	WSTLDJCT 115-LUISJCT 115 #1 :						
12	Open Line PANOCHE 230-HELM 230 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.6	100.2	0.6
179	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.5	100.2	0.7
113	Open Line WILSON B 115-EL CAPTN 115 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.6	100.2	0.6
27	Open Line EXCHEQUER 115-LE GRAND 115 #1 : Drop Generator at EXCHQUER 13.8 #1 : 94.5 MW Dropp : Drop Load at MARIPOS2 70 #** : 9.1 MW 1.8 MVAR Dro :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.6	100.2	0.6
81	Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.6	100.1	0.6
108	Open Line ATWATER 115-CASTLE 115 #1 : Open Line CASTLE 115-EL CAPTN 115 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.6	100.1	0.6
158	Open Line LOSBANOS 230-SN LS PP 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.6	100.1	0.5
159	Open Line LOSBANOS 230-SN LS PP 230 #2 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.6	100.1	0.5
371	Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.5	100.1	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
255	Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line OLDKERN 70-BIOLA 70 #1 : Open Line OLDKERN 70- BOWLES 70 #1 : Drop Load at OLDKERN 70 #1 : 19 MW 3.8 MVAR Dropp : Drop Load at OLDKERN 70 #3 : 7.7 MW 1.5 MVAR Drop : Drop Load at BIOLA 70 #1 : 22 MW 4.4 MVAR Dropped : Drop Load at BOWLES 70 #1 : 18.5 MW 3.7 MVAR Drop :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.5	100.0	0.5
118	Open Line ORO LOMA 70-MRCYSPRS 70 #1 : Open Line MRCYSPRS 70-ORTIGA 70 #1 : Open Line MRCYSPRS 70- ARBURUA 70 #1 : Open Line ORTIGA 70-CANAL 70 #1 : Open Line ARBURUA 70-WRGHT PP 70 #1 : Open Line WRGHT PP 70-LOS BANS 70 #1 : Drop Load at ORTIGA 70 #1 : 7 MW 1.4 MVAR Dropped : Drop Load at ARBURUA 70 #1 : 3.8 MW 1.8 MVAR Drop : Drop Load at WRGHT PP 70 #1 : 9.6 MW 1.9 MVAR Dro : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.4	100.0	0.6
128	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	180.6	181.5	0.9
165	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	180.0	181.0	0.9
16	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	175.3	176.2	0.9
184	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	170.6	171.6	0.9
146	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	143.2	144.1	0.9

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
285	Open Xfmr GATES 230/GATES 500 #11 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	122.7	123.4	0.7
422	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	121.8	122.5	0.7
370	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	121.2	121.9	0.7
196	Open Line KEARNEY 230-HERNDON 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.8	119.5	0.7
152	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.4	119.0	0.6
411	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.2	117.8	0.7
160	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.6	117.3	0.7
2	Open Line WESTLEY 230-LOSBANOS 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	115.6	116.2	0.6
107	Open Line CERTANJ1 115-CHWCHLLA 115 #1 : Open Line CERTANJ1 115-SHARON T 115 #1 : Open Line SHARON T 115-SHARON 115 #1 : Open Line SHARON T 115-OAKH_JCT 115 #1 : Open Line OAKH_JCT 115-CORSGOLD 115 #1 : Open Line OAKH_JCT 115-K1-JCT 115 #1 : Open Line CORSGOLD 115-OAKHURST 115 #1 : Open Line K1-JCT 115-KERCKHF2 115 #2 : Drop Load at SHARON 115 #1 : 7.1 MW 4.9 MVAR Drop : Drop Load at CORSGOLD 115 #1 : 2.2 MW 0.4 MVAR Dr :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	115.4	116.0	0.6
415	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	115.2	115.9	0.6
386	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	115.2	115.8	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
363	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	114.7	115.4	0.6
11	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	114.2	114.9	0.7
412	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	113.9	114.5	0.6
28	Open Line LE GRAND 115-WILSON A 115 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	113.9	114.5	0.6
161	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	113.4	114.0	0.6
106	Open Line CHWCHLLA 115-CERTAN T 115 #1 : Open Line CERTAN T 115-LE GRAND 115 #1 : Open Line CERTAN T 115-CERTANJ2 115 #1 : Open Line CERTANJ2 115-CHWCGNJT 115 #1 : Open Line CHWCGNJT 115-CERTTEED 115 #1 : Open Line CHWCGNJT 115-CHWCGN 115 #1 : Open Line CHWCGN 115-CHWCHLA2 115 #1 : Open Xfmr CHWCGN 115/CHOWCOGN 13.8 #1 : Open Xfmr CHWCHLA2 115/CHWCHLA2 13.8 #1 : Drop Load at CERTTEED 115 #1 : 9.9 MW 6.9 MVAR Dr :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	113.3	114.0	0.6
116	Open Line CANANDGA 70-TRIGO J 70 #1 : Open Line CANANDGA 70-GLASS 70 #1 : Open Line TRIGO J 70-BONITA 70 #1 : Open Line TRIGO J 70-TRIGO 70 #1 : Open Line TRIGO 70-MADERA 70 #1 : Open Line TRIGO 70-EL PECO 70 #1 : Drop Load at CANANDGA 70 #1 : 7.6 MW 5.7 MVAR Dro : Drop Load at BONITA 70 #1 : 14.6 MW 2.9 MVAR Drop : Drop Load at EL PECO 70 #1 : 10 MW 2 MVAR Dropped : Drop Load at EL PECO 70 #2 : 7.3 MW 1.4 MVAR Drop :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	113.3	113.8	0.6
426	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.9	113.5	0.6



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
114	Open Line NEWHALL 115-DAIRYLND 115 #1 : Open Line NEWHALL 115-MADERAPR 115 #1 : Open Line MADERAPR 115-MENDOTA 115 #1 : Open Xfmr MADERAPR 115/MADERA_G 13.8 #1 : Drop Load at NEWHALL 115 #2 : 8.7 MW 1.7 MVAR Dro : Drop Load at NEWHALL 115 #3 : 10.8 MW 2.1 MVAR Dr : Drop Load at MADERA_G 13.8 #ss: 3.6 MW 0.8 MVAR D : Drop Generator at MADERA_G 13.8 #1 : 28.6 MW Dropp : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.9	113.5	0.5
171	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.6	113.2	0.6
169	Open Line DS AMIGO 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.5	113.1	0.6
374	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.3	113.0	0.6
155	Open Line LOSBANOS 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.4	112.9	0.6
153	Open Line MOSSLND2 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.4	112.9	0.6
156	Open Line LOSBANOS 230-PANOCHE 230 #2 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.2	112.8	0.6
189	Open Line HELM 230-MC CALL 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.9	112.6	0.7
111	Open Line LE GRAND 115-DAIRYLND 115 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.0	112.5	0.5
157	Open Line LOSBANOS 230-DS AMIGO 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.8	112.4	0.6
115	Open Line PANOCHE 115-MENDOTA 115 #1 : Open Line PANOCHE 115-PANOCHE 115 #1 : Drop Generator at DG_PAN1 13.8 #1 : 49 MW Dropped : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.7	112.3	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
207	Open Line K1-JCT 115-KERCKHF2 115 #2 : Open Line K1-JCT 115-OAKH_JCT 115 #1 : Open Line OAKH_JCT 115-SHARON T 115 #1 : Open Line OAKH_JCT 115-CORSGOLD 115 #1 : Open Line SHARON T 115-CERTANJ1 115 #1 : Open Line SHARON T 115-SHARON 115 #1 : Open Line CERTANJ1 115-CHWCHLLA 115 #1 : Open Line CORSGOLD 115-OAKHURST 115 #1 : Drop Load at CORSGOLD 115 #1 : 2.2 MW 0.4 MVAR Dr : Drop Load at CORSGOLD 115 #2 : 26.5 MW 5.3 MVAR D :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.6	112.2	0.6
429	Open Line GATES 230-ARCO 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.4	112.0	0.6
430	Open Line GATES 230-MIDWAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.3	111.9	0.6
291	Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.2	111.8	0.6
112	Open Line LE GRNDJ 115-WILSON B 115 #1 : Open Line LE GRNDJ 115-EL NIDO 115 #1 : Open Line EL NIDO 115-ORO LOMA 115 #1 : Drop Load at EL NIDO 115 #1 : 12.6 MW 2.5 MVAR Dr : Drop Load at EL NIDO 115 #2 : 15.2 MW 3 MVAR Drop : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.2	111.8	0.6
413	Open Line PANOCHE 230-GATES 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.2	111.7	0.6
414	Open Line PANOCHE 230-GATES 230 #2 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.2	111.7	0.6
154	Open Line COBURN 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.0	111.6	0.6
423	Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.0	111.6	0.6
377	Open Line GATES 230-ARCO 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.0	111.5	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
378	Open Line GATES 230-MIDWAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.9	111.4	0.6
117	Open Line MCSWAINJ 70-MC SWAIN 70 #1 : Open Line MCSWAINJ 70-MRCDFLLS 70 #1 : Open Line MCSWAINJ 70-EXCHEQR 70 #1 : Open Xfmr MC SWAIN 70/MCSWAIN 9.11 #1 : Drop Generator at MCSWAIN 9.11 #1 : 9 MW Dropped : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.8	111.4	0.6
353	Open Line SMYRNA 115-MCKIBBEN 115 #1 : Open Line MCKIBBEN 115-SEMITRPJ 115 #1 : Open Line SEMITRPJ 115-GANSO 115 #1 : Open Line GANSO 115-MIDWAY 115 #1 : Drop Load at GANSO 115 #1 : 3.9 MW 0.7 MVAR Dropp : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.7	111.3	0.6
162	Open Line PANOCHE 230-GATES 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.7	111.3	0.6
163	Open Line PANOCHE 230-GATES 230 #2 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.7	111.3	0.6
41	Open Line PANOCHEJ 115-PANOCHE 115 #1 : Open Line PANOCHEJ 115-HAMMONDS 115 #1 : Open Line PANOCHEJ 115-OXFRDJCT 115 #1 : Open Line HAMMONDS 115-DFSTP 115 #1 : Open Line DFSTP 115-ORO LOMA 115 #1 : Open Line DFSTP 115-DFS 115 #1 : Open Line OXFRDJCT 115-OXFORD 115 #1 : Open Line OXFRDJCT 115-WSTLDJCT 115 #1 : Open Line WSTLDJCT 115-WSTLD1RA 115 #1 : Open Line WSTLDJCT 115-LUISJCT 115 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.7	111.3	0.6
12	Open Line PANOCHE 230-HELM 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.6	111.2	0.6
113	Open Line WILSON B 115-EL CAPTN 115 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.7	111.2	0.6
179	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.5	111.2	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
27	Open Line EXCHEQUER 115-LE GRAND 115 #1 : Drop Generator at EXCHQUER 13.8 #1 : 94.5 MW Dropp : Drop Load at MARIPOS2 70 #** : 9.1 MW 1.8 MVAR Dro :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.6	111.2	0.6
81	Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.5	111.1	0.6
108	Open Line ATWATER 115-CASTLE 115 #1 : Open Line CASTLE 115-EL CAPTN 115 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.6	111.1	0.6
158	Open Line LOSBANOS 230-SN LS PP 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.6	111.1	0.6
159	Open Line LOSBANOS 230-SN LS PP 230 #2 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.6	111.1	0.6
371	Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.5	111.1	0.6
255	Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line OLDKERN 70-BIOLA 70 #1 : Open Line OLDKERN 70-BOWLES 70 #1 : Drop Load at OLDKERN 70 #1 : 19 MW 3.8 MVAR Dropp : Drop Load at OLDKERN 70 #3 : 7.7 MW 1.5 MVAR Drop : Drop Load at BIOLA 70 #1 : 22 MW 4.4 MVAR Dropped : Drop Load at BOWLES 70 #1 : 18.5 MW 3.7 MVAR Drop :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.4	111.0	0.6
118	Open Line ORO LOMA 70-MRCYSPRS 70 #1 : Open Line MRCYSPRS 70-ORTIGA 70 #1 : Open Line MRCYSPRS 70-ARBURUA 70 #1 : Open Line ORTIGA 70-CANAL 70 #1 : Open Line ARBURUA 70-WRGHT PP 70 #1 : Open Line WRGHT PP 70-LOS BANS 70 #1 : Drop Load at ORTIGA 70 #1 : 7 MW 1.4 MVAR Dropped : Drop Load at ARBURUA 70 #1 : 3.8 MW 1.8 MVAR Drop : Drop Load at WRGHT PP 70 #1 : 9.6 MW 1.9 MVAR Dro : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.4	111.0	0.6
427	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.0	110.5	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
428	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.8	110.3	0.6
70	Open Xfmr ORO LOMA 70/ORO LOMA 115 #2 : Open Line ORO LOMA 115-DFSTP 115 #1 : Open Line ORO LOMA 115-EL NIDO 115 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.7	110.3	0.6
62	Open Line DS AMIGO 230-PANOCHE 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.6	110.2	0.6
202	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.6	110.2	0.6
66	Open Xfmr EXCHEQUR 115/EXCHEQUR 70 #1 : Open Line EXCHEQUR 70-MARIPOS2 70 #1 : Open Line EXCHEQUR 70-BER VLLY 70 #1 : Open Line EXCHEQUR 70-MCSWAINJ 70 #1 : Drop Load at MARIPOS2 70 #1 : 9.1 MW 1.8 MVAR Dro : Drop Load at MARIPOS2 70 #2 : 9.5 MW 1.9 MVAR Dro : Close Line MARIPOS2 70-BRCEBG J 70 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.6	110.1	0.6
236	Open Line HERNDON 115-CHLDHOSP 115 #1 : Open Line CHLDHOSP 115-WOODWARD 115 #1 : Drop Load at CHLDHOSP 115 #1 : 3.5 MW 1.5 MVAR Dr :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.6	110.1	0.5
5	Open Line LOSBANOS 230-PANOCHE 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.5	110.1	0.6
3	Open Line MOSSLND2 230-PANOCHE 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.5	110.1	0.6
375	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.5	110.1	0.6
233	Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 31.1 MW 6.3 MVAR Dro : Drop Load at PNEDLE 115 #3 : 40.9 MW 8.2 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.4	110.0	0.6
6	Open Line LOSBANOS 230-PANOCHE 230 #2 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.4	110.0	0.6
280	Open Xfmr HERNDON 230/HERNDON 115 #2 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.4	109.9	0.5
279	Open Xfmr HERNDON 230/HERNDON 115 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.3	109.9	0.5
376	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.3	109.9	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
109	Open Line ATWATER 115-CRESEY T 115 #1 : Open Line CRESEY T 115-ATWATR J 115 #1 : Open Line CRESEY T 115-JRWD GEN 115 #1 : Open Line JRWD GEN 115-JR WOOD 115 #1 : Open Xfmr JRWD GEN 115/JRWCOGEN 9.11 #1 : Open Line JR WOOD 115-CRESSEY 115 #1 : Drop Load at JR WOOD 115 #1 : 11.7 MW 10.3 MVAR D : Drop Load at CRESSEY 115 #1 : 19.3 MW 3.9 MVAR Dr : Drop Generator at JRWCOGEN 9.11 #1 : 3.8 MW Droppe : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.3	109.9	0.6
110	Open Line CRESEY T 115-ATWATR J 115 #1 : Open Line ATWATR J 115-LIVNGSTN 115 #1 : Open Line ATWATR J 115-MERCED 115 #1 : Open Line LIVNGSTN 115-GALLO 115 #1 : Drop Load at LIVNGSTN 115 #3 : 24.9 MW 5 MVAR Dro : Drop Load at GALLO 115 #1 : 4.3 MW 3.6 MVAR Dropp : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.2	109.8	0.6
37	Open Line NEWHALL 115-DAIRYLND 115 #1 : Open Line NEWHALL 115-MADERAPR 115 #1 : Open Line MADERAPR 115-MENDOTA 115 #1 : Open Xfmr MADERAPR 115/MADERA_G 13.8 #1 : Drop Load at NEWHALL 115 #2 : 8.7 MW 1.7 MVAR Dro : Drop Load at NEWHALL 115 #3 : 10.8 MW 2.1 MVAR Dr : Drop Load at MADERA_G 13.8 #ss: 3.6 MW 0.8 MVAR D : Drop Generator at MADERA_G 13.8 #1 : 28.6 MW Dropp :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.2	109.7	0.5
7	Open Line LOSBANOS 230-DS AMIGO 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.0	109.5	0.6
264	Open Line LEPRINO 70-LPRNO TP 70 #1 : Open Line LPRNO TP 70-LEMOORE 70 #1 : Open Line LPRNO TP 70-CANDLEWK 70 #1 : Open Line LPRNO TP 70-HENRITTA 70 #1 : Drop Load at LEPRINO 70 #1 : 6.6 MW 4.2 MVAR Drop : Drop Load at LEMOORE 70 #1 : 19.1 MW 3.8 MVAR Dro : Drop Load at LEMOORE 70 #2 : 33.2 MW 6.7 MVAR Dro :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.9	109.5	0.6
214	Open Line CLOVIS-2 115-CLOVISJ2 115 #1 : Open Line CLOVISJ2 115-KERCKHF2 115 #1 : Open Line CLOVISJ2 115-SANGER 115 #1 : Drop Load at CLOVIS-2 115 #3 : 45.3 MW 9.1 MVAR D : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.9	109.4	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
58	Open Line BORDEN 70-CASSIDY 70 #1 : Open Line CASSIDY 70-RIVERROC 70 #1 : Open Line RIVERROC 70- COPPRMNE 70 #1 : Drop Load at CASSIDY 70 #1 : 14.5 MW 2.9 MVAR Dro : Drop Load at RIVERROC 70 #1 : 2 MW 1.8 MVAR Dropp :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.8	109.3	0.5
127	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	168.7	169.6	0.9
164	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	168.1	169.1	0.9
15	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	163.4	164.3	1.0
183	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	158.8	159.7	0.9
145	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	131.5	132.4	0.9
285	Open Xfmr GATES 230/GATES 500 #11 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	122.6	123.3	0.8
422	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	121.5	122.3	0.7
370	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	121.0	121.7	0.7
196	Open Line KEARNEY 230-HERNDON 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	118.3	119.1	0.7
152	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	117.8	118.5	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
411	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	116.4	117.2	0.7
160	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	115.9	116.6	0.7
2	Open Line WESTLEY 230-LOSBANOS 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	114.8	115.4	0.7
107	Open Line CERTANJ1 115-CHWCHLLA 115 #1 : Open Line CERTANJ1 115-SHARON T 115 #1 : Open Line SHARON T 115-SHARON 115 #1 : Open Line SHARON T 115-OAKH_JCT 115 #1 : Open Line OAKH_JCT 115-CORSGOLD 115 #1 : Open Line OAKH_JCT 115-K1-JCT 115 #1 : Open Line CORSGOLD 115-OAKHURST 115 #1 : Open Line K1-JCT 115-KERCKHF2 115 #2 : Drop Load at SHARON 115 #1 : 7.1 MW 4.9 MVAR Drop : Drop Load at CORSGOLD 115 #1 : 2.2 MW 0.4 MVAR Dr :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	114.6	115.3	0.7
386	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	114.3	115.1	0.7
415	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	114.3	115.0	0.7
363	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	113.8	114.5	0.7
11	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	113.2	114.0	0.7
28	Open Line LE GRAND 115-WILSON A 115 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	113.0	113.6	0.6
412	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	112.9	113.6	0.7
161	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	112.4	113.1	0.7



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
106	Open Line CHWCHLLA 115-CERTAN T 115 #1 : Open Line CERTAN T 115-LE GRAND 115 #1 : Open Line CERTAN T 115-CERTANJ2 115 #1 : Open Line CERTANJ2 115-CHWCGNJ2 115 #1 : Open Line CHWCGNJ2 115-CERTTEED 115 #1 : Open Line CHWCGNJ2 115-CHWCGN 115 #1 : Open Line CHWCGN 115-CHWCHLA2 115 #1 : Open Xfmr CHWCGN 115/CHOWCOGN 13.8 #1 : Open Xfmr CHWCHLA2 115/CHWCHLA2 13.8 #1 : Drop Load at CERTTEED 115 #1 : 9.9 MW 6.9 MVAR Dr :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	112.4	113.0	0.7
116	Open Line CANANDGA 70-TRIGO J 70 #1 : Open Line CANANDGA 70-GLASS 70 #1 : Open Line TRIGO J 70-BONITA 70 #1 : Open Line TRIGO J 70-TRIGO 70 #1 : Open Line TRIGO 70-MADERA 70 #1 : Open Line TRIGO 70-EL PECO 70 #1 : Drop Load at CANANDGA 70 #1 : 7.6 MW 5.7 MVAR Dro : Drop Load at BONITA 70 #1 : 14.6 MW 2.9 MVAR Drop : Drop Load at EL PECO 70 #1 : 10 MW 2 MVAR Dropped : Drop Load at EL PECO 70 #2 : 7.3 MW 1.4 MVAR Drop :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	112.2	112.9	0.6
114	Open Line NEWHALL 115-DAIRYLND 115 #1 : Open Line NEWHALL 115-MADERAPR 115 #1 : Open Line MADERAPR 115-MENDOTA 115 #1 : Open Xfmr MADERAPR 115/MADERA_G 13.8 #1 : Drop Load at NEWHALL 115 #2 : 8.7 MW 1.7 MVAR Dro : Drop Load at NEWHALL 115 #3 : 10.8 MW 2.1 MVAR Dr : Drop Load at MADERA_G 13.8 #ss: 3.6 MW 0.8 MVAR D : Drop Generator at MADERA_G 13.8 #1 : 28.6 MW Dropp : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	111.9	112.5	0.6
426	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	111.8	112.4	0.7
171	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	111.5	112.1	0.7
169	Open Line DS AMIGO 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	111.4	112.0	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
374	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	111.2	111.9	0.7
155	Open Line LOSBANOS 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	111.3	111.9	0.6
153	Open Line MOSSLND2 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	111.2	111.9	0.6
156	Open Line LOSBANOS 230-PANOCHE 230 #2 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	111.1	111.7	0.6
189	Open Line HELM 230-MC CALL 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	110.8	111.5	0.7
111	Open Line LE GRAND 115-DAIRYLND 115 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	110.8	111.4	0.6
157	Open Line LOSBANOS 230-DS AMIGO 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	110.6	111.3	0.6
115	Open Line PANOCHE 115-MENDOTA 115 #1 : Open Line PANOCHE 115-PANOCHE 115 #1 : Drop Generator at DG_PAN1 13.8 #1 : 49 MW Dropped : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	110.5	111.2	0.6
207	Open Line K1-JCT 115-KERCKHF2 115 #2 : Open Line K1-JCT 115-OAKH_JCT 115 #1 : Open Line OAKH_JCT 115-SHARON T 115 #1 : Open Line OAKH_JCT 115-CORSGOLD 115 #1 : Open Line SHARON T 115-CERTANJ1 115 #1 : Open Line SHARON T 115-SHARON 115 #1 : Open Line CERTANJ1 115- CHWCHLLA 115 #1 : Open Line CORSGOLD 115-OAKHURST 115 #1 : Drop Load at CORSGOLD 115 #1 : 2.2 MW 0.4 MVAR Dr : Drop Load at CORSGOLD 115 #2 : 26.5 MW 5.3 MVAR D :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	110.5	111.1	0.7
429	Open Line GATES 230-ARCO 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	110.2	110.8	0.6
430	Open Line GATES 230-MIDWAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	110.1	110.7	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
291	Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	110.0	110.6	0.6
112	Open Line LE GRNDJ 115-WILSON B 115 #1 : Open Line LE GRNDJ 115-EL NIDO 115 #1 : Open Line EL NIDO 115-ORO LOMA 115 #1 : Drop Load at EL NIDO 115 #1 : 12.6 MW 2.5 MVAR Dr : Drop Load at EL NIDO 115 #2 : 15.2 MW 3 MVAR Drop : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	110.0	110.6	0.6
413	Open Line PANOCHE 230-GATES 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.9	110.5	0.6
414	Open Line PANOCHE 230-GATES 230 #2 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.9	110.5	0.6
154	Open Line COBURN 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.8	110.4	0.6
377	Open Line GATES 230-ARCO 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.7	110.3	0.6
423	Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr : Close Line FIGRDN 1 230-FGRDN 2 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.7	110.3	0.6
378	Open Line GATES 230-MIDWAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.6	110.2	0.6
117	Open Line MCSWAINJ 70-MC SWAIN 70 #1 : Open Line MCSWAINJ 70-MRCDFLLS 70 #1 : Open Line MCSWAINJ 70-EXCHEQR 70 #1 : Open Xfmr MC SWAIN 70/MCSWAIN 9.11 #1 : Drop Generator at MCSWAIN 9.11 #1 : 9 MW Dropped : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.6	110.2	0.6
353	Open Line SMYRNA 115-MCKIBBEN 115 #1 : Open Line MCKIBBEN 115-SEMITRPJ 115 #1 : Open Line SEMITRPJ 115-GANSO 115 #1 : Open Line GANSO 115-MIDWAY 115 #1 : Drop Load at GANSO 115 #1 : 3.9 MW 0.7 MVAR Dropp : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.5	110.1	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
162	Open Line PANOCHE 230-GATES 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.4	110.0	0.6
163	Open Line PANOCHE 230-GATES 230 #2 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.4	110.0	0.6
41	Open Line PANOCHEJ 115-PANOCHE 115 #1 : Open Line PANOCHEJ 115-HAMMONDS 115 #1 : Open Line PANOCHEJ 115-OXFRDJCT 115 #1 : Open Line HAMMONDS 115-DFSTP 115 #1 : Open Line DFSTP 115-ORO LOMA 115 #1 : Open Line DFSTP 115-DFS 115 #1 : Open Line OXFRDJCT 115-OXFORD 115 #1 : Open Line OXFRDJCT 115-WSTLDJCT 115 #1 : Open Line WSTLDJCT 115-WSTLD1RA 115 #1 : Open Line WSTLDJCT 115-LUISJCT 115 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.4	110.0	0.6
12	Open Line PANOCHE 230-HELM 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.3	110.0	0.7
113	Open Line WILSON B 115-EL CAPTN 115 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.4	110.0	0.6
179	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.2	110.0	0.7
27	Open Line EXCHEQR 115-LE GRAND 115 #1 : Drop Generator at EXCHQUER 13.8 #1 : 94.5 MW Dropp : Drop Load at MARIPOS2 70 #** : 9.1 MW 1.8 MVAR Dro :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.3	109.9	0.6
81	Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.3	109.9	0.6
108	Open Line ATWATER 115-CASTLE 115 #1 : Open Line CASTLE 115-EL CAPTN 115 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.3	109.9	0.6
158	Open Line LOSBANOS 230-SN LS PP 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.3	109.9	0.6
159	Open Line LOSBANOS 230-SN LS PP 230 #2 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.3	109.9	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
371	Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.2	109.8	0.6
255	Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line OLDKERN 70-BIOLA 70 #1 : Open Line OLDKERN 70-BOWLES 70 #1 : Drop Load at OLDKERN 70 #1 : 19 MW 3.8 MVAR Dropp : Drop Load at OLDKERN 70 #3 : 7.7 MW 1.5 MVAR Drop : Drop Load at BIOLA 70 #1 : 22 MW 4.4 MVAR Dropped : Drop Load at BOWLES 70 #1 : 18.5 MW 3.7 MVAR Drop :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.2	109.8	0.6
118	Open Line ORO LOMA 70-MRCYSPRS 70 #1 : Open Line MRCYSPRS 70-ORTIGA 70 #1 : Open Line MRCYSPRS 70-ARBURUA 70 #1 : Open Line ORTIGA 70-CANAL 70 #1 : Open Line ARBURUA 70-WRGHT PP 70 #1 : Open Line WRGHT PP 70-LOS BANS 70 #1 : Drop Load at ORTIGA 70 #1 : 7 MW 1.4 MVAR Dropped : Drop Load at ARBURUA 70 #1 : 3.8 MW 1.8 MVAR Drop : Drop Load at WRGHT PP 70 #1 : 9.6 MW 1.9 MVAR Dro : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.1	109.7	0.6
427	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	108.6	109.2	0.6
428	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	108.4	109.0	0.6
70	Open Xfmr ORO LOMA 70/ORO LOMA 115 #2 : Open Line ORO LOMA 115-DFSTP 115 #1 : Open Line ORO LOMA 115-EL NIDO 115 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	108.3	109.0	0.6
62	Open Line DS AMIGO 230-PANOCHE 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	108.3	108.9	0.6
202	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	108.2	108.9	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
66	Open Xfmr EXCHEQR 115/EXCHEQR 70 #1 : Open Line EXCHEQR 70-MARIPOS2 70 #1 : Open Line EXCHEQR 70-BER VLLY 70 #1 : Open Line EXCHEQR 70-MCSWAINJ 70 #1 : Drop Load at MARIPOS2 70 #1 : 9.1 MW 1.8 MVAR Dro : Drop Load at MARIPOS2 70 #2 : 9.5 MW 1.9 MVAR Dro : Close Line MARIPOS2 70-BRCEBG J 70 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	108.2	108.8	0.6
236	Open Line HERNDON 115-CHLDHOSP 115 #1 : Open Line CHLDHOSP 115-WOODWARD 115 #1 : Drop Load at CHLDHOSP 115 #1 : 3.5 MW 1.5 MVAR Dr :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	108.2	108.8	0.6
5	Open Line LOSBANOS 230-PANOCHE 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	108.2	108.8	0.6
3	Open Line MOSSLND2 230-PANOCHE 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	108.1	108.8	0.6
375	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	108.1	108.7	0.6
233	Open Line PNDLJ2 115-PNEDELE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDELE 115 #2 : 31.1 MW 6.3 MVAR Dro : Drop Load at PNEDELE 115 #3 : 40.9 MW 8.2 MVAR Dro : Close Line PNDLJ1 115-PNEDELE 115 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	108.0	108.6	0.6
6	Open Line LOSBANOS 230-PANOCHE 230 #2 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	108.0	108.6	0.6
280	Open Xfmr HERNDON 230/HERNDON 115 #2 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	108.0	108.6	0.6
376	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	107.9	108.5	0.6
109	Open Line ATWATER 115-CRESEY T 115 #1 : Open Line CRESEY T 115-ATWATR J 115 #1 : Open Line CRESEY T 115-JRWD GEN 115 #1 : Open Line JRWD GEN 115-JR WOOD 115 #1 : Open Xfmr JRWD GEN 115/JRWCOGEN 9.11 #1 : Open Line JR WOOD 115-CRESSEY 115 #1 : Drop Load at JR WOOD 115 #1 : 11.7 MW 10.3 MVAR D : Drop Load at CRESSEY 115 #1 : 19.3 MW 3.9 MVAR Dr : Drop Generator at JRWCOGEN 9.11 #1 : 3.8 MW Droppe : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	107.9	108.5	0.6
279	Open Xfmr HERNDON 230/HERNDON 115 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	107.9	108.5	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
110	Open Line CRESEY T 115-ATWATR J 115 #1 : Open Line ATWATR J 115-LIVNGSTN 115 #1 : Open Line ATWATR J 115-MERCED 115 #1 : Open Line LIVNGSTN 115-GALLO 115 #1 : Drop Load at LIVNGSTN 115 #3 : 24.9 MW 5 MVAR Dro : Drop Load at GALLO 115 #1 : 4.3 MW 3.6 MVAR Dropp : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	107.8	108.4	0.6
37	Open Line NEWHALL 115-DAIRYLND 115 #1 : Open Line NEWHALL 115-MADERAPR 115 #1 : Open Line MADERAPR 115-MENDOTA 115 #1 : Open Xfmr MADERAPR 115/MADERA_G 13.8 #1 : Drop Load at NEWHALL 115 #2 : 8.7 MW 1.7 MVAR Dro : Drop Load at NEWHALL 115 #3 : 10.8 MW 2.1 MVAR Dr : Drop Load at MADERA_G 13.8 #ss: 3.6 MW 0.8 MVAR D : Drop Generator at MADERA_G 13.8 #1 : 28.6 MW Dropp :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	107.8	108.4	0.6
7	Open Line LOSBANOS 230-DS AMIGO 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	107.5	108.2	0.6
264	Open Line LEPRINO 70-LPRNO TP 70 #1 : Open Line LPRNO TP 70-LEMOORE 70 #1 : Open Line LPRNO TP 70-CANDLEWK 70 #1 : Open Line LPRNO TP 70-HENRITTA 70 #1 : Drop Load at LEPRINO 70 #1 : 6.6 MW 4.2 MVAR Drop : Drop Load at LEMOORE 70 #1 : 19.1 MW 3.8 MVAR Dro : Drop Load at LEMOORE 70 #2 : 33.2 MW 6.7 MVAR Dro :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	107.5	108.1	0.6
214	Open Line CLOVIS-2 115-CLOVISJ2 115 #1 : Open Line CLOVISJ2 115-KERCKHF2 115 #1 : Open Line CLOVISJ2 115-SANGER 115 #1 : Drop Load at CLOVIS-2 115 #3 : 45.3 MW 9.1 MVAR D : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	107.4	108.1	0.6
58	Open Line BORDEN 70-CASSIDY 70 #1 : Open Line CASSIDY 70-RIVERROC 70 #1 : Open Line RIVERROC 70-COPPRMNE 70 #1 : Drop Load at CASSIDY 70 #1 : 14.5 MW 2.9 MVAR Dro : Drop Load at RIVERROC 70 #1 : 2 MW 1.8 MVAR Dropp :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	107.4	108.0	0.6
379	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	None	108.0	??
361	Open Line MC CALL 115-WAHTOKE 115 #1 : Drop Generator at SANGERCO 9.11 #1: 37.5 MW Droppe :	SNGRJCT -SANGER 70.00kV Ckt#1 Sec# 1	395.9	Amps	104.3	104.4	0.1

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
361	Open Line MC CALL 115-WAHTOKE 115 #1 : Drop Generator at SANGERCO 9.11 #1: 37.5 MW Droppe :	REEDLEY -PIEDRA 1 115.00kV Ckt#1 Sec# 1	597.43	Amps	109.2	109.3	0.1
222	Open Line MC CALL 115-WAHTOKE 115 #1 :	REEDLEY -PIEDRA 1 115.00kV Ckt#1 Sec# 1	597.43	Amps	102.5	102.6	0.1
362	Open Line MC CALL 115-WAHTOKE 115 #1 : Drop Generator at KINGSRIV 13.8 #1: 47 MW Dropped :	RAINBWTP-SANGER 115.00kV Ckt#1 Sec# 1	612.49	Amps	107.6	107.7	0.1
204	Open Line GATES 230-MORROBAY 230 #1 :	Q238TAP -CARRIZO 115.00kV Ckt#1 Sec# 1	436.78	Amps	116.1	116.2	0.1
428	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	Q238TAP -CARRIZO 115.00kV Ckt#1 Sec# 1	436.78	Amps	115.9	116.0	0.1
376	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	Q238TAP -CARRIZO 115.00kV Ckt#1 Sec# 1	436.78	Amps	115.8	115.9	0.1
392	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	Q238TAP -CARRIZO 115.00kV Ckt#1 Sec# 1	436.78	Amps	115.6	115.7	0.1
408	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	Q238TAP -CARRIZO 115.00kV Ckt#1 Sec# 1	436.78	Amps	114.6	114.7	0.1
203	Open Line GATES 230-TEMPLETN 230 #1 :	Q238TAP -CARRIZO 115.00kV Ckt#1 Sec# 1	436.78	Amps	114.4	114.5	0.1
427	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	Q238TAP -CARRIZO 115.00kV Ckt#1 Sec# 1	436.78	Amps	114.3	114.4	0.1
375	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	Q238TAP -CARRIZO 115.00kV Ckt#1 Sec# 1	436.78	Amps	114.1	114.2	0.1
285	Open Xfmr GATES 230/GATES 500 #11 :	Q238TAP -CARRIZO 115.00kV Ckt#1 Sec# 1	436.78	Amps	113.7	114.1	0.4
391	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	Q238TAP -CARRIZO 115.00kV Ckt#1 Sec# 1	436.78	Amps	113.9	114.0	0.1
407	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	Q238TAP -CARRIZO 115.00kV Ckt#1 Sec# 1	436.78	Amps	113.0	113.1	0.1
204	Open Line GATES 230-MORROBAY 230 #1 :	Q194SWST-Q194 230.00kV Ckt#1 Sec# 1	483.22	Amps	101.5	101.6	0.1
428	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	Q194SWST-Q194 230.00kV Ckt#1 Sec# 1	483.22	Amps	101.5	101.5	0.1



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
376	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	Q194SWST-Q194 230.00kV Ckt#1 Sec# 1	483.22	Amps	101.4	101.4	0.1
392	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	Q194SWST-Q194 230.00kV Ckt#1 Sec# 1	483.22	Amps	101.3	101.3	0.0
408	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	Q194SWST-Q194 230.00kV Ckt#1 Sec# 1	483.22	Amps	100.8	100.9	0.0
285	Open Xfmr GATES 230/GATES 500 #11 :	Q194SWST-Q194 230.00kV Ckt#1 Sec# 1	483.22	Amps	100.6	100.7	0.1
203	Open Line GATES 230-TEMPLETN 230 #1 :	Q194SWST-Q194 230.00kV Ckt#1 Sec# 1	483.22	Amps	100.4	100.5	0.0
427	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	Q194SWST-Q194 230.00kV Ckt#1 Sec# 1	483.22	Amps	100.4	100.4	0.0
375	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	Q194SWST-Q194 230.00kV Ckt#1 Sec# 1	483.22	Amps	100.3	100.4	0.0
391	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	Q194SWST-Q194 230.00kV Ckt#1 Sec# 1	483.22	Amps	100.2	100.3	0.0
285	Open Xfmr GATES 230/GATES 500 #11 :	Q194SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	130.6	130.9	0.3
407	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	Q194SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	129.5	129.6	0.1
1	Open Line WARNERVL 230-WILSON 230 #1 :	Q194SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	111.3	111.4	0.1
204	Open Line GATES 230-MORROBAY 230 #1 :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	183.6	183.7	0.1
428	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	183.4	183.6	0.1
376	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	183.3	183.4	0.1
392	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	183.1	183.2	0.1
408	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	182.1	182.2	0.1

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
285	Open Xfmr GATES 230/GATES 500 #11 :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	179.4	179.7	0.4
203	Open Line GATES 230-TEMPLETN 230 #1 :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	179.5	179.6	0.1
427	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	179.3	179.5	0.1
375	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	179.2	179.3	0.1
391	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	179.0	179.1	0.1
407	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	178.0	178.1	0.1
204	Open Line GATES 230-MORROBAY 230 #1 :	Q194 -Q194SWST 230.00kV Ckt#1 Sec# 1	483.22	Amps	101.5	101.6	0.1
428	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	Q194 -Q194SWST 230.00kV Ckt#1 Sec# 1	483.22	Amps	101.5	101.5	0.1
376	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	Q194 -Q194SWST 230.00kV Ckt#1 Sec# 1	483.22	Amps	101.4	101.4	0.1
392	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	Q194 -Q194SWST 230.00kV Ckt#1 Sec# 1	483.22	Amps	101.3	101.3	0.0
408	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	Q194 -Q194SWST 230.00kV Ckt#1 Sec# 1	483.22	Amps	100.8	100.9	0.0
285	Open Xfmr GATES 230/GATES 500 #11 :	Q194 -Q194SWST 230.00kV Ckt#1 Sec# 1	483.22	Amps	100.6	100.7	0.1
203	Open Line GATES 230-TEMPLETN 230 #1 :	Q194 -Q194SWST 230.00kV Ckt#1 Sec# 1	483.22	Amps	100.4	100.5	0.0
427	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	Q194 -Q194SWST 230.00kV Ckt#1 Sec# 1	483.22	Amps	100.4	100.4	0.0
375	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	Q194 -Q194SWST 230.00kV Ckt#1 Sec# 1	483.22	Amps	100.3	100.4	0.0
391	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	Q194 -Q194SWST 230.00kV Ckt#1 Sec# 1	483.22	Amps	100.2	100.3	0.0

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
204	Open Line GATES 230-MORROBAY 230 #1 :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	134.8	134.9	0.1
428	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	134.7	134.8	0.1
376	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	134.6	134.7	0.1
392	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	134.4	134.5	0.1
408	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	133.5	133.6	0.1
203	Open Line GATES 230-TEMPLETN 230 #1 :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	130.8	130.9	0.1
427	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	130.7	130.8	0.1
375	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	130.6	130.7	0.1
391	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	130.4	130.5	0.1
407	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	129.5	129.6	0.1
204	Open Line GATES 230-MORROBAY 230 #1 :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	182.1	182.3	0.1
428	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	182.0	182.1	0.1
376	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	181.9	182.0	0.1
392	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	181.7	181.8	0.1
408	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	180.7	180.8	0.1

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
285	Open Xfmr GATES 230/GATES 500 #11 :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	177.9	178.3	0.4
203	Open Line GATES 230-TEMPLETN 230 #1 :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	178.1	178.2	0.1
427	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	177.9	178.0	0.1
375	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	177.8	177.9	0.1
391	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	177.6	177.7	0.1
407	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	176.6	176.7	0.1
70	Open Xfmr ORO LOMA 70/ORO LOMA 115 #2 : Open Line ORO LOMA 115-DFSTP 115 #1 : Open Line ORO LOMA 115-EL NIDO 115 #1 :	POSO J1 -ORO LOMA 70.00kV Ckt#1 Sec# 1	282.08	Amps	103.0	103.4	0.5
362	Open Line MC CALL 115-WAHTOKE 115 #1 : Drop Generator at KINGSRIV 13.8 #1: 47 MW Dropped :	PARLIER -SNGRJCT 70.00kV Ckt#1 Sec# 1	470.13	Amps	112.8	112.9	0.1
222	Open Line MC CALL 115-WAHTOKE 115 #1 :	PARLIER -SNGRJCT 70.00kV Ckt#1 Sec# 1	470.13	Amps	101.9	102.0	0.1
285	Open Xfmr GATES 230/GATES 500 #11 :	PANOCHE -DS AMIGO 230.00kV Ckt#1 Sec# 1	849.96	Amps	109.3	110.1	0.8
125	Open Line ORO LOMA 70-MRCYSPRS 70 #1 : Open Line MRCYSPRS 70-ORTIGA 70 #1 : Open Line MRCYSPRS 70-ARBURUA 70 #1 : Open Line ORTIGA 70-CANAL 70 #1 : Open Line ARBURUA 70-WRGHT PP 70 #1 : Open Line WRGHT PP 70-LOS BANS 70 #1 : Drop Load at ORTIGA 70 #1 : 7 MW 1.4 MVAR Dropped : Drop Load at ARBURUA 70 #1 : 3.8 MW 1.8 MVAR Drop : Drop Load at WRGHT PP 70 #1 : 9.6 MW 1.9 MVAR Dro : Drop Generator at ONEILPMP 9.11 #1: 0.5 MW Dropped :	ORO LOMA-DOS PALS 70.00kV Ckt#1 Sec# 1	282.08	Amps	129.6	130.1	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
44	Open Line ORO LOMA 70-MRCYSPRS 70 #1 : Open Line MRCYSPRS 70-ORTIGA 70 #1 : Open Line MRCYSPRS 70-ARBURUA 70 #1 : Open Line ORTIGA 70-CANAL 70 #1 : Open Line ARBURUA 70-WRGHT PP 70 #1 : Open Line WRGHT PP 70-LOS BANS 70 #1 : Drop Load at ORTIGA 70 #1 : 7 MW 1.4 MVAR Dropped : Drop Load at ARBURUA 70 #1 : 3.8 MW 1.8 MVAR Drop : Drop Load at WRGHT PP 70 #1 : 9.6 MW 1.9 MVAR Dro :	ORO LOMA-DOS PALS 70.00kV Ckt#1 Sec# 1	282.08	Amps	129.5	130.0	0.5
118	Open Line ORO LOMA 70-MRCYSPRS 70 #1 : Open Line MRCYSPRS 70-ORTIGA 70 #1 : Open Line MRCYSPRS 70-ARBURUA 70 #1 : Open Line ORTIGA 70-CANAL 70 #1 : Open Line ARBURUA 70-WRGHT PP 70 #1 : Open Line WRGHT PP 70-LOS BANS 70 #1 : Drop Load at ORTIGA 70 #1 : 7 MW 1.4 MVAR Dropped : Drop Load at ARBURUA 70 #1 : 3.8 MW 1.8 MVAR Drop : Drop Load at WRGHT PP 70 #1 : 9.6 MW 1.9 MVAR Dro : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	ORO LOMA-DOS PALS 70.00kV Ckt#1 Sec# 1	282.08	Amps	124.3	124.7	0.4
285	Open Xfmr GATES 230/GATES 500 #11 :	ORO LOMA-DOS PALS 70.00kV Ckt#1 Sec# 1	282.08	Amps	103.2	103.6	0.4
1	Open Line WARNERVL 230-WILSON 230 #1 :	ORO LOMA-DOS PALS 70.00kV Ckt#1 Sec# 1	282.08	Amps	103.3	102.9	-0.4
72	Open Xfmr LOS BANS 70/LOSBANOS 230 #4 :	ORO LOMA-DOS PALS 70.00kV Ckt#1 Sec# 1	282.08	Amps	102.0	102.3	0.3
71	Open Xfmr LOS BANS 70/LOSBANOS 230 #3 :	ORO LOMA-DOS PALS 70.00kV Ckt#1 Sec# 1	282.08	Amps	101.5	101.8	0.3
126	Open Line WARNERVL 230-WILSON 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	ORO LOMA-DOS PALS 70.00kV Ckt#1 Sec# 1	282.08	Amps	101.8	101.3	-0.4
170	Open Line WARNERVL 230-WILSON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	ORO LOMA-DOS PALS 70.00kV Ckt#1 Sec# 1	282.08	Amps	100.4	100.8	0.4
407	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	MORROBAY-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	124.2	124.0	-0.2
391	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	MORROBAY-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	122.8	122.6	-0.2
375	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	MORROBAY-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	122.5	122.3	-0.2

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
427	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	MORROBAY-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	122.3	122.1	-0.2
203	Open Line GATES 230-TEMPLETN 230 #1 :	MORROBAY-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	122.1	121.9	-0.2
1	Open Line WARNERVL 230-WILSON 230 #1 :	MELONES -COTTLE A 230.00kV Ckt#1 Sec# 1	849.96	Amps	104.9	105.3	0.4
170	Open Line WARNERVL 230-WILSON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	MELONES -COTTLE A 230.00kV Ckt#1 Sec# 1	849.96	Amps	100.1	100.8	0.6
151	Open Line WARNERVL 230-WILSON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	MELONES -COTTLE A 230.00kV Ckt#1 Sec# 1	849.96	Amps	99.4	100.0	0.6
Tsl-LB*	Tracy-Los Banos 500-kV	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	113.8	114.4	0.6
Tcy-LB*	Tracy-Los Banos 500-kV	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	110.7	111.3	0.6
1	Open Line WARNERVL 230-WILSON 230 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	110.4	110.8	0.3
126	Open Line WARNERVL 230-WILSON 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	110.0	110.3	0.3
Moss-LB*	Moss Landing - Los Banos #1& #2 500-kV DLO	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	108.7	109.3	0.5
285	Open Xfmr GATES 230/GATES 500 #11 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	108.4	108.9	0.6
151	Open Line WARNERVL 230-WILSON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	108.3	108.8	0.6
170	Open Line WARNERVL 230-WILSON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	107.4	108.0	0.6
3	Open Line MOSSLND2 230-PANOCHE 230 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	104.4	104.9	0.5
128	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	104.2	104.7	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
16	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	104.1	104.6	0.5
15	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	103.1	103.7	0.5
127	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	103.1	103.6	0.5
153	Open Line MOSSLND2 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	102.9	103.4	0.5
165	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	102.8	103.3	0.5
131	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	102.3	102.8	0.5
172	Open Line MOSSLND2 230-PANOCHE 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	101.8	102.3	0.5
164	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	101.8	102.3	0.5
184	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	101.6	102.1	0.5
132	Open Line WARNERVL 230-WILSON 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	101.5	102.0	0.6
291	Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	101.4	101.9	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
25	Open Line CERTANJ1 115-CHWCHLLA 115 #1 : Open Line CERTANJ1 115-SHARON T 115 #1 : Open Line SHARON T 115-SHARON 115 #1 : Open Line SHARON T 115-OAKH_JCT 115 #1 : Open Line OAKH_JCT 115-CORSGOLD 115 #1 : Open Line OAKH_JCT 115-K1-JCT 115 #1 : Open Line CORSGOLD 115-OAKHURST 115 #1 : Open Line K1-JCT 115-KERCKHF2 115 #2 : Drop Load at SHARON 115 #1 : 7.1 MW 4.9 MVAR Drop : Drop Load at CORSGOLD 115 #1 : 2.2 MW 0.4 MVAR Dr :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	101.0	101.5	0.5
207	Open Line K1-JCT 115-KERCKHF2 115 #2 : Open Line K1-JCT 115-OAKH_JCT 115 #1 : Open Line OAKH_JCT 115-SHARON T 115 #1 : Open Line OAKH_JCT 115-CORSGOLD 115 #1 : Open Line SHARON T 115-CERTANJ1 115 #1 : Open Line SHARON T 115-SHARON 115 #1 : Open Line CERTANJ1 115-CHWCHLLA 115 #1 : Open Line CORSGOLD 115-OAKHURST 115 #1 : Drop Load at CORSGOLD 115 #1 : 2.2 MW 0.4 MVAR Dr : Drop Load at CORSGOLD 115 #2 : 26.5 MW 5.3 MVAR D :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	101.0	101.5	0.5
255	Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line OLDKERN 70-BIOLA 70 #1 : Open Line OLDKERN 70-BOWLES 70 #1 : Drop Load at OLDKERN 70 #1 : 19 MW 3.8 MVAR Dropp : Drop Load at OLDKERN 70 #3 : 7.7 MW 1.5 MVAR Drop : Drop Load at BIOLA 70 #1 : 22 MW 4.4 MVAR Dropped : Drop Load at BOWLES 70 #1 : 18.5 MW 3.7 MVAR Drop :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	101.0	101.5	0.5
28	Open Line LE GRAND 115-WILSON A 115 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	100.9	101.4	0.5
48	Open Line LIVNGSTN 70-LVNGSTNT 70 #1 : Open Line LVNGSTNT 70-CANAL 70 #1 : Open Line LVNGSTNT 70-SNTA NLA 70 #1 : Open Line SNTA NLA 70-CHEVPIPE 70 #1 : Open Line CHEVPIPE 70-LOS BANS 70 #1 : Drop Load at LIVNGSTN 70 #2 : 5.6 MW 1.1 MVAR Dro : Drop Load at SNTA NLA 70 #1 : 6.8 MW 1.3 MVAR Dro : Drop Load at SNTA NLA 70 #2 : 9.6 MW 1.9 MVAR Dro : Drop Load at CHEVPIPE 70 #1 : 0.6 MW 0.4 MVAR Dro :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	100.9	101.4	0.5



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
264	Open Line LEPRINO 70-LPRNO TP 70 #1 : Open Line LPRNO TP 70-LEMOORE 70 #1 : Open Line LPRNO TP 70-CANDLEWK 70 #1 : Open Line LPRNO TP 70-HENRITTA 70 #1 : Drop Load at LEPRINO 70 #1 : 6.6 MW 4.2 MVAR Drop : Drop Load at LEMOORE 70 #1 : 19.1 MW 3.8 MVAR Dro : Drop Load at LEMOORE 70 #2 : 33.2 MW 6.7 MVAR Dro :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	100.8	100.9	0.1
128	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	129.4	130.0	0.6
16	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	124.7	125.3	0.6
146	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	123.6	124.2	0.5
127	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	122.5	123.0	0.5
145	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	118.3	118.8	0.5
15	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	118.0	118.6	0.5
69	Open Xfmr MERCED 115/MERCED 70 #2 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	115.3	115.7	0.4
401	Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Drop Generator at HELMS 3 18 #*: 404 MW Dropped : Close Line HENTAP2 230-HENRIETA 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	111.9	112.4	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
133	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	111.4	111.9	0.4
184	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	108.9	109.5	0.6
47	Open Line MERCED 70-MRCDLFLS 70 #1 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	108.3	108.7	0.4
421	Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Close Line HENTAP2 230-HENRIETA 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	107.7	108.2	0.5
2	Open Line WESTLEY 230-LOSBANOS 230 #1 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	107.4	107.9	0.5
60	Open Line MCSWAINJ 70-MC SWAIN 70 #1 : Open Line MCSWAINJ 70-MRCDLFLS 70 #1 : Open Line MCSWAINJ 70-EXCHEQR 70 #1 : Open Xfmr MC SWAIN 70/MCSWAIN 9.11 #1 : Drop Generator at MCSWAIN 9.11 #1 : 9 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	107.2	107.6	0.4
148	Open Line BORDEN 230-GREGG 230 #1 : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	106.4	106.8	0.4
149	Open Line BORDEN 230-GREGG 230 #2 : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	106.3	106.8	0.4
397	Open Line GREGG 230-HELMS PP 230 #2 : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	106.0	106.4	0.4
400	Open Line GREGG 230-FGRDN T2 230 #1 : Open Line FGRDN T2 230-FGRDN 2 230 #1 : Open Line FGRDN T2 230-ASHLAN 230 #1 : Drop Load at FGRDN 2 230 #1 : 53.2 MW 10.7 MVAR : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Close Line FGRDN 1 230-FGRDN 2 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	106.0	106.4	0.4

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
398	Open Line GREGG 230-HERNDON 230 #1 : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	106.0	106.4	0.4
399	Open Line GREGG 230-HERNDON 230 #2 : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	106.0	106.4	0.4
129	Open Line BORDEN 230-GREGG 230 #1 : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	105.7	106.1	0.4
130	Open Line BORDEN 230-GREGG 230 #2 : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	105.7	106.1	0.4
41	Open Line PANOCHEJ 115-PANOCHE 115 #1 : Open Line PANOCHEJ 115-HAMMONDS 115 #1 : Open Line PANOCHEJ 115-OXFRDJCT 115 #1 : Open Line HAMMONDS 115-DFSTP 115 #1 : Open Line DFSTP 115-ORO LOMA 115 #1 : Open Line DFSTP 115-DFS 115 #1 : Open Line OXFRDJCT 115-OXFORD 115 #1 : Open Line OXFRDJCT 115-WSTLDJCT 115 #1 : Open Line WSTLDJCT 115-WSTLD1RA 115 #1 : Open Line WSTLDJCT 115-LUISJCT 115 #1 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	105.4	105.8	0.4
285	Open Xfmr GATES 230/GATES 500 #11 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	105.3	105.8	0.5
420	Open Line GREGG 230-FGRDN T2 230 #1 : Open Line FGRDN T2 230-FIGRDN 2 230 #1 : Open Line FGRDN T2 230-ASHLAN 230 #1 : Drop Load at FIGRDN 2 230 #1 : 53.2 MW 10.7 MVAR : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	104.4	104.8	0.4
416	Open Line GREGG 230-HELMS PP 230 #1 : Drop Generator at HELMS 1 18 #** : 404 MW Dropped : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	104.3	104.7	0.4
417	Open Line GREGG 230-HELMS PP 230 #2 : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	104.3	104.7	0.4

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
195	Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Drop Generator at HELMS 3 18 #*: 404 MW Dropped : Close Line HENTAP2 230-HENRIETA 230 #1 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	104.2	104.7	0.5
418	Open Line GREGG 230-HERNDON 230 #1 : Drop Generator at HELMS 3 18 #*: 404 MW Dropped : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	104.2	104.6	0.4
419	Open Line GREGG 230-HERNDON 230 #2 : Drop Generator at HELMS 3 18 #*: 404 MW Dropped : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	104.2	104.6	0.4
150	Open Line DS AMIGO 230-PANOCHE 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	104.2	104.6	0.4
136	Open Line LOSBANOS 230-PANOCHE 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	104.0	104.4	0.4
134	Open Line MOSSLND2 230-PANOCHE 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	104.0	104.4	0.4
142	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	103.8	104.2	0.4
137	Open Line LOSBANOS 230-PANOCHE 230 #2 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	103.8	104.2	0.4
67	Open Xfmr WILSON A 115/WILSON 230 #1 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	103.7	104.1	0.4
68	Open Xfmr WILSON B 115/WILSON 230 #2 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	103.7	104.1	0.4
406	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	103.1	103.6	0.5
138	Open Line LOSBANOS 230-DS AMIGO 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	103.1	103.5	0.4
412	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	102.6	103.1	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
183	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	102.4	103.0	0.5
426	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	102.3	102.8	0.5
19	Open Line BORDEN 230-GREGG 230 #1 : Drop Generator at HELMS 3 18 #** : 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	102.3	102.7	0.4
20	Open Line BORDEN 230-GREGG 230 #2 : Drop Generator at HELMS 3 18 #** : 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	102.2	102.7	0.4
395	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	102.2	102.6	0.4
70	Open Xfmr ORO LOMA 70/ORO LOMA 115 #2 : Open Line ORO LOMA 115-DFSTP 115 #1 : Open Line ORO LOMA 115-EL NIDO 115 #1 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	102.0	102.4	0.4
212	Open Line KERCKHF2 115-WWARD JT 115 #1 : Open Line WWARD JT 115-WOODWARD 115 #1 : Open Line WWARD JT 115-CLOVISJ1 115 #1 : Open Line CLOVISJ1 115-CLOVIS-1 115 #1 : Open Line CLOVISJ1 115-SANGER 115 #1 : Drop Load at CLOVIS-1 115 #1 : 51.6 MW 10.4 MVAR : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	101.8	102.2	0.4
135	Open Line COBURN 230-PANOCHÉ 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	101.8	102.2	0.4
409	Open Line GATES 230-ARCO 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	101.5	101.8	0.4
410	Open Line GATES 230-MIDWAY 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	101.4	101.8	0.4

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
403	Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr : Close Line FIGRDN 1 230-FGRDN 2 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	101.3	101.7	0.4
309	Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	101.2	101.6	0.4
310	Drop Generator at HELMS 2 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	101.2	101.6	0.4
311	Drop Generator at HELMS 3 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	101.2	101.6	0.4
139	Open Line LOSBANOS 230-SN LS PP 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	101.2	101.6	0.4
140	Open Line LOSBANOS 230-SN LS PP 230 #2 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	101.2	101.6	0.4
194	Open Line GREGG 230-FGRDN T2 230 #1 : Open Line FGRDN T2 230-FGRDN 2 230 #1 : Open Line FGRDN T2 230-ASHLAN 230 #1 : Drop Load at FIGRDN 2 230 #1 : 53.2 MW 10.7 MVAR : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Close Line FIGRDN 1 230-FGRDN 2 230 #1 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	101.1	101.5	0.4
396	Open Line GREGG 230-HELMS PP 230 #1 : Drop Generator at HELMS 1 18 #** : 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	101.0	101.4	0.4
191	Open Line GREGG 230-HELMS PP 230 #2 : Drop Generator at HELMS 3 18 #** : 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	101.0	101.4	0.4
192	Open Line GREGG 230-HERNDON 230 #1 : Drop Generator at HELMS 3 18 #** : 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	100.9	101.3	0.4
193	Open Line GREGG 230-HERNDON 230 #2 : Drop Generator at HELMS 3 18 #** : 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	100.9	101.3	0.4
415	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	100.7	101.1	0.4
407	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	100.7	101.0	0.4

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
141	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	100.6	101.0	0.3
408	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	100.5	100.9	0.4
53	Open Line EXCHEQUR 70-BER VLLY 70 #1 : Open Line BER VLLY 70-BRCEBG J 70 #1 : Open Line BRCEBG J 70-SAXONCRK 70 #1 : Open Line SAXONCRK 70-INDN FLT 70 #1 : Open Xfmr SAXONCRK 70/SAXNCK L 4.16 #1 : Open Line INDN FLT 70-YOSEMITE 70 #1 : Drop Load at BER VLLY 70 #1 : 6 MW 1.2 MVAR Dropp : Drop Load at SAXONCRK 70 #1 : 0 MW 0 MVAR Dropped : Drop Load at INDN FLT 70 #1 : 2 MW 0.4 MVAR Dropp : Drop Load at YOSEMITE 70 #1 : 2.9 MW 0 MVAR Dropp :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	100.4	100.8	0.4
45	Open Line ORO LOMA 70-POSO J1 70 #1 : Open Line POSO J1 70-FIREBAGH 70 #1 : Open Line FIREBAGH 70-TOMATAK 70 #1 : Open Line TOMATAK 70-MENDOTA 70 #1 : Drop Load at FIREBAGH 70 #1 : 11.3 MW 2.2 MVAR Dr : Drop Load at TOMATAK 70 #1 : 6.4 MW 4.9 MVAR Drop :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	100.2	100.7	0.4
97	Drop Generator at Q196GT1 16.5 #1: 217.2 MW Droppe :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	100.1	100.5	0.4
98	Drop Generator at Q196GT2 16.5 #2: 217.2 MW Droppe :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	100.1	100.5	0.4
429	Open Line GATES 230-ARCO 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	99.9	100.3	0.4
430	Open Line GATES 230-MIDWAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	99.9	100.3	0.4
213	Open Line AIRWAYJ2 115-AIRWAYS 115 #1 : Open Line AIRWAYJ2 115-BARTON 115 #1 : Open Line AIRWAYJ2 115-SANGER 115 #1 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	99.8	100.3	0.5
423	Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	99.8	100.2	0.4

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
52	Open Line MARIPOS2 70-EXCHEQR 70 #1 : Drop Load at MARIPOS2 70 #1 : 9.1 MW 1.8 MVAR Dro : Drop Load at MARIPOS2 70 #2 : 9.5 MW 1.9 MVAR Dro : Close Line MARIPOS2 70-BRCEBG J 70 #1 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	99.8	100.2	0.4
143	Open Line PANOCHE 230-GATES 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	99.7	100.0	0.4
144	Open Line PANOCHE 230-GATES 230 #2 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	99.7	100.0	0.4
12	Open Line PANOCHE 230-HELM 230 #1 :	HELM -STRD JCT 70.00kV Ckt#1 Sec# 1	377.75	Amps	111.1	112.7	1.6
412	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	HELM -STRD JCT 70.00kV Ckt#1 Sec# 1	377.75	Amps	109.9	111.6	1.6
161	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	HELM -STRD JCT 70.00kV Ckt#1 Sec# 1	377.75	Amps	108.7	110.4	1.6
180	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	HELM -STRD JCT 70.00kV Ckt#1 Sec# 1	377.75	Amps	101.8	103.4	1.6
48	Open Line LIVNGSTN 70-LVNGSTNT 70 #1 : Open Line LVNGSTNT 70-CANAL 70 #1 : Open Line LVNGSTNT 70-SNTA NLA 70 #1 : Open Line SNTA NLA 70-CHEVPIPE 70 #1 : Open Line CHEVPIPE 70-LOS BANS 70 #1 : Drop Load at LIVNGSTN 70 #2 : 5.6 MW 1.1 MVAR Dro : Drop Load at SNTA NLA 70 #1 : 6.8 MW 1.3 MVAR Dro : Drop Load at SNTA NLA 70 #2 : 9.6 MW 1.9 MVAR Dro : Drop Load at CHEVPIPE 70 #1 : 0.6 MW 0.4 MVAR Dro :	DOS PALS-ORO LOMA 70.00kV Ckt#1 Sec# 1	282.08	Amps	115.5	115.7	0.2
131	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	142.9	143.6	0.8
285	Open Xfmr GATES 230/GATES 500 #11 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	134.7	135.4	0.8
185	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.0	131.8	0.8
166	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.0	130.8	0.8



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
196	Open Line KEARNEY 230-HERNDON 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	125.0	125.7	0.7
422	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	124.2	124.9	0.7
Tsl-LB*	Tracy-Los Banos 500-kV	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	123.6	124.3	0.7
11	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	122.0	122.7	0.7
411	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	121.2	121.9	0.7
291	Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.8	121.4	0.6
3	Open Line MOSSLND2 230-PANOCHE 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.5	121.2	0.7
189	Open Line HELM 230-MC CALL 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.3	120.9	0.7
255	Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line OLDKERN 70-BIOLA 70 #1 : Open Line OLDKERN 70-BOWLES 70 #1 : Drop Load at OLDKERN 70 #1 : 19 MW 3.8 MVAR Dropp : Drop Load at OLDKERN 70 #3 : 7.7 MW 1.5 MVAR Drop : Drop Load at BIOLA 70 #1 : 22 MW 4.4 MVAR Dropped : Drop Load at BOWLES 70 #1 : 18.5 MW 3.7 MVAR Drop :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.1	120.7	0.6
12	Open Line PANOCHE 230-HELM 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.7	120.4	0.7
415	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.7	120.4	0.7
386	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.5	120.2	0.7
202	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.5	120.2	0.7
62	Open Line DS AMIGO 230-PANOCHE 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.5	120.1	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
26	Open Line CRESEY T 115-ATWATR J 115 #1 : Open Line ATWATR J 115-LIVNGSTN 115 #1 : Open Line ATWATR J 115-MERCED 115 #1 : Open Line LIVNGSTN 115-GALLO 115 #1 : Drop Load at LIVNGSTN 115 #3 : 24.9 MW 5 MVAR Dro : Drop Load at GALLO 115 #1 : 4.3 MW 3.6 MVAR Dropp :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.5	120.1	0.6
5	Open Line LOSBANOS 230-PANOCHE 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.3	120.0	0.6
24	Open Line ATWATER 115-CRESEY T 115 #1 : Open Line CRESEY T 115-ATWATR J 115 #1 : Open Line CRESEY T 115-JRWD GEN 115 #1 : Open Line JRWD GEN 115-JR WOOD 115 #1 : Open Xfmr JRWD GEN 115/JRWCOGEN 9.11 #1 : Open Line JR WOOD 115-CRESSEY 115 #1 : Drop Load at JR WOOD 115 #1 : 11.7 MW 10.3 MVAR D : Drop Load at CRESSEY 115 #1 : 19.3 MW 3.9 MVAR Dr : Drop Generator at JRWCOGEN 9.11 #1 : 3.8 MW Droppe :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.3	120.0	0.6
412	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.2	119.8	0.7
6	Open Line LOSBANOS 230-PANOCHE 230 #2 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.2	119.8	0.6
370	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.0	119.7	0.7
233	Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 31.1 MW 6.3 MVAR Dro : Drop Load at PNEDLE 115 #3 : 40.9 MW 8.2 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.0	119.7	0.6
25	Open Line CERTANJ1 115-CHWCHLLA 115 #1 : Open Line CERTANJ1 115-SHARON T 115 #1 : Open Line SHARON T 115-SHARON 115 #1 : Open Line SHARON T 115-OAKH_JCT 115 #1 : Open Line OAKH_JCT 115-CORSGOLD 115 #1 : Open Line OAKH_JCT 115-K1-JCT 115 #1 : Open Line CORSGOLD 115-OAKHURST 115 #1 : Open Line K1-JCT 115-KERCKHF2 115 #2 : Drop Load at SHARON 115 #1 : 7.1 MW 4.9 MVAR Drop : Drop Load at CORSGOLD 115 #1 : 2.2 MW 0.4 MVAR Dr :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.9	119.5	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
207	Open Line K1-JCT 115-KERCKHF2 115 #2 : Open Line K1-JCT 115-OAKH_JCT 115 #1 : Open Line OAKH_JCT 115-SHARON T 115 #1 : Open Line OAKH_JCT 115-CORSGOLD 115 #1 : Open Line SHARON T 115-CERTANJ1 115 #1 : Open Line SHARON T 115-SHARON 115 #1 : Open Line CERTANJ1 115-CHWCHLLA 115 #1 : Open Line CORSGOLD 115-OAKHURST 115 #1 : Drop Load at CORSGOLD 115 #1 : 2.2 MW 0.4 MVAR Dr : Drop Load at CORSGOLD 115 #2 : 26.5 MW 5.3 MVAR D :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.9	119.5	0.6
7	Open Line LOSBANOS 230-DS AMIGO 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.8	119.4	0.6
264	Open Line LEPRINO 70-LPRNO TP 70 #1 : Open Line LPRNO TP 70-LEMOORE 70 #1 : Open Line LPRNO TP 70-CANDLEWK 70 #1 : Open Line LPRNO TP 70-HENRITTA 70 #1 : Drop Load at LEPRINO 70 #1 : 6.6 MW 4.2 MVAR Drop : Drop Load at LEMOORE 70 #1 : 19.1 MW 3.8 MVAR Dro : Drop Load at LEMOORE 70 #2 : 33.2 MW 6.7 MVAR Dro :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.7	119.3	0.6
214	Open Line CLOVIS-2 115-CLOVISJ2 115 #1 : Open Line CLOVISJ2 115-KERCKHF2 115 #1 : Open Line CLOVISJ2 115-SANGER 115 #1 : Drop Load at CLOVIS-2 115 #3 : 45.3 MW 9.1 MVAR D : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.7	119.3	0.6
165	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	CERTAN T-LE GRAND 115.00kV Ckt#1 Sec# 1	396.61	Amps	108.7	109.7	1.0
164	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	CERTAN T-LE GRAND 115.00kV Ckt#1 Sec# 1	396.61	Amps	103.3	104.2	0.9
363	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	CERTAN T-LE GRAND 115.00kV Ckt#1 Sec# 1	396.61	Amps	100.2	101.3	1.1
204	Open Line GATES 230-MORROBAY 230 #1 :	CARRIZO -TEMBLOR 115.00kV Ckt#1 Sec# 1	436.78	Amps	115.6	115.8	0.1
428	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	CARRIZO -TEMBLOR 115.00kV Ckt#1 Sec# 1	436.78	Amps	115.5	115.6	0.1

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
376	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	CARRIZO -TEMBLOR 115.00kV Ckt#1 Sec# 1	436.78	Amps	115.4	115.5	0.1
392	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	CARRIZO -TEMBLOR 115.00kV Ckt#1 Sec# 1	436.78	Amps	115.1	115.2	0.1
408	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	CARRIZO -TEMBLOR 115.00kV Ckt#1 Sec# 1	436.78	Amps	114.2	114.3	0.1
203	Open Line GATES 230-TEMPLETN 230 #1 :	CARRIZO -TEMBLOR 115.00kV Ckt#1 Sec# 1	436.78	Amps	114.0	114.1	0.1
427	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	CARRIZO -TEMBLOR 115.00kV Ckt#1 Sec# 1	436.78	Amps	113.8	114.0	0.1
375	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	CARRIZO -TEMBLOR 115.00kV Ckt#1 Sec# 1	436.78	Amps	113.7	113.8	0.1
285	Open Xfmr GATES 230/GATES 500 #11 :	CARRIZO -TEMBLOR 115.00kV Ckt#1 Sec# 1	436.78	Amps	113.3	113.7	0.4
391	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	CARRIZO -TEMBLOR 115.00kV Ckt#1 Sec# 1	436.78	Amps	113.5	113.6	0.1
407	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	CARRIZO -TEMBLOR 115.00kV Ckt#1 Sec# 1	436.78	Amps	112.5	112.6	0.1
127	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	193.1	194.1	1.0
164	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	192.5	193.5	1.0
15	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	187.4	188.4	1.0
183	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Drop Generator at KERCKHOF 13.8 #1: 129	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	182.6	183.6	1.0

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
	MW Dropped :						
145	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Drop Generator at HELMS 1 18 #1: 404 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	153.2	154.2	1.0
285	Open Xfmr GATES 230/GATES 500 #11 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	143.7	144.5	0.8
422	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	142.6	143.4	0.8
370	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	142.0	142.8	0.8
196	Open Line KEARNEY 230-HERNDON 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	139.2	140.0	0.8
152	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	138.6	139.3	0.7
411	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	137.1	137.9	0.8
160	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	136.6	137.4	0.8
2	Open Line WESTLEY 230-LOSBANOS 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	135.3	136.0	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
107	Open Line CERTANJ1 115-CHWCHLLA 115 #1 : Open Line CERTANJ1 115-SHARON T 115 #1 : Open Line SHARON T 115-SHARON 115 #1 : Open Line SHARON T 115-OAKH_JCT 115 #1 : Open Line OAKH_JCT 115-CORSGOLD 115 #1 : Open Line OAKH_JCT 115-K1-JCT 115 #1 : Open Line CORSGOLD 115-OAKHURST 115 #1 : Open Line K1-JCT 115-KERCKHF2 115 #2 : Drop Load at SHARON 115 #1 : 7.1 MW 4.9 MVAR Drop : Drop Load at CORSGOLD 115 #1 : 2.2 MW 0.4 MVAR Dr :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	135.2	135.9	0.7
386	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	134.9	135.7	0.8
415	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	134.9	135.6	0.8
363	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	134.4	135.1	0.8
11	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	133.8	134.5	0.8
28	Open Line LE GRAND 115-WILSON A 115 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	133.5	134.2	0.7
412	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	133.3	134.1	0.7
161	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	132.8	133.6	0.7
106	Open Line CHWCHLLA 115-CERTAN T 115 #1 : Open Line CERTAN T 115-LE GRAND 115 #1 : Open Line CERTAN T 115-CERTANJ2 115 #1 : Open Line CERTANJ2 115-CHWCGNJT 115 #1 : Open Line CHWCGNJT 115-CERTTEED 115 #1 : Open Line CHWCGNJT 115-CHWCGN 115 #1 : Open Line CHWCGN 115-CHWCHLA2 115 #1 : Open Xfmr CHWCGN 115/CHOWCOGN 13.8 #1 : Open Xfmr CHWCHLA2 115/CHWCHLA2 13.8 #1 : Drop Load at CERTTEED 115 #1 : 9.9 MW 6.9 MVAR Dr :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	132.8	133.5	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
116	Open Line CANANDGA 70-TRIGO J 70 #1 : Open Line CANANDGA 70-GLASS 70 #1 : Open Line TRIGO J 70-BONITA 70 #1 : Open Line TRIGO J 70-TRIGO 70 #1 : Open Line TRIGO 70-MADERA 70 #1 : Open Line TRIGO 70-EL PECO 70 #1 : Drop Load at CANANDGA 70 #1 : 7.6 MW 5.7 MVAR Dro : Drop Load at BONITA 70 #1 : 14.6 MW 2.9 MVAR Drop : Drop Load at EL PECO 70 #1 : 10 MW 2 MVAR Dropped : Drop Load at EL PECO 70 #2 : 7.3 MW 1.4 MVAR Drop :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.4	133.3	1.9
114	Open Line NEWHALL 115-DAIRYLND 115 #1 : Open Line NEWHALL 115-MADERAPR 115 #1 : Open Line MADERAPR 115-MENDOTA 115 #1 : Open Xfmr MADERAPR 115/MADERA_G 13.8 #1 : Drop Load at NEWHALL 115 #2 : 8.7 MW 1.7 MVAR Dro : Drop Load at NEWHALL 115 #3 : 10.8 MW 2.1 MVAR Dr : Drop Load at MADERA_G 13.8 #ss: 3.6 MW 0.8 MVAR D : Drop Generator at MADERA_G 13.8 #1 : 28.6 MW Dropp : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	132.2	132.9	0.7
426	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	132.1	132.8	0.7
171	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.8	132.6	0.7
169	Open Line DS AMIGO 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.7	132.4	0.7
374	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.6	132.3	0.7
155	Open Line LOSBANOS 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.6	132.3	0.7
153	Open Line MOSSLND2 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.6	132.3	0.7
156	Open Line LOSBANOS 230-PANOCHE 230 #2 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.4	132.1	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
LB-Gts1*	Los Banos - Gates #1 500-kV	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.2	131.9	0.7
189	Open Line HELM 230-MC CALL 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.1	131.9	0.8
111	Open Line LE GRAND 115-DAIRYLND 115 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.1	131.8	0.7
157	Open Line LOSBANOS 230-DS AMIGO 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.9	131.6	0.7
115	Open Line PANOCHET 115-MENDOTA 115 #1 : Open Line PANOCHET 115-PANOCH 115 #1 : Drop Generator at DG_PAN1 13.8 #1 : 49 MW Dropped : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.8	131.5	0.7
207	Open Line K1-JCT 115-KERCKHF2 115 #2 : Open Line K1-JCT 115-OAKH_JCT 115 #1 : Open Line OAKH_JCT 115-SHARON T 115 #1 : Open Line OAKH_JCT 115-CORSGOLD 115 #1 : Open Line SHARON T 115-CERTANJ1 115 #1 : Open Line SHARON T 115-SHARON 115 #1 : Open Line CERTANJ1 115-CHWCHLLA 115 #1 : Open Line CORSGOLD 115-OAKHURST 115 #1 : Drop Load at CORSGOLD 115 #1 : 2.2 MW 0.4 MVAR Dr : Drop Load at CORSGOLD 115 #2 : 26.5 MW 5.3 MVAR D :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.8	131.5	0.7
429	Open Line GATES 230-ARCO 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.4	131.1	0.7
430	Open Line GATES 230-MIDWAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.3	131.0	0.7
112	Open Line LE GRNDJ 115-WILSON B 115 #1 : Open Line LE GRNDJ 115-EL NIDO 115 #1 : Open Line EL NIDO 115-ORO LOMA 115 #1 : Drop Load at EL NIDO 115 #1 : 12.6 MW 2.5 MVAR Dr : Drop Load at EL NIDO 115 #2 : 15.2 MW 3 MVAR Drop : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.3	130.9	0.7
291	Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.2	130.9	0.6
413	Open Line PANOCH 230-GATES 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.1	130.8	0.7



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
414	Open Line PANOCHE 230-GATES 230 #2 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.1	130.8	0.7
154	Open Line COBURN 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.0	130.7	0.7
377	Open Line GATES 230-ARCO 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.0	130.6	0.7
423	Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.9	130.5	0.7
378	Open Line GATES 230-MIDWAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.8	130.5	0.7
117	Open Line MCSWAINJ 70-MC SWAIN 70 #1 : Open Line MCSWAINJ 70-MRCDFLLS 70 #1 : Open Line MCSWAINJ 70-EXCHEQUR 70 #1 : Open Xfmr MC SWAIN 70/MCSWAIN 9.11 #1 : Drop Generator at MCSWAIN 9.11 #1 : 9 MW Dropped : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.8	130.4	0.7
353	Open Line SMYRNA 115-MCKIBBEN 115 #1 : Open Line MCKIBBEN 115-SEMITRPJ 115 #1 : Open Line SEMITRPJ 115-GANSO 115 #1 : Open Line GANSO 115-MIDWAY 115 #1 : Drop Load at GANSO 115 #1 : 3.9 MW 0.7 MVAR Dropp : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.7	130.3	0.7
162	Open Line PANOCHE 230-GATES 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.7	130.3	0.7
163	Open Line PANOCHE 230-GATES 230 #2 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.7	130.3	0.7
179	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Drop Generator at KERCKHOF 13.8 #1: 129 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.5	130.3	0.8

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
41	Open Line PANOCHEJ 115-PANOCHE 115 #1 : Open Line PANOCHEJ 115-HAMMONDS 115 #1 : Open Line PANOCHEJ 115-OXFRDJCT 115 #1 : Open Line HAMMONDS 115-DFSTP 115 #1 : Open Line DFSTP 115-ORO LOMA 115 #1 : Open Line DFSTP 115-DFS 115 #1 : Open Line OXFRDJCT 115-OXFORD 115 #1 : Open Line OXFRDJCT 115-WSTLDJCT 115 #1 : Open Line WSTLDJCT 115-WSTLD1RA 115 #1 : Open Line WSTLDJCT 115-LUISJCT 115 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.6	130.3	0.7
12	Open Line PANOCHE 230-HELM 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.6	130.3	0.7
113	Open Line WILSON B 115-EL CAPTN 115 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.6	130.2	0.7
27	Open Line EXCHEQUR 115-LE GRAND 115 #1 : Drop Generator at EXCHQUER 13.8 #1 : 94.5 MW Dropp : Drop Load at MARIPOS2 70 #**: 9.1 MW 1.8 MVAR Dro :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.5	130.2	0.7
158	Open Line LOSBANOS 230-SN LS PP 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.5	130.1	0.7
159	Open Line LOSBANOS 230-SN LS PP 230 #2 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.5	130.1	0.7
81	Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.5	130.1	0.7
108	Open Line ATWATER 115-CASTLE 115 #1 : Open Line CASTLE 115-EL CAPTN 115 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.5	130.1	0.7
371	Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.4	130.1	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
255	Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line OLDKERN 70-BIOLA 70 #1 : Open Line OLDKERN 70- BOWLES 70 #1 : Drop Load at OLDKERN 70 #1 : 19 MW 3.8 MVAR Dropp : Drop Load at OLDKERN 70 #3 : 7.7 MW 1.5 MVAR Drop : Drop Load at BIOLA 70 #1 : 22 MW 4.4 MVAR Dropped : Drop Load at BOWLES 70 #1 : 18.5 MW 3.7 MVAR Drop :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.3	130.0	0.7
118	Open Line ORO LOMA 70-MRCYSPRS 70 #1 : Open Line MRCYSPRS 70-ORTIGA 70 #1 : Open Line MRCYSPRS 70- ARBURUA 70 #1 : Open Line ORTIGA 70-CANAL 70 #1 : Open Line ARBURUA 70-WRGHT PP 70 #1 : Open Line WRGHT PP 70-LOS BANS 70 #1 : Drop Load at ORTIGA 70 #1 : 7 MW 1.4 MVAR Dropped : Drop Load at ARBURUA 70 #1 : 3.8 MW 1.8 MVAR Drop : Drop Load at WRGHT PP 70 #1 : 9.6 MW 1.9 MVAR Dro : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.3	130.0	0.7
116	Open Line CANANDGA 70-TRIGO J 70 #1 : Open Line CANANDGA 70-GLASS 70 #1 : Open Line TRIGO J 70- BONITA 70 #1 : Open Line TRIGO J 70-TRIGO 70 #1 : Open Line TRIGO 70-MADERA 70 #1 : Open Line TRIGO 70-EL PECO 70 #1 : Drop Load at CANANDGA 70 #1 : 7.6 MW 5.7 MVAR Dro : Drop Load at BONITA 70 #1 : 14.6 MW 2.9 MVAR Drop : Drop Load at EL PECO 70 #1 : 10 MW 2 MVAR Dropped : Drop Load at EL PECO 70 #2 : 7.3 MW 1.4 MVAR Drop :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	132.6	129.9	-2.7
427	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.7	129.4	0.7
428	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 119 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.5	129.1	0.7
70	Open Xfmr ORO LOMA 70/ORO LOMA 115 #2 : Open Line ORO LOMA 115-DFSTP 115 #1 : Open Line ORO LOMA 115- EL NIDO 115 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.5	129.1	0.7
62	Open Line DS AMIGO 230-PANOCHE 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.4	129.1	0.7
202	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.3	129.1	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
66	Open Xfmr EXCHEQR 115/EXCHEQR 70 #1 : Open Line EXCHEQR 70-MARIPOS2 70 #1 : Open Line EXCHEQR 70-BER VLLY 70 #1 : Open Line EXCHEQR 70-MCSWAINJ 70 #1 : Drop Load at MARIPOS2 70 #1 : 9.1 MW 1.8 MVAR Dro : Drop Load at MARIPOS2 70 #2 : 9.5 MW 1.9 MVAR Dro : Close Line MARIPOS2 70-BRCEBG J 70 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.3	129.0	0.7
236	Open Line HERNDON 115-CHLDHOSP 115 #1 : Open Line CHLDHOSP 115-WOODWARD 115 #1 : Drop Load at CHLDHOSP 115 #1 : 3.5 MW 1.5 MVAR Dr :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.3	129.0	0.6
5	Open Line LOSBANOS 230-PANOCHE 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.3	129.0	0.7
3	Open Line MOSSLND2 230-PANOCHE 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.3	128.9	0.7
375	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.3	128.9	0.7
233	Open Line PNDLJ2 115-PNEDELE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDELE 115 #2 : 31.1 MW 6.3 MVAR Dro : Drop Load at PNEDELE 115 #3 : 40.9 MW 8.2 MVAR Dro : Close Line PNDLJ1 115-PNEDELE 115 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.1	128.8	0.7
6	Open Line LOSBANOS 230-PANOCHE 230 #2 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.1	128.8	0.7
280	Open Xfmr HERNDON 230/HERNDON 115 #2 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.1	128.8	0.6
109	Open Line ATWATER 115-CRESEY T 115 #1 : Open Line CRESEY T 115-ATWATR J 115 #1 : Open Line CRESEY T 115-JRWD GEN 115 #1 : Open Line JRWD GEN 115-JR WOOD 115 #1 : Open Xfmr JRWD GEN 115/JRWCOGEN 9.11 #1 : Open Line JR WOOD 115-CRESSEY 115 #1 : Drop Load at JR WOOD 115 #1 : 11.7 MW 10.3 MVAR D : Drop Load at CRESSEY 115 #1 : 19.3 MW 3.9 MVAR Dr : Drop Generator at JRWCOGEN 9.11 #1 : 3.8 MW Droppe : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.1	128.7	0.7
279	Open Xfmr HERNDON 230/HERNDON 115 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.1	128.7	0.6
376	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.0	128.7	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
110	Open Line CRESEY T 115-ATWATR J 115 #1 : Open Line ATWATR J 115-LIVNGSTN 115 #1 : Open Line ATWATR J 115-MERCED 115 #1 : Open Line LIVNGSTN 115-GALLO 115 #1 : Drop Load at LIVNGSTN 115 #3 : 24.9 MW 5 MVAR Dro : Drop Load at GALLO 115 #1 : 4.3 MW 3.6 MVAR Dropp : Drop Generator at EXCHQUER 13.8 #1: 94.5 MW Droppe :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	127.9	128.6	0.7
37	Open Line NEWHALL 115-DAIRYLND 115 #1 : Open Line NEWHALL 115-MADERAPR 115 #1 : Open Line MADERAPR 115-MENDOTA 115 #1 : Open Xfmr MADERAPR 115/MADERA_G 13.8 #1 : Drop Load at NEWHALL 115 #2 : 8.7 MW 1.7 MVAR Dro : Drop Load at NEWHALL 115 #3 : 10.8 MW 2.1 MVAR Dr : Drop Load at MADERA_G 13.8 #ss: 3.6 MW 0.8 MVAR D : Drop Generator at MADERA_G 13.8 #1 : 28.6 MW Dropp :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	127.9	128.5	0.7
7	Open Line LOSBANOS 230-DS AMIGO 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	127.6	128.3	0.7
264	Open Line LEPRINO 70-LPRNO TP 70 #1 : Open Line LPRNO TP 70-LEMOORE 70 #1 : Open Line LPRNO TP 70-CANDLEWK 70 #1 : Open Line LPRNO TP 70-HENRITTA 70 #1 : Drop Load at LEPRINO 70 #1 : 6.6 MW 4.2 MVAR Drop : Drop Load at LEMOORE 70 #1 : 19.1 MW 3.8 MVAR Dro : Drop Load at LEMOORE 70 #2 : 33.2 MW 6.7 MVAR Dro :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	127.6	128.2	0.6
214	Open Line CLOVIS-2 115-CLOVISJ2 115 #1 : Open Line CLOVISJ2 115-KERCKHF2 115 #1 : Open Line CLOVISJ2 115-SANGER 115 #1 : Drop Load at CLOVIS-2 115 #3 : 45.3 MW 9.1 MVAR D : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	127.5	128.2	0.7
58	Open Line BORDEN 70-CASSIDY 70 #1 : Open Line CASSIDY 70-RIVERROC 70 #1 : Open Line RIVERROC 70-COPPRMNE 70 #1 : Drop Load at CASSIDY 70 #1 : 14.5 MW 2.9 MVAR Dro : Drop Load at RIVERROC 70 #1 : 2 MW 1.8 MVAR Dropp :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	127.4	128.1	0.7
<b>2013 Summer Off-Peak</b>							
Tcy-LB*	Tracy-Los Banos 500-kV	TESLA - LOSBANOS 500.0 #1	2963.89	Amps	102.8	103.1	0.3
LB-Mdw	Los Banos - Midway 500-kV	LOSBANOS - GATES 500.0 #1	2963.89	Amps	109.6	109.9	0.3

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
y*							
133	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.5	100.7	1.2
396	Open Line GREGG 230-HELMS PP 230 #1 : Drop Generator at HELMS 2 18 #*: -310 MW Dropped : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	124.9	125.6	0.7
397	Open Line GREGG 230-HELMS PP 230 #2 : Drop Generator at HELMS 2 18 #*: -310 MW Dropped : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	124.9	125.6	0.7
147	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	124.0	124.9	0.9
134	Open Line MOSSLND2 230-PANOCHE 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	114.2	115.0	0.8
395	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	113.5	114.3	0.8
Tsl-LB*	Tracy-Los Banos 500-kV	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	113.0	113.8	0.7
142	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.7	113.5	0.8
133	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.6	113.5	0.9
150	Open Line DS AMIGO 230-PANOCHE 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.2	112.9	0.8
136	Open Line LOSBANOS 230-PANOCHE 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.1	112.8	0.8
137	Open Line LOSBANOS 230-PANOCHE 230 #2 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.9	112.6	0.8
406	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.8	112.6	0.8

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
138	Open Line LOSBANOS 230-DS AMIGO 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.4	112.2	0.8
135	Open Line COBURN 230-PANOUCHE 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.8	111.6	0.8
402	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.7	111.5	0.8
148	Open Line BORDEN 230-GREGG 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.3	111.0	0.7
149	Open Line BORDEN 230-GREGG 230 #2 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.3	111.0	0.7
409	Open Line GATES 230-ARCO 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.9	110.6	0.7
400	Open Line GREGG 230-FGRDN T2 230 #1 : Open Line FGRDN T2 230-FGRDN 2 230 #1 : Open Line FGRDN T2 230-ASHLAN 230 #1 : Drop Load at FIGRDN 2 230 #1 : 24.1 MW 4.8 MVAR D : Close Line FIGRDN 1 230-FGRDN 2 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.0	110.6	0.7
309	Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.9	110.6	0.7
310	Drop Generator at HELMS 2 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.9	110.6	0.7
139	Open Line LOSBANOS 230-SN LS PP 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.9	110.6	0.7
140	Open Line LOSBANOS 230-SN LS PP 230 #2 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.9	110.6	0.7
398	Open Line GREGG 230-HERNDON 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.9	110.6	0.7
399	Open Line GREGG 230-HERNDON 230 #2 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.9	110.6	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
403	Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 33.6 MW 6.8 MVAR D : Close Line FIGRDN 1 230-FGRDN 2 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.9	110.6	0.7
190	Open Line GREGG 230-HELMS PP 230 #1 : Drop Generator at HELMS 2 18 #** : -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.8	110.6	0.7
191	Open Line GREGG 230-HELMS PP 230 #2 : Drop Generator at HELMS 2 18 #** : -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.8	110.6	0.7
Tcy-LB*	Tracy-Los Banos 500-kV	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.8	110.6	0.7
410	Open Line GATES 230-MIDWAY 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.7	110.5	0.7
422	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Drop Generator at MELONE1 13.8 #1: 100 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.5	110.2	0.7
131	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at MELONE1 13.8 #1: 100 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.2	110.1	0.9
141	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 9.3 MW 1.8 MVAR Dr : Drop Generator at HELMS 1 18 #** : -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.0	109.8	0.8
143	Open Line PANOCHE 230-GATES 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.0	109.7	0.7
144	Open Line PANOCHE 230-GATES 230 #2 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.0	109.7	0.7
416	Open Line GREGG 230-HELMS PP 230 #1 : Drop Generator at HELMS 2 18 #** : -310 MW Dropped : Drop Generator at MELONE1 13.8 #1: 100 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.9	109.6	0.7
417	Open Line GREGG 230-HELMS PP 230 #2 : Drop Generator at HELMS 2 18 #** : -310 MW Dropped : Drop Generator at MELONE1	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.9	109.6	0.7



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
	13.8 #1: 100 MW Dropped :						
386	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at HELMS 1 18 #**:-310 MW Dropped : Drop Generator at KERCKHOF 13.8 #1: 44 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.7	109.5	0.8
407	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at HELMS 1 18 #1:-310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.7	109.5	0.7
408	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at HELMS 1 18 #1:-310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.6	109.3	0.7
370	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at HELMS 1 18 #**:-310 MW Dropped : Drop Generator at EXCHQUER 13.8 #1: 38 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.2	109.0	0.8
380	Open Line GREGG 230-HELMS PP 230 #1 : Drop Generator at HELMS 2 18 #**:-310 MW Dropped : Drop Generator at KERCKHOF 13.8 #1: 44 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.1	108.8	0.7
381	Open Line GREGG 230-HELMS PP 230 #2 : Drop Generator at HELMS 2 18 #**:-310 MW Dropped : Drop Generator at KERCKHOF 13.8 #1: 44 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.1	108.8	0.7
411	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 9.3 MW 1.8 MVAR Dr : Drop Generator at HELMS 1 18 #**:-310 MW Dropped : Drop Generator at MELONE1 13.8 #1: 100 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.8	108.5	0.7
364	Open Line GREGG 230-HELMS PP 230 #1 : Drop Generator at HELMS 2 18 #**:-310 MW Dropped : Drop Generator at EXCHQUER 13.8 #1: 38 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.5	108.2	0.7
365	Open Line GREGG 230-HELMS PP 230 #2 : Drop Generator at HELMS 2 18 #**:-310 MW Dropped : Drop Generator at EXCHQUER 13.8 #1: 38 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.5	108.2	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
404	Open Line HAAS 230-BALCH3TP 230 #1 : Open Xfmr HAAS 230/HAAS 13.8 #1 : Open Line BALCH3TP 230-MC CALL 230 #1 : Open Xfmr BALCH3TP 230/BLCH 2-3 13.8 #1 : Drop Generator at HAAS 13.8 #1 : 60 MW Dropped : Drop Generator at HAAS 13.8 #2 : 0 MW Dropped : Drop Generator at BLCH 2-3 13.8 #1 : 39 MW Dropped : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.3	108.0	0.7
285	Open Xfmr GATES 230/GATES 500 #11 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.1	107.9	0.8
179	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 9.3 MW 1.8 MVAR Dr : Drop Generator at HELMS 1 18 #*: -310 MW Dropped : Drop Generator at KERCKHOF 13.8 #1: 44 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.0	107.8	0.8
160	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 9.3 MW 1.8 MVAR Dr : Drop Generator at HELMS 1 18 #*: -310 MW Dropped : Drop Generator at EXCHQUER 13.8 #1: 38 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	106.5	107.3	0.8
LB-Gts1*	Los Banos - Gates #1 500-kV	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.0	105.7	0.7
61	Open Line MELONES 230-WILSON 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.6	105.4	0.9
405	Open Line BALCH 230-PINE FLT 230 #1 : Open Xfmr BALCH 230/BLCH 2-2 13.8 #1 : Open Line PINE FLT 230-MC CALL 230 #1 : Open Xfmr PINE FLT 230/PINE FLT 13.8 #1 : Drop Generator at BLCH 2-2 13.8 #1 : 39 MW Dropped : Drop Generator at PINE FLT 13.8 #1 : 54 MW Dropped : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.4	105.2	0.7
145	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 15 MW 3 MVAR Dropp : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.9	104.5	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
185	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 44 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.3	103.1	0.8
146	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 16.8 MW 3.4 MVAR D : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.0	102.5	0.6
166	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 38 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.6	102.4	0.8
LB-Mdw y*	Los Banos - Midway 500-kV	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.5	102.2	0.7
401	Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Close Line HENTAP2 230-HENRIETA 230 #1 : Drop Generator at HELMS 1 18 #*: -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.5	101.2	0.6
Moss-LB*	Moss Landing - Los Banos #1& #2 500-kV DLO	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.1	100.7	0.7
392	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 44 MW Dropped :	TEMPLETN-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	110.1	109.9	-0.2
428	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 100 MW Dropped :	TEMPLETN-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	110.0	109.9	-0.2
376	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 38 MW Dropped :	TEMPLETN-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	110.0	109.8	-0.2
204	Open Line GATES 230-MORROBAY 230 #1 :	TEMPLETN-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	109.8	109.7	-0.2
408	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	TEMPLETN-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	108.1	108.0	-0.2
215	Open Line SANGER 115-MC CALL 115 #1 :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	973.96	Amps	120.8	121.7	1.0
216	Open Line SANGER 115-MC CALL 115 #2 :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	973.96	Amps	120.8	121.7	1.0
379	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 44 MW Dropped :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	973.96	Amps	113.2	114.3	1.0

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
415	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at MELONE1 13.8 #1: 100 MW Dropped :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	973.96	Amps	111.7	112.7	1.0
189	Open Line HELM 230-MC CALL 230 #1 :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	973.96	Amps	110.9	111.9	1.1
180	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 44 MW Dropped :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	973.96	Amps	107.9	108.8	1.0
362	Open Line MC CALL 115-WAHTOKE 115 #1 : Drop Generator at KINGSRIV 13.8 #1: 33 MW Dropped :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	973.96	Amps	107.0	107.8	0.8
412	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at MELONE1 13.8 #1: 100 MW Dropped :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	973.96	Amps	106.2	107.1	1.0
161	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 38 MW Dropped :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	973.96	Amps	106.0	107.0	1.0
226	Open Line MALAGA 115-MALAGATP 115 #1 : Open Line MALAGATP 115-SCWAXJCT 115 #1 : Open Line MALAGATP 115-ULTPWRJ 115 #1 : Open Line SCWAXJCT 115-SCWAX 115 #1 : Open Line SCWAXJCT 115-RANCHRS 115 #1 : Open Line ULTPWRJ 115-AIRPROD 115 #1 : Open Xfmr ULTPWRJ 115/ULTR.PWR 9.11 #1 : Open Line AIRPROD 115-MC CALL 115 #1 : Drop Load at SCWAX 115 #1 : 2 MW 1.1 MVAR Dropped : Drop Load at RANCHRS 115 #1 : 4.2 MW 0.8 MVAR Dro :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	973.96	Amps	106.0	106.8	0.8
12	Open Line PANOCHE 230-HELM 230 #1 :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	973.96	Amps	105.4	106.3	1.0
361	Open Line MC CALL 115-WAHTOKE 115 #1 :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	973.96	Amps	104.1	104.9	0.8
390	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 44 MW Dropped :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	973.96	Amps	99.8	100.8	1.0
385	Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Close Line HENTAP2 230-HENRIETA 230 #1 : Drop Generator at HELMS 1 18 **: -310 MW Dropped : Drop Generator at KERCKHOF 13.8 #1: 44 MW Dropped :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	973.96	Amps	99.7	100.7	1.0

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
213	Open Line AIRWAYJ2 115-AIRWAYS 115 #1 : Open Line AIRWAYJ2 115-BARTON 115 #1 : Open Line AIRWAYJ2 115-SANGER 115 #1 :	SANGER -LASPALMS 115.00kV Ckt#1 Sec# 1	1124.58	Amps	107.6	108.5	0.9
211	Open Line AIRWAYJ1 115-AIRWAYS 115 #1 : Open Line AIRWAYJ1 115-LASPALMS 115 #1 : Open Line AIRWAYJ1 115-MANCHSTR 115 #1 : Open Line LASPALMS 115-SANGER 115 #1 : Drop Load at LASPALMS 115 #1 : 10.5 MW 8.9 MVAR D :	SANGER -AIRWAYJ2 115.00kV Ckt#1 Sec# 1	1124.58	Amps	110.8	111.7	0.9
136	Open Line LOSBANOS 230-PANOCHE 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	PANOCHE -DS AMIGO 230.00kV Ckt#1 Sec# 1	849.96	Amps	101.1	101.8	0.6
137	Open Line LOSBANOS 230-PANOCHE 230 #2 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	PANOCHE -DS AMIGO 230.00kV Ckt#1 Sec# 1	849.96	Amps	99.4	100.0	0.6
391	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 44 MW Dropped :	MORROBAY-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	113.3	113.2	-0.2
427	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at MELONE1 13.8 #1: 100 MW Dropped :	MORROBAY-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	113.3	113.1	-0.2
375	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 38 MW Dropped :	MORROBAY-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	113.2	113.1	-0.2
203	Open Line GATES 230-TEMPLETN 230 #1 :	MORROBAY-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	113.1	112.9	-0.2
407	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	MORROBAY-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	111.4	111.2	-0.2
363	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 38 MW Dropped :	MC CALL -SANGER 115.00kV Ckt#3 Sec# 1	973.96	Amps	111.6	112.6	1.0
395	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	MC CALL -SANGER 115.00kV Ckt#3 Sec# 1	973.96	Amps	104.0	105.1	1.1
228	Open Line REEDLEY 115-GERAWAN 115 #1 : Open Line GERAWAN 115-WAHTOKE 115 #1 :	MC CALL -SANGER 115.00kV Ckt#3 Sec# 1	973.96	Amps	100.7	101.5	0.8
218	Open Line SANGER 115-MALAGA 115 #1 :	MC CALL -SANGER 115.00kV Ckt#3 Sec# 1	973.96	Amps	100.1	100.9	0.8

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
406	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	MC CALL -HELM 230.00kV Ckt#1 Sec# 1	849.96	Amps	101.5	103.2	1.8
Tsl-LB*	Tracy-Los Banos 500-kV	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	145.6	146.2	0.6
Tcy-LB*	Tracy-Los Banos 500-kV	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	140.6	141.2	0.6
132	Open Line WARNERVL 230-WILSON 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	119.7	120.3	0.6
Moss-LB*	Moss Landing - Los Banos #1& #2 500-kV DLO	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	119.5	120.1	0.5
134	Open Line MOSSLND2 230-PANOCHE 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	118.3	118.8	0.6
396	Open Line GREGG 230-HELMS PP 230 #1 : Drop Generator at HELMS 2 18 #*: -310 MW Dropped : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	117.7	118.3	0.6
397	Open Line GREGG 230-HELMS PP 230 #2 : Drop Generator at HELMS 2 18 #*: -310 MW Dropped : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	117.7	118.3	0.6
146	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 16.8 MW 3.4 MVAR D : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	114.5	115.1	0.5
145	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 15 MW 3 MVAR Dropp : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	114.0	114.5	0.5
147	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	113.6	114.1	0.5
135	Open Line COBURN 230-PANOCHE 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	113.4	113.9	0.5
285	Open Xfmr GATES 230/GATES 500 #11 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9	Amps	112.8	113.3	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
			2				
141	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 9.3 MW 1.8 MVAR Dr : Drop Generator at HELMS 1 18 #** : -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	112.8	113.3	0.5
401	Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Close Line HENTAP2 230-HENRIETA 230 #1 : Drop Generator at HELMS 1 18 #** : -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	112.7	113.2	0.5
411	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 9.3 MW 1.8 MVAR Dr : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Drop Generator at MELONE1 13.8 #1: 100 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	112.6	113.1	0.5
421	Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Close Line HENTAP2 230-HENRIETA 230 #1 : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Drop Generator at MELONE1 13.8 #1: 100 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	112.4	112.9	0.5
406	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	112.3	112.8	0.5
160	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 9.3 MW 1.8 MVAR Dr : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Drop Generator at EXCHQUER 13.8 #1: 38 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	112.3	112.7	0.5
LB-Gts1*	Los Banos - Gates #1 500-kV	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	112.1	112.6	0.5
369	Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Close Line HENTAP2 230-HENRIETA 230 #1 : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Drop Generator at EXCHQUER 13.8 #1: 38 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	112.1	112.6	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
179	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 9.3 MW 1.8 MVAR Dr : Drop Generator at HELMS 1 18 #*: -310 MW Dropped : Drop Generator at KERCKHOF 13.8 #1: 44 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	112.1	112.6	0.5
190	Open Line GREGG 230-HELMS PP 230 #1 : Drop Generator at HELMS 2 18 #*: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	112.0	112.6	0.5
191	Open Line GREGG 230-HELMS PP 230 #2 : Drop Generator at HELMS 2 18 #*: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	112.0	112.6	0.5
403	Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 33.6 MW 6.8 MVAR D : Close Line FIGRDN 1 230-FGRDN 2 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	112.1	112.6	0.5
409	Open Line GATES 230-ARCO 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	112.0	112.5	0.5
398	Open Line GREGG 230-HERNDON 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	112.0	112.5	0.5
399	Open Line GREGG 230-HERNDON 230 #2 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	112.0	112.5	0.5
139	Open Line LOSBANOS 230-SN LS PP 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	112.0	112.5	0.5
140	Open Line LOSBANOS 230-SN LS PP 230 #2 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	112.0	112.5	0.5
309	Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	112.0	112.5	0.5
310	Drop Generator at HELMS 2 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	112.0	112.5	0.5



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
400	Open Line GREGG 230-FGRDN T2 230 #1 : Open Line FGRDN T2 230-FIGRDN 2 230 #1 : Open Line FGRDN T2 230-ASHLAN 230 #1 : Drop Load at FIGRDN 2 230 #1 : 24.1 MW 4.8 MVAR D : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	112.0	112.5	0.5
3	Open Line MOSSLND2 230-PANOCHE 230 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	112.0	112.5	0.5
410	Open Line GATES 230-MIDWAY 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	111.9	112.5	0.5
148	Open Line BORDEN 230-GREGG 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	111.9	112.4	0.5
149	Open Line BORDEN 230-GREGG 230 #2 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	111.9	112.4	0.5
385	Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Close Line HENTAP2 230-HENRIETA 230 #1 : Drop Generator at HELMS 1 18 #*: -310 MW Dropped : Drop Generator at KERCKHOF 13.8 #1: 44 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	111.9	112.4	0.5
1	Open Line WARNERVL 230-WILSON 230 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	111.8	112.4	0.6
416	Open Line GREGG 230-HELMS PP 230 #1 : Drop Generator at HELMS 2 18 #*: -310 MW Dropped : Drop Generator at MELONE1 13.8 #1: 100 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	111.7	112.2	0.5
417	Open Line GREGG 230-HELMS PP 230 #2 : Drop Generator at HELMS 2 18 #*: -310 MW Dropped : Drop Generator at MELONE1 13.8 #1: 100 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	111.7	112.2	0.5
402	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at HELMS 1 18 #*: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	111.7	112.2	0.5
422	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at HELMS 1 18 #*: -310 MW Dropped : Drop Generator at MELONE1 13.8 #1: 100 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	111.5	112.0	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
364	Open Line GREGG 230-HELMS PP 230 #1 : Drop Generator at HELMS 2 18 #**:-310 MW Dropped : Drop Generator at EXCHQUER 13.8 #1: 38 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	111.4	111.9	0.5
365	Open Line GREGG 230-HELMS PP 230 #2 : Drop Generator at HELMS 2 18 #**:-310 MW Dropped : Drop Generator at EXCHQUER 13.8 #1: 38 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	111.4	111.9	0.5
153	Open Line MOSSLND2 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 38 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	111.3	111.8	0.5
407	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at HELMS 1 18 #1:-310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	111.3	111.8	0.5
380	Open Line GREGG 230-HELMS PP 230 #1 : Drop Generator at HELMS 2 18 #**:-310 MW Dropped : Drop Generator at KERCKHOF 13.8 #1: 44 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	111.2	111.7	0.5
381	Open Line GREGG 230-HELMS PP 230 #2 : Drop Generator at HELMS 2 18 #**:-310 MW Dropped : Drop Generator at KERCKHOF 13.8 #1: 44 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	111.2	111.7	0.5
126	Open Line WARNERVL 230-WILSON 230 #1 : Drop Generator at MELONE1 13.8 #1: 100 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	111.1	111.7	0.6
408	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at HELMS 1 18 #1:-310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	111.1	111.7	0.5
370	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at HELMS 1 18 #**:-310 MW Dropped : Drop Generator at EXCHQUER 13.8 #1: 38 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	111.1	111.6	0.5
172	Open Line MOSSLND2 230-PANOCHE 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 44 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	111.1	111.6	0.5
151	Open Line WARNERVL 230-WILSON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 38 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	110.9	111.5	0.6
386	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at HELMS 1 18 #**:-310 MW Dropped : Drop Generator at KERCKHOF 13.8 #1: 44 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	110.9	111.4	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
170	Open Line WARNERVL 230-WILSON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 44 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	110.7	111.3	0.6
404	Open Line HAAS 230-BALCH3TP 230 #1 : Open Xfmr HAAS 230/HAAS 13.8 #1 : Open Line BALCH3TP 230-MC CALL 230 #1 : Open Xfmr BALCH3TP 230/BLCH 2-3 13.8 #1 : Drop Generator at HAAS 13.8 #1 : 60 MW Dropped : Drop Generator at HAAS 13.8 #2 : 0 MW Dropped : Drop Generator at BLCH 2-3 13.8 #1 : 39 MW Dropped : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	110.0	110.5	0.5
143	Open Line PANOCHE 230-GATES 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	109.1	109.6	0.5
144	Open Line PANOCHE 230-GATES 230 #2 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	109.1	109.6	0.5
142	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	109.0	109.5	0.5
16	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 16.8 MW 3.4 MVAR D :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	108.2	108.7	0.5
395	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	108.2	108.7	0.5
128	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 16.8 MW 3.4 MVAR D : Drop Generator at MELONE1 13.8 #1: 100 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	108.0	108.5	0.5
138	Open Line LOSBANOS 230-DS AMIGO 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	108.0	108.5	0.5
405	Open Line BALCH 230-PINE FLT 230 #1 : Open Xfmr BALCH 230/BLCH 2-2 13.8 #1 : Open Line PINE FLT 230-MC CALL 230 #1 : Open Xfmr PINE FLT 230/PINE FLT 13.8 #1 : Drop Generator at BLCH 2-2 13.8 #1 : 39 MW Dropped : Drop Generator at PINE FLT 13.8 #1 : 54 MW Dropped : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	107.8	108.3	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
15	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 15 MW 3 MVAR Dropp :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	107.8	108.3	0.5
131	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at MELONE1 13.8 #1: 100 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	107.7	108.2	0.5
165	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 16.8 MW 3.4 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 38 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	107.6	108.1	0.5
127	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 15 MW 3 MVAR Dropp : Drop Generator at MELONE1 13.8 #1: 100 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.9 2	Amps	107.5	108.1	0.5
213	Open Line AIRWAYJ2 115-AIRWAYS 115 #1 : Open Line AIRWAYJ2 115-BARTON 115 #1 : Open Line AIRWAYJ2 115-SANGER 115 #1 :	LASPALMS-AIRWAYJ1 115.00kV Ckt#1 Sec# 1	1124.5 8	Amps	103.6	104.5	0.9
285	Open Xfmr GATES 230/GATES 500 #11 :	GATES -PANOCHE 230.00kV Ckt#2 Sec# 1	849.96	Amps	101.5	102.1	0.6
285	Open Xfmr GATES 230/GATES 500 #11 :	GATES -PANOCHE 230.00kV Ckt#1 Sec# 1	849.96	Amps	101.5	102.1	0.6
396	Open Line GREGG 230-HELMS PP 230 #1 : Drop Generator at HELMS 2 18 #**: -310 MW Dropped : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.4	121.1	0.7
397	Open Line GREGG 230-HELMS PP 230 #2 : Drop Generator at HELMS 2 18 #**: -310 MW Dropped : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.4	121.1	0.7
147	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.5	120.4	0.8
134	Open Line MOSSLND2 230-PANOCHE 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.7	110.5	0.8
395	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.0	109.8	0.8
Tsl-LB*	Tracy-Los Banos 500-kV	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.5	109.3	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
133	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.1	109.0	0.9
142	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.2	109.0	0.8
150	Open Line DS AMIGO 230-PANOCHE 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.7	108.4	0.8
136	Open Line LOSBANOS 230-PANOCHE 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.6	108.3	0.8
137	Open Line LOSBANOS 230-PANOCHE 230 #2 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.4	108.1	0.8
406	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.3	108.1	0.8
138	Open Line LOSBANOS 230-DS AMIGO 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	106.9	107.7	0.8
135	Open Line COBURN 230-PANOCHE 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	106.3	107.1	0.8
402	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at HELMS 1 18 #*: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	106.2	107.0	0.8
148	Open Line BORDEN 230-GREGG 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.8	106.5	0.7
149	Open Line BORDEN 230-GREGG 230 #2 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.8	106.5	0.7
409	Open Line GATES 230-ARCO 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.4	106.2	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
400	Open Line GREGG 230-FGRDN T2 230 #1 : Open Line FGRDN T2 230-FIGRDN 2 230 #1 : Open Line FGRDN T2 230-ASHLAN 230 #1 : Drop Load at FIGRDN 2 230 #1 : 24.1 MW 4.8 MVAR D : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.5	106.2	0.7
309	Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.4	106.1	0.7
310	Drop Generator at HELMS 2 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.4	106.1	0.7
139	Open Line LOSBANOS 230-SN LS PP 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.4	106.1	0.7
140	Open Line LOSBANOS 230-SN LS PP 230 #2 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.4	106.1	0.7
398	Open Line GREGG 230-HERNDON 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.4	106.1	0.7
399	Open Line GREGG 230-HERNDON 230 #2 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.4	106.1	0.7
403	Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 33.6 MW 6.8 MVAR D : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.4	106.1	0.7
190	Open Line GREGG 230-HELMS PP 230 #1 : Drop Generator at HELMS 2 18 #**: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.4	106.1	0.7
191	Open Line GREGG 230-HELMS PP 230 #2 : Drop Generator at HELMS 2 18 #**: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.4	106.1	0.7
Tcy-LB*	Tracy-Los Banos 500-kV	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.3	106.1	0.7
410	Open Line GATES 230-MIDWAY 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.2	106.0	0.7
422	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at HELMS 1 18 #**: -310 MW Dropped : Drop Generator at MELONE1	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.0	105.7	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
	13.8 #1: 100 MW Dropped :						
131	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at MELONE1 13.8 #1: 100 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.7	105.6	0.8
141	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 9.3 MW 1.8 MVAR Dr : Drop Generator at HELMS 1 18 #** : -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.5	105.3	0.8
143	Open Line PANOCHE 230-GATES 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.5	105.2	0.7
144	Open Line PANOCHE 230-GATES 230 #2 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.5	105.2	0.7
416	Open Line GREGG 230-HELMS PP 230 #1 : Drop Generator at HELMS 2 18 #** : -310 MW Dropped : Drop Generator at MELONE1 13.8 #1: 100 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.4	105.1	0.7
417	Open Line GREGG 230-HELMS PP 230 #2 : Drop Generator at HELMS 2 18 #** : -310 MW Dropped : Drop Generator at MELONE1 13.8 #1: 100 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.4	105.1	0.7
386	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Drop Generator at KERCKHOF 13.8 #1: 44 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.2	105.0	0.8
407	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.2	105.0	0.7
408	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.1	104.8	0.7
370	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Drop Generator at EXCHQUER 13.8 #1: 38 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.7	104.5	0.8
380	Open Line GREGG 230-HELMS PP 230 #1 : Drop Generator at HELMS 2 18 #** : -310 MW Dropped : Drop Generator at KERCKHOF 13.8 #1: 44 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.6	104.3	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
381	Open Line GREGG 230-HELMS PP 230 #2 : Drop Generator at HELMS 2 18 #** : -310 MW Dropped : Drop Generator at KERCKHOF 13.8 #1: 44 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.6	104.3	0.7
411	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 9.3 MW 1.8 MVAR Dr : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Drop Generator at MELONE1 13.8 #1: 100 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.3	104.0	0.7
364	Open Line GREGG 230-HELMS PP 230 #1 : Drop Generator at HELMS 2 18 #** : -310 MW Dropped : Drop Generator at EXCHQUER 13.8 #1: 38 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.0	103.7	0.7
365	Open Line GREGG 230-HELMS PP 230 #2 : Drop Generator at HELMS 2 18 #** : -310 MW Dropped : Drop Generator at EXCHQUER 13.8 #1: 38 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.0	103.7	0.7
404	Open Line HAAS 230-BALCH3TP 230 #1 : Open Xfmr HAAS 230/HAAS 13.8 #1 : Open Line BALCH3TP 230-MC CALL 230 #1 : Open Xfmr BALCH3TP 230/BLCH 2-3 13.8 #1 : Drop Generator at HAAS 13.8 #1 : 60 MW Dropped : Drop Generator at HAAS 13.8 #2 : 0 MW Dropped : Drop Generator at BLCH 2-3 13.8 #1 : 39 MW Dropped : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.8	103.5	0.7
285	Open Xfmr GATES 230/GATES 500 #11 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.6	103.4	0.8
179	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 9.3 MW 1.8 MVAR Dr : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Drop Generator at KERCKHOF 13.8 #1: 44 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.5	103.3	0.8
160	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 9.3 MW 1.8 MVAR Dr : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Drop Generator at EXCHQUER 13.8 #1: 38 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.0	102.8	0.8
LB-Gts1*	Los Banos - Gates #1 500-kV	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.5	101.2	0.7



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
61	Open Line MELONES 230-WILSON 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.1	101.0	0.8
405	Open Line BALCH 230-PINE FLT 230 #1 : Open Xfmr BALCH 230/BLCH 2-2 13.8 #1 : Open Line PINE FLT 230-MC CALL 230 #1 : Open Xfmr PINE FLT 230/PINE FLT 13.8 #1 : Drop Generator at BLCH 2-2 13.8 #1 : 39 MW Dropped : Drop Generator at PINE FLT 13.8 #1 : 54 MW Dropped : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.9	100.7	0.7
145	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 15 MW 3 MVAR Dropp : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.4	100.0	0.6
145	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 15 MW 3 MVAR Dropp : Drop Generator at HELMS 1 18 #1: -310 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.1	103.1	1.0
211	Open Line AIRWAYJ1 115-AIRWAYS 115 #1 : Open Line AIRWAYJ1 115-LASPALMS 115 #1 : Open Line AIRWAYJ1 115-MANCHSTR 115 #1 : Open Line LASPALMS 115-SANGER 115 #1 : Drop Load at LASPALMS 115 #1 : 10.5 MW 8.9 MVAR D :	AIRWAYJ2-BARTON 115.00kV Ckt#1 Sec# 1	1124.58	Amps	100.6	101.5	0.9
234	Open Line MANCHSTR 115-HERNDON 115 #1 :	AIRWAYJ2-BARTON 115.00kV Ckt#1 Sec# 1	1124.58	Amps	99.4	100.4	1.0
<b>2013 Spring Peak</b>							
285	Open Xfmr GATES 230/GATES 500 #11 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	133.4	134.5	1.1
131	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	127.6	128.7	1.1
196	Open Line KEARNEY 230-HERNDON 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	122.9	123.8	1.0
2	Open Line WESTLEY 230-LOSBANOS 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	122.8	123.7	1.0
11	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.1	120.1	1.0

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
422	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.3	118.3	1.0
152	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	115.3	115.9	0.6
171	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	114.9	115.9	1.0
370	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	114.9	115.9	1.0
166	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	114.2	115.2	1.1
386	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	114.1	115.1	1.0
185	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	113.9	114.9	1.1
411	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	113.6	114.6	1.0
189	Open Line HELM 230-MC CALL 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.8	113.7	0.9
202	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.6	113.5	1.0
12	Open Line PANOCHE 230-HELM 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.3	113.2	1.0
3	Open Line MOSSLND2 230-PANOCHE 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.0	112.9	0.9
160	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.2	112.1	1.0
5	Open Line LOSBANOS 230-PANOCHE 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.9	111.9	0.9
62	Open Line DS AMIGO 230-PANOCHE 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.9	111.8	0.9

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
6	Open Line LOSBANOS 230-PANOCHE 230 #2 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.6	111.5	0.9
179	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.4	111.4	1.0
7	Open Line LOSBANOS 230-DS AMIGO 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.1	111.0	0.9
255	Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line OLDKERN 70-BIOLA 70 #1 : Open Line OLDKERN 70-BOWLES 70 #1 : Drop Load at OLDKERN 70 #1 : 15.1 MW 3 MVAR Dropp : Drop Load at OLDKERN 70 #3 : 6.1 MW 1.2 MVAR Drop : Drop Load at BIOLA 70 #1 : 17.5 MW 3.5 MVAR Dropp : Drop Load at BOWLES 70 #1 : 14.7 MW 2.9 MVAR Drop :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.9	110.7	0.9
30	Open Line LE GRNDJ 115-WILSON B 115 #1 : Open Line LE GRNDJ 115-EL NIDO 115 #1 : Open Line EL NIDO 115-ORO LOMA 115 #1 : Drop Load at EL NIDO 115 #1 : 10 MW 2 MVAR Droppe : Drop Load at EL NIDO 115 #2 : 12 MW 2.4 MVAR Drop :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.7	110.6	0.9
26	Open Line CRESEY T 115-ATWATR J 115 #1 : Open Line ATWATR J 115-LIVNGSTN 115 #1 : Open Line ATWATR J 115-MERCED 115 #1 : Open Line LIVNGSTN 115-GALLO 115 #1 : Drop Load at LIVNGSTN 115 #3 : 19.6 MW 3.9 MVAR D : Drop Load at GALLO 115 #1 : 4 MW 3.4 MVAR Dropped :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.6	110.5	0.9
24	Open Line ATWATER 115-CRESEY T 115 #1 : Open Line CRESEY T 115-ATWATR J 115 #1 : Open Line CRESEY T 115-JRWD GEN 115 #1 : Open Line JRWD GEN 115-JR WOOD 115 #1 : Open Xfmr JRWD GEN 115/JRWCOGEN 9.11 #1 : Open Line JR WOOD 115-CRESSEY 115 #1 : Drop Load at JR WOOD 115 #1 : 10.9 MW 9.6 MVAR Dr : Drop Load at CRESSEY 115 #1 : 15.2 MW 3 MVAR Drop : Drop Generator at JRWCOGEN 9.11 #1 : 3.8 MW Droppe :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.5	110.3	0.9
29	Open Line LE GRAND 115-DAIRYLND 115 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.1	110.0	0.9

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
233	Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 24.7 MW 5 MVAR Dropp : Drop Load at PNEDLE 115 #3 : 32.5 MW 6.5 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.2	110.0	0.9
67	Open Xfmr WILSON A 115/WILSON 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.0	109.9	0.9
68	Open Xfmr WILSON B 115/WILSON 230 #2 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.9	109.8	0.9
214	Open Line CLOVIS-2 115-CLOVISJ2 115 #1 : Open Line CLOVISJ2 115-KERCKHF2 115 #1 : Open Line CLOVISJ2 115-SANGER 115 #1 : Drop Load at CLOVIS-2 115 #3 : 36 MW 7.3 MVAR Dro : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.9	109.7	0.9
264	Open Line LEPRINO 70-LPRNO TP 70 #1 : Open Line LPRNO TP 70-LEMOORE 70 #1 : Open Line LPRNO TP 70-CANDLEWK 70 #1 : Open Line LPRNO TP 70-HENRITTA 70 #1 : Drop Load at LEPRINO 70 #1 : 6.2 MW 4 MVAR Dropp : Drop Load at LEMOORE 70 #1 : 15.2 MW 3 MVAR Dropp : Drop Load at LEMOORE 70 #2 : 26.4 MW 5.3 MVAR Dro :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.8	109.7	0.9
4	Open Line COBURN 230-PANOCHE 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.6	109.5	0.9
291	Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.5	109.4	0.9
239	Open Line KINGSBRG 115-GAURD J1 115 #1 : Open Line GAURD J1 115-MC CALL 115 #1 : Open Line GAURD J1 115-GAURD J2 115 #1 : Open Line GAURD J2 115-GRDN GLS 115 #1 : Drop Load at GRDN GLS 115 #1 : 3.3 MW 1 MVAR Drop : Drop Load at KINGSBRG 115 #3 : 26.2 MW 5.3 MVAR D :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.5	109.3	0.9
2	Open Line WESTLEY 230-LOSBANOS 230 #1 :	WARNERVL-WRNRVLE 230.00/ 115.00kV Bk#3	75	MVA	102.9	103.2	0.2
171	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	WARNERVL-WRNRVLE 230.00/ 115.00kV Bk#3	75	MVA	100.8	101.0	0.3
152	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	WARNERVL-WRNRVLE 230.00/ 115.00kV Bk#3	75	MVA	100.5	100.7	0.2
2	Open Line WESTLEY 230-LOSBANOS 230 #1 :	WARNERVL-WRNRVLE 230.00/ 115.00kV Bk#2	75	MVA	102.9	103.2	0.2

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
171	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	WARNERVL-WRNRVLE 230.00/ 115.00kV Bk#2	75	MVA	100.8	101.0	0.3
152	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	WARNERVL-WRNRVLE 230.00/ 115.00kV Bk#2	75	MVA	100.5	100.7	0.2
2	Open Line WESTLEY 230-LOSBANOS 230 #1 :	WARNERVL-WRNRVLE 230.00/ 115.00kV Bk#1	150	MVA	102.9	103.2	0.3
171	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	WARNERVL-WRNRVLE 230.00/ 115.00kV Bk#1	150	MVA	100.8	101.0	0.3
152	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	WARNERVL-WRNRVLE 230.00/ 115.00kV Bk#1	150	MVA	100.5	100.7	0.2
131	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	127.9	128.8	0.8
285	Open Xfmr GATES 230/GATES 500 #11 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	125.2	126.0	0.8
196	Open Line KEARNEY 230-HERNDON 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.5	117.2	0.7
422	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	115.1	115.8	0.7
166	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	114.0	114.9	0.8
11	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	114.1	114.8	0.7
185	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	113.7	114.5	0.8
411	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.7	113.4	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
370	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.0	111.7	0.7
386	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.3	111.0	0.7
3	Open Line MOSSLND2 230-PANOCHE 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.0	110.7	0.7
202	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.9	110.6	0.7
189	Open Line HELM 230-MC CALL 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.7	110.3	0.7
12	Open Line PANOCHE 230-HELM 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.4	110.1	0.7
426	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.8	109.5	0.7
2	Open Line WESTLEY 230-LOSBANOS 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.7	109.4	0.7
160	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.6	109.3	0.7
415	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.6	109.3	0.7
412	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.3	109.0	0.7
62	Open Line DS AMIGO 230-PANOCHE 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.2	108.9	0.7
5	Open Line LOSBANOS 230-PANOCHE 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.2	108.8	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
255	Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line OLDKERN 70-BIOLA 70 #1 : Open Line OLDKERN 70- BOWLES 70 #1 : Drop Load at OLDKERN 70 #1 : 15.1 MW 3 MVAR Dropp : Drop Load at OLDKERN 70 #3 : 6.1 MW 1.2 MVAR Drop : Drop Load at BIOLA 70 #1 : 17.5 MW 3.5 MVAR Dropp : Drop Load at BOWLES 70 #1 : 14.7 MW 2.9 MVAR Drop :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.1	108.7	0.7
6	Open Line LOSBANOS 230-PANOCHE 230 #2 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.0	108.7	0.7
179	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.9	108.6	0.7
30	Open Line LE GRNDJ 115-WILSON B 115 #1 : Open Line LE GRNDJ 115-EL NIDO 115 #1 : Open Line EL NIDO 115-ORO LOMA 115 #1 : Drop Load at EL NIDO 115 #1 : 10 MW 2 MVAR Drope : Drop Load at EL NIDO 115 #2 : 12 MW 2.4 MVAR Drop :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.9	108.5	0.7
7	Open Line LOSBANOS 230-DS AMIGO 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.8	108.4	0.7
26	Open Line CRESEY T 115-ATWATR J 115 #1 : Open Line ATWATR J 115-LIVNGSTN 115 #1 : Open Line ATWATR J 115- MERCED 115 #1 : Open Line LIVNGSTN 115-GALLO 115 #1 : Drop Load at LIVNGSTN 115 #3 : 19.6 MW 3.9 MVAR D : Drop Load at GALLO 115 #1 : 4 MW 3.4 MVAR Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.8	108.4	0.7
24	Open Line ATWATER 115-CRESEY T 115 #1 : Open Line CRESEY T 115-ATWATR J 115 #1 : Open Line CRESEY T 115- JRWD GEN 115 #1 : Open Line JRWD GEN 115-JR WOOD 115 #1 : Open Xfmr JRWD GEN 115/JRWCOGEN 9.11 #1 : Open Line JR WOOD 115-CRESSEY 115 #1 : Drop Load at JR WOOD 115 #1 : 10.9 MW 9.6 MVAR Dr : Drop Load at CRESSEY 115 #1 : 15.2 MW 3 MVAR Drop : Drop Generator at JRWCOGEN 9.11 #1 : 3.8 MW Drope :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.7	108.3	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
233	Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 24.7 MW 5 MVAR Dropp : Drop Load at PNEDLE 115 #3 : 32.5 MW 6.5 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.5	108.2	0.6
29	Open Line LE GRAND 115-DAIRYLND 115 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.4	108.1	0.7
214	Open Line CLOVIS-2 115-CLOVISJ2 115 #1 : Open Line CLOVISJ2 115-KERCKHF2 115 #1 : Open Line CLOVISJ2 115-SANGER 115 #1 : Drop Load at CLOVIS-2 115 #3 : 36 MW 7.3 MVAR Dro : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.3	108.0	0.6
264	Open Line LEPRINO 70-LPRNO TP 70 #1 : Open Line LPRNO TP 70-LEMOORE 70 #1 : Open Line LPRNO TP 70-CANDLEWK 70 #1 : Open Line LPRNO TP 70-HENRITTA 70 #1 : Drop Load at LEPRINO 70 #1 : 6.2 MW 4 MVAR Dropp : Drop Load at LEMOORE 70 #1 : 15.2 MW 3 MVAR Dropp : Drop Load at LEMOORE 70 #2 : 26.4 MW 5.3 MVAR Dro :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.3	108.0	0.7
67	Open Xfmr WILSON A 115/WILSON 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.3	108.0	0.6
12	Open Line PANOCHE 230-HELM 230 #1 :	STRD JCT-SCHLNDLR 70.00kV Ckt#1 Sec# 1	377.75	Amps	103.9	105.4	1.5
412	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STRD JCT-SCHLNDLR 70.00kV Ckt#1 Sec# 1	377.75	Amps	101.9	103.4	1.5
161	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STRD JCT-SCHLNDLR 70.00kV Ckt#1 Sec# 1	377.75	Amps	101.7	103.2	1.5
128	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	158.9	159.8	0.9
165	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	155.8	156.7	0.9



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
16	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	151.2	152.1	0.9
184	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	146.3	147.2	0.9
146	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D : Drop Generator at HELMS 1 18 #1: 400 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.7	121.6	0.9
422	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.3	108.9	0.6
370	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	106.4	107.0	0.6
285	Open Xfmr GATES 230/GATES 500 #11 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.5	106.2	0.7
411	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.5	105.1	0.7
196	Open Line KEARNEY 230-HERNDON 230 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.1	104.7	0.6
160	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.6	103.3	0.7
11	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.2	100.9	0.7
386	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.2	100.8	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
128	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	167.7	168.6	0.9
165	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	164.5	165.4	0.9
16	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	159.9	160.8	0.9
184	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	154.9	155.9	0.9
146	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D : Drop Generator at HELMS 1 18 #1: 400 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.2	130.1	0.9
422	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.0	117.6	0.6
370	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	115.1	115.7	0.6
285	Open Xfmr GATES 230/GATES 500 #11 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	114.2	114.9	0.7
411	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	113.2	113.9	0.7
196	Open Line KEARNEY 230-HERNDON 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.7	113.4	0.6
160	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.3	111.9	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
11	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.9	109.5	0.7
386	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.8	109.4	0.6
415	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.7	108.4	0.6
152	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.4	107.7	0.3
107	Open Line CERTANJ1 115-CHWCHLLA 115 #1 : Open Line CERTANJ1 115-SHARON T 115 #1 : Open Line SHARON T 115-SHARON 115 #1 : Open Line SHARON T 115-OAKH_JCT 115 #1 : Open Line OAKH_JCT 115-CORSGOLD 115 #1 : Open Line OAKH_JCT 115-K1-JCT 115 #1 : Open Line CORSGOLD 115-OAKHURST 115 #1 : Open Line K1-JCT 115-KERCKHF2 115 #2 : Drop Load at SHARON 115 #1 : 6.6 MW 4.6 MVAR Drop : Drop Load at CORSGOLD 115 #1 : 1.8 MW 0.3 MVAR Dr :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	106.8	107.5	0.6
412	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	106.8	107.4	0.6
426	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	106.2	106.8	0.6
363	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.7	106.3	0.6
179	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.0	105.7	0.7
161	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.7	105.4	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
2	Open Line WESTLEY 230-LOSBANOS 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.4	105.0	0.6
374	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.1	104.7	0.6
106	Open Line CHWCHLLA 115-CERTAN T 115 #1 : Open Line CERTAN T 115-LE GRAND 115 #1 : Open Line CERTAN T 115- CERTANJ2 115 #1 : Open Line CERTANJ2 115-CHWCGNJT 115 #1 : Open Line CHWCGNJT 115-CERTTEED 115 #1 : Open Line CHWCGNJT 115-CHWCGN 115 #1 : Open Line CHWCGN 115-CHWCHLA2 115 #1 : Open Xfmr CHWCGN 115/CHOWCOGN 13.8 #1 : Open Xfmr CHWCHLA2 115/CHWCHLA2 13.8 #1 : Drop Load at CERTTEED 115 #1 : 9.3 MW 6.4 MVAR Dr :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.8	104.4	0.6
429	Open Line GATES 230-ARCO 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.6	104.1	0.6
430	Open Line GATES 230-MIDWAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.6	104.1	0.6
207	Open Line K1-JCT 115-KERCKHF2 115 #2 : Open Line K1-JCT 115-OAKH_JCT 115 #1 : Open Line OAKH_JCT 115-SHARON T 115 #1 : Open Line OAKH_JCT 115-CORSGOLD 115 #1 : Open Line SHARON T 115-CERTANJ1 115 #1 : Open Line SHARON T 115-SHARON 115 #1 : Open Line CERTANJ1 115- CHWCHLLA 115 #1 : Open Line CORSGOLD 115-OAKHURST 115 #1 : Drop Load at CORSGOLD 115 #1 : 1.8 MW 0.3 MVAR Dr : Drop Load at CORSGOLD 115 #2 : 20.9 MW 4.2 MVAR D :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.2	103.8	0.6
413	Open Line PANOCHE 230-GATES 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.1	103.7	0.6
414	Open Line PANOCHE 230-GATES 230 #2 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.1	103.7	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
116	Open Line CANANDGA 70-TRIGO J 70 #1 : Open Line CANANDGA 70-GLASS 70 #1 : Open Line TRIGO J 70-BONITA 70 #1 : Open Line TRIGO J 70-TRIGO 70 #1 : Open Line TRIGO 70-MADERA 70 #1 : Open Line TRIGO 70-EL PECO 70 #1 : Drop Load at CANANDGA 70 #1 : 7.1 MW 5.3 MVAR Dro : Drop Load at BONITA 70 #1 : 11.5 MW 2.3 MVAR Drop : Drop Load at EL PECO 70 #1 : 7.9 MW 1.6 MVAR Drop : Drop Load at EL PECO 70 #2 : 5.8 MW 1.1 MVAR Drop :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.1	103.7	0.6
153	Open Line MOSSLND2 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.0	103.6	0.6
189	Open Line HELM 230-MC CALL 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.0	103.6	0.6
423	Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 59.1 MW 11.9 MVAR : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.0	103.6	0.5
169	Open Line DS AMIGO 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.7	103.2	0.6
155	Open Line LOSBANOS 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.7	103.2	0.6
156	Open Line LOSBANOS 230-PANOCHE 230 #2 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.5	103.1	0.6
427	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.3	102.9	0.5
157	Open Line LOSBANOS 230-DS AMIGO 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.3	102.9	0.6
115	Open Line PANOCHE 115-MENDOTA 115 #1 : Open Line PANOCHE 115-PANOCHE 115 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.3	102.9	0.5
428	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.2	102.7	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
12	Open Line PANOCHE 230-HELM 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.0	102.7	0.6
114	Open Line NEWHALL 115-DAIRYLND 115 #1 : Open Line NEWHALL 115-MADERAPR 115 #1 : Open Line MADERAPR 115-MENDOTA 115 #1 : Open Xfmr MADERAPR 115/MADERA_G 13.8 #1 : Drop Load at NEWHALL 115 #2 : 6.8 MW 1.3 MVAR Dro : Drop Load at NEWHALL 115 #3 : 8.5 MW 1.7 MVAR Dro : Drop Load at MADERA_G 13.8 #ss: 3.6 MW 0.8 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.8	102.3	0.5
154	Open Line COBURN 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.6	102.1	0.6
377	Open Line GATES 230-ARCO 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.6	102.1	0.6
378	Open Line GATES 230-MIDWAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.5	102.1	0.6
202	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.5	102.1	0.6
171	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.5	102.1	0.6
117	Open Line MCSWAINJ 70-MC SWAIN 70 #1 : Open Line MCSWAINJ 70-MRCDFLS 70 #1 : Open Line MCSWAINJ 70-EXCHEQR 70 #1 : Open Xfmr MC SWAIN 70/MCSWAIN 9.11 #1 : Drop Generator at MCSWAIN 9.11 #1 : 9 MW Dropped : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.2	101.7	0.5
353	Open Line SMYRNA 115-MCKIBBEN 115 #1 : Open Line MCKIBBEN 115-SEMTRPJ 115 #1 : Open Line SEMTRPJ 115-GANSO 115 #1 : Open Line GANSO 115-MIDWAY 115 #1 : Drop Load at GANSO 115 #1 : 3 MW 0.6 MVAR Dropped : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.1	101.7	0.5
28	Open Line LE GRAND 115-WILSON A 115 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.1	101.7	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
162	Open Line PANOCHE 230-GATES 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.1	101.7	0.6
163	Open Line PANOCHE 230-GATES 230 #2 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.1	101.7	0.6
113	Open Line WILSON B 115-EL CAPTN 115 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.0	101.6	0.6
81	Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.0	101.5	0.6
108	Open Line ATWATER 115-CASTLE 115 #1 : Open Line CASTLE 115-EL CAPTN 115 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.0	101.5	0.6
158	Open Line LOSBANOS 230-SN LS PP 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.0	101.5	0.6
159	Open Line LOSBANOS 230-SN LS PP 230 #2 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.0	101.5	0.6
371	Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 59.1 MW 11.9 MVAR : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.0	101.5	0.5
27	Open Line EXCHEQUER 115-LE GRAND 115 #1 : Drop Generator at EXCHQUER 13.8 #1 : 90 MW Dropped : Drop Load at MARIPOS2 70 #** : 7.2 MW 1.4 MVAR Dro :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.9	101.5	0.6
118	Open Line ORO LOMA 70-MRCYSPRS 70 #1 : Open Line MRCYSPRS 70-ORTIGA 70 #1 : Open Line MRCYSPRS 70-ARBURUA 70 #1 : Open Line ORTIGA 70-CANAL 70 #1 : Open Line ARBURUA 70-WRGHT PP 70 #1 : Open Line WRGHT PP 70-LOS BANS 70 #1 : Drop Load at ORTIGA 70 #1 : 5.5 MW 1.1 MVAR Dropp : Drop Load at ARBURUA 70 #1 : 3.5 MW 1.7 MVAR Drop : Drop Load at WRGHT PP 70 #1 : 7.6 MW 1.5 MVAR Dro : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.8	101.4	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
111	Open Line LE GRAND 115-DAIRYLND 115 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.6	101.2	0.5
425	Open Line BALCH 230-PINE FLT 230 #1 : Open Xfmr BALCH 230/BLCH 2-2 13.8 #1 : Open Line PINE FLT 230-MC CALL 230 #1 : Open Xfmr PINE FLT 230/PINE FLT 13.8 #1 : Drop Generator at BLCH 2-2 13.8 #1 : 52 MW Dropped : Drop Generator at PINE FLT 13.8 #1 : 63 MW Dropped : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.6	101.1	0.6
3	Open Line MOSSLND2 230-PANOCHE 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.3	100.9	0.6
375	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.3	100.9	0.6
112	Open Line LE GRNDJ 115-WILSON B 115 #1 : Open Line LE GRNDJ 115-EL NIDO 115 #1 : Open Line EL NIDO 115-ORO LOMA 115 #1 : Drop Load at EL NIDO 115 #1 : 10 MW 2 MVAR Droppe : Drop Load at EL NIDO 115 #2 : 12 MW 2.4 MVAR Drop : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.2	100.8	0.6
376	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.1	100.7	0.6
41	Open Line PANOCHEJ 115-PANOCHE 115 #1 : Open Line PANOCHEJ 115-HAMMONDS 115 #1 : Open Line PANOCHEJ 115-OXFRDJCT 115 #1 : Open Line HAMMONDS 115-DFSTP 115 #1 : Open Line DFSTP 115-ORO LOMA 115 #1 : Open Line DFSTP 115-DFS 115 #1 : Open Line OXFRDJCT 115-OXFORD 115 #1 : Open Line OXFRDJCT 115-WSTLDJCT 115 #1 : Open Line WSTLDJCT 115-WSTLD1RA 115 #1 : Open Line WSTLDJCT 115-LUISJCT 115 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.1	100.7	0.5
66	Open Xfmr EXCHEQUR 115/EXCHEQUR 70 #1 : Open Line EXCHEQUR 70-MARIPOS2 70 #1 : Open Line EXCHEQUR 70-BER VLLY 70 #1 : Open Line EXCHEQUR 70-MCSWAINJ 70 #1 : Drop Load at MARIPOS2 70 #1 : 7.2 MW 1.4 MVAR Dro : Drop Load at MARIPOS2 70 #2 : 7.5 MW 1.5 MVAR Dro : Close Line MARIPOS2 70-BRCEBG J 70 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.1	100.7	0.6



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
62	Open Line DS AMIGO 230-PANOCHE 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.9	100.5	0.6
109	Open Line ATWATER 115-CRESEY T 115 #1 : Open Line CRESEY T 115-ATWATR J 115 #1 : Open Line CRESEY T 115-JRWD GEN 115 #1 : Open Line JRWD GEN 115-JR WOOD 115 #1 : Open Xfmr JRWD GEN 115/JRWCOGEN 9.11 #1 : Open Line JR WOOD 115-CRESSEY 115 #1 : Drop Load at JR WOOD 115 #1 : 10.9 MW 9.6 MVAR Dr : Drop Load at CRESSEY 115 #1 : 15.2 MW 3 MVAR Drop : Drop Generator at JRWCOGEN 9.11 #1 : 3.8 MW Droppe : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.0	100.5	0.6
255	Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line OLDKERN 70-BIOLA 70 #1 : Open Line OLDKERN 70-BOWLES 70 #1 : Drop Load at OLDKERN 70 #1 : 15.1 MW 3 MVAR Dropp : Drop Load at OLDKERN 70 #3 : 6.1 MW 1.2 MVAR Drop : Drop Load at BIOLA 70 #1 : 17.5 MW 3.5 MVAR Dropp : Drop Load at BOWLES 70 #1 : 14.7 MW 2.9 MVAR Drop :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.9	100.5	0.6
5	Open Line LOSBANOS 230-PANOCHE 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.9	100.5	0.6
110	Open Line CRESEY T 115-ATWATR J 115 #1 : Open Line ATWATR J 115-LIVNGSTN 115 #1 : Open Line ATWATR J 115-MERCED 115 #1 : Open Line LIVNGSTN 115-GALLO 115 #1 : Drop Load at LIVNGSTN 115 #3 : 19.6 MW 3.9 MVAR D : Drop Load at GALLO 115 #1 : 4 MW 3.4 MVAR Dropped : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.9	100.4	0.5
6	Open Line LOSBANOS 230-PANOCHE 230 #2 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.8	100.4	0.6
236	Open Line HERNDON 115-CHLDHOSP 115 #1 : Open Line CHLDHOSP 115-WOODWARD 115 #1 : Drop Load at CHLDHOSP 115 #1 : 3.3 MW 1.4 MVAR Dr :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.8	100.3	0.5
291	Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.7	100.2	0.5
379	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.6	100.2	0.6
7	Open Line LOSBANOS 230-DS AMIGO 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.6	100.1	0.6
279	Open Xfmr HERNDON 230/HERNDON 115 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.6	100.1	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
233	Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 24.7 MW 5 MVAR Dropp : Drop Load at PNEDLE 115 #3 : 32.5 MW 6.5 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.6	100.1	0.5
280	Open Xfmr HERNDON 230/HERNDON 115 #2 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.5	100.0	0.5
127	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 27 MW 5.4 MVAR Dro : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	158.5	159.4	0.9
164	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 27 MW 5.4 MVAR Dro : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	155.2	156.2	0.9
15	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 27 MW 5.4 MVAR Dro :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	150.6	151.6	0.9
183	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 27 MW 5.4 MVAR Dro : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	145.7	146.7	0.9
145	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 27 MW 5.4 MVAR Dro : Drop Generator at HELMS 1 18 #1: 400 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	120.1	121.0	0.9
422	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	118.9	119.6	0.7
370	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	116.9	117.5	0.7
285	Open Xfmr GATES 230/GATES 500 #11 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	115.8	116.6	0.8

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
411	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	114.8	115.5	0.7
196	Open Line KEARNEY 230-HERNDON 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	114.3	115.0	0.7
160	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	112.7	113.4	0.7
11	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	110.1	110.8	0.7
386	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	110.0	110.7	0.7
415	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	108.8	109.4	0.7
152	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	108.4	108.7	0.4
107	Open Line CERTANJ1 115-CHWCHLLA 115 #1 : Open Line CERTANJ1 115-SHARON T 115 #1 : Open Line SHARON T 115-SHARON 115 #1 : Open Line SHARON T 115-OAKH_JCT 115 #1 : Open Line OAKH_JCT 115-CORSGOLD 115 #1 : Open Line OAKH_JCT 115-K1-JCT 115 #1 : Open Line CORSGOLD 115-OAKHURST 115 #1 : Open Line K1-JCT 115-KERCKHF2 115 #2 : Drop Load at SHARON 115 #1 : 6.6 MW 4.6 MVAR Drop : Drop Load at CORSGOLD 115 #1 : 1.8 MW 0.3 MVAR Dr :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	107.9	108.5	0.7
412	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	107.7	108.4	0.7
426	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	107.1	107.8	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
363	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	106.6	107.2	0.7
179	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	105.8	106.6	0.7
161	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	105.5	106.2	0.7
2	Open Line WESTLEY 230-LOSBANOS 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	105.1	105.8	0.6
374	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	104.9	105.5	0.7
106	Open Line CHWCHLLA 115-CERTAN T 115 #1 : Open Line CERTAN T 115-LE GRAND 115 #1 : Open Line CERTAN T 115-CERTANJ2 115 #1 : Open Line CERTANJ2 115-CHWCGNJT 115 #1 : Open Line CHWCGNJT 115-CERTTEED 115 #1 : Open Line CHWCGNJT 115-CHWCGN 115 #1 : Open Line CHWCGN 115-CHWCHLA2 115 #1 : Open Xfmr CHWCGN 115/CHOWCOGN 13.8 #1 : Open Xfmr CHWCHLA2 115/CHWCHLA2 13.8 #1 : Drop Load at CERTTEED 115 #1 : 9.3 MW 6.4 MVAR Dr :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	104.5	105.2	0.7
429	Open Line GATES 230-ARCO 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	104.2	104.9	0.6
430	Open Line GATES 230-MIDWAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	104.2	104.8	0.6
207	Open Line K1-JCT 115-KERCKHF2 115 #2 : Open Line K1-JCT 115-OAKH_JCT 115 #1 : Open Line OAKH_JCT 115-SHARON T 115 #1 : Open Line OAKH_JCT 115-CORSGOLD 115 #1 : Open Line SHARON T 115-CERTANJ1 115 #1 : Open Line SHARON T 115-SHARON 115 #1 : Open Line CERTANJ1 115-CHWCHLLA 115 #1 : Open Line CORSGOLD 115-OAKHURST 115 #1 : Drop Load at CORSGOLD 115 #1 : 1.8 MW 0.3 MVAR	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	103.8	104.5	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
	Dr : Drop Load at CORSGOLD 115 #2 : 20.9 MW 4.2 MVAR D :						
116	Open Line CANANDGA 70-TRIGO J 70 #1 : Open Line CANANDGA 70-GLASS 70 #1 : Open Line TRIGO J 70- BONITA 70 #1 : Open Line TRIGO J 70-TRIGO 70 #1 : Open Line TRIGO 70-MADERA 70 #1 : Open Line TRIGO 70-EL PECO 70 #1 : Drop Load at CANANDGA 70 #1 : 7.1 MW 5.3 MVAR Dro : Drop Load at BONITA 70 #1 : 11.5 MW 2.3 MVAR Drop : Drop Load at EL PECO 70 #1 : 7.9 MW 1.6 MVAR Drop : Drop Load at EL PECO 70 #2 : 5.8 MW 1.1 MVAR Drop :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	103.8	104.4	0.6
413	Open Line PANOCHE 230-GATES 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	103.7	104.4	0.6
414	Open Line PANOCHE 230-GATES 230 #2 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	103.7	104.4	0.6
153	Open Line MOSSLND2 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	103.7	104.3	0.6
189	Open Line HELM 230-MC CALL 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	103.6	104.3	0.7
423	Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230- ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 59.1 MW 11.9 MVAR : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	103.6	104.2	0.6
169	Open Line DS AMIGO 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	103.3	103.9	0.6
155	Open Line LOSBANOS 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	103.3	103.9	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
156	Open Line LOSBANOS 230-PANOCHE 230 #2 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	103.1	103.7	0.6
157	Open Line LOSBANOS 230-DS AMIGO 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	102.9	103.5	0.6
427	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	102.9	103.5	0.6
115	Open Line PANOCHE 115-MENDOTA 115 #1 : Open Line PANOCHE 115-PANOCHE 115 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	102.9	103.5	0.6
428	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	102.7	103.3	0.6
12	Open Line PANOCHE 230-HELM 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	102.6	103.2	0.7
114	Open Line NEWHALL 115-DAIRYLND 115 #1 : Open Line NEWHALL 115-MADERAPR 115 #1 : Open Line MADERAPR 115-MENDOTA 115 #1 : Open Xfmr MADERAPR 115/MADERA_G 13.8 #1 : Drop Load at NEWHALL 115 #2 : 6.8 MW 1.3 MVAR Dro : Drop Load at NEWHALL 115 #3 : 8.5 MW 1.7 MVAR Dro : Drop Load at MADERA_G 13.8 #ss: 3.6 MW 0.8 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	102.3	102.9	0.6
154	Open Line COBURN 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	102.0	102.7	0.6
377	Open Line GATES 230-ARCO 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	102.0	102.6	0.6
378	Open Line GATES 230-MIDWAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	102.0	102.6	0.6
202	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.9	102.6	0.7
171	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.9	102.6	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
117	Open Line MCSWAINJ 70-MC SWAIN 70 #1 : Open Line MCSWAINJ 70-MRCDFFLS 70 #1 : Open Line MCSWAINJ 70-EXCHQUER 70 #1 : Open Xfmr MC SWAIN 70/MCSWAIN 9.11 #1 : Drop Generator at MCSWAIN 9.11 #1 : 9 MW Dropped : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.6	102.3	0.6
28	Open Line LE GRAND 115-WILSON A 115 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.5	102.2	0.6
353	Open Line SMYRNA 115-MCKIBBEN 115 #1 : Open Line MCKIBBEN 115-SEMITRPJ 115 #1 : Open Line SEMITRPJ 115-GANSO 115 #1 : Open Line GANSO 115-MIDWAY 115 #1 : Drop Load at GANSO 115 #1 : 3 MW 0.6 MVAR Dropped : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.6	102.2	0.6
162	Open Line PANOCHE 230-GATES 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.5	102.2	0.6
163	Open Line PANOCHE 230-GATES 230 #2 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.5	102.2	0.6
113	Open Line WILSON B 115-EL CAPTN 115 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.5	102.1	0.6
81	Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.4	102.0	0.6
158	Open Line LOSBANOS 230-SN LS PP 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.4	102.0	0.6
159	Open Line LOSBANOS 230-SN LS PP 230 #2 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.4	102.0	0.6
108	Open Line ATWATER 115-CASTLE 115 #1 : Open Line CASTLE 115-EL CAPTN 115 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.4	102.0	0.6
371	Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 59.1 MW 11.9 MVAR : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.4	102.0	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
27	Open Line EXCHEQUER 115-LE GRAND 115 #1 : Drop Generator at EXCHQUER 13.8 #1 : 90 MW Dropped : Drop Load at MARIPOS2 70 #** : 7.2 MW 1.4 MVAR Dro :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.3	102.0	0.6
118	Open Line ORO LOMA 70-MRCYSPRS 70 #1 : Open Line MRCYSPRS 70-ORTIGA 70 #1 : Open Line MRCYSPRS 70-ARBURUA 70 #1 : Open Line ORTIGA 70-CANAL 70 #1 : Open Line ARBURUA 70-WRGHT PP 70 #1 : Open Line WRGHT PP 70-LOS BANS 70 #1 : Drop Load at ORTIGA 70 #1 : 5.5 MW 1.1 MVAR Dropp : Drop Load at ARBURUA 70 #1 : 3.5 MW 1.7 MVAR Drop : Drop Load at WRGHT PP 70 #1 : 7.6 MW 1.5 MVAR Dro : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.2	101.8	0.6
111	Open Line LE GRAND 115-DAIRYLND 115 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.0	101.6	0.6
425	Open Line BALCH 230-PINE FLT 230 #1 : Open Xfmr BALCH 230/BLCH 2-2 13.8 #1 : Open Line PINE FLT 230-MC CALL 230 #1 : Open Xfmr PINE FLT 230/PINE FLT 13.8 #1 : Drop Generator at BLCH 2-2 13.8 #1 : 52 MW Dropped : Drop Generator at PINE FLT 13.8 #1 : 63 MW Dropped : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.0	101.6	0.6
3	Open Line MOSSLND2 230-PANOCHE 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.7	101.3	0.6
375	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.7	101.3	0.6
112	Open Line LE GRNDJ 115-WILSON B 115 #1 : Open Line LE GRNDJ 115-EL NIDO 115 #1 : Open Line EL NIDO 115-ORO LOMA 115 #1 : Drop Load at EL NIDO 115 #1 : 10 MW 2 MVAR Droppe : Drop Load at EL NIDO 115 #2 : 12 MW 2.4 MVAR Drop : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.6	101.2	0.6
376	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.5	101.1	0.6



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
41	Open Line PANOCHEJ 115-PANOCHE 115 #1 : Open Line PANOCHEJ 115-HAMMONDS 115 #1 : Open Line PANOCHEJ 115-OXFRDJCT 115 #1 : Open Line HAMMONDS 115-DFSTP 115 #1 : Open Line DFSTP 115-ORO LOMA 115 #1 : Open Line DFSTP 115-DFS 115 #1 : Open Line OXFRDJCT 115-OXFORD 115 #1 : Open Line OXFRDJCT 115-WSTLDJCT 115 #1 : Open Line WSTLDJCT 115-WSTLD1RA 115 #1 : Open Line WSTLDJCT 115-LUISJCT 115 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.5	101.1	0.6
66	Open Xfmr EXCHEQUR 115/EXCHEQUR 70 #1 : Open Line EXCHEQUR 70-MARIPOS2 70 #1 : Open Line EXCHEQUR 70-BER VLLY 70 #1 : Open Line EXCHEQUR 70-MCSWAINJ 70 #1 : Drop Load at MARIPOS2 70 #1 : 7.2 MW 1.4 MVAR Dro : Drop Load at MARIPOS2 70 #2 : 7.5 MW 1.5 MVAR Dro : Close Line MARIPOS2 70-BRCEBG J 70 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.5	101.1	0.6
109	Open Line ATWATER 115-CRESEY T 115 #1 : Open Line CRESEY T 115-ATWATR J 115 #1 : Open Line CRESEY T 115-JRWD GEN 115 #1 : Open Line JRWD GEN 115-JR WOOD 115 #1 : Open Xfmr JRWD GEN 115/JRWCOGEN 9.11 #1 : Open Line JR WOOD 115-CRESSEY 115 #1 : Drop Load at JR WOOD 115 #1 : 10.9 MW 9.6 MVAR Dr : Drop Load at CRESSEY 115 #1 : 15.2 MW 3 MVAR Drop : Drop Generator at JRWCOGEN 9.11 #1 : 3.8 MW Droppe : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.3	100.9	0.6
62	Open Line DS AMIGO 230-PANOCHE 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.3	100.9	0.6
255	Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line OLDKERN 70-BIOLA 70 #1 : Open Line OLDKERN 70-BOWLES 70 #1 : Drop Load at OLDKERN 70 #1 : 15.1 MW 3 MVAR Dropp : Drop Load at OLDKERN 70 #3 : 6.1 MW 1.2 MVAR Drop : Drop Load at BIOLA 70 #1 : 17.5 MW 3.5 MVAR Dropp : Drop Load at BOWLES 70 #1 : 14.7 MW 2.9 MVAR Drop :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.3	100.9	0.6
5	Open Line LOSBANOS 230-PANOCHE 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.3	100.9	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
110	Open Line CRESEY T 115-ATWATR J 115 #1 : Open Line ATWATR J 115-LIVNGSTN 115 #1 : Open Line ATWATR J 115-MERCED 115 #1 : Open Line LIVNGSTN 115-GALLO 115 #1 : Drop Load at LIVNGSTN 115 #3 : 19.6 MW 3.9 MVAR D : Drop Load at GALLO 115 #1 : 4 MW 3.4 MVAR Dropped : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.2	100.8	0.6
6	Open Line LOSBANOS 230-PANOCHE 230 #2 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.1	100.7	0.6
236	Open Line HERNDON 115-CHLDHOSP 115 #1 : Open Line CHLDHOSP 115-WOODWARD 115 #1 : Drop Load at CHLDHOSP 115 #1 : 3.3 MW 1.4 MVAR Dr :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.1	100.7	0.6
291	Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.0	100.6	0.6
379	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	99.9	100.5	0.7
7	Open Line LOSBANOS 230-DS AMIGO 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	99.9	100.5	0.6
279	Open Xfmr HERNDON 230/HERNDON 115 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	99.9	100.5	0.6
233	Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 24.7 MW 5 MVAR Dropp : Drop Load at PNEDLE 115 #3 : 32.5 MW 6.5 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	99.8	100.5	0.6
280	Open Xfmr HERNDON 230/HERNDON 115 #2 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	99.8	100.4	0.6
264	Open Line LEPRINO 70-LPRNO TP 70 #1 : Open Line LPRNO TP 70-LEMOORE 70 #1 : Open Line LPRNO TP 70-CANDLEWK 70 #1 : Open Line LPRNO TP 70-HENRITTA 70 #1 : Drop Load at LEPRINO 70 #1 : 6.2 MW 4 MVAR Droppe : Drop Load at LEMOORE 70 #1 : 15.2 MW 3 MVAR Dropp : Drop Load at LEMOORE 70 #2 : 26.4 MW 5.3 MVAR Dro :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	99.5	100.1	0.6
165	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	SHARON T-CERTANJ1 115.00kV Ckt#1 Sec# 1	396.61	Amps	100.1	101.0	1.0
285	Open Xfmr GATES 230/GATES 500 #11 :	Q239SWST-Q166 230.00kV Ckt#2 Sec# 1	976.48	Amps	108.9	109.3	0.4

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
204	Open Line GATES 230-MORROBAY 230 #1 :	Q239SWST-Q166 230.00kV Ckt#2 Sec# 1	976.48	Amps	104.1	104.2	0.1
428	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	Q239SWST-Q166 230.00kV Ckt#2 Sec# 1	976.48	Amps	103.9	104.0	0.1
376	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	Q239SWST-Q166 230.00kV Ckt#2 Sec# 1	976.48	Amps	103.9	104.0	0.1
392	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	Q239SWST-Q166 230.00kV Ckt#2 Sec# 1	976.48	Amps	103.6	103.7	0.1
408	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at HELMS 1 18 #1: 400 MW Dropped :	Q239SWST-Q166 230.00kV Ckt#2 Sec# 1	976.48	Amps	102.9	103.0	0.1
203	Open Line GATES 230-TEMPLETN 230 #1 :	Q239SWST-Q166 230.00kV Ckt#2 Sec# 1	976.48	Amps	100.8	100.9	0.1
427	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	Q239SWST-Q166 230.00kV Ckt#2 Sec# 1	976.48	Amps	100.7	100.8	0.1
375	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	Q239SWST-Q166 230.00kV Ckt#2 Sec# 1	976.48	Amps	100.6	100.7	0.1
391	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	Q239SWST-Q166 230.00kV Ckt#2 Sec# 1	976.48	Amps	100.3	100.4	0.1
285	Open Xfmr GATES 230/GATES 500 #11 :	Q239SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	108.9	109.3	0.4
204	Open Line GATES 230-MORROBAY 230 #1 :	Q239SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	104.1	104.2	0.1
428	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	Q239SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	103.9	104.0	0.1
376	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	Q239SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	103.9	104.0	0.1
392	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	Q239SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	103.6	103.7	0.1
408	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at HELMS 1 18 #1: 400 MW Dropped :	Q239SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	102.9	103.0	0.1
203	Open Line GATES 230-TEMPLETN 230 #1 :	Q239SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	100.8	100.9	0.1

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
427	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	Q239SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	100.7	100.8	0.1
375	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	Q239SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	100.6	100.7	0.1
391	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	Q239SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	100.3	100.4	0.1
285	Open Xfmr GATES 230/GATES 500 #11 :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	108.9	109.3	0.3
204	Open Line GATES 230-MORROBAY 230 #1 :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	104.1	104.2	0.1
428	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	103.9	104.0	0.1
376	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	103.9	104.0	0.1
392	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	103.6	103.7	0.1
408	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at HELMS 1 18 #1: 400 MW Dropped :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	102.9	103.0	0.1
203	Open Line GATES 230-TEMPLETN 230 #1 :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	100.8	100.9	0.1
427	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	100.6	100.8	0.1
375	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	100.6	100.7	0.1
391	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	100.3	100.4	0.1
285	Open Xfmr GATES 230/GATES 500 #11 :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	108.9	109.3	0.4
204	Open Line GATES 230-MORROBAY 230 #1 :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	104.1	104.2	0.1
428	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	103.9	104.0	0.1

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
376	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	103.9	104.0	0.1
392	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	103.6	103.7	0.1
408	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at HELMS 1 18 #1: 400 MW Dropped :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	102.9	103.0	0.1
203	Open Line GATES 230-TEMPLETN 230 #1 :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	100.8	100.9	0.1
427	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	100.7	100.8	0.1
375	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	100.6	100.7	0.1
391	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	100.3	100.4	0.1
285	Open Xfmr GATES 230/GATES 500 #11 :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	108.9	109.3	0.3
204	Open Line GATES 230-MORROBAY 230 #1 :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	104.1	104.2	0.1
428	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	103.9	104.0	0.1
376	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	103.9	104.0	0.1
392	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	103.6	103.7	0.1
408	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at HELMS 1 18 #1: 400 MW Dropped :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	102.9	103.0	0.1
203	Open Line GATES 230-TEMPLETN 230 #1 :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	100.8	100.9	0.1
427	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	100.6	100.8	0.1

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
375	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	100.6	100.7	0.1
391	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	100.3	100.4	0.1
285	Open Xfmr GATES 230/GATES 500 #11 :	PANOCHE -DS AMIGO 230.00kV Ckt#1 Sec# 1	849.96	Amps	102.5	103.3	0.8
44	Open Line ORO LOMA 70-MRCYSPRS 70 #1 : Open Line MRCYSPRS 70-ORTIGA 70 #1 : Open Line MRCYSPRS 70-ARBURUA 70 #1 : Open Line ORTIGA 70-CANAL 70 #1 : Open Line ARBURUA 70-WRGHT PP 70 #1 : Open Line WRGHT PP 70-LOS BANS 70 #1 : Drop Load at ORTIGA 70 #1 : 5.5 MW 1.1 MVAR Dropp : Drop Load at ARBURUA 70 #1 : 3.5 MW 1.7 MVAR Drop : Drop Load at WRGHT PP 70 #1 : 7.6 MW 1.5 MVAR Dro :	ORO LOMA-DOS PALS 70.00kV Ckt#1 Sec# 1	282.08	Amps	110.1	110.5	0.5
125	Open Line ORO LOMA 70-MRCYSPRS 70 #1 : Open Line MRCYSPRS 70-ORTIGA 70 #1 : Open Line MRCYSPRS 70-ARBURUA 70 #1 : Open Line ORTIGA 70-CANAL 70 #1 : Open Line ARBURUA 70-WRGHT PP 70 #1 : Open Line WRGHT PP 70-LOS BANS 70 #1 : Drop Load at ORTIGA 70 #1 : 5.5 MW 1.1 MVAR Dropp : Drop Load at ARBURUA 70 #1 : 3.5 MW 1.7 MVAR Drop : Drop Load at WRGHT PP 70 #1 : 7.6 MW 1.5 MVAR Dro : Drop Generator at ONEILPMP 9.11 #1: -6 MW Dropped :	ORO LOMA-DOS PALS 70.00kV Ckt#1 Sec# 1	282.08	Amps	109.0	109.4	0.5
118	Open Line ORO LOMA 70-MRCYSPRS 70 #1 : Open Line MRCYSPRS 70-ORTIGA 70 #1 : Open Line MRCYSPRS 70-ARBURUA 70 #1 : Open Line ORTIGA 70-CANAL 70 #1 : Open Line ARBURUA 70-WRGHT PP 70 #1 : Open Line WRGHT PP 70-LOS BANS 70 #1 : Drop Load at ORTIGA 70 #1 : 5.5 MW 1.1 MVAR Dropp : Drop Load at ARBURUA 70 #1 : 3.5 MW 1.7 MVAR Drop : Drop Load at WRGHT PP 70 #1 : 7.6 MW 1.5 MVAR Dro : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	ORO LOMA-DOS PALS 70.00kV Ckt#1 Sec# 1	282.08	Amps	105.0	105.5	0.4
165	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	OAKH_JCT-SHARON T 115.00kV Ckt#1 Sec# 1	396.61	Amps	106.7	107.7	1.0

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
363	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	OAKH_JCT-SHARON T 115.00kV Ckt#1 Sec# 1	396.61	Amps	101.8	102.9	1.1
164	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 27 MW 5.4 MVAR Dro : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	OAKH_JCT-SHARON T 115.00kV Ckt#1 Sec# 1	396.61	Amps	101.4	102.3	0.9
1	Open Line WARNERVL 230-WILSON 230 #1 :	MELONES -COTTLE A 230.00kV Ckt#1 Sec# 1	849.96	Amps	104.7	105.3	0.6
151	Open Line WARNERVL 230-WILSON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	MELONES -COTTLE A 230.00kV Ckt#1 Sec# 1	849.96	Amps	99.5	100.1	0.6
170	Open Line WARNERVL 230-WILSON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	MELONES -COTTLE A 230.00kV Ckt#1 Sec# 1	849.96	Amps	99.5	100.1	0.6
202	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	MC CALL -HELM 230.00kV Ckt#1 Sec# 1	849.96	Amps	109.1	110.8	1.7
426	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	MC CALL -HELM 230.00kV Ckt#1 Sec# 1	849.96	Amps	107.4	109.1	1.7
374	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	MC CALL -HELM 230.00kV Ckt#1 Sec# 1	849.96	Amps	107.1	108.8	1.7
285	Open Xfmr GATES 230/GATES 500 #11 :	MC CALL -HELM 230.00kV Ckt#1 Sec# 1	849.96	Amps	99.2	100.6	1.3
196	Open Line KEARNEY 230-HERNDON 230 #1 :	MC CALL -HELM 230.00kV Ckt#1 Sec# 1	849.96	Amps	99.1	100.4	1.3
390	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	MC CALL -HELM 230.00kV Ckt#1 Sec# 1	849.96	Amps	98.4	100.0	1.6
291	Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	KERMAN -AGRCJCT 70.00kV Ckt#1 Sec# 1	379.4	Amps	163.4	162.9	-0.5
291	Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	KEARNEY -FRWWTAP 70.00kV Ckt#1 Sec# 1	379.4	Amps	111.8	111.3	-0.5
12	Open Line PANOCHE 230-HELM 230 #1 :	HELM -STRD JCT 70.00kV Ckt#1 Sec# 1	377.75	Amps	124.9	126.4	1.5
412	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	HELM -STRD JCT 70.00kV Ckt#1 Sec# 1	377.75	Amps	123.0	124.4	1.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
161	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	HELM -STRD JCT 70.00kV Ckt#1 Sec# 1	377.75	Amps	122.8	124.2	1.5
180	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	HELM -STRD JCT 70.00kV Ckt#1 Sec# 1	377.75	Amps	115.1	116.6	1.5
142	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at HELMS 1 18 #1: 400 MW Dropped :	HELM -STRD JCT 70.00kV Ckt#1 Sec# 1	377.75	Amps	108.7	110.1	1.4
291	Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	FRWWTAP -KERMAN 70.00kV Ckt#1 Sec# 1	379.4	Amps	108.2	107.7	-0.5
131	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.1	120.9	0.8
285	Open Xfmr GATES 230/GATES 500 #11 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.3	118.1	0.8
196	Open Line KEARNEY 230-HERNDON 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.7	109.4	0.7
422	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.3	108.0	0.7
166	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	106.3	107.2	0.8
11	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	106.3	107.0	0.7
185	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.9	106.8	0.8
411	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.9	105.6	0.7
370	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.2	103.9	0.7
386	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.5	103.2	0.7
3	Open Line MOSSLND2 230-PANOCHE 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.2	102.9	0.7



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
202	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.1	102.8	0.7
189	Open Line HELM 230-MC CALL 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.9	102.6	0.7
12	Open Line PANOCHE 230-HELM 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.6	102.3	0.7
426	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.0	101.7	0.7
2	Open Line WESTLEY 230-LOSBANOS 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.0	101.7	0.7
160	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.8	101.5	0.7
415	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.8	101.5	0.7
412	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.5	101.2	0.7
62	Open Line DS AMIGO 230-PANOCHE 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.4	101.1	0.6
5	Open Line LOSBANOS 230-PANOCHE 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.4	101.1	0.7
255	Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line OLDKERN 70-BIOLA 70 #1 : Open Line OLDKERN 70- BOWLES 70 #1 : Drop Load at OLDKERN 70 #1 : 15.1 MW 3 MVAR Dropp : Drop Load at OLDKERN 70 #3 : 6.1 MW 1.2 MVAR Drop : Drop Load at BIOLA 70 #1 : 17.5 MW 3.5 MVAR Dropp : Drop Load at BOWLES 70 #1 : 14.7 MW 2.9 MVAR Drop :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.3	100.9	0.6
6	Open Line LOSBANOS 230-PANOCHE 230 #2 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.2	100.9	0.7
179	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.1	100.8	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
30	Open Line LE GRNDJ 115-WILSON B 115 #1 : Open Line LE GRNDJ 115-EL NIDO 115 #1 : Open Line EL NIDO 115-ORO LOMA 115 #1 : Drop Load at EL NIDO 115 #1 : 10 MW 2 MVAR Droppe : Drop Load at EL NIDO 115 #2 : 12 MW 2.4 MVAR Drop :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.1	100.7	0.7
7	Open Line LOSBANOS 230-DS AMIGO 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.0	100.6	0.7
26	Open Line CRESEY T 115-ATWATR J 115 #1 : Open Line ATWATR J 115-LIVNGSTN 115 #1 : Open Line ATWATR J 115-MERCED 115 #1 : Open Line LIVNGSTN 115-GALLO 115 #1 : Drop Load at LIVNGSTN 115 #3 : 19.6 MW 3.9 MVAR D : Drop Load at GALLO 115 #1 : 4 MW 3.4 MVAR Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.0	100.6	0.6
24	Open Line ATWATER 115-CRESEY T 115 #1 : Open Line CRESEY T 115-ATWATR J 115 #1 : Open Line CRESEY T 115-JRWD GEN 115 #1 : Open Line JRWD GEN 115-JR WOOD 115 #1 : Open Xfmr JRWD GEN 115/JRWCOGEN 9.11 #1 : Open Line JR WOOD 115-CRESSEY 115 #1 : Drop Load at JR WOOD 115 #1 : 10.9 MW 9.6 MVAR Dr : Drop Load at CRESSEY 115 #1 : 15.2 MW 3 MVAR Drop : Drop Generator at JRWCOGEN 9.11 #1 : 3.8 MW Droppe :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.9	100.5	0.7
233	Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 24.7 MW 5 MVAR Dropp : Drop Load at PNEDLE 115 #3 : 32.5 MW 6.5 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.7	100.4	0.6
29	Open Line LE GRAND 115-DAIRYLND 115 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.6	100.3	0.7
214	Open Line CLOVIS-2 115-CLOVISJ2 115 #1 : Open Line CLOVISJ2 115-KERCKHF2 115 #1 : Open Line CLOVISJ2 115-SANGER 115 #1 : Drop Load at CLOVIS-2 115 #3 : 36 MW 7.3 MVAR Dro : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.6	100.2	0.6
264	Open Line LEPRINO 70-LPRNO TP 70 #1 : Open Line LPRNO TP 70-LEMOORE 70 #1 : Open Line LPRNO TP 70-CANDLEWK 70 #1 : Open Line LPRNO TP 70-HENRITTA 70 #1 : Drop Load at LEPRINO 70 #1 : 6.2 MW 4 MVAR Droppe : Drop Load at LEMOORE 70 #1 : 15.2 MW 3 MVAR Dropp : Drop Load at LEMOORE 70 #2 : 26.4 MW 5.3 MVAR Dro :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.5	100.2	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
67	Open Xfmr WILSON A 115/WILSON 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.6	100.2	0.6
68	Open Xfmr WILSON B 115/WILSON 230 #2 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.5	100.2	0.6
165	Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	CERTANJ1-CHWCHLLA 115.00kV Ckt#1 Sec# 1	396.61	Amps	99.8	100.8	1.0
291	Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	CAMDEN -KNGLOBUS 70.00kV Ckt#1 Sec# 1	398.37	Amps	100.1	100.9	0.9
127	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 27 MW 5.4 MVAR Dro : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	179.4	180.4	1.0
164	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 27 MW 5.4 MVAR Dro : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	176.0	177.0	1.0
15	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 27 MW 5.4 MVAR Dro :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	171.1	172.1	1.0
183	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 27 MW 5.4 MVAR Dro : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	165.9	166.9	1.0
145	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 27 MW 5.4 MVAR Dro : Drop Generator at HELMS 1 18 #1: 400 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	138.4	139.3	1.0
422	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	137.1	137.8	0.7
370	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	134.9	135.6	0.8
285	Open Xfmr GATES 230/GATES 500 #11 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	133.8	134.6	0.8

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
411	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	132.6	133.4	0.8
196	Open Line KEARNEY 230-HERNDON 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	132.2	132.9	0.7
160	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.5	131.2	0.8
11	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	127.7	128.4	0.8
386	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	127.6	128.3	0.7
415	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	126.2	126.9	0.7
152	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	125.8	126.2	0.4
107	Open Line CERTANJ1 115-CHWCHLLA 115 #1 : Open Line CERTANJ1 115-SHARON T 115 #1 : Open Line SHARON T 115-SHARON 115 #1 : Open Line SHARON T 115-OAKH_JCT 115 #1 : Open Line OAKH_JCT 115-CORSGOLD 115 #1 : Open Line OAKH_JCT 115-K1-JCT 115 #1 : Open Line CORSGOLD 115-OAKHURST 115 #1 : Open Line K1-JCT 115-KERCKHF2 115 #2 : Drop Load at SHARON 115 #1 : 6.6 MW 4.6 MVAR Drop : Drop Load at CORSGOLD 115 #1 : 1.8 MW 0.3 MVAR Dr :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	125.3	126.0	0.7
412	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	125.1	125.8	0.7
426	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	124.4	125.1	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
363	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	123.9	124.6	0.7
179	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	123.2	124.0	0.8
161	Open Line PANOCHE 230-HELM 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	122.8	123.5	0.7
2	Open Line WESTLEY 230-LOSBANOS 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	122.3	123.0	0.7
374	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	122.1	122.8	0.7
106	Open Line CHWCHLLA 115-CERTAN T 115 #1 : Open Line CERTAN T 115-LE GRAND 115 #1 : Open Line CERTAN T 115-CERTANJ2 115 #1 : Open Line CERTANJ2 115-CHWCGNJT 115 #1 : Open Line CHWCGNJT 115-CERTTEED 115 #1 : Open Line CHWCGNJT 115-CHWCGN 115 #1 : Open Line CHWCGN 115-CHWCHLA2 115 #1 : Open Xfmr CHWCGN 115/CHOWCOGN 13.8 #1 : Open Xfmr CHWCHLA2 115/CHWCHLA2 13.8 #1 : Drop Load at CERTTEED 115 #1 : 9.3 MW 6.4 MVAR Dr :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	121.8	122.5	0.7
429	Open Line GATES 230-ARCO 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	121.4	122.0	0.7
430	Open Line GATES 230-MIDWAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	121.3	122.0	0.7
207	Open Line K1-JCT 115-KERCKHF2 115 #2 : Open Line K1-JCT 115-OAKH_JCT 115 #1 : Open Line OAKH_JCT 115-SHARON T 115 #1 : Open Line OAKH_JCT 115-CORSGOLD 115 #1 : Open Line SHARON T 115-CERTANJ1 115 #1 : Open Line SHARON T 115-SHARON 115 #1 : Open Line CERTANJ1 115-CHWCHLLA 115 #1 : Open Line CORSGOLD 115-OAKHURST 115 #1 : Drop Load at CORSGOLD 115 #1 : 1.8 MW 0.3 MVAR	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	121.0	121.7	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
	Dr : Drop Load at CORSGOLD 115 #2 : 20.9 MW 4.2 MVAR D :						
116	Open Line CANANDGA 70-TRIGO J 70 #1 : Open Line CANANDGA 70-GLASS 70 #1 : Open Line TRIGO J 70- BONITA 70 #1 : Open Line TRIGO J 70-TRIGO 70 #1 : Open Line TRIGO 70-MADERA 70 #1 : Open Line TRIGO 70-EL PECO 70 #1 : Drop Load at CANANDGA 70 #1 : 7.1 MW 5.3 MVAR Dro : Drop Load at BONITA 70 #1 : 11.5 MW 2.3 MVAR Drop : Drop Load at EL PECO 70 #1 : 7.9 MW 1.6 MVAR Drop : Drop Load at EL PECO 70 #2 : 5.8 MW 1.1 MVAR Drop :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.9	121.5	0.6
189	Open Line HELM 230-MC CALL 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.7	121.5	0.7
413	Open Line PANOCHE 230-GATES 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.8	121.5	0.7
414	Open Line PANOCHE 230-GATES 230 #2 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.8	121.5	0.7
153	Open Line MOSSLND2 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.8	121.5	0.7
423	Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230- ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 59.1 MW 11.9 MVAR : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.7	121.3	0.6
169	Open Line DS AMIGO 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.4	121.0	0.7
155	Open Line LOSBANOS 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.4	121.0	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
156	Open Line LOSBANOS 230-PANOCHE 230 #2 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.2	120.9	0.7
157	Open Line LOSBANOS 230-DS AMIGO 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.9	120.6	0.7
115	Open Line PANOCHE 115-MENDOTA 115 #1 : Open Line PANOCHE 115-PANOCHE 115 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.9	120.5	0.6
427	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.9	120.5	0.7
12	Open Line PANOCHE 230-HELM 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.6	120.4	0.7
428	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.7	120.3	0.7
114	Open Line NEWHALL 115-DAIRYLND 115 #1 : Open Line NEWHALL 115-MADERAPR 115 #1 : Open Line MADERAPR 115-MENDOTA 115 #1 : Open Xfmr MADERAPR 115/MADERA_G 13.8 #1 : Drop Load at NEWHALL 115 #2 : 6.8 MW 1.3 MVAR Dro : Drop Load at NEWHALL 115 #3 : 8.5 MW 1.7 MVAR Dro : Drop Load at MADERA_G 13.8 #ss: 3.6 MW 0.8 MVAR D : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.3	119.9	0.6
377	Open Line GATES 230-ARCO 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.1	119.7	0.7
154	Open Line COBURN 230-PANOCHE 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.1	119.7	0.7
378	Open Line GATES 230-MIDWAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.0	119.7	0.7
202	Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.0	119.7	0.7
171	Open Line WESTLEY 230-LOSBANOS 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.9	119.6	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
28	Open Line LE GRAND 115-WILSON A 115 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.6	119.3	0.7
117	Open Line MCSWAINJ 70-MC SWAIN 70 #1 : Open Line MCSWAINJ 70-MRCDFLS 70 #1 : Open Line MCSWAINJ 70-EXCHEQUER 70 #1 : Open Xfmr MC SWAIN 70/MCSWAIN 9.11 #1 : Drop Generator at MCSWAIN 9.11 #1 : 9 MW Dropped : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.6	119.3	0.7
353	Open Line SMYRNA 115-MCKIBBEN 115 #1 : Open Line MCKIBBEN 115-SEMITRPJ 115 #1 : Open Line SEMITRPJ 115-GANSO 115 #1 : Open Line GANSO 115-MIDWAY 115 #1 : Drop Load at GANSO 115 #1 : 3 MW 0.6 MVAR Dropped : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.6	119.2	0.6
162	Open Line PANOCHE 230-GATES 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.5	119.2	0.6
163	Open Line PANOCHE 230-GATES 230 #2 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.5	119.2	0.6
113	Open Line WILSON B 115-EL CAPTN 115 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.4	119.1	0.7
158	Open Line LOSBANOS 230-SN LS PP 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.4	119.1	0.7
159	Open Line LOSBANOS 230-SN LS PP 230 #2 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.4	119.1	0.7
108	Open Line ATWATER 115-CASTLE 115 #1 : Open Line CASTLE 115-EL CAPTN 115 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.4	119.1	0.6
81	Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.4	119.1	0.6
371	Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 59.1 MW 11.9 MVAR : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.4	119.0	0.7



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
27	Open Line EXCHEQUER 115-LE GRAND 115 #1 : Drop Generator at EXCHQUER 13.8 #1 : 90 MW Dropped : Drop Load at MARIPOS2 70 #** : 7.2 MW 1.4 MVAR Dro :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.3	119.0	0.7
118	Open Line ORO LOMA 70-MRCYSPRS 70 #1 : Open Line MRCYSPRS 70-ORTIGA 70 #1 : Open Line MRCYSPRS 70-ARBURUA 70 #1 : Open Line ORTIGA 70-CANAL 70 #1 : Open Line ARBURUA 70-WRGHT PP 70 #1 : Open Line WRGHT PP 70-LOS BANS 70 #1 : Drop Load at ORTIGA 70 #1 : 5.5 MW 1.1 MVAR Dropp : Drop Load at ARBURUA 70 #1 : 3.5 MW 1.7 MVAR Drop : Drop Load at WRGHT PP 70 #1 : 7.6 MW 1.5 MVAR Dro : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.2	118.9	0.6
111	Open Line LE GRAND 115-DAIRYLND 115 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.0	118.6	0.6
425	Open Line BALCH 230-PINE FLT 230 #1 : Open Xfmr BALCH 230/BLCH 2-2 13.8 #1 : Open Line PINE FLT 230-MC CALL 230 #1 : Open Xfmr PINE FLT 230/PINE FLT 13.8 #1 : Drop Generator at BLCH 2-2 13.8 #1 : 52 MW Dropped : Drop Generator at PINE FLT 13.8 #1 : 63 MW Dropped : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.8	118.5	0.7
3	Open Line MOSSLND2 230-PANOCHE 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.6	118.3	0.7
375	Open Line GATES 230-TEMPLETN 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.6	118.2	0.6
112	Open Line LE GRNDJ 115-WILSON B 115 #1 : Open Line LE GRNDJ 115-EL NIDO 115 #1 : Open Line EL NIDO 115-ORO LOMA 115 #1 : Drop Load at EL NIDO 115 #1 : 10 MW 2 MVAR Droppe : Drop Load at EL NIDO 115 #2 : 12 MW 2.4 MVAR Drop : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.5	118.1	0.6
376	Open Line GATES 230-MORROBAY 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.4	118.1	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
66	Open Xfmr EXCHEQUR 115/EXCHEQUR 70 #1 : Open Line EXCHEQUR 70-MARIPOS2 70 #1 : Open Line EXCHEQUR 70-BER VLLY 70 #1 : Open Line EXCHEQUR 70-MCSWAINJ 70 #1 : Drop Load at MARIPOS2 70 #1 : 7.2 MW 1.4 MVAR Dro : Drop Load at MARIPOS2 70 #2 : 7.5 MW 1.5 MVAR Dro : Close Line MARIPOS2 70-BRCEBG J 70 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.4	118.0	0.7
41	Open Line PANOCHEJ 115-PANOCHE 115 #1 : Open Line PANOCHEJ 115-HAMMONDS 115 #1 : Open Line PANOCHEJ 115-OXFRDJCT 115 #1 : Open Line HAMMONDS 115-DFSTP 115 #1 : Open Line DFSTP 115-ORO LOMA 115 #1 : Open Line DFSTP 115-DFS 115 #1 : Open Line OXFRDJCT 115-OXFORD 115 #1 : Open Line OXFRDJCT 115-WSTLDJCT 115 #1 : Open Line WSTLDJCT 115-WSTLDIRA 115 #1 : Open Line WSTLDJCT 115-LUISJCT 115 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.4	118.0	0.7
109	Open Line ATWATER 115-CRESEY T 115 #1 : Open Line CRESEY T 115-ATWATR J 115 #1 : Open Line CRESEY T 115-JRWD GEN 115 #1 : Open Line JRWD GEN 115-JR WOOD 115 #1 : Open Xfmr JRWD GEN 115/JRWCOGEN 9.11 #1 : Open Line JR WOOD 115-CRESSEY 115 #1 : Drop Load at JR WOOD 115 #1 : 10.9 MW 9.6 MVAR Dr : Drop Load at CRESSEY 115 #1 : 15.2 MW 3 MVAR Drop : Drop Generator at JRWCOGEN 9.11 #1 : 3.8 MW Droppe : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.2	117.9	0.7
62	Open Line DS AMIGO 230-PANOCHE 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.2	117.8	0.7
5	Open Line LOSBANOS 230-PANOCHE 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.2	117.8	0.7
255	Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line OLDKERN 70-BIOLA 70 #1 : Open Line OLDKERN 70-BOWLES 70 #1 : Drop Load at OLDKERN 70 #1 : 15.1 MW 3 MVAR Dropp : Drop Load at OLDKERN 70 #3 : 6.1 MW 1.2 MVAR Drop : Drop Load at BIOLA 70 #1 : 17.5 MW 3.5 MVAR Dropp : Drop Load at BOWLES 70 #1 : 14.7 MW 2.9 MVAR Drop :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.2	117.8	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
110	Open Line CRESEY T 115-ATWATR J 115 #1 : Open Line ATWATR J 115-LIVNGSTN 115 #1 : Open Line ATWATR J 115-MERCED 115 #1 : Open Line LIVNGSTN 115-GALLO 115 #1 : Drop Load at LIVNGSTN 115 #3 : 19.6 MW 3.9 MVAR D : Drop Load at GALLO 115 #1 : 4 MW 3.4 MVAR Dropped : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.2	117.8	0.6
6	Open Line LOSBANOS 230-PANOCHE 230 #2 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.0	117.7	0.7
236	Open Line HERNDON 115-CHLDHOSP 115 #1 : Open Line CHLDHOSP 115-WOODWARD 115 #1 : Drop Load at CHLDHOSP 115 #1 : 3.3 MW 1.4 MVAR Dr :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.0	117.7	0.6
379	Open Line HELM 230-MC CALL 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.8	117.5	0.7
291	Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.9	117.5	0.6
7	Open Line LOSBANOS 230-DS AMIGO 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.7	117.4	0.7
279	Open Xfmr HERNDON 230/HERNDON 115 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.8	117.4	0.6
233	Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 24.7 MW 5 MVAR Dropp : Drop Load at PNEDLE 115 #3 : 32.5 MW 6.5 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.7	117.4	0.7
280	Open Xfmr HERNDON 230/HERNDON 115 #2 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.7	117.3	0.6
196	Open Line KEARNEY 230-HERNDON 230 #1 :	AGRCJCT -KERMAN 70.00kV Ckt#1 Sec# 1	379.4	Amps	101.4	101.4	0.0
422	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at MELONE1 13.8 #1: 166 MW Dropped :	AGRCJCT -KERMAN 70.00kV Ckt#1 Sec# 1	379.4	Amps	101.0	100.9	-0.1
370	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at EXCHQUER 13.8 #1: 90 MW Dropped :	AGRCJCT -KERMAN 70.00kV Ckt#1 Sec# 1	379.4	Amps	100.5	100.4	-0.1
386	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at KERCKHOF 13.8 #1: 145 MW Dropped :	AGRCJCT -KERMAN 70.00kV Ckt#1 Sec# 1	379.4	Amps	100.1	100.0	-0.1

\* Contingency simulated with governor powerflow program

**Table C-3: Category “C” Emergency Overloads**

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
<b>2013 Summer Peak</b>							
9	Open Line BELLOTA 230-COTTLE A 230 #1 : Open Line COTTLE A 230-MELONES 230 #1 : Drop Load at COTTLE A 230 #1 : 26.7 MW 1.2 MVAR D : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Open Line BELLOTA 230-COTTLE B 230 #1 : Open Line COTTLE B 230-WARNERVL 230 #1 : Drop Load at COTTLE B 230 #2 : 30.7 MW 1.3 MVAR D :	WRNRVLE-STANDFRD 115.00kV Ckt#2 Sec# 1	938.82	Amps	108.1	108.7	0.6
9	Open Line BELLOTA 230-COTTLE A 230 #1 : Open Line COTTLE A 230-MELONES 230 #1 : Drop Load at COTTLE A 230 #1 : 26.7 MW 1.2 MVAR D : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Open Line BELLOTA 230-COTTLE B 230 #1 : Open Line COTTLE B 230-WARNERVL 230 #1 : Drop Load at COTTLE B 230 #2 : 30.7 MW 1.3 MVAR D :	WRNRVLE-STANDFRD 115.00kV Ckt#1 Sec# 1	938.82	Amps	108.1	108.7	0.6
90	Open Line SANGER 115-CLOVISJ1 115 #1 : Open Line SANGER 115-CLOVISJ2 115 #1 : Open Line SANGER 115-AIRWAYJ2 115 #1 : Open Line SANGER 115-LASPALMS 115 #1 : Open Line SANGER 115-MC CALL 115 #1 : Open Line SANGER 115-MC CALL 115 #2 : Open Line SANGER 115-MC CALL 115 #3 : Open Line SANGER 115-MALAGA 115 #1 : Open Line SANGER 115-RAINBWTP 115 #1 : Open Line SANGER 115-PIEDRA 2 115 #1 :	WOODWARD-CHLDHOSP 115.00kV Ckt#1 Sec# 1	973.96	Amps	109.5	109.6	0.1
lbs-dlo-ns*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	154.6	155.7	1.1
lbn-dlo-ns*	Los Banos - Tesla & Los Banos - Tracy 500-kV DLO	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	141.3	142.4	1.1
17	Open Line LOSBANOS 230-WESTLEY 230 #1 : Open Line LOSBANOS 230-PANOCH 230 #2 : Open Line LOSBANOS 230-SN LS PP 230 #1 : Open Line LOSBANOS 230-SN LS PP 230 #2 : Open Xfmr LOSBANOS 230/LOS BANS 70 #3 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	135.8	136.8	1.0

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
58	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Open Line HELM 230-MC CALL 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	132.7	133.9	1.2
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.3	132.5	1.3
19	Open Line PANOCHE 230-COBURN 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #2 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line PANOCHE 230-GATES 230 #1 : Open Xfmr PANOCHE 230/PNCHE 1M 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.3	132.4	1.1
16	Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.1	132.2	1.1
57	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Open Line PANOCHE 230-HELM 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.1	132.2	1.1
71	Open Line HERNDON 230-GREGG 230 #1 : Open Line HERNDON 230-KEARNEY 230 #1 : Open Xfmr HERNDON 230/HERNDN1M 115 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.9	131.9	1.0
70	Open Line KEARNEY 230-MCMULLN1 230 #1 : Open Line KEARNEY 230-HERNDON 230 #1 : Open Xfmr KEARNEY 230/KEARNEY 70 #2 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.2	131.2	1.0
75	Open Line ASHLAN 230-FGRDN T1 230 #1 : Open Line ASHLAN 230-FGRDN T2 230 #1 : Drop Load at ASHLAN 230 #1 : 70 MW 13.5 MVAR Drop : Drop Load at ASHLAN 230 #2 : 65.3 MW 12.9 MVAR Dr : Drop Load at ASHLAN 230 #3 : 66.3 MW 12.6 MVAR Dr :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.6	130.3	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
47	Open Line PNDLJ1 115-BULLARD 115 #1 : Open Line PNDLJ1 115-HERNDON 115 #1 : Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 31.1 MW 6.3 MVAR Dro : Drop Load at PNEDLE 115 #3 : 40.9 MW 8.2 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.8	129.7	0.9
62	Open Line KEARNEY 230-HERNDON 230 #1 : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.6	129.6	1.0
7	Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line DS AMIGO 230-PANOCHE 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	126.8	127.8	1.0
18	Open Line LOSBANOS 230-PANOCHE 230 #1 : Open Line LOSBANOS 230-DS AMIGO 230 #1 : Open Xfmr LOSBANOS 230/LOS BANS 70 #4 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	125.1	126.1	1.0
6	Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line LOSBANOS 230-DS AMIGO 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	124.9	125.9	1.0
104	Open Line BULLARD 115-PNDLJ2 115 #1 : Open Line BULLARD 115-PNDLJ1 115 #1 : Drop Load at BULLARD 115 #1 : 45.4 MW 9.2 MVAR Dr : Drop Load at BULLARD 115 #2 : 45.2 MW 9.1 MVAR Dr : Drop Load at BULLARD 115 #3 : 43 MW 8.7 MVAR Drop :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	124.5	125.4	0.9
103	Open Line WOODWARD 115-WWARD JT 115 #1 : Open Line WOODWARD 115-CHLDHOSP 115 #1 : Drop Load at WOODWARD 115 #1 : 42.7 MW 8.6 MVAR D : Drop Load at WOODWARD 115 #2 : 53.3 MW 10.8 MVAR : Drop Load at WOODWARD 115 #3 : 44.6 MW 9 MVAR Dro :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	124.1	125.0	0.9
27	Open Line EL CAPTN 115-CASTLE 115 #1 : Open Line EL CAPTN 115-WILSON B 115 #1 : Drop Load at EL CAPTN 115 #1 : 19.7 MW 4 MVAR Dro : Drop Load at EL CAPTN 115 #2 : 26.2 MW 5.3 MVAR D : Drop Load at EL CAPTN 115 #3 : 33.5 MW 6.7 MVAR D :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	123.9	124.8	0.9

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
54	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line DANISHCM 115-MC CALL 115 #1 : Open Line DANISHCM 115-CAL AVE 115 #1 : Drop Load at DANISHCM 115 #1 : 4.1 MW 3.5 MVAR Dr :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	123.2	124.1	0.9
48	Open Line KERCKHF2 115-WWARD JT 115 #1 : Open Line WWARD JT 115-WOODWARD 115 #1 : Open Line WWARD JT 115-CLOVISJ1 115 #1 : Open Line CLOVISJ1 115-CLOVIS-1 115 #1 : Open Line CLOVISJ1 115-SANGER 115 #1 : Drop Load at CLOVIS-1 115 #1 : 51.6 MW 10.4 MVAR : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 : Open Line CLOVIS-2 115-CLOVISJ2 115 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	122.7	123.6	0.9
22	Open Line ATWATER 115-CASTLE 115 #1 : Open Line ATWATER 115-CRESEY T 115 #1 : Open Line ATWATER 115-WILSON A 115 #1 : Drop Load at ATWATER 115 #1 : 32.8 MW 6.6 MVAR Dr : Drop Load at ATWATER 115 #2 : 28.7 MW 5.8 MVAR Dr :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	122.2	123.1	0.9
15	Open Line MOSSLND2 230-PANOCHE 230 #1 : Open Line COBURN 230-PANOCHE 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	122.3	122.9	0.7
98	Open Line BARTON 115-AIRWAYJ2 115 #1 : Open Line BARTON 115-HERNDON 115 #1 : Drop Load at BARTON 115 #1 : 43.8 MW 8.8 MVAR Dro : Drop Load at BARTON 115 #2 : 37.6 MW 7.6 MVAR Dro : Drop Load at BARTON 115 #3 : 27.3 MW 5.5 MVAR Dro :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	121.6	122.5	0.9
76	Open Line HELM 230-PANOCHE 230 #1 : Open Line HELM 230-MC CALL 230 #1 : Open Xfmr HELM 230/HELM 70 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	121.4	122.4	1.0
28	Open Line MERCED 115-ATWATR J 115 #1 : Open Line MERCED 115-WILSON A 115 #1 : Open Line MERCED 115-WILSON B 115 #2 : Open Xfmr MERCED 115/MERCED M 115 #2 : Drop Load at MERCED 115 #1 : 37.6 MW 7.6 MVAR Dro : Drop Load at MERCED 115 #3 : 19.7 MW 3.9 MVAR Dro :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	121.3	122.2	0.9
73	Open Line FIGRDN 1 230-FGRDN T1 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	121.2	122.1	0.9

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
117	Open Line KEARNEY 70-FRWWTAP 70 #1 : Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line KEARNEY 70-CARUTHRS 70 #1 : Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	121.2	122.1	0.9
89	Open Line CLOVIS-2 115-CLOVISJ2 115 #1 : Drop Load at CLOVIS-2 115 #3 : 45.3 MW 9.1 MVAR D :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	121.0	121.9	0.9
99	Open Line MANCHSTR 115-AIRWAYJ1 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 : Drop Load at MANCHSTR 115 #1 : 25.6 MW 5.1 MVAR D : Drop Load at MANCHSTR 115 #2 : 25.8 MW 5.2 MVAR D : Drop Load at MANCHSTR 115 #3 : 36.6 MW 7.4 MVAR D :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.9	121.8	0.9
83	Open Line GATES 230-HENTAP1 230 #1 : Open Line GATES 230-ARCO 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.2	121.7	1.5
102	Open Line PNEDLE 115-PNDLJ2 115 #1 : Drop Load at PNEDLE 115 #2 : 31.1 MW 6.3 MVAR Dro : Drop Load at PNEDLE 115 #3 : 40.9 MW 8.2 MVAR Dro :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.7	121.6	0.9
84	Open Line GATES 230-HENTAP2 230 #1 : Open Line GATES 230-MIDWAY 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.0	121.0	1.0
96	Open Line CAL AVE 115-DANISHCM 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 : Drop Load at CAL AVE 115 #1 : 29.3 MW 5.9 MVAR Dr : Drop Load at CAL AVE 115 #2 : 31.6 MW 6.4 MVAR Dr : Drop Load at CAL AVE 115 #3 : 24.7 MW 5 MVAR Drop :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.9	120.8	0.9
74	Open Line FIGRDN 2 230-FGRDN T2 230 #1 : Drop Load at FIGRDN 2 230 #1 : 53.2 MW 10.7 MVAR :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.8	120.7	0.9
53	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.5	120.4	0.9
97	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line WST FRSO 115-CAL AVE 115 #1 : Drop Load at WST FRSO 115 #1 : 38 MW 7.7 MVAR Dro : Drop Load at WST FRSO 115 #2 : 39.5 MW 8 MVAR Dro :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.5	120.4	0.9



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
32	Open Line ORO LOMA 70-DOS PALS 70 #1 : Open Line ORO LOMA 70-MRCYSPRS 70 #1 : Open Line ORO LOMA 70-POSO J1 70 #1 : Open Xfmr ORO LOMA 70/ORO LOMA 115 #2 : Drop Load at ORO LOMA 70 #1 : 8.7 MW 1.7 MVAR Dro :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.4	120.3	0.9
40	Open Line MADERA 70-TRIGO 70 #1 : Open Line MADERA 70-BORDEN 70 #1 : Open Line MADERA 70-BORDEN 70 #2 : Drop Load at MADERA 70 #1 : 18.2 MW 3.7 MVAR Drop : Drop Load at MADERA 70 #2 : 23.4 MW 4.7 MVAR Drop :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.2	120.1	0.9
87	Open Line AIRWAYS 115-AIRWAYJ1 115 #1 : Open Line AIRWAYS 115-AIRWAYJ2 115 #1 : Drop Load at AIRWAYS 115 #1 : 38.8 MW 7.5 MVAR Dr : Drop Load at AIRWAYS 115 #2 : 12.7 MW 2.5 MVAR Dr :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.9	119.8	0.9
88	Open Line CLOVIS-1 115-CLOVISJ1 115 #1 : Drop Load at CLOVIS-1 115 #1 : 51.6 MW 10.4 MVAR :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.9	119.8	0.9
106	Open Line KINGSBRG 115-CORCORAN 115 #1 : Open Line KINGSBRG 115-GAURD J1 115 #1 : Open Xfmr KINGSBRG 115/KNGLOBUS 70 #2 : Drop Load at KINGSBRG 115 #3 : 33 MW 6.6 MVAR Dro :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.9	119.8	0.9
121	Open Line REEDLEY 70-TVY VLLY 70 #1 : Open Line REEDLEY 70-PARLIER 70 #1 : Open Line REEDLEY 70-DNUBAJCT 70 #1 : Open Line REEDLEY 70-ORSI JCT 70 #1 : Open Xfmr REEDLEY 70/REEDLEY 115 #1 : Open Xfmr REEDLEY 70/REEDLEY 115 #2 : Drop Load at REEDLEY 70 #1 : 17.6 MW 3.5 MVAR Dro :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.7	119.6	0.9
20	Open Line PANOCHÉ 230-MOSSLND2 230 #1 : Open Line PANOCHÉ 230-PANO_EC 230 #1 : Open Line PANOCHÉ 230-HELM 230 #1 : Open Line PANOCHÉ 230-GATES 230 #2 : Open Line PANOCHÉ 230-DS AMIGO 230 #1 : Open Xfmr PANOCHÉ 230/PANOCHÉ 115 #2 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.4	119.4	1.0
107	Open Line CORCORAN 115-KINGSBRG 115 #1 : Open Line CORCORAN 115-KINGSBRG 115 #2 : Open Xfmr CORCORAN 115/CORCORAN 70 #2 : Drop Load at CORCORAN 115 #3 : 16.4 MW 3.3 MVAR D : Drop Load at CORCORAN 115 #4 : 18 MW 3.6 MVAR Dro :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.1	119.0	0.9

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
49	Open Line KINGSBRG 115-CORCORAN 115 #1 : Open Line KINGSBRG 115-CORCORAN 115 #2 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.1	119.0	0.9
101	Open Line HERNDON 115-MANCHSTR 115 #1 : Open Line HERNDON 115-PNDLJ1 115 #1 : Open Line HERNDON 115-CHLDHOSP 115 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.1	119.0	0.9
124	Open Line LEMOORE 70-LPRNO TP 70 #1 : Drop Load at LEMOORE 70 #1 : 19.1 MW 3.8 MVAR Dro : Drop Load at LEMOORE 70 #2 : 33.2 MW 6.7 MVAR Dro :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.0	118.9	0.9
34	Open Line CANAL 70-LVNGSTNT 70 #1 : Open Line CANAL 70-SNTA RTA 70 #1 : Open Line CANAL 70-ORTIGA 70 #1 : Drop Load at CANAL 70 #1 : 30.9 MW 6.2 MVAR Dropp : Drop Load at CANAL 70 #2 : 31.7 MW 6.4 MVAR Dropp :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.9	118.8	0.9
94	Open Line WAHTOKE 115-MC CALL 115 #1 : Open Line WAHTOKE 115-GERAWAN 115 #1 : Drop Load at WAHTOKE 115 #2 : 30.7 MW 6.2 MVAR Dr : Drop Load at WAHTOKE 115 #3 : 21.1 MW 4.2 MVAR Dr :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.8	118.7	0.9
68	Open Line GATES 230-MIDWAY 230 #1 : Open Line GATES 230-ARCO 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.7	118.6	0.9
122	Open Line DINUBA 70-STCRRL J 70 #1 : Open Line DINUBA 70-DNUBAJCT 70 #1 : Drop Load at DINUBA 70 #1 : 19.4 MW 3.9 MVAR Drop : Drop Load at DINUBA 70 #2 : 9.4 MW 1.9 MVAR Dropp :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.7	118.6	0.9
45	Open Line BARTON 115-HERNDON 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.7	118.5	0.8
113	Open Line BIOLA 70-OLDKERN 70 #1 : Drop Load at BIOLA 70 #1 : 22 MW 4.4 MVAR Dropped :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.6	118.5	0.9
134	Open Line KNGLOBUS 70-HRDWK TP 70 #1 : Open Line KNGLOBUS 70-CAMDEN 70 #1 : Open Xfmr KNGLOBUS 70/KINGSBRG 115 #2 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.6	118.5	0.9
21	Open Line CHWCHLLA 115-CERTAN T 115 #1 : Open Line CHWCHLLA 115-CERTANJ1 115 #1 : Drop Load at CHWCHLLA 115 #1 : 10.3 MW 2 MVAR Dro : Drop Load at CHWCHLLA 115 #2 : 14 MW 2.8 MVAR Dro :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.4	118.2	0.8

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
9	Open Line BELLOTA 230-COTTLE A 230 #1 : Open Line COTTLE A 230-MELONES 230 #1 : Drop Load at COTTLE A 230 #1 : 26.7 MW 1.2 MVAR D : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Open Line BELLOTA 230-COTTLE B 230 #1 : Open Line COTTLE B 230-WARNERVL 230 #1 : Drop Load at COTTLE B 230 #2 : 30.7 MW 1.3 MVAR D :	WARNERVL-WRNRVLE 230.00/ 115.00kV Bk#3	75	MVA	134.0	134.6	0.7
9	Open Line BELLOTA 230-COTTLE A 230 #1 : Open Line COTTLE A 230-MELONES 230 #1 : Drop Load at COTTLE A 230 #1 : 26.7 MW 1.2 MVAR D : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Open Line BELLOTA 230-COTTLE B 230 #1 : Open Line COTTLE B 230-WARNERVL 230 #1 : Drop Load at COTTLE B 230 #2 : 30.7 MW 1.3 MVAR D :	WARNERVL-WRNRVLE 230.00/ 115.00kV Bk#2	75	MVA	134.0	134.6	0.7
9	Open Line BELLOTA 230-COTTLE A 230 #1 : Open Line COTTLE A 230-MELONES 230 #1 : Drop Load at COTTLE A 230 #1 : 26.7 MW 1.2 MVAR D : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Open Line BELLOTA 230-COTTLE B 230 #1 : Open Line COTTLE B 230-WARNERVL 230 #1 : Drop Load at COTTLE B 230 #2 : 30.7 MW 1.3 MVAR D :	WARNERVL-WRNRVLE 230.00/ 115.00kV Bk#1	150	MVA	134.0	134.6	0.7
lbs-dlons*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	152.8	153.6	0.8
lbn-dlons*	Los Banos - Tesla & Los Banos - Tracy 500-kV DLO	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	148.1	149.0	0.8
58	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Open Line HELM 230-MC CALL 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	137.0	137.8	0.8
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	136.2	137.0	0.8
75	Open Line ASHLAN 230-FGRDN T1 230 #1 : Open Line ASHLAN 230-FGRDN T2 230 #1 : Drop Load at ASHLAN 230 #1 : 70 MW 13.5 MVAR Drop : Drop Load at ASHLAN 230 #2 : 65.3 MW 12.9 MVAR Dr : Drop Load at ASHLAN 230 #3 : 66.3 MW 12.6 MVAR Dr :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	135.9	136.8	0.9

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
16	Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	136.0	136.8	0.8
57	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Open Line PANOCHE 230-HELM 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	136.0	136.8	0.8
71	Open Line HERNDON 230-GREGG 230 #1 : Open Line HERNDON 230-KEARNEY 230 #1 : Open Xfmr HERNDON 230/HERNDN1M 115 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	136.0	136.7	0.7
70	Open Line KEARNEY 230-MCMULLN1 230 #1 : Open Line KEARNEY 230-HERNDON 230 #1 : Open Xfmr KEARNEY 230/KEARNEY 70 #2 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	136.0	136.7	0.7
47	Open Line PNDLJ1 115-BULLARD 115 #1 : Open Line PNDLJ1 115-HERNDON 115 #1 : Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 31.1 MW 6.3 MVAR Dro : Drop Load at PNEDLE 115 #3 : 40.9 MW 8.2 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	135.7	136.3	0.6
19	Open Line PANOCHE 230-COBURN 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #2 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line PANOCHE 230-GATES 230 #1 : Open Xfmr PANOCHE 230/PNCHE 1M 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	135.1	135.9	0.7
62	Open Line KEARNEY 230-HERNDON 230 #1 : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	134.6	135.3	0.7
27	Open Line EL CAPTN 115-CASTLE 115 #1 : Open Line EL CAPTN 115-WILSON B 115 #1 : Drop Load at EL CAPTN 115 #1 : 19.7 MW 4 MVAR Dro : Drop Load at EL CAPTN 115 #2 : 26.2 MW 5.3 MVAR D : Drop Load at EL CAPTN 115 #3 : 33.5 MW 6.7 MVAR D :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	132.7	133.3	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
104	Open Line BULLARD 115-PNDLJ2 115 #1 : Open Line BULLARD 115-PNDLJ1 115 #1 : Drop Load at BULLARD 115 #1 : 45.4 MW 9.2 MVAR Dr : Drop Load at BULLARD 115 #2 : 45.2 MW 9.1 MVAR Dr : Drop Load at BULLARD 115 #3 : 43 MW 8.7 MVAR Drop :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	132.7	133.3	0.6
103	Open Line WOODWARD 115-WWARD JT 115 #1 : Open Line WOODWARD 115-CHLDHOSP 115 #1 : Drop Load at WOODWARD 115 #1 : 42.7 MW 8.6 MVAR D : Drop Load at WOODWARD 115 #2 : 53.3 MW 10.8 MVAR : Drop Load at WOODWARD 115 #3 : 44.6 MW 9 MVAR Dro :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	132.4	133.1	0.6
7	Open Line LOSBANOS 230-PANOCHÉ 230 #2 : Open Line DS AMIGO 230-PANOCHÉ 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	132.3	133.0	0.7
54	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line DANISHCM 115-MC CALL 115 #1 : Open Line DANISHCM 115-CAL AVE 115 #1 : Drop Load at DANISHCM 115 #1 : 4.1 MW 3.5 MVAR Dr :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.9	132.5	0.6
15	Open Line MOSSLND2 230-PANOCHÉ 230 #1 : Open Line COBURN 230-PANOCHÉ 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.6	132.1	0.5
22	Open Line ATWATER 115-CASTLE 115 #1 : Open Line ATWATER 115-CRESEY T 115 #1 : Open Line ATWATER 115-WILSON A 115 #1 : Drop Load at ATWATER 115 #1 : 32.8 MW 6.6 MVAR Dr : Drop Load at ATWATER 115 #2 : 28.7 MW 5.8 MVAR Dr :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.4	132.1	0.6
48	Open Line KERCKHF2 115-WWARD JT 115 #1 : Open Line WWARD JT 115-WOODWARD 115 #1 : Open Line WWARD JT 115-CLOVISJ1 115 #1 : Open Line CLOVISJ1 115-CLOVIS-1 115 #1 : Open Line CLOVISJ1 115-SANGER 115 #1 : Drop Load at CLOVIS-1 115 #1 : 51.6 MW 10.4 MVAR : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 : Open Line CLOVIS-2 115-CLOVISJ2 115 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.4	132.0	0.6
18	Open Line LOSBANOS 230-PANOCHÉ 230 #1 : Open Line LOSBANOS 230-DS AMIGO 230 #1 : Open Xfmr LOSBANOS 230/LOS BANS 70 #4 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.4	132.0	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
6	Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line LOSBANOS 230-DS AMIGO 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.4	132.0	0.7
98	Open Line BARTON 115-AIRWAYJ2 115 #1 : Open Line BARTON 115-HERNDON 115 #1 : Drop Load at BARTON 115 #1 : 43.8 MW 8.8 MVAR Dro : Drop Load at BARTON 115 #2 : 37.6 MW 7.6 MVAR Dro : Drop Load at BARTON 115 #3 : 27.3 MW 5.5 MVAR Dro :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.7	131.3	0.6
28	Open Line MERCED 115-ATWATR J 115 #1 : Open Line MERCED 115-WILSON A 115 #1 : Open Line MERCED 115-WILSON B 115 #2 : Open Xfmr MERCED 115/MERCED M 115 #2 : Drop Load at MERCED 115 #1 : 37.6 MW 7.6 MVAR Dro : Drop Load at MERCED 115 #3 : 19.7 MW 3.9 MVAR Dro :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.6	131.2	0.6
117	Open Line KEARNEY 70-FRWWTAP 70 #1 : Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line KEARNEY 70- CARUTHRS 70 #1 : Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.5	131.1	0.6
73	Open Line FIGRDN 1 230-FGRDN T1 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.3	131.0	0.6
89	Open Line CLOVIS-2 115-CLOVISJ2 115 #1 : Drop Load at CLOVIS-2 115 #3 : 45.3 MW 9.1 MVAR D :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.3	130.9	0.6
99	Open Line MANCHSTR 115-AIRWAYJ1 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 : Drop Load at MANCHSTR 115 #1 : 25.6 MW 5.1 MVAR D : Drop Load at MANCHSTR 115 #2 : 25.8 MW 5.2 MVAR D : Drop Load at MANCHSTR 115 #3 : 36.6 MW 7.4 MVAR D :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.2	130.8	0.6
102	Open Line PNEDLE 115-PNDLJ2 115 #1 : Drop Load at PNEDLE 115 #2 : 31.1 MW 6.3 MVAR Dro : Drop Load at PNEDLE 115 #3 : 40.9 MW 8.2 MVAR Dro :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.1	130.7	0.6
76	Open Line HELM 230-PANOCHE 230 #1 : Open Line HELM 230-MC CALL 230 #1 : Open Xfmr HELM 230/HELM 70 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.0	130.7	0.7
83	Open Line GATES 230-HENTAP1 230 #1 : Open Line GATES 230-ARCO 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.6	130.6	1.0

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
96	Open Line CAL AVE 115-DANISHCM 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 : Drop Load at CAL AVE 115 #1 : 29.3 MW 5.9 MVAR Dr : Drop Load at CAL AVE 115 #2 : 31.6 MW 6.4 MVAR Dr : Drop Load at CAL AVE 115 #3 : 24.7 MW 5 MVAR Drop :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.6	130.2	0.6
84	Open Line GATES 230-HENTAP2 230 #1 : Open Line GATES 230-MIDWAY 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.5	130.2	0.7
74	Open Line FIGRDN 2 230-FGRDN T2 230 #1 : Drop Load at FIGRDN 2 230 #1 : 53.2 MW 10.7 MVAR :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.4	130.1	0.6
53	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.3	129.9	0.6
97	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line WST FRSO 115-CAL AVE 115 #1 : Drop Load at WST FRSO 115 #1 : 38 MW 7.7 MVAR Dro : Drop Load at WST FRSO 115 #2 : 39.5 MW 8 MVAR Dro :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.3	129.9	0.6
11	Open Line BELLOTA 230-COTTLE A 230 #1 : Open Line COTTLE A 230-MELONES 230 #1 : Drop Load at COTTLE A 230 #1 : 26.7 MW 1.2 MVAR D : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Open Line MELONES 230-WILSON 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.9	129.7	0.8
40	Open Line MADERA 70-TRIGO 70 #1 : Open Line MADERA 70-BORDEN 70 #1 : Open Line MADERA 70-BORDEN 70 #2 : Drop Load at MADERA 70 #1 : 18.2 MW 3.7 MVAR Drop : Drop Load at MADERA 70 #2 : 23.4 MW 4.7 MVAR Drop :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.0	129.7	0.6
32	Open Line ORO LOMA 70-DOS PALS 70 #1 : Open Line ORO LOMA 70-MRCYSPRS 70 #1 : Open Line ORO LOMA 70-POSO J1 70 #1 : Open Xfmr ORO LOMA 70/ORO LOMA 115 #2 : Drop Load at ORO LOMA 70 #1 : 8.7 MW 1.7 MVAR Dro :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.0	129.7	0.6
87	Open Line AIRWAYS 115-AIRWAYJ1 115 #1 : Open Line AIRWAYS 115-AIRWAYJ2 115 #1 : Drop Load at AIRWAYS 115 #1 : 38.8 MW 7.5 MVAR Dr : Drop Load at AIRWAYS 115 #2 : 12.7 MW 2.5 MVAR Dr :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.9	129.5	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
106	Open Line KINGSBRG 115-CORCORAN 115 #1 : Open Line KINGSBRG 115-GAURD J1 115 #1 : Open Xfmr KINGSBRG 115/KNGLOBUS 70 #2 : Drop Load at KINGSBRG 115 #3 : 33 MW 6.6 MVAR Dro :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.9	129.5	0.6
88	Open Line CLOVIS-1 115-CLOVISJ1 115 #1 : Drop Load at CLOVIS-1 115 #1 : 51.6 MW 10.4 MVAR :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.9	129.5	0.6
121	Open Line REEDLEY 70-TVY VLLY 70 #1 : Open Line REEDLEY 70-PARLIER 70 #1 : Open Line REEDLEY 70-DNUBAJCT 70 #1 : Open Line REEDLEY 70-ORSI JCT 70 #1 : Open Xfmr REEDLEY 70/REEDLEY 115 #1 : Open Xfmr REEDLEY 70/REEDLEY 115 #2 : Drop Load at REEDLEY 70 #1 : 17.6 MW 3.5 MVAR Dro :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.7	129.3	0.6
34	Open Line CANAL 70-LVNGSTNT 70 #1 : Open Line CANAL 70-SNTA RTA 70 #1 : Open Line CANAL 70-ORTIGA 70 #1 : Drop Load at CANAL 70 #1 : 30.9 MW 6.2 MVAR Dropp : Drop Load at CANAL 70 #2 : 31.7 MW 6.4 MVAR Dropp :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.4	129.1	0.6
30	Open Line PANOCHÉ 115-CHENYT 115 #1 : Open Line PANOCHÉ 115-PANOCHÉJ 115 #1 : Open Xfmr PANOCHÉ 115/PANOCHÉ 230 #2 : Open Xfmr PANOCHÉ 115/DG_PAN1 13.8 #1 :	TOMATAK -MENDOTA 70.00kV Ckt#1 Sec# 1	395.9	Amps	110.3	110.5	0.3
82	Open Line GATES 230-PANOCHÉ 230 #2 : Open Line GATES 230-MORROBAY 230 #1 :	TEMPLETN-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	115.5	115.3	-0.2
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	TEMBLOR -BELRIDGE 115.00kV Ckt#1 Sec# 1	743.02	Amps	134.7	134.7	0.0
82	Open Line GATES 230-PANOCHÉ 230 #2 : Open Line GATES 230-MORROBAY 230 #1 :	TEMBLOR -BELRIDGE 115.00kV Ckt#1 Sec# 1	743.02	Amps	101.2	101.3	0.1
81	Open Line GATES 230-PANOCHÉ 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 : Open Xfmr GATES 230/GATES 1M 230 #1 :	TEMBLOR -BELRIDGE 115.00kV Ckt#1 Sec# 1	743.02	Amps	100.4	100.5	0.1
lbs-dlo-ns*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.3	120.0	0.7



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
58	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Open Line HELM 230-MC CALL 230 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.0	111.8	0.8
71	Open Line HERNDON 230-GREGG 230 #1 : Open Line HERNDON 230-KEARNEY 230 #1 : Open Xfmr HERNDON 230/HERNDN1M 115 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.4	111.1	0.6
lbn-dlo-ns*	Los Banos - Tesla & Los Banos - Tracy 500-kV DLO	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.0	110.7	0.7
16	Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.9	109.7	0.8
57	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Open Line PANOCHE 230-HELM 230 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.9	109.7	0.8
70	Open Line KEARNEY 230-MCMULLN1 230 #1 : Open Line KEARNEY 230-HERNDON 230 #1 : Open Xfmr KEARNEY 230/KEARNEY 70 #2 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.3	109.0	0.7
62	Open Line KEARNEY 230-HERNDON 230 #1 : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.8	108.4	0.7
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.6	108.4	0.8
75	Open Line ASHLAN 230-FGRDN T1 230 #1 : Open Line ASHLAN 230-FGRDN T2 230 #1 : Drop Load at ASHLAN 230 #1 : 70 MW 13.5 MVAR Drop : Drop Load at ASHLAN 230 #2 : 65.3 MW 12.9 MVAR Dr : Drop Load at ASHLAN 230 #3 : 66.3 MW 12.6 MVAR Dr :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	106.6	107.1	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
19	Open Line PANOCHE 230-COBURN 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #2 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line PANOCHE 230-GATES 230 #1 : Open Xfmr PANOCHE 230/PNCHE 1M 230 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.5	106.2	0.7
47	Open Line PNDLJ1 115-BULLARD 115 #1 : Open Line PNDLJ1 115-HERNDON 115 #1 : Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 31.1 MW 6.3 MVAR Dro : Drop Load at PNEDLE 115 #3 : 40.9 MW 8.2 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.5	106.1	0.6
17	Open Line LOSBANOS 230-WESTLEY 230 #1 : Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line LOSBANOS 230-SN LS PP 230 #1 : Open Line LOSBANOS 230-SN LS PP 230 #2 : Open Xfmr LOSBANOS 230/LOS BANS 70 #3 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.1	105.7	0.6
104	Open Line BULLARD 115-PNDLJ2 115 #1 : Open Line BULLARD 115-PNDLJ1 115 #1 : Drop Load at BULLARD 115 #1 : 45.4 MW 9.2 MVAR Dr : Drop Load at BULLARD 115 #2 : 45.2 MW 9.1 MVAR Dr : Drop Load at BULLARD 115 #3 : 43 MW 8.7 MVAR Drop :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.5	103.0	0.6
7	Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line DS AMIGO 230-PANOCHE 230 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.6	102.2	0.6
24	Open Line LE GRAND 115-CERTAN T 115 #1 : Open Line LE GRAND 115-EXCHEQUR 115 #1 : Open Line LE GRAND 115-WILSON A 115 #1 : Open Line LE GRAND 115-DAIRYLND 115 #1 : Drop Load at LE GRAND 115 #1 : 13.6 MW 2.7 MVAR D :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.5	102.1	0.6
103	Open Line WOODWARD 115-WWARD JT 115 #1 : Open Line WOODWARD 115-CHLDHOSP 115 #1 : Drop Load at WOODWARD 115 #1 : 42.7 MW 8.6 MVAR D : Drop Load at WOODWARD 115 #2 : 53.3 MW 10.8 MVAR : Drop Load at WOODWARD 115 #3 : 44.6 MW 9 MVAR Dro :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.2	101.8	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
18	Open Line LOSBANOS 230-PANOCHÉ 230 #1 : Open Line LOSBANOS 230-DS AMIGO 230 #1 : Open Xfmr LOSBANOS 230/LOS BANS 70 #4 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.0	101.6	0.6
76	Open Line HELM 230-PANOCHÉ 230 #1 : Open Line HELM 230-MC CALL 230 #1 : Open Xfmr HELM 230/HELM 70 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.9	101.5	0.6
54	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line DANISHCM 115-MC CALL 115 #1 : Open Line DANISHCM 115- CAL AVE 115 #1 : Drop Load at DANISHCM 115 #1 : 4.1 MW 3.5 MVAR Dr :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.8	101.3	0.6
6	Open Line LOSBANOS 230-PANOCHÉ 230 #2 : Open Line LOSBANOS 230-DS AMIGO 230 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.7	101.3	0.6
25	Open Line WILSON A 115-LE GRAND 115 #1 : Open Line WILSON A 115-ATWATER 115 #1 : Open Line WILSON A 115- WILSON B 115 #1 : Open Line WILSON A 115-MERCED 115 #1 : Open Xfmr WILSON A 115/WILSON 230 #1 : Drop Load at WILSON A 115 #3 : 18.9 MW 3.8 MVAR D :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.7	101.3	0.6
73	Open Line FIGRDN 1 230-FGRDN T1 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.4	100.9	0.5
117	Open Line KEARNEY 70-FRWWTAP 70 #1 : Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line KEARNEY 70- CARUTHRS 70 #1 : Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.2	100.8	0.6
83	Open Line GATES 230-HENTAP1 230 #1 : Open Line GATES 230-ARCO 230 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.7	100.7	1.0
23	Open Line EXCHEQUR 115-LE GRAND 115 #1 : Open Xfmr EXCHEQUR 115/EXCHQ RTP 115 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.1	100.7	0.6
98	Open Line BARTON 115-AIRWAYJ2 115 #1 : Open Line BARTON 115-HERNDON 115 #1 : Drop Load at BARTON 115 #1 : 43.8 MW 8.8 MVAR Dro : Drop Load at BARTON 115 #2 : 37.6 MW 7.6 MVAR Dro : Drop Load at BARTON 115 #3 : 27.3 MW 5.5 MVAR Dro :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.9	100.5	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
102	Open Line PNEDLE 115-PNDLJ2 115 #1 : Drop Load at PNEDLE 115 #2 : 31.1 MW 6.3 MVAR Dro : Drop Load at PNEDLE 115 #3 : 40.9 MW 8.2 MVAR Dro :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.8	100.4	0.6
101	Open Line HERNDON 115-MANCHSTR 115 #1 : Open Line HERNDON 115-PNDLJ1 115 #1 : Open Line HERNDON 115-CHLDHOSP 115 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.7	100.2	0.5
99	Open Line MANCHSTR 115-AIRWAYJ1 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 : Drop Load at MANCHSTR 115 #1 : 25.6 MW 5.1 MVAR D : Drop Load at MANCHSTR 115 #2 : 25.8 MW 5.2 MVAR D : Drop Load at MANCHSTR 115 #3 : 36.6 MW 7.4 MVAR D :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.6	100.2	0.5
30	Open Line PANOCHÉ 115-CHENYT 115 #1 : Open Line PANOCHÉ 115-PANOCHÉJ 115 #1 : Open Xfmr PANOCHÉ 115/PANOCHÉ 230 #2 : Open Xfmr PANOCHÉ 115/DG_PAN1 13.8 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.6	100.2	0.6
lbs-dlo-ns*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.6	131.3	0.7
58	Open Line PANOCHÉ 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Open Line HELM 230-MC CALL 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	122.1	122.9	0.8
71	Open Line HERNDON 230-GREGG 230 #1 : Open Line HERNDON 230-KEARNEY 230 #1 : Open Xfmr HERNDON 230/HERNDN1M 115 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	121.5	122.2	0.6
lbn-dlo-ns*	Los Banos - Tesla & Los Banos - Tracy 500-kV DLO	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	121.1	121.8	0.7
16	Open Line PANOCHÉ 230-HELM 230 #1 : Open Line PANOCHÉ 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.0	120.7	0.8
57	Open Line PANOCHÉ 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Open Line PANOCHÉ 230-HELM 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.0	120.7	0.8

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
70	Open Line KEARNEY 230-MCMULLN1 230 #1 : Open Line KEARNEY 230-HERNDON 230 #1 : Open Xfmr KEARNEY 230/KEARNEY 70 #2 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.4	120.0	0.7
62	Open Line KEARNEY 230-HERNDON 230 #1 : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.8	119.5	0.7
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.7	119.5	0.8
75	Open Line ASHLAN 230-FGRDN T1 230 #1 : Open Line ASHLAN 230-FGRDN T2 230 #1 : Drop Load at ASHLAN 230 #1 : 70 MW 13.5 MVAR Drop : Drop Load at ASHLAN 230 #2 : 65.3 MW 12.9 MVAR Dr : Drop Load at ASHLAN 230 #3 : 66.3 MW 12.6 MVAR Dr :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.6	118.1	0.5
19	Open Line PANOCHE 230-COBURN 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #2 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line PANOCHE 230-GATES 230 #1 : Open Xfmr PANOCHE 230/PNCHE 1M 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.6	117.2	0.7
47	Open Line PNDLJ1 115-BULLARD 115 #1 : Open Line PNDLJ1 115-HERNDON 115 #1 : Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 31.1 MW 6.3 MVAR Dro : Drop Load at PNEDLE 115 #3 : 40.9 MW 8.2 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.6	117.1	0.6
17	Open Line LOSBANOS 230-WESTLEY 230 #1 : Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line LOSBANOS 230-SN LS PP 230 #1 : Open Line LOSBANOS 230-SN LS PP 230 #2 : Open Xfmr LOSBANOS 230/LOS BANS 70 #3 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.2	116.8	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
104	Open Line BULLARD 115-PNDLJ2 115 #1 : Open Line BULLARD 115-PNDLJ1 115 #1 : Drop Load at BULLARD 115 #1 : 45.4 MW 9.2 MVAR Dr : Drop Load at BULLARD 115 #2 : 45.2 MW 9.1 MVAR Dr : Drop Load at BULLARD 115 #3 : 43 MW 8.7 MVAR Drop :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	113.5	114.0	0.6
7	Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line DS AMIGO 230-PANOCHE 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.6	113.2	0.6
24	Open Line LE GRAND 115-CERTAN T 115 #1 : Open Line LE GRAND 115-EXCHEQUR 115 #1 : Open Line LE GRAND 115-WILSON A 115 #1 : Open Line LE GRAND 115-DAIRYLND 115 #1 : Drop Load at LE GRAND 115 #1 : 13.6 MW 2.7 MVAR D :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.5	113.1	0.6
103	Open Line WOODWARD 115-WWARD JT 115 #1 : Open Line WOODWARD 115-CHLDHOSP 115 #1 : Drop Load at WOODWARD 115 #1 : 42.7 MW 8.6 MVAR D : Drop Load at WOODWARD 115 #2 : 53.3 MW 10.8 MVAR : Drop Load at WOODWARD 115 #3 : 44.6 MW 9 MVAR Dro :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.3	112.8	0.5
18	Open Line LOSBANOS 230-PANOCHE 230 #1 : Open Line LOSBANOS 230-DS AMIGO 230 #1 : Open Xfmr LOSBANOS 230/LOS BANS 70 #4 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.0	112.6	0.6
76	Open Line HELM 230-PANOCHE 230 #1 : Open Line HELM 230-MC CALL 230 #1 : Open Xfmr HELM 230/HELM 70 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.9	112.6	0.6
25	Open Line WILSON A 115-LE GRAND 115 #1 : Open Line WILSON A 115-ATWATER 115 #1 : Open Line WILSON A 115-WILSON B 115 #1 : Open Line WILSON A 115-MERCED 115 #1 : Open Xfmr WILSON A 115/WILSON 230 #1 : Drop Load at WILSON A 115 #3 : 18.9 MW 3.8 MVAR D :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.8	112.4	0.6
54	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line DANISHCM 115-MC CALL 115 #1 : Open Line DANISHCM 115-CAL AVE 115 #1 : Drop Load at DANISHCM 115 #1 : 4.1 MW 3.5 MVAR Dr :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.8	112.4	0.6
6	Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line LOSBANOS 230-DS AMIGO 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.7	112.3	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
73	Open Line FIGRDN 1 230-FGRDN T1 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.4	111.9	0.6
117	Open Line KEARNEY 70-FRWWTAP 70 #1 : Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line KEARNEY 70-CARUTHRS 70 #1 : Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.2	111.8	0.6
83	Open Line GATES 230-HENTAP1 230 #1 : Open Line GATES 230-ARCO 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.7	111.7	1.1
23	Open Line EXCHEQUR 115-LE GRAND 115 #1 : Open Xfmr EXCHEQUR 115/EXCHQ RTP 115 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.1	111.7	0.6
98	Open Line BARTON 115-AIRWAYJ2 115 #1 : Open Line BARTON 115-HERNDON 115 #1 : Drop Load at BARTON 115 #1 : 43.8 MW 8.8 MVAR Dro : Drop Load at BARTON 115 #2 : 37.6 MW 7.6 MVAR Dro : Drop Load at BARTON 115 #3 : 27.3 MW 5.5 MVAR Dro :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.9	111.5	0.5
102	Open Line PNEDLE 115-PNDLJ2 115 #1 : Drop Load at PNEDLE 115 #2 : 31.1 MW 6.3 MVAR Dro : Drop Load at PNEDLE 115 #3 : 40.9 MW 8.2 MVAR Dro :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.8	111.4	0.6
101	Open Line HERNDON 115-MANCHSTR 115 #1 : Open Line HERNDON 115-PNDLJ1 115 #1 : Open Line HERNDON 115-CHLDHOSP 115 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.7	111.2	0.5
30	Open Line PANOCHÉ 115-CHENYT 115 #1 : Open Line PANOCHÉ 115-PANOCHÉJ 115 #1 : Open Xfmr PANOCHÉ 115/PANOCHÉ 230 #2 : Open Xfmr PANOCHÉ 115/DG_PAN1 13.8 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.6	111.2	0.6
99	Open Line MANCHSTR 115-AIRWAYJ1 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 : Drop Load at MANCHSTR 115 #1 : 25.6 MW 5.1 MVAR D : Drop Load at MANCHSTR 115 #2 : 25.8 MW 5.2 MVAR D : Drop Load at MANCHSTR 115 #3 : 36.6 MW 7.4 MVAR D :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.6	111.2	0.5
74	Open Line FIGRDN 2 230-FGRDN T2 230 #1 : Drop Load at FIGRDN 2 230 #1 : 53.2 MW 10.7 MVAR :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.3	110.8	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
15	Open Line MOSSLND2 230-PANOCH 230 #1 : Open Line COBURN 230-PANOCH 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.4	110.8	0.4
89	Open Line CLOVIS-2 115-CLOVISJ2 115 #1 : Drop Load at CLOVIS-2 115 #3 : 45.3 MW 9.1 MVAR D :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.1	110.7	0.6
84	Open Line GATES 230-HENTAP2 230 #1 : Open Line GATES 230-MIDWAY 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.8	110.5	0.6
40	Open Line MADERA 70-TRIGO 70 #1 : Open Line MADERA 70-BORDEN 70 #1 : Open Line MADERA 70-BORDEN 70 #2 : Drop Load at MADERA 70 #1 : 18.2 MW 3.7 MVAR Drop : Drop Load at MADERA 70 #2 : 23.4 MW 4.7 MVAR Drop :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.9	110.5	0.6
96	Open Line CAL AVE 115-DANISHCM 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 : Drop Load at CAL AVE 115 #1 : 29.3 MW 5.9 MVAR Dr : Drop Load at CAL AVE 115 #2 : 31.6 MW 6.4 MVAR Dr : Drop Load at CAL AVE 115 #3 : 24.7 MW 5 MVAR Drop :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.8	110.4	0.6
86	Open Line KERCKHF2 115-K1-JCT 115 #2 : Open Line KERCKHF2 115-KERCKHF1 115 #1 : Open Line KERCKHF2 115- WWARD JT 115 #1 : Open Line KERCKHF2 115-CLOVISJ2 115 #1 : Open Xfmr KERCKHF2 115/KERCKHOF 13.8 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.7	110.3	0.6
53	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.6	110.1	0.6
97	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line WST FRSO 115-CAL AVE 115 #1 : Drop Load at WST FRSO 115 #1 : 38 MW 7.7 MVAR Dro : Drop Load at WST FRSO 115 #2 : 39.5 MW 8 MVAR Dro :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.6	110.1	0.6
72	Open Line HERNDON 230-GREGG 230 #2 : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Xfmr HERNDON 230/HERNDN2M 115 #2 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.5	110.0	0.6
100	Open Line HERNDON 115-BARTON 115 #1 : Open Line HERNDON 115-PNDLJ2 115 #1 : Open Xfmr HERNDON 115/HERNDN1M 115 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.4	109.9	0.5



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
87	Open Line AIRWAYS 115-AIRWAYJ1 115 #1 : Open Line AIRWAYS 115-AIRWAYJ2 115 #1 : Drop Load at AIRWAYS 115 #1 : 38.8 MW 7.5 MVAR Dr : Drop Load at AIRWAYS 115 #2 : 12.7 MW 2.5 MVAR Dr :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.3	109.9	0.6
20	Open Line PANOCHÉ 230-MOSSLND2 230 #1 : Open Line PANOCHÉ 230-PANO_EC 230 #1 : Open Line PANOCHÉ 230-HELM 230 #1 : Open Line PANOCHÉ 230-GATES 230 #2 : Open Line PANOCHÉ 230-DS AMIGO 230 #1 : Open Xfmr PANOCHÉ 230/PANOCHÉ 115 #2 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.2	109.9	0.6
106	Open Line KINGSBRG 115-CORCORAN 115 #1 : Open Line KINGSBRG 115-GAURD J1 115 #1 : Open Xfmr KINGSBRG 115/KNGLOBUS 70 #2 : Drop Load at KINGSBRG 115 #3 : 33 MW 6.6 MVAR Dro :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.2	109.8	0.5
45	Open Line BARTON 115-HERNDON 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.2	109.7	0.5
88	Open Line CLOVIS-1 115-CLOVISJ1 115 #1 : Drop Load at CLOVIS-1 115 #1 : 51.6 MW 10.4 MVAR :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.1	109.7	0.6
121	Open Line REEDLEY 70-TVY VLLY 70 #1 : Open Line REEDLEY 70-PARLIER 70 #1 : Open Line REEDLEY 70-DNUBAJCT 70 #1 : Open Line REEDLEY 70-ORSI JCT 70 #1 : Open Xfmr REEDLEY 70/REEDLEY 115 #1 : Open Xfmr REEDLEY 70/REEDLEY 115 #2 : Drop Load at REEDLEY 70 #1 : 17.6 MW 3.5 MVAR Dro :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.9	109.4	0.6
lbs-dlo-ns*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	131.0	131.8	0.8
58	Open Line PANOCHÉ 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Open Line HELM 230-MC CALL 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	121.8	122.7	0.9
71	Open Line HERNDON 230-GREGG 230 #1 : Open Line HERNDON 230-KEARNEY 230 #1 : Open Xfmr HERNDON 230/HERNDN1M 115 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	121.2	122.0	0.7
lbn-dlo-ns*	Los Banos - Tesla & Los Banos - Tracy 500-kV DLO	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	120.7	121.5	0.8

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
16	Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	119.5	120.4	0.8
57	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Open Line PANOCHE 230-HELM 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	119.5	120.4	0.8
70	Open Line KEARNEY 230-MCMULLN1 230 #1 : Open Line KEARNEY 230-HERNDON 230 #1 : Open Xfmr KEARNEY 230/KEARNEY 70 #2 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	118.9	119.7	0.7
62	Open Line KEARNEY 230-HERNDON 230 #1 : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	118.3	119.0	0.7
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	118.1	119.0	0.9
75	Open Line ASHLAN 230-FGRDN T1 230 #1 : Open Line ASHLAN 230-FGRDN T2 230 #1 : Drop Load at ASHLAN 230 #1 : 70 MW 13.5 MVAR Drop : Drop Load at ASHLAN 230 #2 : 65.3 MW 12.9 MVAR Dr : Drop Load at ASHLAN 230 #3 : 66.3 MW 12.6 MVAR Dr :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	117.0	117.6	0.6
19	Open Line PANOCHE 230-COBURN 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #2 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line PANOCHE 230-GATES 230 #1 : Open Xfmr PANOCHE 230/PNCHE 1M 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	115.8	116.6	0.8
47	Open Line PNDLJ1 115-BULLARD 115 #1 : Open Line PNDLJ1 115-HERNDON 115 #1 : Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 31.1 MW 6.3 MVAR Dro : Drop Load at PNEDLE 115 #3 : 40.9 MW 8.2 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	115.9	116.5	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
17	Open Line LOSBANOS 230-WESTLEY 230 #1 : Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line LOSBANOS 230-SN LS PP 230 #1 : Open Line LOSBANOS 230-SN LS PP 230 #2 : Open Xfmr LOSBANOS 230/LOS BANS 70 #3 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	115.4	116.1	0.7
104	Open Line BULLARD 115-PNDLJ2 115 #1 : Open Line BULLARD 115-PNDLJ1 115 #1 : Drop Load at BULLARD 115 #1 : 45.4 MW 9.2 MVAR Dr : Drop Load at BULLARD 115 #2 : 45.2 MW 9.1 MVAR Dr : Drop Load at BULLARD 115 #3 : 43 MW 8.7 MVAR Drop :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	112.5	113.1	0.6
7	Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line DS AMIGO 230-PANOCHE 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	111.5	112.1	0.7
24	Open Line LE GRAND 115-CERTAN T 115 #1 : Open Line LE GRAND 115-EXCHEQR 115 #1 : Open Line LE GRAND 115-WILSON A 115 #1 : Open Line LE GRAND 115-DAIRYLND 115 #1 : Drop Load at LE GRAND 115 #1 : 13.6 MW 2.7 MVAR D :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	111.4	112.1	0.7
103	Open Line WOODWARD 115-WWARD JT 115 #1 : Open Line WOODWARD 115-CHLDHOSP 115 #1 : Drop Load at WOODWARD 115 #1 : 42.7 MW 8.6 MVAR D : Drop Load at WOODWARD 115 #2 : 53.3 MW 10.8 MVAR : Drop Load at WOODWARD 115 #3 : 44.6 MW 9 MVAR Dro :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	111.1	111.7	0.6
18	Open Line LOSBANOS 230-PANOCHE 230 #1 : Open Line LOSBANOS 230-DS AMIGO 230 #1 : Open Xfmr LOSBANOS 230/LOS BANS 70 #4 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	110.9	111.5	0.7
76	Open Line HELM 230-PANOCHE 230 #1 : Open Line HELM 230-MC CALL 230 #1 : Open Xfmr HELM 230/HELM 70 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	110.7	111.5	0.7
54	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line DANISHCM 115-MC CALL 115 #1 : Open Line DANISHCM 115-CAL AVE 115 #1 : Drop Load at DANISHCM 115 #1 : 4.1 MW 3.5 MVAR Dr :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	110.6	111.2	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
25	Open Line WILSON A 115-LE GRAND 115 #1 : Open Line WILSON A 115-ATWATER 115 #1 : Open Line WILSON A 115-WILSON B 115 #1 : Open Line WILSON A 115-MERCED 115 #1 : Open Xfmr WILSON A 115/WILSON 230 #1 : Drop Load at WILSON A 115 #3 : 18.9 MW 3.8 MVAR D :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	110.6	111.2	0.7
6	Open Line LOSBANOS 230-PANOCHÉ 230 #2 : Open Line LOSBANOS 230-DS AMIGO 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	110.5	111.2	0.7
73	Open Line FIGRDN 1 230-FGRDN T1 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	110.2	110.8	0.6
117	Open Line KEARNEY 70-FRWWTAP 70 #1 : Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line KEARNEY 70-CARUTHRS 70 #1 : Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	110.0	110.6	0.6
83	Open Line GATES 230-HENTAP1 230 #1 : Open Line GATES 230-ARCO 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.4	110.5	1.1
23	Open Line EXCHEQUR 115-LE GRAND 115 #1 : Open Xfmr EXCHEQUR 115/EXCHQRTP 115 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.9	110.5	0.6
98	Open Line BARTON 115-AIRWAYJ2 115 #1 : Open Line BARTON 115-HERNDON 115 #1 : Drop Load at BARTON 115 #1 : 43.8 MW 8.8 MVAR Dro : Drop Load at BARTON 115 #2 : 37.6 MW 7.6 MVAR Dro : Drop Load at BARTON 115 #3 : 27.3 MW 5.5 MVAR Dro :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.7	110.3	0.6
102	Open Line PNEDLE 115-PNDLJ2 115 #1 : Drop Load at PNEDLE 115 #2 : 31.1 MW 6.3 MVAR Dro : Drop Load at PNEDLE 115 #3 : 40.9 MW 8.2 MVAR Dro :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.5	110.2	0.6
101	Open Line HERNDON 115-MANCHSTR 115 #1 : Open Line HERNDON 115-PNDLJ1 115 #1 : Open Line HERNDON 115-CHLDHOSP 115 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.5	110.0	0.5
99	Open Line MANCHSTR 115-AIRWAYJ1 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 : Drop Load at MANCHSTR 115 #1 : 25.6 MW 5.1 MVAR D : Drop Load at MANCHSTR 115 #2 : 25.8 MW 5.2 MVAR D : Drop Load at MANCHSTR 115 #3 : 36.6 MW 7.4 MVAR D :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.4	110.0	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
30	Open Line PANOCHÉ 115-CHENYT 115 #1 : Open Line PANOCHÉ 115-PANOCHÉJ 115 #1 : Open Xfmr PANOCHÉ 115/PANOCHÉ 230 #2 : Open Xfmr PANOCHÉ 115/DG_PAN1 13.8 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.3	110.0	0.6
74	Open Line FIGRDN 2 230-FGRDN T2 230 #1 : Drop Load at FIGRDN 2 230 #1 : 53.2 MW 10.7 MVAR :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.0	109.6	0.6
15	Open Line MOSSLND2 230-PANOCHÉ 230 #1 : Open Line COBURN 230-PANOCHÉ 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.1	109.5	0.5
89	Open Line CLOVIS-2 115-CLOVISJ2 115 #1 : Drop Load at CLOVIS-2 115 #3 : 45.3 MW 9.1 MVAR D :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	108.8	109.4	0.6
40	Open Line MADERA 70-TRIGO 70 #1 : Open Line MADERA 70-BORDEN 70 #1 : Open Line MADERA 70-BORDEN 70 #2 : Drop Load at MADERA 70 #1 : 18.2 MW 3.7 MVAR Drop : Drop Load at MADERA 70 #2 : 23.4 MW 4.7 MVAR Drop :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	108.6	109.2	0.6
84	Open Line GATES 230-HENTAP2 230 #1 : Open Line GATES 230-MIDWAY 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	108.5	109.2	0.7
96	Open Line CAL AVE 115-DANISHCM 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 : Drop Load at CAL AVE 115 #1 : 29.3 MW 5.9 MVAR Dr : Drop Load at CAL AVE 115 #2 : 31.6 MW 6.4 MVAR Dr : Drop Load at CAL AVE 115 #3 : 24.7 MW 5 MVAR Drop :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	108.4	109.1	0.6
86	Open Line KERCKHF2 115-K1-JCT 115 #2 : Open Line KERCKHF2 115-KERCKHF1 115 #1 : Open Line KERCKHF2 115-WWARD JT 115 #1 : Open Line KERCKHF2 115-CLOVISJ2 115 #1 : Open Xfmr KERCKHF2 115/KERCKHOF 13.8 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	108.3	109.0	0.7
53	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	108.2	108.8	0.6
97	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line WST FRSO 115-CAL AVE 115 #1 : Drop Load at WST FRSO 115 #1 : 38 MW 7.7 MVAR Dro : Drop Load at WST FRSO 115 #2 : 39.5 MW 8 MVAR Dro :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	108.2	108.8	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
72	Open Line HERNDON 230-GREGG 230 #2 : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Xfmr HERNDON 230/HERNDN2M 115 #2 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	108.1	108.7	0.6
100	Open Line HERNDON 115-BARTON 115 #1 : Open Line HERNDON 115-PNDLJ2 115 #1 : Open Xfmr HERNDON 115/HERNDN1M 115 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	108.0	108.6	0.6
87	Open Line AIRWAYS 115-AIRWAYJ1 115 #1 : Open Line AIRWAYS 115-AIRWAYJ2 115 #1 : Drop Load at AIRWAYS 115 #1 : 38.8 MW 7.5 MVAR Dr : Drop Load at AIRWAYS 115 #2 : 12.7 MW 2.5 MVAR Dr :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	107.9	108.5	0.6
20	Open Line PANOCHE 230-MOSSLND2 230 #1 : Open Line PANOCHE 230-PANO_EC 230 #1 : Open Line PANOCHE 230- HELM 230 #1 : Open Line PANOCHE 230-GATES 230 #2 : Open Line PANOCHE 230-DS AMIGO 230 #1 : Open Xfmr PANOCHE 230/PANOCHE 115 #2 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	107.8	108.5	0.7
106	Open Line KINGSBRG 115-CORCORAN 115 #1 : Open Line KINGSBRG 115-GAURD J1 115 #1 : Open Xfmr KINGSBRG 115/KNGLOBUS 70 #2 : Drop Load at KINGSBRG 115 #3 : 33 MW 6.6 MVAR Dro :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	107.8	108.4	0.6
45	Open Line BARTON 115-HERNDON 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	107.8	108.4	0.5
88	Open Line CLOVIS-1 115-CLOVISJ1 115 #1 : Drop Load at CLOVIS-1 115 #1 : 51.6 MW 10.4 MVAR :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	107.7	108.3	0.6
121	Open Line REEDLEY 70-TVY VLLY 70 #1 : Open Line REEDLEY 70-PARLIER 70 #1 : Open Line REEDLEY 70-DNUBAJCT 70 #1 : Open Line REEDLEY 70-ORSI JCT 70 #1 : Open Xfmr REEDLEY 70/REEDLEY 115 #1 : Open Xfmr REEDLEY 70/REEDLEY 115 #2 : Drop Load at REEDLEY 70 #1 : 17.6 MW 3.5 MVAR Dro :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	107.4	108.0	0.6
124	Open Line LEMOORE 70-LPRNO TP 70 #1 : Drop Load at LEMOORE 70 #1 : 19.1 MW 3.8 MVAR Dro : Drop Load at LEMOORE 70 #2 : 33.2 MW 6.7 MVAR Dro :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	107.4	108.0	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
107	Open Line CORCORAN 115-KINGSBRG 115 #1 : Open Line CORCORAN 115-KINGSBRG 115 #2 : Open Xfmr CORCORAN 115/CORCORAN 70 #2 : Drop Load at CORCORAN 115 #3 : 16.4 MW 3.3 MVAR D : Drop Load at CORCORAN 115 #4 : 18 MW 3.6 MVAR Dro :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	107.3	107.9	0.6
49	Open Line KINGSBRG 115-CORCORAN 115 #1 : Open Line KINGSBRG 115-CORCORAN 115 #2 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	107.3	107.9	0.6
93	Open Line REEDLEY 115-GERAWAN 115 #1 : Open Line REEDLEY 115-PIEDRA 1 115 #1 : Open Xfmr REEDLEY 115/REEDLEY 70 #1 : Open Xfmr REEDLEY 115/REEDLEY 70 #2 : Drop Load at REEDLEY 115 #3 : 26.5 MW 5.3 MVAR Dr :	SNGRJCT -SANGER 70.00kV Ckt#1 Sec# 1	395.9	Amps	109.6	109.8	0.2
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	SN LS OB-Q238TAP 115.00kV Ckt#1 Sec# 1	436.78	Amps	124.2	124.2	0.0
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D :	SHARON T-CERTANJ1 115.00kV Ckt#1 Sec# 1	396.61	Amps	140.0	141.5	1.5
52	Open Line SANGER 115-MC CALL 115 #1 : Open Line SANGER 115-MC CALL 115 #2 :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	973.96	Amps	124.2	125.5	1.3
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	973.96	Amps	106.2	107.9	1.7
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	SAN MIGL-COLNGA 1 70.00kV Ckt#1 Sec# 1	346.41	Amps	134.7	134.5	-0.2
118	Open Line KERMAN 70-AGRCJCT 70 #1 : Drop Load at KERMAN 70 #1 : 19.7 MW 3.9 MVAR Drop : Drop Load at KERMAN 70 #2 : 11.9 MW 2.4 MVAR Drop :	SAN JOQN-SNJQJCT 70.00kV Ckt#1 Sec# 1	395.9	Amps	127.6	127.6	0.0
93	Open Line REEDLEY 115-GERAWAN 115 #1 : Open Line REEDLEY 115-PIEDRA 1 115 #1 : Open Xfmr REEDLEY 115/REEDLEY 70 #1 : Open Xfmr REEDLEY 115/REEDLEY 70 #2 : Drop Load at REEDLEY 115 #3 : 26.5 MW 5.3 MVAR Dr :	REEDLEY -PARLIER 70.00kV Ckt#1 Sec# 1	395.9	Amps	145.8	146.0	0.2

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q239SWST-MORROBAY 230.00kV Ckt#2 Sec# 1	976.48	Amps	100.1	100.2	0.0
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q239SWST-MORROBAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	100.1	100.2	0.0
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q238TAP -CARRIZO 115.00kV Ckt#1 Sec# 1	436.78	Amps	177.4	177.5	0.0
82	Open Line GATES 230-PANOCHE 230 #2 : Open Line GATES 230-MORROBAY 230 #1 :	Q238TAP -CARRIZO 115.00kV Ckt#1 Sec# 1	436.78	Amps	116.6	116.7	0.1
81	Open Line GATES 230-PANOCHE 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 : Open Xfmr GATES 230/GATES 1M 230 #1 :	Q238TAP -CARRIZO 115.00kV Ckt#1 Sec# 1	436.78	Amps	114.9	115.1	0.1
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q194SWST-Q194 230.00kV Ckt#1 Sec# 1	483.22	Amps	116.8	116.8	0.0
82	Open Line GATES 230-PANOCHE 230 #2 : Open Line GATES 230-MORROBAY 230 #1 :	Q194SWST-Q194 230.00kV Ckt#1 Sec# 1	483.22	Amps	101.8	101.8	0.1
81	Open Line GATES 230-PANOCHE 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 : Open Xfmr GATES 230/GATES 1M 230 #1 :	Q194SWST-Q194 230.00kV Ckt#1 Sec# 1	483.22	Amps	101.2	101.2	0.1
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D :	Q194SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	113.1	113.3	0.2
19	Open Line PANOCHE 230-COBURN 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #2 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line PANOCHE 230-GATES 230 #1 : Open Xfmr PANOCHE 230/PNCHE 1M 230 #1 :	Q194SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	112.5	112.6	0.2
68	Open Line GATES 230-MIDWAY 230 #1 : Open Line GATES 230-ARCO 230 #1 :	Q194SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	112.0	112.2	0.2



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
5	Open Line PANOCHE 230-GATES 230 #1 : Open Line PANOCHE 230-GATES 230 #2 :	Q194SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	111.8	111.9	0.1
7	Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line DS AMIGO 230-PANOCHE 230 #1 :	Q194SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	111.8	111.9	0.2
18	Open Line LOSBANOS 230-PANOCHE 230 #1 : Open Line LOSBANOS 230-DS AMIGO 230 #1 : Open Xfmr LOSBANOS 230/LOS BANS 70 #4 :	Q194SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	111.5	111.6	0.2
6	Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line LOSBANOS 230-DS AMIGO 230 #1 :	Q194SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	111.4	111.6	0.1
20	Open Line PANOCHE 230-MOSSLND2 230 #1 : Open Line PANOCHE 230-PANO_EC 230 #1 : Open Line PANOCHE 230- HELM 230 #1 : Open Line PANOCHE 230-GATES 230 #2 : Open Line PANOCHE 230-DS AMIGO 230 #1 : Open Xfmr PANOCHE 230/PANOCHE 115 #2 :	Q194SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	111.2	111.4	0.2
17	Open Line LOSBANOS 230-WESTLEY 230 #1 : Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line LOSBANOS 230- SN LS PP 230 #1 : Open Line LOSBANOS 230-SN LS PP 230 #2 : Open Xfmr LOSBANOS 230/LOS BANS 70 #3 :	Q194SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	111.2	111.4	0.2
lbs-dlo- ns*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	Q194SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	100.1	100.2	0.1
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	243.9	243.9	0.1
82	Open Line GATES 230-PANOCHE 230 #2 : Open Line GATES 230-MORROBAY 230 #1 :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	184.1	184.2	0.1
81	Open Line GATES 230-PANOCHE 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 : Open Xfmr GATES 230/GATES 1M 230 #1 :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	180.3	180.4	0.1
Dblo- Mdwy_ dlo*	Diablo - Midway #2&#33q21 500-kV DLO	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	163.4	163.6	0.2

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	161.4	161.5	0.2
19	Open Line PANOCHÉ 230-COBURN 230 #1 : Open Line PANOCHÉ 230-LOS BANOS 230 #1 : Open Line PANOCHÉ 230-LOS BANOS 230 #2 : Open Line PANOCHÉ 230-MCMULLN1 230 #1 : Open Line PANOCHÉ 230-GATES 230 #1 : Open Xfmr PANOCHÉ 230/PNCHE 1M 230 #1 :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	160.6	160.8	0.2
68	Open Line GATES 230-MIDWAY 230 #1 : Open Line GATES 230-ARCO 230 #1 :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	160.1	160.3	0.2
5	Open Line PANOCHÉ 230-GATES 230 #1 : Open Line PANOCHÉ 230-GATES 230 #2 :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	159.9	160.1	0.2
7	Open Line LOSBANOS 230-PANOCHÉ 230 #2 : Open Line DS AMIGO 230-PANOCHÉ 230 #1 :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	159.9	160.1	0.2
lbs-dlo-ns*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	148.1	148.2	0.1
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q194 -Q194SWST 230.00kV Ckt#1 Sec# 1	483.22	Amps	116.8	116.8	0.0
82	Open Line GATES 230-PANOCHÉ 230 #2 : Open Line GATES 230-MORROBAY 230 #1 :	Q194 -Q194SWST 230.00kV Ckt#1 Sec# 1	483.22	Amps	101.8	101.8	0.1
81	Open Line GATES 230-PANOCHÉ 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 : Open Xfmr GATES 230/GATES 1M 230 #1 :	Q194 -Q194SWST 230.00kV Ckt#1 Sec# 1	483.22	Amps	101.2	101.2	0.1
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q166 -Q239SWST 230.00kV Ckt#2 Sec# 1	976.48	Amps	134.0	134.1	0.0
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q166 -Q239SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	134.0	134.1	0.0
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	192.5	192.6	0.0

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
82	Open Line GATES 230-PANOCHE 230 #2 : Open Line GATES 230-MORROBAY 230 #1 :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	135.3	135.4	0.1
81	Open Line GATES 230-PANOCHE 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 : Open Xfmr GATES 230/GATES 1M 230 #1 :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	131.6	131.7	0.1
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	242.3	242.4	0.1
82	Open Line GATES 230-PANOCHE 230 #2 : Open Line GATES 230-MORROBAY 230 #1 :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	182.7	182.8	0.1
81	Open Line GATES 230-PANOCHE 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 : Open Xfmr GATES 230/GATES 1M 230 #1 :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	178.9	179.0	0.1
Dblo-Mdwy_dlo*	Diablo - Midway #2&#33q21 500-kV DLO	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	162.0	162.2	0.2
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	160.0	160.1	0.2
19	Open Line PANOCHE 230-COBURN 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #2 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line PANOCHE 230-GATES 230 #1 : Open Xfmr PANOCHE 230/PNCHE 1M 230 #1 :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	159.2	159.4	0.2
68	Open Line GATES 230-MIDWAY 230 #1 : Open Line GATES 230-ARCO 230 #1 :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	158.7	158.9	0.2
5	Open Line PANOCHE 230-GATES 230 #1 : Open Line PANOCHE 230-GATES 230 #2 :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	158.5	158.7	0.2
7	Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line DS AMIGO 230-PANOCHE 230 #1 :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	158.5	158.7	0.2
lbs-dlo-	Los Banos - Gates & Los Banos - Midway 500-kV DLO	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	146.7	146.8	0.1

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
ns*							
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	PSA RBL5-SAN MIGL 70.00kV Ckt#1 Sec# 1	346.41	Amps	152.8	152.6	-0.2
30	Open Line PANOCHÉ 115-CHENYT 115 #1 : Open Line PANOCHÉ 115-PANOCHÉJ 115 #1 : Open Xfmr PANOCHÉ 115/PANOCHÉ 230 #2 : Open Xfmr PANOCHÉ 115/DG_PAN1 13.8 #1 :	POSO J1 -ORO LOMA 70.00kV Ckt#1 Sec# 1	282.08	Amps	105.6	105.9	0.4
93	Open Line REEDLEY 115-GERAWAN 115 #1 : Open Line REEDLEY 115-PIEDRA 1 115 #1 : Open Xfmr REEDLEY 115/REEDLEY 70 #1 : Open Xfmr REEDLEY 115/REEDLEY 70 #2 : Drop Load at REEDLEY 115 #3 : 26.5 MW 5.3 MVAR Dr :	PARLIER -SNGRJCT 70.00kV Ckt#1 Sec# 1	470.13	Amps	162.8	163.0	0.2
18	Open Line LOSBANOS 230-PANOCHÉ 230 #1 : Open Line LOSBANOS 230-DS AMIGO 230 #1 : Open Xfmr LOSBANOS 230/LOS BANS 70 #4 :	PANOCHÉ -LOSBANOS 230.00kV Ckt#2 Sec# 1	849.96	Amps	113.5	114.3	0.8
lbs-dlo-ns*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	PANOCHÉ -LOSBANOS 230.00kV Ckt#2 Sec# 1	849.96	Amps	103.9	104.6	0.7
7	Open Line LOSBANOS 230-PANOCHÉ 230 #2 : Open Line DS AMIGO 230-PANOCHÉ 230 #1 :	PANOCHÉ -LOSBANOS 230.00kV Ckt#1 Sec# 1	974.97	Amps	112.4	113.1	0.8
6	Open Line LOSBANOS 230-PANOCHÉ 230 #2 : Open Line LOSBANOS 230-DS AMIGO 230 #1 :	PANOCHÉ -LOSBANOS 230.00kV Ckt#1 Sec# 1	974.97	Amps	104.0	104.8	0.8
19	Open Line PANOCHÉ 230-COBURN 230 #1 : Open Line PANOCHÉ 230-LOSBANOS 230 #1 : Open Line PANOCHÉ 230-LOSBANOS 230 #2 : Open Line PANOCHÉ 230-MCMULLN1 230 #1 : Open Line PANOCHÉ 230-GATES 230 #1 : Open Xfmr PANOCHÉ 230/PNCHE 1M 230 #1 :	PANOCHÉ -DS AMIGO 230.00kV Ckt#1 Sec# 1	849.96	Amps	128.1	128.9	0.8
lbs-dlo-ns*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	PANOCHÉ -DS AMIGO 230.00kV Ckt#1 Sec# 1	849.96	Amps	105.4	106.1	0.7
42	Open Line MENDOTA 70-TOMATAK 70 #1 : Open Line MENDOTA 70-BIOMSJCT 70 #1 : Open Xfmr MENDOTA 70/MENDOTA 115 #1 :	ORO LOMA-ORO LOMA 115.00/ 70.00kV Bk#2	72	MVA	107.4	107.8	0.3

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
10	Open Line BELLOTA 230-COTTLE A 230 #1 : Open Line COTTLE A 230-MELONES 230 #1 : Drop Load at COTTLE A 230 #1 : 26.7 MW 1.2 MVAR D : Drop Generator at HELMS 3 18 #*: 404 MW Dropped : Open Line WARNERVL 230-WILSON 230 #1 :	ORO LOMA-ORO LOMA 115.00/ 70.00kV Bk#2	72	MVA	104.9	105.5	0.6
18	Open Line LOSBANOS 230-PANOCHÉ 230 #1 : Open Line LOSBANOS 230-DS AMIGO 230 #1 : Open Xfmr LOSBANOS 230/LOS BANS 70 #4 :	ORO LOMA-ORO LOMA 115.00/ 70.00kV Bk#2	72	MVA	104.8	105.2	0.4
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D :	ORO LOMA-EL NIDO 115.00kV Ckt#1 Sec# 1	512.08	Amps	104.4	104.7	0.3
18	Open Line LOSBANOS 230-PANOCHÉ 230 #1 : Open Line LOSBANOS 230-DS AMIGO 230 #1 : Open Xfmr LOSBANOS 230/LOS BANS 70 #4 :	ORO LOMA-DOS PALS 70.00kV Ckt#1 Sec# 1	282.08	Amps	115.1	115.5	0.4
19	Open Line PANOCHÉ 230-COBURN 230 #1 : Open Line PANOCHÉ 230-LOSBANOS 230 #1 : Open Line PANOCHÉ 230-LOSBANOS 230 #2 : Open Line PANOCHÉ 230-MCMULLN1 230 #1 : Open Line PANOCHÉ 230-GATES 230 #1 : Open Xfmr PANOCHÉ 230/PNCHE 1M 230 #1 :	ORO LOMA-DOS PALS 70.00kV Ckt#1 Sec# 1	282.08	Amps	109.2	109.6	0.4
7	Open Line LOSBANOS 230-PANOCHÉ 230 #2 : Open Line DS AMIGO 230-PANOCHÉ 230 #1 :	ORO LOMA-DOS PALS 70.00kV Ckt#1 Sec# 1	282.08	Amps	108.9	109.3	0.4
10	Open Line BELLOTA 230-COTTLE A 230 #1 : Open Line COTTLE A 230-MELONES 230 #1 : Drop Load at COTTLE A 230 #1 : 26.7 MW 1.2 MVAR D : Drop Generator at HELMS 3 18 #*: 404 MW Dropped : Open Line WARNERVL 230-WILSON 230 #1 :	ORO LOMA-DOS PALS 70.00kV Ckt#1 Sec# 1	282.08	Amps	108.3	108.8	0.5
6	Open Line LOSBANOS 230-PANOCHÉ 230 #2 : Open Line LOSBANOS 230-DS AMIGO 230 #1 :	ORO LOMA-DOS PALS 70.00kV Ckt#1 Sec# 1	282.08	Amps	105.6	106.0	0.4
12	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at HELMS 3 18 #*: 404 MW Dropped : Open Line WARNERVL 230-WILSON 230 #1 :	ORO LOMA-DOS PALS 70.00kV Ckt#1 Sec# 1	282.08	Amps	103.1	103.5	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
9	Open Line BELLOTA 230-COTTLE A 230 #1 : Open Line COTTLE A 230-MELONES 230 #1 : Drop Load at COTTLE A 230 #1 : 26.7 MW 1.2 MVAR D : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Open Line BELLOTA 230-COTTLE B 230 #1 : Open Line COTTLE B 230-WARNERVL 230 #1 : Drop Load at COTTLE B 230 #2 : 30.7 MW 1.3 MVAR D :	ORO LOMA-DOS PALS 70.00kV Ckt#1 Sec# 1	282.08	Amps	100.9	101.3	0.4
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D :	OAKH_JCT-SHARON T 115.00kV Ckt#1 Sec# 1	396.61	Amps	146.2	147.7	1.5
24	Open Line LE GRAND 115-CERTAN T 115 #1 : Open Line LE GRAND 115-EXCHEQUR 115 #1 : Open Line LE GRAND 115-WILSON A 115 #1 : Open Line LE GRAND 115-DAIRYLND 115 #1 : Drop Load at LE GRAND 115 #1 : 13.6 MW 2.7 MVAR D :	MRCDFLLS-MERCED 70.00kV Ckt#1 Sec# 1	377.75	Amps	140.8	140.8	0.0
24	Open Line LE GRAND 115-CERTAN T 115 #1 : Open Line LE GRAND 115-EXCHEQUR 115 #1 : Open Line LE GRAND 115-WILSON A 115 #1 : Open Line LE GRAND 115-DAIRYLND 115 #1 : Drop Load at LE GRAND 115 #1 : 13.6 MW 2.7 MVAR D :	MRCDFLLS-MCSWAINJ 70.00kV Ckt#1 Sec# 1	379.4	Amps	152.3	152.3	0.0
81	Open Line GATES 230-PANOCHE 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 : Open Xfmr GATES 230/GATES 1M 230 #1 :	MORROBAY-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	120.3	120.1	-0.2
lbs-dlons*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	MORROBAY-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	101.3	101.2	-0.1
1	Open Line WILSON A 115-ATWATER 115 #1 : Open Line WILSON B 115-EL CAPTN 115 #1 :	MERCED -WILSON B 115.00kV Ckt#2 Sec# 1	471.92	Amps	134.4	134.5	0.1
25	Open Line WILSON A 115-LE GRAND 115 #1 : Open Line WILSON A 115-ATWATER 115 #1 : Open Line WILSON A 115-WILSON B 115 #1 : Open Line WILSON A 115-MERCED 115 #1 : Open Xfmr WILSON A 115/WILSON 230 #1 : Drop Load at WILSON A 115 #3 : 18.9 MW 3.8 MVAR D :	MERCED -WILSON B 115.00kV Ckt#2 Sec# 1	471.92	Amps	100.4	100.4	0.0

#	Outage Description	Facility	Rating	Unit	Pre-	Post-	% Change
					Project PU Flow	Project PU Flow	
1	Open Line WILSON A 115-ATWATER 115 #1 : Open Line WILSON B 115-EL CAPTN 115 #1 :	MERCED -WILSON A 115.00kV Ckt#1 Sec# 1	471.92	Amps	149.7	149.8	0.1
26	Open Line WILSON B 115-LE GRNDJ 115 #1 : Open Line WILSON B 115-WILSON A 115 #1 : Open Line WILSON B 115-EL CAPTN 115 #1 : Open Line WILSON B 115-MERCED 115 #2 : Open Xfmr WILSON B 115/WILSON 230 #2 :	MERCED -WILSON A 115.00kV Ckt#1 Sec# 1	471.92	Amps	123.5	123.6	0.1
24	Open Line LE GRAND 115-CERTAN T 115 #1 : Open Line LE GRAND 115-EXCHEQUR 115 #1 : Open Line LE GRAND 115-WILSON A 115 #1 : Open Line LE GRAND 115-DAIRYLND 115 #1 : Drop Load at LE GRAND 115 #1 : 13.6 MW 2.7 MVAR D :	MERCED -MERCED M 115.00/ 115.00kV Bk#2	60	MVA	123.0	122.9	0.0
24	Open Line LE GRAND 115-CERTAN T 115 #1 : Open Line LE GRAND 115-EXCHEQUR 115 #1 : Open Line LE GRAND 115-WILSON A 115 #1 : Open Line LE GRAND 115-DAIRYLND 115 #1 : Drop Load at LE GRAND 115 #1 : 13.6 MW 2.7 MVAR D :	MERCED -MERCED M 70.00/ 115.00kV Bk#2	60	MVA	113.3	113.2	0.0
24	Open Line LE GRAND 115-CERTAN T 115 #1 : Open Line LE GRAND 115-EXCHEQUR 115 #1 : Open Line LE GRAND 115-WILSON A 115 #1 : Open Line LE GRAND 115-DAIRYLND 115 #1 : Drop Load at LE GRAND 115 #1 : 13.6 MW 2.7 MVAR D :	MCSWAINJ-MRCDFLLS 70.00kV Ckt#1 Sec# 1	379.4	Amps	152.3	152.3	0.0
24	Open Line LE GRAND 115-CERTAN T 115 #1 : Open Line LE GRAND 115-EXCHEQUR 115 #1 : Open Line LE GRAND 115-WILSON A 115 #1 : Open Line LE GRAND 115-DAIRYLND 115 #1 : Drop Load at LE GRAND 115 #1 : 13.6 MW 2.7 MVAR D :	MCSWAINJ-EXCHEQUR 70.00kV Ckt#1 Sec# 1	280.43	Amps	179.4	179.5	0.0
79	Open Line MC CALL 230-HELM 230 #1 : Open Line MC CALL 230-BALCH3TP 230 #1 : Open Line MC CALL 230-Q128 230 #2 : Open Xfmr MC CALL 230/MCCALL1M 115 #1 : Open Xfmr MC CALL 230/MCCALL3M 115 #3 :	MC CALL -MCCALL2M 230.00/ 115.00kV Bk#2	465	MVA	108.8	107.6	-1.1
79	Open Line MC CALL 230-HELM 230 #1 : Open Line MC CALL 230-BALCH3TP 230 #1 : Open Line MC CALL 230-Q128 230 #2 : Open Xfmr MC CALL 230/MCCALL1M 115 #1 : Open Xfmr MC CALL 230/MCCALL3M 115 #3 :	MC CALL -MCCALL2M 115.00/ 115.00kV Bk#2	465	MVA	105.1	104.0	-1.1

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
90	Open Line SANGER 115-CLOVISJ1 115 #1 : Open Line SANGER 115-CLOVISJ2 115 #1 : Open Line SANGER 115-AIRWAYJ2 115 #1 : Open Line SANGER 115-LASPALMS 115 #1 : Open Line SANGER 115-MC CALL 115 #1 : Open Line SANGER 115-MC CALL 115 #2 : Open Line SANGER 115-MC CALL 115 #3 : Open Line SANGER 115-MALAGA 115 #1 : Open Line SANGER 115-RAINBWTP 115 #1 : Open Line SANGER 115-PIEDRA 2 115 #1 :	MC CALL -HELM 230.00kV Ckt#1 Sec# 1	849.96	Amps	113.7	115.6	1.9
lbn-dlo-ns*	Los Banos - Tesla & Los Banos - Tracy 500-kV DLO	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	148.9	149.9	0.9
lbs-dlo-ns*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	126.5	127.1	0.6
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	116.2	116.7	0.6
10	Open Line BELLOTA 230-COTTLE A 230 #1 : Open Line COTTLE A 230-MELONES 230 #1 : Drop Load at COTTLE A 230 #1 : 26.7 MW 1.2 MVAR D : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Open Line WARNERVL 230-WILSON 230 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	112.4	113.0	0.6
12	Open Line MELONES 230-WILSON 230 #1 : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Open Line WARNERVL 230-WILSON 230 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	108.2	108.9	0.6
15	Open Line MOSSLND2 230-PANOCHE 230 #1 : Open Line COBURN 230-PANOCHE 230 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	106.4	106.7	0.3
47	Open Line PNDLJ1 115-BULLARD 115 #1 : Open Line PNDLJ1 115-HERNDON 115 #1 : Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 31.1 MW 6.3 MVAR Dro : Drop Load at PNEDLE 115 #3 : 40.9 MW 8.2 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	103.3	103.8	0.5



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
75	Open Line ASHLAN 230-FGRDN T1 230 #1 : Open Line ASHLAN 230-FGRDN T2 230 #1 : Drop Load at ASHLAN 230 #1 : 70 MW 13.5 MVAR Drop : Drop Load at ASHLAN 230 #2 : 65.3 MW 12.9 MVAR Dr : Drop Load at ASHLAN 230 #3 : 66.3 MW 12.6 MVAR Dr :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	103.2	103.7	0.5
54	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line DANISHCM 115-MC CALL 115 #1 : Open Line DANISHCM 115-CAL AVE 115 #1 : Drop Load at DANISHCM 115 #1 : 4.1 MW 3.5 MVAR Dr :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	103.1	103.6	0.5
48	Open Line KERCKHF2 115-WWARD JT 115 #1 : Open Line WWARD JT 115-WOODWARD 115 #1 : Open Line WWARD JT 115-CLOVISJ1 115 #1 : Open Line CLOVISJ1 115-CLOVIS-1 115 #1 : Open Line CLOVISJ1 115-SANGER 115 #1 : Drop Load at CLOVIS-1 115 #1 : 51.6 MW 10.4 MVAR : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 : Open Line CLOVIS-2 115-CLOVISJ2 115 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	102.5	103.0	0.5
103	Open Line WOODWARD 115-WWARD JT 115 #1 : Open Line WOODWARD 115-CHLDHOSP 115 #1 : Drop Load at WOODWARD 115 #1 : 42.7 MW 8.6 MVAR D : Drop Load at WOODWARD 115 #2 : 53.3 MW 10.8 MVAR : Drop Load at WOODWARD 115 #3 : 44.6 MW 9 MVAR Dro :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	102.3	102.7	0.5
34	Open Line CANAL 70-LVNGSTNT 70 #1 : Open Line CANAL 70-SNTA RTA 70 #1 : Open Line CANAL 70-ORTIGA 70 #1 : Drop Load at CANAL 70 #1 : 30.9 MW 6.2 MVAR Dropp : Drop Load at CANAL 70 #2 : 31.7 MW 6.4 MVAR Dropp :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	102.1	102.6	0.5
104	Open Line BULLARD 115-PNDLJ2 115 #1 : Open Line BULLARD 115-PNDLJ1 115 #1 : Drop Load at BULLARD 115 #1 : 45.4 MW 9.2 MVAR Dr : Drop Load at BULLARD 115 #2 : 45.2 MW 9.1 MVAR Dr : Drop Load at BULLARD 115 #3 : 43 MW 8.7 MVAR Drop :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	102.1	102.5	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
90	Open Line SANGER 115-CLOVISJ1 115 #1 : Open Line SANGER 115-CLOVISJ2 115 #1 : Open Line SANGER 115-AIRWAYJ2 115 #1 : Open Line SANGER 115-LASPALMS 115 #1 : Open Line SANGER 115-MC CALL 115 #1 : Open Line SANGER 115-MC CALL 115 #2 : Open Line SANGER 115-MC CALL 115 #3 : Open Line SANGER 115-MALAGA 115 #1 : Open Line SANGER 115-RAINBWTP 115 #1 : Open Line SANGER 115-PIEDRA 2 115 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	101.9	102.4	0.5
98	Open Line BARTON 115-AIRWAYJ2 115 #1 : Open Line BARTON 115-HERNDON 115 #1 : Drop Load at BARTON 115 #1 : 43.8 MW 8.8 MVAR Dro : Drop Load at BARTON 115 #2 : 37.6 MW 7.6 MVAR Dro : Drop Load at BARTON 115 #3 : 27.3 MW 5.5 MVAR Dro :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	101.8	102.3	0.5
44	Open Line AIRWAYJ2 115-AIRWAYS 115 #1 : Open Line AIRWAYJ2 115-BARTON 115 #1 : Open Line AIRWAYJ2 115-SANGER 115 #1 : Open Line AIRWAYJ1 115-AIRWAYS 115 #1 : Open Line AIRWAYJ1 115-LASPALMS 115 #1 : Open Line AIRWAYJ1 115-MANCHSTR 115 #1 : Open Line LASPALMS 115-SANGER 115 #1 : Drop Load at LASPALMS 115 #1 : 13.9 MW 11.8 MVAR :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	101.6	102.0	0.5
89	Open Line CLOVIS-2 115-CLOVISJ2 115 #1 : Drop Load at CLOVIS-2 115 #3 : 45.3 MW 9.1 MVAR D :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	101.5	102.0	0.5
96	Open Line CAL AVE 115-DANISHCM 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 : Drop Load at CAL AVE 115 #1 : 29.3 MW 5.9 MVAR Dr : Drop Load at CAL AVE 115 #2 : 31.6 MW 6.4 MVAR Dr : Drop Load at CAL AVE 115 #3 : 24.7 MW 5 MVAR Drop :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	101.5	101.9	0.5
117	Open Line KEARNEY 70-FRWWTAP 70 #1 : Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line KEARNEY 70-CARUTHRS 70 #1 : Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	101.4	101.9	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
99	Open Line MANCHSTR 115-AIRWAYJ1 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 : Drop Load at MANCHSTR 115 #1 : 25.6 MW 5.1 MVAR D : Drop Load at MANCHSTR 115 #2 : 25.8 MW 5.2 MVAR D : Drop Load at MANCHSTR 115 #3 : 36.6 MW 7.4 MVAR D :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	101.4	101.8	0.5
53	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	101.3	101.7	0.5
97	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line WST FRSO 115-CAL AVE 115 #1 : Drop Load at WST FRSO 115 #1 : 38 MW 7.7 MVAR Dro : Drop Load at WST FRSO 115 #2 : 39.5 MW 8 MVAR Dro :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	101.3	101.7	0.5
121	Open Line REEDLEY 70-TVY VLLY 70 #1 : Open Line REEDLEY 70-PARLIER 70 #1 : Open Line REEDLEY 70-DNUBAJCT 70 #1 : Open Line REEDLEY 70-ORSI JCT 70 #1 : Open Xfmr REEDLEY 70/REEDLEY 115 #1 : Open Xfmr REEDLEY 70/REEDLEY 115 #2 : Drop Load at REEDLEY 70 #1 : 17.6 MW 3.5 MVAR Dro :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	101.1	101.5	0.5
73	Open Line FIGRDN 1 230-FGRDN T1 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	101.0	101.5	0.5
102	Open Line PNEDLE 115-PNDLJ2 115 #1 : Drop Load at PNEDLE 115 #2 : 31.1 MW 6.3 MVAR Dro : Drop Load at PNEDLE 115 #3 : 40.9 MW 8.2 MVAR Dro :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	101.0	101.5	0.5
106	Open Line KINGSBRG 115-CORCORAN 115 #1 : Open Line KINGSBRG 115-GAURD J1 115 #1 : Open Xfmr KINGSBRG 115/KNGLOBUS 70 #2 : Drop Load at KINGSBRG 115 #3 : 33 MW 6.6 MVAR Dro :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	101.0	101.4	0.5
25	Open Line WILSON A 115-LE GRAND 115 #1 : Open Line WILSON A 115-ATWATER 115 #1 : Open Line WILSON A 115-WILSON B 115 #1 : Open Line WILSON A 115-MERCED 115 #1 : Open Xfmr WILSON A 115/WILSON 230 #1 : Drop Load at WILSON A 115 #3 : 18.9 MW 3.8 MVAR D :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	100.9	101.4	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D :	LE GRNDJ-WILSON B 115.00kV Ckt#1 Sec# 1	398.12	Amps	102.7	103.1	0.4
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	216.5	217.5	1.1
14	Open Line BORDEN 230-GREGG 230 #1 : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Open Line BORDEN 230-GREGG 230 #2 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	131.5	132.5	1.0
48	Open Line KERCKHF2 115-WWARD JT 115 #1 : Open Line WWARD JT 115-WOODWARD 115 #1 : Open Line WWARD JT 115-CLOVISJ1 115 #1 : Open Line CLOVISJ1 115-CLOVIS-1 115 #1 : Open Line CLOVISJ1 115-SANGER 115 #1 : Drop Load at CLOVIS-1 115 #1 : 51.6 MW 10.4 MVAR : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 : Open Line CLOVIS-2 115-CLOVISJ2 115 #1 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	122.5	122.5	0.0
lbs-dlo-ns*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	111.8	112.3	0.5
37	Open Line MRCDLFLS 70-MERCED 70 #1 : Open Line MRCDLFLS 70-MCSWAINJ 70 #1 : Open Xfmr MRCDLFLS 70/MERCEDFL 9.11 #1 : Open Xfmr MRCDLFLS 70/MERCEDFL 9.11 #2 : Drop Load at MRCDLFLS 70 #2 : 9.1 MW 1.8 MVAR Dro :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	111.4	111.8	0.4
60	Open Line GREGG 230-HELMS PP 230 #1 : Drop Generator at HELMS 1 18 #** : 404 MW Dropped : Open Line GREGG 230-HELMS PP 230 #2 : Drop Generator at HELMS 3 18 #** : 404 MW Dropped :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	110.5	110.9	0.4
69	Open Line HELMS PP 230-GREGG 230 #1 : Open Line HELMS PP 230-GREGG 230 #2 : Open Xfmr HELMS PP 230/HELMS 1 18 #1 : Open Xfmr HELMS PP 230/HELMS 2 18 #1 : Open Xfmr HELMS PP 230/HELMS 3 18 #1 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	110.5	110.9	0.4

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
lbn-dl-ns*	Los Banos - Tesla & Los Banos - Tracy 500-kV DLO	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	109.4	110.0	0.5
33	Open Line MERCED 70-ELNIDOTP 70 #1 : Open Line MERCED 70-MRCDFLS 70 #1 : Open Xfmr MERCED 70/MERCED M 115 #2 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	109.5	109.9	0.4
28	Open Line MERCED 115-ATWATR J 115 #1 : Open Line MERCED 115-WILSON A 115 #1 : Open Line MERCED 115-WILSON B 115 #2 : Open Xfmr MERCED 115/MERCED M 115 #2 : Drop Load at MERCED 115 #1 : 37.6 MW 7.6 MVAR Dro : Drop Load at MERCED 115 #3 : 19.7 MW 3.9 MVAR Dro :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	108.3	108.7	0.4
17	Open Line LOSBANOS 230-WESTLEY 230 #1 : Open Line LOSBANOS 230-PANOCHÉ 230 #2 : Open Line LOSBANOS 230-SN LS PP 230 #1 : Open Line LOSBANOS 230-SN LS PP 230 #2 : Open Xfmr LOSBANOS 230/LOS BANS 70 #3 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	108.2	108.7	0.5
44	Open Line AIRWAYJ2 115-AIRWAYS 115 #1 : Open Line AIRWAYJ2 115-BARTON 115 #1 : Open Line AIRWAYJ2 115-SANGER 115 #1 : Open Line AIRWAYJ1 115-AIRWAYS 115 #1 : Open Line AIRWAYJ1 115-LASPALMS 115 #1 : Open Line AIRWAYJ1 115-MANCHSTR 115 #1 : Open Line LASPALMS 115-SANGER 115 #1 : Drop Load at LASPALMS 115 #1 : 13.9 MW 11.8 MVAR :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	107.7	108.3	0.6
30	Open Line PANOCHÉ 115-CHENYT 115 #1 : Open Line PANOCHÉ 115-PANOCHÉJ 115 #1 : Open Xfmr PANOCHÉ 115/PANOCHÉ 230 #2 : Open Xfmr PANOCHÉ 115/DG_PAN1 13.8 #1 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	107.8	108.2	0.4
55	Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Close Line HENTAP2 230-HENRIETA 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	106.3	107.0	0.8

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
56	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Close Line HENTAP2 230-HENRIETA 230 #1 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	104.8	105.2	0.4
26	Open Line WILSON B 115-LE GRNDJ 115 #1 : Open Line WILSON B 115-WILSON A 115 #1 : Open Line WILSON B 115-EL CAPTN 115 #1 : Open Line WILSON B 115-MERCED 115 #2 : Open Xfmr WILSON B 115/WILSON 230 #2 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	104.7	105.1	0.4
7	Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line DS AMIGO 230-PANOCHE 230 #1 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	104.6	105.1	0.5
64	Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Close Line HENTAP2 230-HENRIETA 230 #1 : Open Line GREGG 230-FGRDN T2 230 #1 : Open Line FGRDN T2 230-FIGRDN 2 230 #1 : Open Line FGRDN T2 230-ASHLAN 230 #1 : Drop Load at FIGRDN 2 230 #1 : 53.2 MW 10.7 MVAR :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	104.1	104.5	0.5
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	103.8	104.3	0.5
18	Open Line LOSBANOS 230-PANOCHE 230 #1 : Open Line LOSBANOS 230-DS AMIGO 230 #1 : Open Xfmr LOSBANOS 230/LOS BANS 70 #4 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	103.4	103.9	0.5
6	Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line LOSBANOS 230-DS AMIGO 230 #1 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	103.1	103.5	0.5
103	Open Line WOODWARD 115-WWARD JT 115 #1 : Open Line WOODWARD 115-CHLDHOSP 115 #1 : Drop Load at WOODWARD 115 #1 : 42.7 MW 8.6 MVAR D : Drop Load at WOODWARD 115 #2 : 53.3 MW 10.8 MVAR : Drop Load at WOODWARD 115 #3 : 44.6 MW 9 MVAR Dro :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	102.2	102.7	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
19	Open Line PANOCHÉ 230-COBURN 230 #1 : Open Line PANOCHÉ 230-LOSBANOS 230 #1 : Open Line PANOCHÉ 230-LOSBANOS 230 #2 : Open Line PANOCHÉ 230-MCMULLN1 230 #1 : Open Line PANOCHÉ 230-GATES 230 #1 : Open Xfmr PANOCHÉ 230/PNCHE 1M 230 #1 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	102.1	102.5	0.4
89	Open Line CLOVIS-2 115-CLOVISJ2 115 #1 : Drop Load at CLOVIS-2 115 #3 : 45.3 MW 9.1 MVAR D :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	101.5	101.9	0.4
15	Open Line MOSSLND2 230-PANOCHÉ 230 #1 : Open Line COBURN 230-PANOCHÉ 230 #1 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	100.8	101.1	0.3
54	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line DANISHCM 115-MC CALL 115 #1 : Open Line DANISHCM 115-CAL AVE 115 #1 : Drop Load at DANISHCM 115 #1 : 4.1 MW 3.5 MVAR Dr :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	100.6	101.0	0.4
20	Open Line PANOCHÉ 230-MOSSLND2 230 #1 : Open Line PANOCHÉ 230-PANO_EC 230 #1 : Open Line PANOCHÉ 230-HELM 230 #1 : Open Line PANOCHÉ 230-GATES 230 #2 : Open Line PANOCHÉ 230-DS AMIGO 230 #1 : Open Xfmr PANOCHÉ 230/PANOCHÉ 115 #2 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	99.8	100.4	0.5
63	Open Line KEARNEY 230-HERNDON 230 #1 : Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Close Line HENTAP2 230-HENRIETA 230 #1 :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	99.6	100.0	0.4
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D :	KERCKHF2-K1-JCT 115.00kV Ckt#2 Sec# 1	743.02	Amps	114.9	115.7	0.8
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D :	KEARNEY -HERNDON 230.00kV Ckt#1 Sec# 1	974.97	Amps	116.4	117.2	0.8

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D :	K1-JCT -OAKH_JCT 115.00kV Ckt#1 Sec# 1	743.02	Amps	114.9	115.7	0.8
16	Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D :	HELM -STRD JCT 70.00kV Ckt#1 Sec# 1	377.75	Amps	120.9	122.7	1.8
57	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Open Line PANOCHE 230-HELM 230 #1 :	HELM -STRD JCT 70.00kV Ckt#1 Sec# 1	377.75	Amps	120.9	122.7	1.8
20	Open Line PANOCHE 230-MOSSLND2 230 #1 : Open Line PANOCHE 230-PANO_EC 230 #1 : Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-GATES 230 #2 : Open Line PANOCHE 230-DS AMIGO 230 #1 : Open Xfmr PANOCHE 230/PANOCHE 115 #2 :	HELM -STRD JCT 70.00kV Ckt#1 Sec# 1	377.75	Amps	109.8	111.4	1.6
90	Open Line SANGER 115-CLOVISJ1 115 #1 : Open Line SANGER 115-CLOVISJ2 115 #1 : Open Line SANGER 115-AIRWAYJ2 115 #1 : Open Line SANGER 115-LASPALMS 115 #1 : Open Line SANGER 115-MC CALL 115 #1 : Open Line SANGER 115-MC CALL 115 #2 : Open Line SANGER 115-MC CALL 115 #3 : Open Line SANGER 115-MALAGA 115 #1 : Open Line SANGER 115-RAINBWTP 115 #1 : Open Line SANGER 115-PIEDRA 2 115 #1 :	HELM -PANOCHE 230.00kV Ckt#1 Sec# 1	849.96	Amps	104.6	106.3	1.7
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D :	HAMMONDS-PANOCHEJ 115.00kV Ckt#1 Sec# 1	607.47	Amps	125.4	125.7	0.4



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D :	HAMMONDS-DFSTP 115.00kV Ckt#1 Sec# 1	607.47	Amps	117.2	117.6	0.4
lbs-dlo-ns*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	GATES -PANOCHE 230.00kV Ckt#2 Sec# 1	849.96	Amps	100.0	100.5	0.5
lbs-dlo-ns*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	GATES -PANOCHE 230.00kV Ckt#1 Sec# 1	849.96	Amps	100.0	100.5	0.5
61	Open Line GREGG 230-HERNDON 230 #1 : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Open Line GREGG 230-HERNDON 230 #2 :	FGRDN T2-GREGG 230.00kV Ckt#1 Sec# 1	849.96	Amps	174.7	174.3	-0.4
23	Open Line EXCHEQUR 115-LE GRAND 115 #1 : Open Xfmr EXCHEQUR 115/EXCHQ RTP 115 #1 :	EXCHEQUR-MCSWAINJ 70.00kV Ckt#1 Sec# 1	280.43	Amps	109.5	109.6	0.1
lbs-dlo-ns*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	DS AMIGO-LOSBANOS 230.00kV Ckt#1 Sec# 1	849.96	Amps	105.3	106.0	0.7
19	Open Line PANOCHE 230-COBURN 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #2 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line PANOCHE 230-GATES 230 #1 : Open Xfmr PANOCHE 230/PNCHE 1M 230 #1 :	DS AMIGO-LOSBANOS 230.00kV Ckt#1 Sec# 1	849.96	Amps	102.6	103.4	0.8
lbs-dlo-ns*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	DOS PALS-ORO LOMA 70.00kV Ckt#1 Sec# 1	282.08	Amps	109.6	110.1	0.4
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D :	DFSTP -ORO LOMA 115.00kV Ckt#1 Sec# 1	607.47	Amps	116.1	116.5	0.4
1	Open Line WILSON A 115-ATWATER 115 #1 : Open Line WILSON B 115-EL CAPTN 115 #1 :	CRESEY T-ATWATR J 115.00kV Ckt#1 Sec# 1	512.08	Amps	199.2	199.4	0.2
lbs-dlo-ns*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	142.9	143.7	0.8
lbn-dlo-ns*	Los Banos - Tesla & Los Banos - Tracy 500-kV DLO	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	138.3	139.2	0.8

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
58	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Open Line HELM 230-MC CALL 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	127.3	128.1	0.8
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	126.5	127.3	0.8
75	Open Line ASHLAN 230-FGRDN T1 230 #1 : Open Line ASHLAN 230-FGRDN T2 230 #1 : Drop Load at ASHLAN 230 #1 : 70 MW 13.5 MVAR Drop : Drop Load at ASHLAN 230 #2 : 65.3 MW 12.9 MVAR Dr : Drop Load at ASHLAN 230 #3 : 66.3 MW 12.6 MVAR Dr :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	126.2	127.1	0.9
16	Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	126.3	127.1	0.8
57	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Open Line PANOCHE 230-HELM 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	126.3	127.1	0.8
71	Open Line HERNDON 230-GREGG 230 #1 : Open Line HERNDON 230-KEARNEY 230 #1 : Open Xfmr HERNDON 230/HERNDN1M 115 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	126.3	127.0	0.7
70	Open Line KEARNEY 230-MCMULLN1 230 #1 : Open Line KEARNEY 230-HERNDON 230 #1 : Open Xfmr KEARNEY 230/KEARNEY 70 #2 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	126.3	127.0	0.7
47	Open Line PNDLJ1 115-BULLARD 115 #1 : Open Line PNDLJ1 115-HERNDON 115 #1 : Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 31.1 MW 6.3 MVAR Dro : Drop Load at PNEDLE 115 #3 : 40.9 MW 8.2 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	126.0	126.6	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
19	Open Line PANOCHE 230-COBURN 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #2 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line PANOCHE 230-GATES 230 #1 : Open Xfmr PANOCHE 230/PNCHE 1M 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	125.4	126.2	0.7
62	Open Line KEARNEY 230-HERNDON 230 #1 : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	124.9	125.6	0.7
27	Open Line EL CAPTN 115-CASTLE 115 #1 : Open Line EL CAPTN 115-WILSON B 115 #1 : Drop Load at EL CAPTN 115 #1 : 19.7 MW 4 MVAR Dro : Drop Load at EL CAPTN 115 #2 : 26.2 MW 5.3 MVAR D : Drop Load at EL CAPTN 115 #3 : 33.5 MW 6.7 MVAR D :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	123.0	123.6	0.6
104	Open Line BULLARD 115-PNDLJ2 115 #1 : Open Line BULLARD 115-PNDLJ1 115 #1 : Drop Load at BULLARD 115 #1 : 45.4 MW 9.2 MVAR Dr : Drop Load at BULLARD 115 #2 : 45.2 MW 9.1 MVAR Dr : Drop Load at BULLARD 115 #3 : 43 MW 8.7 MVAR Drop :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	123.0	123.6	0.6
103	Open Line WOODWARD 115-WWARD JT 115 #1 : Open Line WOODWARD 115-CHLDHOSP 115 #1 : Drop Load at WOODWARD 115 #1 : 42.7 MW 8.6 MVAR D : Drop Load at WOODWARD 115 #2 : 53.3 MW 10.8 MVAR : Drop Load at WOODWARD 115 #3 : 44.6 MW 9 MVAR Dro :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	122.7	123.4	0.6
7	Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line DS AMIGO 230-PANOCHE 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	122.6	123.3	0.7
54	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line DANISHCM 115-MC CALL 115 #1 : Open Line DANISHCM 115-CAL AVE 115 #1 : Drop Load at DANISHCM 115 #1 : 4.1 MW 3.5 MVAR Dr :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	122.2	122.8	0.6
15	Open Line MOSSLND2 230-PANOCHE 230 #1 : Open Line COBURN 230-PANOCHE 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	121.9	122.4	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
22	Open Line ATWATER 115-CASTLE 115 #1 : Open Line ATWATER 115-CRESEY T 115 #1 : Open Line ATWATER 115-WILSON A 115 #1 : Drop Load at ATWATER 115 #1 : 32.8 MW 6.6 MVAR Dr : Drop Load at ATWATER 115 #2 : 28.7 MW 5.8 MVAR Dr :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	121.8	122.4	0.6
18	Open Line LOSBANOS 230-PANOCHE 230 #1 : Open Line LOSBANOS 230-DS AMIGO 230 #1 : Open Xfmr LOSBANOS 230/LOS BANS 70 #4 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	121.7	122.3	0.7
48	Open Line KERCKHF2 115-WWARD JT 115 #1 : Open Line WWARD JT 115-WOODWARD 115 #1 : Open Line WWARD JT 115-CLOVISJ1 115 #1 : Open Line CLOVISJ1 115-CLOVIS-1 115 #1 : Open Line CLOVISJ1 115-SANGER 115 #1 : Drop Load at CLOVIS-1 115 #1 : 51.6 MW 10.4 MVAR : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 : Open Line CLOVIS-2 115-CLOVISJ2 115 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	121.7	122.3	0.6
6	Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line LOSBANOS 230-DS AMIGO 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	121.7	122.3	0.7
98	Open Line BARTON 115-AIRWAYJ2 115 #1 : Open Line BARTON 115-HERNDON 115 #1 : Drop Load at BARTON 115 #1 : 43.8 MW 8.8 MVAR Dro : Drop Load at BARTON 115 #2 : 37.6 MW 7.6 MVAR Dro : Drop Load at BARTON 115 #3 : 27.3 MW 5.5 MVAR Dro :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	121.0	121.6	0.6
28	Open Line MERCED 115-ATWATR J 115 #1 : Open Line MERCED 115-WILSON A 115 #1 : Open Line MERCED 115-WILSON B 115 #2 : Open Xfmr MERCED 115/MERCED M 115 #2 : Drop Load at MERCED 115 #1 : 37.6 MW 7.6 MVAR Dro : Drop Load at MERCED 115 #3 : 19.7 MW 3.9 MVAR Dro :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.9	121.5	0.6
117	Open Line KEARNEY 70-FRWWTAP 70 #1 : Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line KEARNEY 70-CARUTHRS 70 #1 : Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.8	121.4	0.6
73	Open Line FIGRDN 1 230-FGRDN T1 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.6	121.3	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
89	Open Line CLOVIS-2 115-CLOVISJ2 115 #1 : Drop Load at CLOVIS-2 115 #3 : 45.3 MW 9.1 MVAR D :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.6	121.2	0.6
99	Open Line MANCHSTR 115-AIRWAYJ1 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 : Drop Load at MANCHSTR 115 #1 : 25.6 MW 5.1 MVAR D : Drop Load at MANCHSTR 115 #2 : 25.8 MW 5.2 MVAR D : Drop Load at MANCHSTR 115 #3 : 36.6 MW 7.4 MVAR D :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.5	121.1	0.6
102	Open Line PNEDLE 115-PNDLJ2 115 #1 : Drop Load at PNEDLE 115 #2 : 31.1 MW 6.3 MVAR Dro : Drop Load at PNEDLE 115 #3 : 40.9 MW 8.2 MVAR Dro :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.4	121.0	0.6
76	Open Line HELM 230-PANOCHE 230 #1 : Open Line HELM 230-MC CALL 230 #1 : Open Xfmr HELM 230/HELM 70 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.3	121.0	0.7
83	Open Line GATES 230-HENTAP1 230 #1 : Open Line GATES 230-ARCO 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.9	120.9	1.0
96	Open Line CAL AVE 115-DANISHCM 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 : Drop Load at CAL AVE 115 #1 : 29.3 MW 5.9 MVAR Dr : Drop Load at CAL AVE 115 #2 : 31.6 MW 6.4 MVAR Dr : Drop Load at CAL AVE 115 #3 : 24.7 MW 5 MVAR Drop :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.9	120.5	0.6
84	Open Line GATES 230-HENTAP2 230 #1 : Open Line GATES 230-MIDWAY 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.8	120.5	0.7
74	Open Line FIGRDN 2 230-FGRDN T2 230 #1 : Drop Load at FIGRDN 2 230 #1 : 53.2 MW 10.7 MVAR :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.7	120.4	0.6
53	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.6	120.2	0.6
97	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line WST FRSO 115-CAL AVE 115 #1 : Drop Load at WST FRSO 115 #1 : 38 MW 7.7 MVAR Dro : Drop Load at WST FRSO 115 #2 : 39.5 MW 8 MVAR Dro :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.6	120.2	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
11	Open Line BELLOTA 230-COTTLE A 230 #1 : Open Line COTTLE A 230-MELONES 230 #1 : Drop Load at COTTLE A 230 #1 : 26.7 MW 1.2 MVAR D : Drop Generator at HELMS 3 18 #*: 404 MW Dropped : Open Line MELONES 230-WILSON 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.3	120.1	0.8
40	Open Line MADERA 70-TRIGO 70 #1 : Open Line MADERA 70-BORDEN 70 #1 : Open Line MADERA 70-BORDEN 70 #2 : Drop Load at MADERA 70 #1 : 18.2 MW 3.7 MVAR Drop : Drop Load at MADERA 70 #2 : 23.4 MW 4.7 MVAR Drop :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.3	120.0	0.6
32	Open Line ORO LOMA 70-DOS PALS 70 #1 : Open Line ORO LOMA 70-MRCYSPRS 70 #1 : Open Line ORO LOMA 70-POSO J1 70 #1 : Open Xfmr ORO LOMA 70/ORO LOMA 115 #2 : Drop Load at ORO LOMA 70 #1 : 8.7 MW 1.7 MVAR Dro :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.3	120.0	0.6
87	Open Line AIRWAYS 115-AIRWAYJ1 115 #1 : Open Line AIRWAYS 115-AIRWAYJ2 115 #1 : Drop Load at AIRWAYS 115 #1 : 38.8 MW 7.5 MVAR Dr : Drop Load at AIRWAYS 115 #2 : 12.7 MW 2.5 MVAR Dr :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.2	119.8	0.6
88	Open Line CLOVIS-1 115-CLOVISJ1 115 #1 : Drop Load at CLOVIS-1 115 #1 : 51.6 MW 10.4 MVAR :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.2	119.8	0.6
106	Open Line KINGSBRG 115-CORCORAN 115 #1 : Open Line KINGSBRG 115-GAURD J1 115 #1 : Open Xfmr KINGSBRG 115/KNGLOBUS 70 #2 : Drop Load at KINGSBRG 115 #3 : 33 MW 6.6 MVAR Dro :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.2	119.8	0.6
121	Open Line REEDLEY 70-TVY VLLY 70 #1 : Open Line REEDLEY 70-PARLIER 70 #1 : Open Line REEDLEY 70-DNUBAJCT 70 #1 : Open Line REEDLEY 70-ORSI JCT 70 #1 : Open Xfmr REEDLEY 70/REEDLEY 115 #1 : Open Xfmr REEDLEY 70/REEDLEY 115 #2 : Drop Load at REEDLEY 70 #1 : 17.6 MW 3.5 MVAR Dro :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.0	119.6	0.6
34	Open Line CANAL 70-LVNGSTNT 70 #1 : Open Line CANAL 70-SNTA RTA 70 #1 : Open Line CANAL 70-ORTIGA 70 #1 : Drop Load at CANAL 70 #1 : 30.9 MW 6.2 MVAR Dropp : Drop Load at CANAL 70 #2 : 31.7 MW 6.4 MVAR Dropp :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.8	119.4	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
128	Open Line GATES 70-KETTLEMN 70 #1 : Open Line GATES 70-GATS2_TP 70 #1 : Open Line GATES 70-HURON 70 #1 : Open Line GATES 70-HURON 70 #2 : Open Line GATES 70-JACALITO 70 #1 : Open Xfmr GATES 70/GATES 115 #2 :	COLNGA 2-PLSNTVLY 70.00kV Ckt#1 Sec# 1	398.37	Amps	111.9	111.9	-0.1
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D :	CHWCHLLA-CERTANJ1 115.00kV Ckt#1 Sec# 1	396.61	Amps	139.7	141.2	1.5
90	Open Line SANGER 115-CLOVISJ1 115 #1 : Open Line SANGER 115-CLOVISJ2 115 #1 : Open Line SANGER 115-AIRWAYJ2 115 #1 : Open Line SANGER 115-LASPALMS 115 #1 : Open Line SANGER 115-MC CALL 115 #1 : Open Line SANGER 115-MC CALL 115 #2 : Open Line SANGER 115-MC CALL 115 #3 : Open Line SANGER 115-MALAGA 115 #1 : Open Line SANGER 115-RAINBWTP 115 #1 : Open Line SANGER 115-PIEDRA 2 115 #1 :	CHLDHOSP-HERNDON 115.00kV Ckt#1 Sec# 1	973.96	Amps	111.5	111.6	0.1
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 34.3 MW 6.9 MVAR D : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 38.3 MW 7.7 MVAR D :	CERTAN T-LE GRAND 115.00kV Ckt#1 Sec# 1	396.61	Amps	166.0	167.3	1.3
48	Open Line KERCKHF2 115-WWARD JT 115 #1 : Open Line WWARD JT 115-WOODWARD 115 #1 : Open Line WWARD JT 115-CLOVISJ1 115 #1 : Open Line CLOVISJ1 115-CLOVIS-1 115 #1 : Open Line CLOVISJ1 115-SANGER 115 #1 : Drop Load at CLOVIS-1 115 #1 : 51.6 MW 10.4 MVAR : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 : Open Line CLOVIS-2 115-CLOVISJ2 115 #1 :	CERTAN T-LE GRAND 115.00kV Ckt#1 Sec# 1	396.61	Amps	119.4	119.4	0.0
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	CERTAN T-LE GRAND 115.00kV Ckt#1 Sec# 1	396.61	Amps	109.1	110.8	1.7
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	CARRIZO -TEMBLOR 115.00kV Ckt#1 Sec# 1	436.78	Amps	177.0	177.0	0.1

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
82	Open Line GATES 230-PANOCHE 230 #2 : Open Line GATES 230-MORROBAY 230 #1 :	CARRIZO -TEMBLOR 115.00kV Ckt#1 Sec# 1	436.78	Amps	116.2	116.3	0.1
81	Open Line GATES 230-PANOCHE 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 : Open Xfmr GATES 230/GATES 1M 230 #1 :	CARRIZO -TEMBLOR 115.00kV Ckt#1 Sec# 1	436.78	Amps	114.5	114.6	0.1
100	Open Line HERNDON 115-BARTON 115 #1 : Open Line HERNDON 115-PNDLJ2 115 #1 : Open Xfmr HERNDON 115/HERNDN1M 115 #1 :	BULLARD -PNDLJ1 115.00kV Ckt#1 Sec# 1	743.02	Amps	148.5	148.5	0.0
lbs-dl-ns*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	152.8	153.6	0.8
58	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Open Line HELM 230-MC CALL 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	143.0	143.9	1.0
71	Open Line HERNDON 230-GREGG 230 #1 : Open Line HERNDON 230-KEARNEY 230 #1 : Open Xfmr HERNDON 230/HERNDN1M 115 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	142.3	143.1	0.8
lbn-dl-ns*	Los Banos - Tesla & Los Banos - Tracy 500-kV DLO	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	141.7	142.5	0.8
16	Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	140.5	141.4	0.9
57	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 20.6 MW 4.1 MVAR D : Open Line PANOCHE 230-HELM 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	140.5	141.4	0.9
70	Open Line KEARNEY 230-MCMULLN1 230 #1 : Open Line KEARNEY 230-HERNDON 230 #1 : Open Xfmr KEARNEY 230/KEARNEY 70 #2 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	139.8	140.6	0.8



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
62	Open Line KEARNEY 230-HERNDON 230 #1 : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	139.2	139.9	0.8
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	139.0	139.9	1.0
75	Open Line ASHLAN 230-FGRDN T1 230 #1 : Open Line ASHLAN 230-FGRDN T2 230 #1 : Drop Load at ASHLAN 230 #1 : 70 MW 13.5 MVAR Drop : Drop Load at ASHLAN 230 #2 : 65.3 MW 12.9 MVAR Dr : Drop Load at ASHLAN 230 #3 : 66.3 MW 12.6 MVAR Dr :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	137.7	138.3	0.6
19	Open Line PANOCHE 230-COBURN 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #2 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line PANOCHE 230-GATES 230 #1 : Open Xfmr PANOCHE 230/PNCHE 1M 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	136.5	137.3	0.8
47	Open Line PNDLJ1 115-BULLARD 115 #1 : Open Line PNDLJ1 115-HERNDON 115 #1 : Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 31.1 MW 6.3 MVAR Dro : Drop Load at PNEDLE 115 #3 : 40.9 MW 8.2 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	136.5	137.1	0.7
17	Open Line LOSBANOS 230-WESTLEY 230 #1 : Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line LOSBANOS 230-SN LS PP 230 #1 : Open Line LOSBANOS 230-SN LS PP 230 #2 : Open Xfmr LOSBANOS 230/LOS BANS 70 #3 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	136.0	136.7	0.7
104	Open Line BULLARD 115-PNDLJ2 115 #1 : Open Line BULLARD 115-PNDLJ1 115 #1 : Drop Load at BULLARD 115 #1 : 45.4 MW 9.2 MVAR Dr : Drop Load at BULLARD 115 #2 : 45.2 MW 9.1 MVAR Dr : Drop Load at BULLARD 115 #3 : 43 MW 8.7 MVAR Drop :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	132.9	133.5	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
7	Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line DS AMIGO 230-PANOCHE 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.8	132.5	0.7
24	Open Line LE GRAND 115-CERTAN T 115 #1 : Open Line LE GRAND 115-EXCHEQUR 115 #1 : Open Line LE GRAND 115-WILSON A 115 #1 : Open Line LE GRAND 115-DAIRYLND 115 #1 : Drop Load at LE GRAND 115 #1 : 13.6 MW 2.7 MVAR D :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.8	132.5	0.7
103	Open Line WOODWARD 115-WWARD JT 115 #1 : Open Line WOODWARD 115-CHLDHOSP 115 #1 : Drop Load at WOODWARD 115 #1 : 42.7 MW 8.6 MVAR D : Drop Load at WOODWARD 115 #2 : 53.3 MW 10.8 MVAR : Drop Load at WOODWARD 115 #3 : 44.6 MW 9 MVAR Dro :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.4	132.1	0.6
18	Open Line LOSBANOS 230-PANOCHE 230 #1 : Open Line LOSBANOS 230-DS AMIGO 230 #1 : Open Xfmr LOSBANOS 230/LOS BANS 70 #4 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.2	131.9	0.7
76	Open Line HELM 230-PANOCHE 230 #1 : Open Line HELM 230-MC CALL 230 #1 : Open Xfmr HELM 230/HELM 70 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.1	131.8	0.8
54	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line DANISHCM 115-MC CALL 115 #1 : Open Line DANISHCM 115-CAL AVE 115 #1 : Drop Load at DANISHCM 115 #1 : 4.1 MW 3.5 MVAR Dr :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.9	131.6	0.7
6	Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line LOSBANOS 230-DS AMIGO 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.8	131.5	0.7
25	Open Line WILSON A 115-LE GRAND 115 #1 : Open Line WILSON A 115-ATWATER 115 #1 : Open Line WILSON A 115-WILSON B 115 #1 : Open Line WILSON A 115-MERCED 115 #1 : Open Xfmr WILSON A 115/WILSON 230 #1 : Drop Load at WILSON A 115 #3 : 18.9 MW 3.8 MVAR D :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.7	131.4	0.7
73	Open Line FIGRDN 1 230-FGRDN T1 230 #1 : Drop Load at FIGRDN 1 230 #1 : 74.3 MW 15 MVAR Dr :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.5	131.1	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
117	Open Line KEARNEY 70-FRWWTAP 70 #1 : Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line KEARNEY 70-CARUTHRS 70 #1 : Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.2	130.9	0.6
83	Open Line GATES 230-HENTAP1 230 #1 : Open Line GATES 230-ARCO 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.6	130.9	1.2
23	Open Line EXCHEQUR 115-LE GRAND 115 #1 : Open Xfmr EXCHEQUR 115/EXCHQ RTP 115 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.1	130.8	0.7
98	Open Line BARTON 115-AIRWAYJ2 115 #1 : Open Line BARTON 115-HERNDON 115 #1 : Drop Load at BARTON 115 #1 : 43.8 MW 8.8 MVAR Dro : Drop Load at BARTON 115 #2 : 37.6 MW 7.6 MVAR Dro : Drop Load at BARTON 115 #3 : 27.3 MW 5.5 MVAR Dro :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.9	130.5	0.6
102	Open Line PNEDLE 115-PNDLJ2 115 #1 : Drop Load at PNEDLE 115 #2 : 31.1 MW 6.3 MVAR Dro : Drop Load at PNEDLE 115 #3 : 40.9 MW 8.2 MVAR Dro :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.7	130.4	0.7
101	Open Line HERNDON 115-MANCHSTR 115 #1 : Open Line HERNDON 115-PNDLJ1 115 #1 : Open Line HERNDON 115-CHLDHOSP 115 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.7	130.3	0.6
99	Open Line MANCHSTR 115-AIRWAYJ1 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 : Drop Load at MANCHSTR 115 #1 : 25.6 MW 5.1 MVAR D : Drop Load at MANCHSTR 115 #2 : 25.8 MW 5.2 MVAR D : Drop Load at MANCHSTR 115 #3 : 36.6 MW 7.4 MVAR D :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.6	130.2	0.6
30	Open Line PANOCHE 115-CHENYT 115 #1 : Open Line PANOCHE 115-PANOCHEJ 115 #1 : Open Xfmr PANOCHE 115/PANOCHE 230 #2 : Open Xfmr PANOCHE 115/DG_PAN1 13.8 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.5	130.2	0.7
74	Open Line FIGRDN 2 230-FGRDN T2 230 #1 : Drop Load at FIGRDN 2 230 #1 : 53.2 MW 10.7 MVAR :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.1	129.8	0.7
15	Open Line MOSSLND2 230-PANOCHE 230 #1 : Open Line COBURN 230-PANOCHE 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.2	129.7	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
89	Open Line CLOVIS-2 115-CLOVISJ2 115 #1 : Drop Load at CLOVIS-2 115 #3 : 45.3 MW 9.1 MVAR D :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.0	129.6	0.7
84	Open Line GATES 230-HENTAP2 230 #1 : Open Line GATES 230-MIDWAY 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.6	129.4	0.7
40	Open Line MADERA 70-TRIGO 70 #1 : Open Line MADERA 70-BORDEN 70 #1 : Open Line MADERA 70-BORDEN 70 #2 : Drop Load at MADERA 70 #1 : 18.2 MW 3.7 MVAR Drop : Drop Load at MADERA 70 #2 : 23.4 MW 4.7 MVAR Drop :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.7	129.4	0.7
96	Open Line CAL AVE 115-DANISHCM 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 : Drop Load at CAL AVE 115 #1 : 29.3 MW 5.9 MVAR Dr : Drop Load at CAL AVE 115 #2 : 31.6 MW 6.4 MVAR Dr : Drop Load at CAL AVE 115 #3 : 24.7 MW 5 MVAR Drop :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.6	129.2	0.7
86	Open Line KERCKHF2 115-K1-JCT 115 #2 : Open Line KERCKHF2 115-KERCKHF1 115 #1 : Open Line KERCKHF2 115-WWARD JT 115 #1 : Open Line KERCKHF2 115-CLOVISJ2 115 #1 : Open Xfmr KERCKHF2 115/KERCKHOF 13.8 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.5	129.2	0.7
53	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.3	129.0	0.6
97	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line WST FRSO 115-CAL AVE 115 #1 : Drop Load at WST FRSO 115 #1 : 38 MW 7.7 MVAR Dro : Drop Load at WST FRSO 115 #2 : 39.5 MW 8 MVAR Dro :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.3	129.0	0.6
72	Open Line HERNDON 230-GREGG 230 #2 : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Xfmr HERNDON 230/HERNDN2M 115 #2 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.2	128.9	0.6
100	Open Line HERNDON 115-BARTON 115 #1 : Open Line HERNDON 115-PNDLJ2 115 #1 : Open Xfmr HERNDON 115/HERNDN1M 115 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.2	128.8	0.6
87	Open Line AIRWAYS 115-AIRWAYJ1 115 #1 : Open Line AIRWAYS 115-AIRWAYJ2 115 #1 : Drop Load at AIRWAYS 115 #1 : 38.8 MW 7.5 MVAR Dr : Drop Load at AIRWAYS 115 #2 : 12.7 MW 2.5 MVAR Dr :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.0	128.7	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
20	Open Line PANOCHE 230-MOSSLND2 230 #1 : Open Line PANOCHE 230-PANO_EC 230 #1 : Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-GATES 230 #2 : Open Line PANOCHE 230-DS AMIGO 230 #1 : Open Xfmr PANOCHE 230/PANOCHE 115 #2 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	127.9	128.7	0.7
106	Open Line KINGSBRG 115-CORCORAN 115 #1 : Open Line KINGSBRG 115-GAURD J1 115 #1 : Open Xfmr KINGSBRG 115/KNGLOBUS 70 #2 : Drop Load at KINGSBRG 115 #3 : 33 MW 6.6 MVAR Dro :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	127.9	128.6	0.7
45	Open Line BARTON 115-HERNDON 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	127.9	128.5	0.5
88	Open Line CLOVIS-1 115-CLOVISJ1 115 #1 : Drop Load at CLOVIS-1 115 #1 : 51.6 MW 10.4 MVAR :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	127.8	128.5	0.7
121	Open Line REEDLEY 70-TVY VLLY 70 #1 : Open Line REEDLEY 70-PARLIER 70 #1 : Open Line REEDLEY 70-DNUBAJCT 70 #1 : Open Line REEDLEY 70-ORSI JCT 70 #1 : Open Xfmr REEDLEY 70/REEDLEY 115 #1 : Open Xfmr REEDLEY 70/REEDLEY 115 #2 : Drop Load at REEDLEY 70 #1 : 17.6 MW 3.5 MVAR Dro :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	127.5	128.2	0.6
124	Open Line LEMOORE 70-LPRNO TP 70 #1 : Drop Load at LEMOORE 70 #1 : 19.1 MW 3.8 MVAR Dro : Drop Load at LEMOORE 70 #2 : 33.2 MW 6.7 MVAR Dro :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	127.4	127.9	0.5
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	BELRIDGE-MIDWAY 115.00kV Ckt#1 Sec# 1	743.02	Amps	127.8	127.8	0.0
1	Open Line WILSON A 115-ATWATER 115 #1 : Open Line WILSON B 115-EL CAPTN 115 #1 :	ATWATR J-MERCED 115.00kV Ckt#1 Sec# 1	738	Amps	162.0	162.1	0.1
61	Open Line GREGG 230-HERNDON 230 #1 : Drop Generator at HELMS 3 18 #** : 404 MW Dropped : Open Line GREGG 230-HERNDON 230 #2 :	ASHLAN -FGRDN T2 230.00kV Ckt#1 Sec# 1	849.96	Amps	158.9	158.5	-0.4

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
<b>2013 Summer Off-Peak</b>							
44	Open Line AIRWAYJ2 115-AIRWAYS 115 #1 : Open Line AIRWAYJ2 115-BARTON 115 #1 : Open Line AIRWAYJ2 115-SANGER 115 #1 : Open Line AIRWAYJ1 115-AIRWAYS 115 #1 : Open Line AIRWAYJ1 115-LASPALMS 115 #1 : Open Line AIRWAYJ1 115-MANCHSTR 115 #1 : Open Line LASPALMS 115-SANGER 115 #1 : Drop Load at LASPALMS 115 #1 : 10.5 MW 8.9 MVAR D :	WWARD JT-WOODWARD 115.00kV Ckt#1 Sec# 1	973.96	Amps	115.3	116.3	1.0
46	Open Line BARTON 115-HERNDON 115 #1 : Open Line AIRWAYJ1 115-AIRWAYS 115 #1 : Open Line AIRWAYJ1 115-LASPALMS 115 #1 : Open Line AIRWAYJ1 115-MANCHSTR 115 #1 : Open Line LASPALMS 115-SANGER 115 #1 : Drop Load at LASPALMS 115 #1 : 10.5 MW 8.9 MVAR D :	WWARD JT-WOODWARD 115.00kV Ckt#1 Sec# 1	973.96	Amps	104.8	105.7	1.0
9	Open Line BELLOTA 230-COTTLE A 230 #1 : Open Line COTTLE A 230-MELONES 230 #1 : Drop Load at COTTLE A 230 #1 : 12.7 MW 0.5 MVAR D : Open Line BELLOTA 230-COTTLE B 230 #1 : Open Line COTTLE B 230-WARNERVL 230 #1 : Drop Load at COTTLE B 230 #2 : 14.6 MW 0.6 MVAR D :	WRNRVLE-WARNERVL 115.00/ 230.00kV Bk#3	75	MVA	104.6	105.3	0.7
9	Open Line BELLOTA 230-COTTLE A 230 #1 : Open Line COTTLE A 230-MELONES 230 #1 : Drop Load at COTTLE A 230 #1 : 12.7 MW 0.5 MVAR D : Open Line BELLOTA 230-COTTLE B 230 #1 : Open Line COTTLE B 230-WARNERVL 230 #1 : Drop Load at COTTLE B 230 #2 : 14.6 MW 0.6 MVAR D :	WRNRVLE-WARNERVL 115.00/ 230.00kV Bk#2	75	MVA	104.6	105.3	0.7
9	Open Line BELLOTA 230-COTTLE A 230 #1 : Open Line COTTLE A 230-MELONES 230 #1 : Drop Load at COTTLE A 230 #1 : 12.7 MW 0.5 MVAR D : Open Line BELLOTA 230-COTTLE B 230 #1 : Open Line COTTLE B 230-WARNERVL 230 #1 : Drop Load at COTTLE B 230 #2 : 14.6 MW 0.6 MVAR D :	WRNRVLE-WARNERVL 115.00/ 230.00kV Bk#1	150	MVA	104.6	105.3	0.7
lbs_dlo_5400*	Los Banos - Gates & Los Banos - Midway 500-kV DLO w/ Path IRAS	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	106.9	108.0	1.1
lbs_dlo_5400*	Los Banos - Gates & Los Banos - Midway 500-kV DLO w/ Path IRAS	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	127.1	127.9	0.8
60	Open Line GREGG 230-HELMS PP 230 #1 : Drop Generator at HELMS 2 18 #** : -310 MW Dropped : Open Line GREGG 230-HELMS PP	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	125.0	125.6	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
	230 #2 :						
69	Open Line HELMS PP 230-GREGG 230 #1 : Open Line HELMS PP 230-GREGG 230 #2 : Open Xfmr HELMS PP 230/HELMS 1 18 #1 : Open Xfmr HELMS PP 230/HELMS 2 18 #1 : Open Xfmr HELMS PP 230/HELMS 3 18 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	125.0	125.6	0.7
lbn_dlo_5400*	Los Banos - Tesla & Los Banos - Tracy 500-kV DLO w/ Path IRAS	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	122.1	122.9	0.8
14	Open Line BORDEN 230-GREGG 230 #1 : Open Line BORDEN 230-GREGG 230 #2 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.6	116.9	0.3
58	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 9.3 MW 1.8 MVAR Dr : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Open Line HELM 230-MC CALL 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	115.0	115.9	0.9
16	Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 9.3 MW 1.8 MVAR Dr : Drop Generator at HELMS 1 18 #** : -310 MW Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	113.7	114.5	0.9
57	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 9.3 MW 1.8 MVAR Dr : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Open Line PANOCHE 230-HELM 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	113.7	114.5	0.9
62	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 33.6 MW 6.8 MVAR D : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.7	111.5	0.8
11	Open Line BELLOTA 230-COTTLE A 230 #1 : Open Line COTTLE A 230-MELONES 230 #1 : Drop Load at COTTLE A 230 #1 : 12.7 MW 0.5 MVAR D : Open Line MELONES 230-WILSON 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.7	109.5	0.8

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
55	Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Close Line HENTAP2 230-HENRIETA 230 #1 : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.1	106.1	1.0
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.4	104.3	0.9
65	Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 33.6 MW 6.8 MVAR D : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 : Open Line GREGG 230-FGRDN T2 230 #1 : Open Line FGRDN T2 230-FIGRDN 2 230 #1 : Open Line FGRDN T2 230-ASHLAN 230 #1 : Drop Load at FIGRDN 2 230 #1 : 24.1 MW 4.8 MVAR D :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.0	102.6	0.7
64	Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Close Line HENTAP2 230-HENRIETA 230 #1 : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Open Line GREGG 230-FGRDN T2 230 #1 : Open Line FGRDN T2 230-FIGRDN 2 230 #1 : Open Line FGRDN T2 230-ASHLAN 230 #1 : Drop Load at FIGRDN 2 230 #1 : 24.1 MW 4.8 MVAR D :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.6	101.2	0.6
15	Open Line MOSSLND2 230-PANOCHE 230 #1 : Open Line COBURN 230-PANOCHE 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.1	100.8	0.7
7	Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line DS AMIGO 230-PANOCHE 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.9	100.6	0.7



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
90	Open Line SANGER 115-CLOVISJ1 115 #1 : Open Line SANGER 115-CLOVISJ2 115 #1 : Open Line SANGER 115-AIRWAYJ2 115 #1 : Open Line SANGER 115-LASPALMS 115 #1 : Open Line SANGER 115-MC CALL 115 #1 : Open Line SANGER 115-MC CALL 115 #2 : Open Line SANGER 115-MC CALL 115 #3 : Open Line SANGER 115-MALAGA 115 #1 : Open Line SANGER 115-RAINBWTP 115 #1 : Open Line SANGER 115-PIEDRA 2 115 #1 :	TVY VLLY-COPPRMNE 70.00kV Ckt#1 Sec# 1	297.75	Amps	130.4	131.9	1.5
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	TORNADO -COLNGA 2 70.00kV Ckt#1 Sec# 1	377.75	Amps	103.9	103.8	0.0
82	Open Line GATES 230-PANOCHE 230 #2 : Open Line GATES 230-MORROBAY 230 #1 :	TEMPLETN-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	108.2	108.0	-0.2
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	TEMBLOR -BELRIDGE 115.00kV Ckt#1 Sec# 1	743.02	Amps	103.7	103.7	0.0
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	SN LS OB-Q238TAP 115.00kV Ckt#1 Sec# 1	436.78	Amps	120.1	120.1	0.0
52	Open Line SANGER 115-MC CALL 115 #1 : Open Line SANGER 115-MC CALL 115 #2 :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	973.96	Amps	173.8	175.2	1.4
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	973.96	Amps	134.4	136.1	1.7
76	Open Line HELM 230-PANOCHE 230 #1 : Open Line HELM 230-MC CALL 230 #1 : Open Xfmr HELM 230/HELM 70 #1 :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	973.96	Amps	110.9	111.9	1.1
20	Open Line PANOCHE 230-MOSSLND2 230 #1 : Open Line PANOCHE 230-PANO_EC 230 #1 : Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-GATES 230 #2 : Open Line PANOCHE 230-DS AMIGO 230 #1 : Open Xfmr PANOCHE 230/PANOCHE 115 #2 :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	973.96	Amps	107.8	108.8	1.0
14	Open Line BORDEN 230-GREGG 230 #1 : Open Line BORDEN 230-GREGG 230 #2 :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	973.96	Amps	101.3	101.9	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
19	Open Line PANOCHE 230-COBURN 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #2 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line PANOCHE 230-GATES 230 #1 : Open Xfmr PANOCHE 230/PNCHE 1M 230 #1 :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	973.96	Amps	100.4	101.1	0.7
93	Open Line REEDLEY 115-GERAWAN 115 #1 : Open Line REEDLEY 115-PIEDRA 1 115 #1 : Open Xfmr REEDLEY 115/REEDLEY 70 #1 : Open Xfmr REEDLEY 115/REEDLEY 70 #2 : Drop Load at REEDLEY 115 #3 : 12 MW 2.4 MVAR Drop :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	973.96	Amps	99.3	100.1	0.8
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	SANGER -MC CALL 115.00kV Ckt#2 Sec# 1	1124.58	Amps	99.2	100.4	1.3
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	SANGER -MC CALL 115.00kV Ckt#1 Sec# 1	1124.58	Amps	99.2	100.4	1.3
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	SANGER -LASPALMS 115.00kV Ckt#1 Sec# 1	1124.58	Amps	119.9	121.6	1.6
48	Open Line KERCKHF2 115-WWARD JT 115 #1 : Open Line WWARD JT 115-WOODWARD 115 #1 : Open Line WWARD JT 115-CLOVISJ1 115 #1 : Open Line CLOVISJ1 115-CLOVIS-1 115 #1 : Open Line CLOVISJ1 115-SANGER 115 #1 : Drop Load at CLOVIS-1 115 #1 : 23.4 MW 4.7 MVAR D : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 : Open Line CLOVIS-2 115-CLOVISJ2 115 #1 :	SANGER -LASPALMS 115.00kV Ckt#1 Sec# 1	1124.58	Amps	103.4	104.2	0.9
46	Open Line BARTON 115-HERNDON 115 #1 : Open Line AIRWAYJ1 115-AIRWAYS 115 #1 : Open Line AIRWAYJ1 115-LASPALMS 115 #1 : Open Line AIRWAYJ1 115-MANCHSTR 115 #1 : Open Line LASPALMS 115-SANGER 115 #1 : Drop Load at LASPALMS 115 #1 : 10.5 MW 8.9 MVAR D :	SANGER -CLOVISJ1 115.00kV Ckt#1 Sec# 1	973.96	Amps	99.8	100.7	0.9
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	SANGER -AIRWAYJ2 115.00kV Ckt#1 Sec# 1	1124.58	Amps	118.6	120.2	1.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
48	Open Line KERCKHF2 115-WWARD JT 115 #1 : Open Line WWARD JT 115-WOODWARD 115 #1 : Open Line WWARD JT 115-CLOVISJ1 115 #1 : Open Line CLOVISJ1 115-CLOVIS-1 115 #1 : Open Line CLOVISJ1 115-SANGER 115 #1 : Drop Load at CLOVIS-1 115 #1 : 23.4 MW 4.7 MVAR D : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 : Open Line CLOVIS-2 115-CLOVISJ2 115 #1 :	SANGER -AIRWAYJ2 115.00kV Ckt#1 Sec# 1	1124.58	Amps	102.1	103.0	0.9
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	SAN MIGL-COLNGA 1 70.00kV Ckt#1 Sec# 1	346.41	Amps	134.7	134.5	-0.2
90	Open Line SANGER 115-CLOVISJ1 115 #1 : Open Line SANGER 115-CLOVISJ2 115 #1 : Open Line SANGER 115-AIRWAYJ2 115 #1 : Open Line SANGER 115-LASPALMS 115 #1 : Open Line SANGER 115-MC CALL 115 #1 : Open Line SANGER 115-MC CALL 115 #2 : Open Line SANGER 115-MC CALL 115 #3 : Open Line SANGER 115-MALAGA 115 #1 : Open Line SANGER 115-RAINBWTP 115 #1 : Open Line SANGER 115-PIEDRA 2 115 #1 :	RIVERROC-CASSIDY 70.00kV Ckt#1 Sec# 1	437.14	Amps	99.8	100.6	0.8
90	Open Line SANGER 115-CLOVISJ1 115 #1 : Open Line SANGER 115-CLOVISJ2 115 #1 : Open Line SANGER 115-AIRWAYJ2 115 #1 : Open Line SANGER 115-LASPALMS 115 #1 : Open Line SANGER 115-MC CALL 115 #1 : Open Line SANGER 115-MC CALL 115 #2 : Open Line SANGER 115-MC CALL 115 #3 : Open Line SANGER 115-MALAGA 115 #1 : Open Line SANGER 115-RAINBWTP 115 #1 : Open Line SANGER 115-PIEDRA 2 115 #1 :	REEDLEY -TVY VLLY 70.00kV Ckt#1 Sec# 1	297.75	Amps	141.5	143.0	1.5
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q239SWST-Q166 230.00kV Ckt#2 Sec# 1	976.48	Amps	129.5	129.6	0.0
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q239SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	129.5	129.6	0.0
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q239SWST-MORROBAY 230.00kV Ckt#2 Sec# 1	976.48	Amps	129.5	129.6	0.0
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q239SWST-MORROBAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	129.5	129.6	0.0

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q238TAP -CARRIZO 115.00kV Ckt#1 Sec# 1	436.78	Amps	119.6	119.6	0.0
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	129.5	129.6	0.0
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	129.5	129.6	0.0
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	129.5	129.5	0.0
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	PSA RBLs-SAN MIGL 70.00kV Ckt#1 Sec# 1	346.41	Amps	144.6	144.3	-0.2
81	Open Line GATES 230-PANOCHE 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 : Open Xfmr GATES 230/GATES 1M 230 #1 :	PSA RBLs-SAN MIGL 70.00kV Ckt#1 Sec# 1	346.41	Amps	102.1	102.0	-0.1
18	Open Line LOSBANOS 230-PANOCHE 230 #1 : Open Line LOSBANOS 230-DS AMIGO 230 #1 : Open Xfmr LOSBANOS 230/LOS BANS 70 #4 :	PANOCHE -LOSBANOS 230.00kV Ckt#2 Sec# 1	849.96	Amps	105.4	106.2	0.8
lbs_dlo_5400*	Los Banos - Gates & Los Banos - Midway 500-kV DLO w/ Path IRAS	PANOCHE -LOSBANOS 230.00kV Ckt#2 Sec# 1	849.96	Amps	104.7	105.3	0.6
7	Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line DS AMIGO 230-PANOCHE 230 #1 :	PANOCHE -LOSBANOS 230.00kV Ckt#1 Sec# 1	974.97	Amps	104.6	105.3	0.8
19	Open Line PANOCHE 230-COBURN 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #2 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line PANOCHE 230-GATES 230 #1 : Open Xfmr PANOCHE 230/PNCHE 1M 230 #1 :	PANOCHE -DS AMIGO 230.00kV Ckt#1 Sec# 1	849.96	Amps	125.3	126.1	0.8
lbs_dlo_5400*	Los Banos - Gates & Los Banos - Midway 500-kV DLO w/ Path IRAS	PANOCHE -DS AMIGO 230.00kV Ckt#1 Sec# 1	849.96	Amps	106.2	106.9	0.6
81	Open Line GATES 230-PANOCHE 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 : Open Xfmr GATES 230/GATES 1M 230 #1 :	MORROBAY-GATES 230.00kV Ckt#1 Sec# 1	974.97	Amps	110.3	110.2	-0.2

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
79	Open Line MC CALL 230-HELM 230 #1 : Open Line MC CALL 230-BALCH3TP 230 #1 : Open Line MC CALL 230-Q128 230 #2 : Open Xfmr MC CALL 230/MCCALL1M 115 #1 : Open Xfmr MC CALL 230/MCCALL3M 115 #3 :	MCCALL2M-MC CALL 115.00/ 115.00kV Bk#2	465	MVA	117.2	116.1	-1.1
55	Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Close Line HENTAP2 230-HENRIETA 230 #1 : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	MC CALL -SANGER 115.00kV Ckt#3 Sec# 1	973.96	Amps	107.6	109.5	1.9
58	Open Line PANOCHÉ 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 9.3 MW 1.8 MVAR Dr : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Open Line HELM 230-MC CALL 230 #1 :	MC CALL -SANGER 115.00kV Ckt#3 Sec# 1	973.96	Amps	103.1	104.0	1.0
56	Open Line PANOCHÉ 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 9.3 MW 1.8 MVAR Dr : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Close Line HENTAP2 230-HENRIETA 230 #1 :	MC CALL -SANGER 115.00kV Ckt#3 Sec# 1	973.96	Amps	103.1	104.0	0.9
91	Open Line MALAGA 115-SANGER 115 #1 : Open Line MALAGA 115-PPG 115 #1 : Open Line MALAGA 115-MALAGATP 115 #1 : Open Line MALAGA 115-KRCDDP 115 #1 : Drop Load at MALAGA 115 #1 : 11.6 MW 2.3 MVAR Dro : Drop Load at MALAGA 115 #2 : 10.4 MW 2.1 MVAR Dro : Drop Load at MALAGA 115 #3 : 10.6 MW 2.1 MVAR Dro :	MC CALL -SANGER 115.00kV Ckt#3 Sec# 1	973.96	Amps	102.4	103.3	0.8
94	Open Line WAHTOKE 115-MC CALL 115 #1 : Open Line WAHTOKE 115-GERAWAN 115 #1 : Drop Load at WAHTOKE 115 #2 : 13.9 MW 2.8 MVAR Dr : Drop Load at WAHTOKE 115 #3 : 9.5 MW 1.9 MVAR Dro :	MC CALL -SANGER 115.00kV Ckt#3 Sec# 1	973.96	Amps	102.1	102.9	0.8

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
63	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at HELMS 1 18 #**:-310 MW Dropped : Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Close Line HENTAP2 230-HENRIETA 230 #1 :	MC CALL -SANGER 115.00kV Ckt#3 Sec# 1	973.96	Amps	100.0	100.9	0.9
79	Open Line MC CALL 230-HELM 230 #1 : Open Line MC CALL 230-BALCH3TP 230 #1 : Open Line MC CALL 230-Q128 230 #2 : Open Xfmr MC CALL 230/MCCALL1M 115 #1 : Open Xfmr MC CALL 230/MCCALL3M 115 #3 :	MC CALL -MCCALL2M 230.00/ 115.00kV Bk#2	465	MVA	118.4	117.3	-1.1
90	Open Line SANGER 115-CLOVISJ1 115 #1 : Open Line SANGER 115-CLOVISJ2 115 #1 : Open Line SANGER 115-AIRWAYJ2 115 #1 : Open Line SANGER 115-LASPALMS 115 #1 : Open Line SANGER 115-MC CALL 115 #1 : Open Line SANGER 115-MC CALL 115 #2 : Open Line SANGER 115-MC CALL 115 #3 : Open Line SANGER 115-MALAGA 115 #1 : Open Line SANGER 115-RAINBWTP 115 #1 : Open Line SANGER 115-PIEDRA 2 115 #1 :	MC CALL -HELM 230.00kV Ckt#1 Sec# 1	849.96	Amps	148.4	150.3	1.9
55	Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Close Line HENTAP2 230-HENRIETA 230 #1 : Drop Generator at HELMS 1 18 #**:-310 MW Dropped : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	MC CALL -HELM 230.00kV Ckt#1 Sec# 1	849.96	Amps	109.5	112.9	3.4
44	Open Line AIRWAYJ2 115-AIRWAYS 115 #1 : Open Line AIRWAYJ2 115-BARTON 115 #1 : Open Line AIRWAYJ2 115-SANGER 115 #1 : Open Line AIRWAYJ1 115-AIRWAYS 115 #1 : Open Line AIRWAYJ1 115-LASPALMS 115 #1 : Open Line AIRWAYJ1 115-MANCHSTR 115 #1 : Open Line LASPALMS 115-SANGER 115 #1 : Drop Load at LASPALMS 115 #1 : 10.5 MW 8.9 MVAR D :	MC CALL -HELM 230.00kV Ckt#1 Sec# 1	849.96	Amps	107.8	109.3	1.5
lbs_dlo_5400*	Los Banos - Gates & Los Banos - Midway 500-kV DLO w/ Path IRAS	MC CALL -HELM 230.00kV Ckt#1 Sec# 1	849.96	Amps	106.4	107.8	1.4

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
46	Open Line BARTON 115-HERNDON 115 #1 : Open Line AIRWAYJ1 115-AIRWAYS 115 #1 : Open Line AIRWAYJ1 115-LASPALMS 115 #1 : Open Line AIRWAYJ1 115-MANCHSTR 115 #1 : Open Line LASPALMS 115-SANGER 115 #1 : Drop Load at LASPALMS 115 #1 : 10.5 MW 8.9 MVAR D :	MC CALL -HELM 230.00kV Ckt#1 Sec# 1	849.96	Amps	102.0	103.6	1.5
5	Open Line PANOCHE 230-GATES 230 #1 : Open Line PANOCHE 230-GATES 230 #2 :	MC CALL -HELM 230.00kV Ckt#1 Sec# 1	849.96	Amps	100.2	101.6	1.3
52	Open Line SANGER 115-MC CALL 115 #1 : Open Line SANGER 115-MC CALL 115 #2 :	MALAGATP-ULTPWRJ 115.00kV Ckt#1 Sec# 1	743.02	Amps	102.5	103.1	0.7
lbn_dlo_5400*	Los Banos - Tesla & Los Banos - Tracy 500-kV DLO w/ Path IRAS	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	184.4	185.3	0.9
10	Open Line BELLOTA 230-COTTLE A 230 #1 : Open Line COTTLE A 230-MELONES 230 #1 : Drop Load at COTTLE A 230 #1 : 12.7 MW 0.5 MVAR D : Open Line WARNERVL 230-WILSON 230 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	120.2	120.9	0.7
60	Open Line GREGG 230-HELMS PP 230 #1 : Drop Generator at HELMS 2 18 #** : -310 MW Dropped : Open Line GREGG 230-HELMS PP 230 #2 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	117.8	118.3	0.5
69	Open Line HELMS PP 230-GREGG 230 #1 : Open Line HELMS PP 230-GREGG 230 #2 : Open Xfmr HELMS PP 230/HELMS 1 18 #1 : Open Xfmr HELMS PP 230/HELMS 2 18 #1 : Open Xfmr HELMS PP 230/HELMS 3 18 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	117.8	118.3	0.5
12	Open Line MELONES 230-WILSON 230 #1 : Open Line WARNERVL 230-WILSON 230 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	116.5	117.1	0.7
56	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 9.3 MW 1.8 MVAR Dr : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Close Line HENTAP2 230-HENRIETA 230 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	115.1	115.6	0.5
15	Open Line MOSSLND2 230-PANOCHE 230 #1 : Open Line COBURN 230-PANOCHE 230 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	114.1	114.7	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
63	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at HELMS 1 18 #**:-310 MW Dropped : Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Close Line HENTAP2 230-HENRIETA 230 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	113.8	114.3	0.5
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 15 MW 3 MVAR Dropp : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 16.8 MW 3.4 MVAR D :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	113.6	114.2	0.6
55	Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Close Line HENTAP2 230-HENRIETA 230 #1 : Drop Generator at HELMS 1 18 #**:-310 MW Dropped : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	112.9	113.3	0.5
64	Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Close Line HENTAP2 230-HENRIETA 230 #1 : Drop Generator at HELMS 1 18 #**:-310 MW Dropped : Open Line GREGG 230-FGRDN T2 230 #1 : Open Line FGRDN T2 230-FGRDN 2 230 #1 : Open Line FGRDN T2 230-ASHLAN 230 #1 : Drop Load at FIGRDN 2 230 #1 : 24.1 MW 4.8 MVAR D :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	112.7	113.2	0.5
9	Open Line BELLOTA 230-COTTLE A 230 #1 : Open Line COTTLE A 230-MELONES 230 #1 : Drop Load at COTTLE A 230 #1 : 12.7 MW 0.5 MVAR D : Open Line BELLOTA 230-COTTLE B 230 #1 : Open Line COTTLE B 230-WARNERVL 230 #1 : Drop Load at COTTLE B 230 #2 : 14.6 MW 0.6 MVAR D :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	111.7	112.3	0.5
62	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at HELMS 1 18 #**:-310 MW Dropped : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 33.6 MW 6.8 MVAR D : Close Line FIGRDN 1 230-FGRDN 2 230 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	111.7	112.2	0.5



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
90	Open Line SANGER 115-CLOVISJ1 115 #1 : Open Line SANGER 115-CLOVISJ2 115 #1 : Open Line SANGER 115-AIRWAYJ2 115 #1 : Open Line SANGER 115-LASPALMS 115 #1 : Open Line SANGER 115-MC CALL 115 #1 : Open Line SANGER 115-MC CALL 115 #2 : Open Line SANGER 115-MC CALL 115 #3 : Open Line SANGER 115-MALAGA 115 #1 : Open Line SANGER 115-RAINBWTP 115 #1 : Open Line SANGER 115-PIEDRA 2 115 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	109.5	110.1	0.5
65	Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 33.6 MW 6.8 MVAR D : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 : Open Line GREGG 230-FGRDN T2 230 #1 : Open Line FGRDN T2 230-FIGRDN 2 230 #1 : Open Line FGRDN T2 230-ASHLAN 230 #1 : Drop Load at FIGRDN 2 230 #1 : 24.1 MW 4.8 MVAR D :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	109.1	109.6	0.5
16	Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 9.3 MW 1.8 MVAR Dr : Drop Generator at HELMS 1 18 #** : -310 MW Dropped :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	108.9	109.4	0.4
57	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 9.3 MW 1.8 MVAR Dr : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Open Line PANOCHE 230-HELM 230 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	108.9	109.4	0.4
70	Open Line KEARNEY 230-MCMULLN1 230 #1 : Open Line KEARNEY 230-HERNDON 230 #1 : Open Xfmr KEARNEY 230/KEARNEY 70 #2 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	108.8	109.2	0.5
44	Open Line AIRWAYJ2 115-AIRWAYS 115 #1 : Open Line AIRWAYJ2 115-BARTON 115 #1 : Open Line AIRWAYJ2 115-SANGER 115 #1 : Open Line AIRWAYJ1 115-AIRWAYS 115 #1 : Open Line AIRWAYJ1 115-LASPALMS 115 #1 : Open Line AIRWAYJ1 115-MANCHSTR 115 #1 : Open Line LASPALMS 115-SANGER 115 #1 : Drop Load at LASPALMS 115 #1 : 10.5 MW 8.9 MVAR D :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	108.2	108.7	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
47	Open Line PNDLJ1 115-BULLARD 115 #1 : Open Line PNDLJ1 115-HERNDON 115 #1 : Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 14.1 MW 2.8 MVAR Dro : Drop Load at PNEDLE 115 #3 : 18.5 MW 3.7 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	108.1	108.6	0.5
75	Open Line ASHLAN 230-FGRDN T1 230 #1 : Open Line ASHLAN 230-FGRDN T2 230 #1 : Drop Load at ASHLAN 230 #1 : 31.7 MW 6.1 MVAR Dro : Drop Load at ASHLAN 230 #2 : 29.5 MW 5.8 MVAR Dro : Drop Load at ASHLAN 230 #3 : 30 MW 5.7 MVAR Dropp :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	108.0	108.5	0.5
48	Open Line KERCKHF2 115-WWARD JT 115 #1 : Open Line WWARD JT 115-WOODWARD 115 #1 : Open Line WWARD JT 115-CLOVISJ1 115 #1 : Open Line CLOVISJ1 115-CLOVIS-1 115 #1 : Open Line CLOVISJ1 115-SANGER 115 #1 : Drop Load at CLOVIS-1 115 #1 : 23.4 MW 4.7 MVAR D : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 : Open Line CLOVIS-2 115-CLOVISJ2 115 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	108.0	108.5	0.5
54	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line DANISHCM 115-MC CALL 115 #1 : Open Line DANISHCM 115-CAL AVE 115 #1 : Drop Load at DANISHCM 115 #1 : 3.1 MW 2.6 MVAR Dr :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	107.9	108.4	0.5
58	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 9.3 MW 1.8 MVAR Dr : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Open Line HELM 230-MC CALL 230 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	107.9	108.3	0.4
11	Open Line BELLOTA 230-COTTLE A 230 #1 : Open Line COTTLE A 230-MELONES 230 #1 : Drop Load at COTTLE A 230 #1 : 12.7 MW 0.5 MVAR D : Open Line MELONES 230-WILSON 230 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	107.7	108.2	0.5
103	Open Line WOODWARD 115-WWARD JT 115 #1 : Open Line WOODWARD 115-CHLDHOSP 115 #1 : Drop Load at WOODWARD 115 #1 : 19.3 MW 3.9 MVAR D : Drop Load at WOODWARD 115 #2 : 24.1 MW 4.8 MVAR D : Drop Load at WOODWARD 115 #3 : 20.2 MW 4 MVAR Dro :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	107.6	108.1	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
46	Open Line BARTON 115-HERNDON 115 #1 : Open Line AIRWAYJ1 115-AIRWAYS 115 #1 : Open Line AIRWAYJ1 115-LASPALMS 115 #1 : Open Line AIRWAYJ1 115-MANCHSTR 115 #1 : Open Line LASPALMS 115-SANGER 115 #1 : Drop Load at LASPALMS 115 #1 : 10.5 MW 8.9 MVAR D :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	107.6	108.1	0.5
98	Open Line BARTON 115-AIRWAYJ2 115 #1 : Open Line BARTON 115-HERNDON 115 #1 : Drop Load at BARTON 115 #1 : 19.8 MW 4 MVAR Dropp : Drop Load at BARTON 115 #2 : 17 MW 3.4 MVAR Dropp : Drop Load at BARTON 115 #3 : 12.3 MW 2.5 MVAR Dro :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	107.6	108.1	0.5
71	Open Line HERNDON 230-GREGG 230 #1 : Open Line HERNDON 230-KEARNEY 230 #1 : Open Xfmr HERNDON 230/HERNDN1M 115 #1 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	107.5	108.0	0.5
35	Open Line LOS BANS 70-CHEVPIPE 70 #1 : Open Line LOS BANS 70-WRGHT PP 70 #1 : Open Line LOS BANS 70-PCHCO PP 70 #1 : Open Line LOS BANS 70-ONLL PMP 69 #1 : Open Xfmr LOS BANS 70/LOSBANOS 230 #3 : Open Xfmr LOS BANS 70/LOSBANOS 230 #4 :	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	107.3	107.8	0.5
90	Open Line SANGER 115-CLOVISJ1 115 #1 : Open Line SANGER 115-CLOVISJ2 115 #1 : Open Line SANGER 115-AIRWAYJ2 115 #1 : Open Line SANGER 115-LASPALMS 115 #1 : Open Line SANGER 115-MC CALL 115 #1 : Open Line SANGER 115-MC CALL 115 #2 : Open Line SANGER 115-MC CALL 115 #3 : Open Line SANGER 115-MALAGA 115 #1 : Open Line SANGER 115-RAINBWTP 115 #1 : Open Line SANGER 115-PIEDRA 2 115 #1 :	LEPRNOFD-GWF_HEP 115.00kV Ckt#1 Sec# 1	743.02	Amps	99.5	108.1	8.6
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 15 MW 3 MVAR Dropp : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 16.8 MW 3.4 MVAR D :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	125.3	126.4	1.1
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	LASPALMS-AIRWAYJ1 115.00kV Ckt#1 Sec# 1	1124.58	Amps	115.9	117.6	1.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
48	Open Line KERCKHF2 115-WWARD JT 115 #1 : Open Line WWARD JT 115-WOODWARD 115 #1 : Open Line WWARD JT 115-CLOVISJ1 115 #1 : Open Line CLOVISJ1 115-CLOVIS-1 115 #1 : Open Line CLOVISJ1 115-SANGER 115 #1 : Drop Load at CLOVIS-1 115 #1 : 23.4 MW 4.7 MVAR D : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 : Open Line CLOVIS-2 115-CLOVISJ2 115 #1 :	LASPALMS-AIRWAYJ1 115.00kV Ckt#1 Sec# 1	1124.58	Amps	99.3	100.2	0.9
90	Open Line SANGER 115-CLOVISJ1 115 #1 : Open Line SANGER 115-CLOVISJ2 115 #1 : Open Line SANGER 115-AIRWAYJ2 115 #1 : Open Line SANGER 115-LASPALMS 115 #1 : Open Line SANGER 115-MC CALL 115 #1 : Open Line SANGER 115-MC CALL 115 #2 : Open Line SANGER 115-MC CALL 115 #3 : Open Line SANGER 115-MALAGA 115 #1 : Open Line SANGER 115-RAINBWTP 115 #1 : Open Line SANGER 115-PIEDRA 2 115 #1 :	HELM -PANOCHE 230.00kV Ckt#1 Sec# 1	849.96	Amps	131.6	133.3	1.7
55	Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Close Line HENTAP2 230-HENRIETA 230 #1 : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	HELM -PANOCHE 230.00kV Ckt#1 Sec# 1	849.96	Amps	96.8	100.4	3.6
20	Open Line PANOCHE 230-MOSSLND2 230 #1 : Open Line PANOCHE 230-PANO_EC 230 #1 : Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-GATES 230 #2 : Open Line PANOCHE 230-DS AMIGO 230 #1 : Open Xfmr PANOCHE 230/PANOCHE 115 #2 :	GATES -PANOCHE 230.00kV Ckt#1 Sec# 1	849.96	Amps	107.8	108.2	0.4
lbs_dlo_5400*	Los Banos - Gates & Los Banos - Midway 500-kV DLO w/ Path IRAS	DS AMIGO-LOSBANOS 230.00kV Ckt#1 Sec# 1	849.96	Amps	106.1	106.7	0.6
19	Open Line PANOCHE 230-COBURN 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #2 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line PANOCHE 230-GATES 230 #1 : Open Xfmr PANOCHE 230/PNCHE 1M 230 #1 :	DS AMIGO-LOSBANOS 230.00kV Ckt#1 Sec# 1	849.96	Amps	99.6	100.4	0.8
lbs_dlo_5400*	Los Banos - Gates & Los Banos - Midway 500-kV DLO w/ Path IRAS	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	122.6	123.4	0.8

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
60	Open Line GREGG 230-HELMS PP 230 #1 : Drop Generator at HELMS 2 18 #** : -310 MW Dropped : Open Line GREGG 230-HELMS PP 230 #2 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.4	121.1	0.7
69	Open Line HELMS PP 230-GREGG 230 #1 : Open Line HELMS PP 230-GREGG 230 #2 : Open Xfmr HELMS PP 230/HELMS 1 18 #1 : Open Xfmr HELMS PP 230/HELMS 2 18 #1 : Open Xfmr HELMS PP 230/HELMS 3 18 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.4	121.1	0.7
lbn_dlo_5400*	Los Banos - Tesla & Los Banos - Tracy 500-kV DLO w/ Path IRAS	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.6	118.5	0.8
14	Open Line BORDEN 230-GREGG 230 #1 : Open Line BORDEN 230-GREGG 230 #2 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.1	112.4	0.3
58	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 9.3 MW 1.8 MVAR Dr : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Open Line HELM 230-MC CALL 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.6	111.4	0.9
16	Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 9.3 MW 1.8 MVAR Dr : Drop Generator at HELMS 1 18 #** : -310 MW Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.2	110.1	0.9
57	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 9.3 MW 1.8 MVAR Dr : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Open Line PANOCHE 230-HELM 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.2	110.1	0.9
62	Open Line KEARNEY 230-HERNDON 230 #1 : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 33.6 MW 6.8 MVAR D : Close Line FIGRDN 1 230-FGRDN 2 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	106.2	107.0	0.8

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
11	Open Line BELLOTA 230-COTTLE A 230 #1 : Open Line COTTLE A 230-MELONES 230 #1 : Drop Load at COTTLE A 230 #1 : 12.7 MW 0.5 MVAR D : Open Line MELONES 230-WILSON 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.2	105.1	0.8
55	Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Close Line HENTAP2 230-HENRIETA 230 #1 : Drop Generator at HELMS 1 18 #** : -310 MW Dropped : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.6	101.6	1.0
90	Open Line SANGER 115-CLOVISJ1 115 #1 : Open Line SANGER 115-CLOVISJ2 115 #1 : Open Line SANGER 115-AIRWAYJ2 115 #1 : Open Line SANGER 115-LASPALMS 115 #1 : Open Line SANGER 115-MC CALL 115 #1 : Open Line SANGER 115-MC CALL 115 #2 : Open Line SANGER 115-MC CALL 115 #3 : Open Line SANGER 115-MALAGA 115 #1 : Open Line SANGER 115-RAINBWTP 115 #1 : Open Line SANGER 115-PIEDRA 2 115 #1 :	COPPRMNE-RIVERROC 70.00kV Ckt#1 Sec# 1	437.14	Amps	101.3	102.1	0.8
44	Open Line AIRWAYJ2 115-AIRWAYS 115 #1 : Open Line AIRWAYJ2 115-BARTON 115 #1 : Open Line AIRWAYJ2 115-SANGER 115 #1 : Open Line AIRWAYJ1 115-AIRWAYS 115 #1 : Open Line AIRWAYJ1 115-LASPALMS 115 #1 : Open Line AIRWAYJ1 115-MANCHSTR 115 #1 : Open Line LASPALMS 115-SANGER 115 #1 : Drop Load at LASPALMS 115 #1 : 10.5 MW 8.9 MVAR D :	CLOVISJ1-WWARD JT 115.00kV Ckt#1 Sec# 1	743.02	Amps	127.0	128.2	1.2
46	Open Line BARTON 115-HERNDON 115 #1 : Open Line AIRWAYJ1 115-AIRWAYS 115 #1 : Open Line AIRWAYJ1 115-LASPALMS 115 #1 : Open Line AIRWAYJ1 115-MANCHSTR 115 #1 : Open Line LASPALMS 115-SANGER 115 #1 : Drop Load at LASPALMS 115 #1 : 10.5 MW 8.9 MVAR D :	CLOVISJ1-WWARD JT 115.00kV Ckt#1 Sec# 1	743.02	Amps	115.5	116.7	1.2
45	Open Line BARTON 115-HERNDON 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 :	CLOVISJ1-WWARD JT 115.00kV Ckt#1 Sec# 1	743.02	Amps	107.1	108.3	1.2
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	CLOVISJ1-WWARD JT 115.00kV Ckt#1 Sec# 1	743.02	Amps	100.4	101.9	1.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
44	Open Line AIRWAYJ2 115-AIRWAYS 115 #1 : Open Line AIRWAYJ2 115-BARTON 115 #1 : Open Line AIRWAYJ2 115-SANGER 115 #1 : Open Line AIRWAYJ1 115-AIRWAYS 115 #1 : Open Line AIRWAYJ1 115-LASPALMS 115 #1 : Open Line AIRWAYJ1 115-MANCHSTR 115 #1 : Open Line LASPALMS 115-SANGER 115 #1 : Drop Load at LASPALMS 115 #1 : 10.5 MW 8.9 MVAR D :	CLOVISJ1-SANGER 115.00kV Ckt#1 Sec# 1	973.96	Amps	108.6	109.6	0.9
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	CARRIZO -TEMBLOR 115.00kV Ckt#1 Sec# 1	436.78	Amps	119.3	119.3	0.0
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	AIRWAYJ2-BARTON 115.00kV Ckt#1 Sec# 1	1124.58	Amps	119.3	121.0	1.7
101	Open Line HERNDON 115-MANCHSTR 115 #1 : Open Line HERNDON 115-PNDLJ1 115 #1 : Open Line HERNDON 115-CHLDHOSP 115 #1 :	AIRWAYJ2-BARTON 115.00kV Ckt#1 Sec# 1	1124.58	Amps	112.1	113.3	1.2
99	Open Line MANCHSTR 115-AIRWAYJ1 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 : Drop Load at MANCHSTR 115 #1 : 11.6 MW 2.3 MVAR D : Drop Load at MANCHSTR 115 #2 : 11.7 MW 2.3 MVAR D : Drop Load at MANCHSTR 115 #3 : 16.6 MW 3.3 MVAR D :	AIRWAYJ2-BARTON 115.00kV Ckt#1 Sec# 1	1124.58	Amps	104.2	105.2	1.0
48	Open Line KERCKHF2 115-WWARD JT 115 #1 : Open Line WWARD JT 115-WOODWARD 115 #1 : Open Line WWARD JT 115-CLOVISJ1 115 #1 : Open Line CLOVISJ1 115-CLOVIS-1 115 #1 : Open Line CLOVISJ1 115-SANGER 115 #1 : Drop Load at CLOVIS-1 115 #1 : 23.4 MW 4.7 MVAR D : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 : Open Line CLOVIS-2 115-CLOVISJ2 115 #1 :	AIRWAYJ2-BARTON 115.00kV Ckt#1 Sec# 1	1124.58	Amps	102.0	102.9	0.9
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	AIRWAYJ1-MANCHSTR 115.00kV Ckt#1 Sec# 1	1124.58	Amps	106.0	107.6	1.6
<b>2013 Spring Peak</b>							
lbs-dlo-ns*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	136.3	137.3	1.1

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
58	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Open Line HELM 230-MC CALL 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	129.0	130.1	1.1
16	Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.7	129.9	1.1
57	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Open Line PANOCHE 230-HELM 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	128.7	129.9	1.1
19	Open Line PANOCHE 230-COBURN 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #2 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line PANOCHE 230-GATES 230 #1 : Open Xfmr PANOCHE 230/PNCHE 1M 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	126.6	127.6	1.1
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	125.9	127.1	1.1
71	Open Line HERNDON 230-GREGG 230 #1 : Open Line HERNDON 230-KEARNEY 230 #1 : Open Xfmr HERNDON 230/HERNDN1M 115 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	125.1	126.0	1.0
17	Open Line LOSBANOS 230-WESTLEY 230 #1 : Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line LOSBANOS 230-SN LS PP 230 #1 : Open Line LOSBANOS 230-SN LS PP 230 #2 : Open Xfmr LOSBANOS 230/LOS BANS 70 #3 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	124.1	125.1	1.0
62	Open Line KEARNEY 230-HERNDON 230 #1 : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 59.1 MW 11.9 MVAR : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	122.9	123.8	1.0
70	Open Line KEARNEY 230-MCMULLN1 230 #1 : Open Line KEARNEY 230-HERNDON 230 #1 : Open Xfmr KEARNEY	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	122.2	123.2	1.0



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
	230/KEARNEY 70 #2 :						
83	Open Line GATES 230-HENTAP1 230 #1 : Open Line GATES 230-ARCO 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.0	121.5	1.5
lbn-dlons*	Los Banos - Tesla & Los Banos - Tracy 500-kV DLO	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.1	120.2	1.1
75	Open Line ASHLAN 230-FGRDN T1 230 #1 : Open Line ASHLAN 230-FGRDN T2 230 #1 : Drop Load at ASHLAN 230 #1 : 55.7 MW 10.7 MVAR Dr : Drop Load at ASHLAN 230 #2 : 51.9 MW 10.3 MVAR Dr : Drop Load at ASHLAN 230 #3 : 52.7 MW 10 MVAR Drop :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.4	118.3	0.9
47	Open Line PNDLJ1 115-BULLARD 115 #1 : Open Line PNDLJ1 115-HERNDON 115 #1 : Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 24.7 MW 5 MVAR Dropp : Drop Load at PNEDLE 115 #3 : 32.5 MW 6.5 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.8	117.7	0.9
7	Open Line LOSBANOS 230-PANOUCHE 230 #2 : Open Line DS AMIGO 230-PANOUCHE 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.7	117.6	0.9
18	Open Line LOSBANOS 230-PANOUCHE 230 #1 : Open Line LOSBANOS 230-DS AMIGO 230 #1 : Open Xfmr LOSBANOS 230/LOS BANS 70 #4 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	115.9	116.9	0.9
6	Open Line LOSBANOS 230-PANOUCHE 230 #2 : Open Line LOSBANOS 230-DS AMIGO 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	115.6	116.6	1.0
15	Open Line MOSSLND2 230-PANOUCHE 230 #1 : Open Line COBURN 230-PANOUCHE 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	114.2	115.2	0.9
104	Open Line BULLARD 115-PNDLJ2 115 #1 : Open Line BULLARD 115-PNDLJ1 115 #1 : Drop Load at BULLARD 115 #1 : 36.1 MW 7.3 MVAR Dr : Drop Load at BULLARD 115 #2 : 35.9 MW 7.2 MVAR Dr : Drop Load at BULLARD 115 #3 : 34.2 MW 6.9 MVAR Dr :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	113.5	114.4	0.9

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
27	Open Line EL CAPTN 115-CASTLE 115 #1 : Open Line EL CAPTN 115-WILSON B 115 #1 : Drop Load at EL CAPTN 115 #1 : 15.5 MW 3.1 MVAR D : Drop Load at EL CAPTN 115 #2 : 20.7 MW 4.1 MVAR D : Drop Load at EL CAPTN 115 #3 : 26.4 MW 5.3 MVAR D :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	113.4	114.3	0.9
84	Open Line GATES 230-HENTAP2 230 #1 : Open Line GATES 230-MIDWAY 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	113.3	114.3	1.0
41	Open Line BORDEN 70-MADERA 70 #1 : Open Line BORDEN 70-MADERA 70 #2 : Open Line BORDEN 70-GLASS 70 #1 : Open Line BORDEN 70-CASSIDY 70 #1 : Open Xfmr BORDEN 70/BORDEN 230 #1 : Open Xfmr BORDEN 70/BORDEN 230 #2 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	113.3	114.2	0.9
103	Open Line WOODWARD 115-WWARD JT 115 #1 : Open Line WOODWARD 115-CHLDHOSP 115 #1 : Drop Load at WOODWARD 115 #1 : 34 MW 6.9 MVAR Dro : Drop Load at WOODWARD 115 #2 : 42.4 MW 8.6 MVAR D : Drop Load at WOODWARD 115 #3 : 35.5 MW 7.2 MVAR D :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	113.3	114.1	0.9
76	Open Line HELM 230-PANOCHE 230 #1 : Open Line HELM 230-MC CALL 230 #1 : Open Xfmr HELM 230/HELM 70 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.9	113.9	1.0
48	Open Line KERCKHF2 115-WWARD JT 115 #1 : Open Line WWARD JT 115-WOODWARD 115 #1 : Open Line WWARD JT 115-CLOVISJ1 115 #1 : Open Line CLOVISJ1 115-CLOVIS-1 115 #1 : Open Line CLOVISJ1 115-SANGER 115 #1 : Drop Load at CLOVIS-1 115 #1 : 41 MW 8.3 MVAR Dro : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 : Open Line CLOVIS-2 115-CLOVISJ2 115 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.8	113.6	0.8
54	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line DANISHCM 115-MC CALL 115 #1 : Open Line DANISHCM 115-CAL AVE 115 #1 : Drop Load at DANISHCM 115 #1 : 3.8 MW 3.2 MVAR Dr :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.6	113.4	0.9

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
22	Open Line ATWATER 115-CASTLE 115 #1 : Open Line ATWATER 115-CRESEY T 115 #1 : Open Line ATWATER 115-WILSON A 115 #1 : Drop Load at ATWATER 115 #1 : 25.9 MW 5.2 MVAR Dr : Drop Load at ATWATER 115 #2 : 22.6 MW 4.5 MVAR Dr :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.1	112.9	0.9
98	Open Line BARTON 115-AIRWAYJ2 115 #1 : Open Line BARTON 115-HERNDON 115 #1 : Drop Load at BARTON 115 #1 : 34.8 MW 7 MVAR Dropp : Drop Load at BARTON 115 #2 : 29.9 MW 6 MVAR Dropp : Drop Load at BARTON 115 #3 : 21.7 MW 4.3 MVAR Dro :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.5	112.4	0.8
28	Open Line MERCED 115-ATWATR J 115 #1 : Open Line MERCED 115-WILSON A 115 #1 : Open Line MERCED 115-WILSON B 115 #2 : Open Xfmr MERCED 115/MERCED M 115 #2 : Drop Load at MERCED 115 #1 : 29.6 MW 6 MVAR Dropp : Drop Load at MERCED 115 #3 : 15.5 MW 3.1 MVAR Dro :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.1	112.0	0.9
73	Open Line FIGRDN 1 230-FGRDN T1 230 #1 : Drop Load at FIGRDN 1 230 #1 : 59.1 MW 11.9 MVAR :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.0	111.9	0.9
99	Open Line MANCHSTR 115-AIRWAYJ1 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 : Drop Load at MANCHSTR 115 #1 : 20.3 MW 4.1 MVAR D : Drop Load at MANCHSTR 115 #2 : 20.5 MW 4.1 MVAR D : Drop Load at MANCHSTR 115 #3 : 29.1 MW 5.9 MVAR D :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.9	111.8	0.9
89	Open Line CLOVIS-2 115-CLOVISJ2 115 #1 : Drop Load at CLOVIS-2 115 #3 : 36 MW 7.3 MVAR Dro :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.8	111.7	0.9
102	Open Line PNEDLE 115-PNDLJ2 115 #1 : Drop Load at PNEDLE 115 #2 : 24.7 MW 5 MVAR Dropp : Drop Load at PNEDLE 115 #3 : 32.5 MW 6.5 MVAR Dro :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.6	111.5	0.9
117	Open Line KEARNEY 70-FRWWTAP 70 #1 : Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line KEARNEY 70-CARUTHRS 70 #1 : Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.4	111.3	0.9

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
20	Open Line PANOCHE 230-MOSSLND2 230 #1 : Open Line PANOCHE 230-PANO_EC 230 #1 : Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-GATES 230 #2 : Open Line PANOCHE 230-DS AMIGO 230 #1 : Open Xfmr PANOCHE 230/PANOCHE 115 #2 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.1	111.1	1.0
26	Open Line WILSON B 115-LE GRNDJ 115 #1 : Open Line WILSON B 115-WILSON A 115 #1 : Open Line WILSON B 115-EL CAPTN 115 #1 : Open Line WILSON B 115-MERCED 115 #2 : Open Xfmr WILSON B 115/WILSON 230 #2 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.1	111.0	0.9
32	Open Line ORO LOMA 70-DOS PALS 70 #1 : Open Line ORO LOMA 70-MRCYSPRS 70 #1 : Open Line ORO LOMA 70-POSO J1 70 #1 : Open Xfmr ORO LOMA 70/ORO LOMA 115 #2 : Drop Load at ORO LOMA 70 #1 : 6.9 MW 1.3 MVAR Dro :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.0	110.9	0.9
96	Open Line CAL AVE 115-DANISHCM 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 : Drop Load at CAL AVE 115 #1 : 23.3 MW 4.7 MVAR Dr : Drop Load at CAL AVE 115 #2 : 25.1 MW 5.1 MVAR Dr : Drop Load at CAL AVE 115 #3 : 19.6 MW 3.9 MVAR Dr :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.0	110.9	0.9
74	Open Line FIGRDN 2 230-FGRDN T2 230 #1 : Drop Load at FIGRDN 2 230 #1 : 42.3 MW 8.5 MVAR D :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.9	110.8	0.9
91	Open Line MALAGA 115-SANGER 115 #1 : Open Line MALAGA 115-PPG 115 #1 : Open Line MALAGA 115-MALAGATP 115 #1 : Open Line MALAGA 115-KRCDP 115 #1 : Drop Load at MALAGA 115 #1 : 20.3 MW 4.1 MVAR Dro : Drop Load at MALAGA 115 #2 : 18.3 MW 3.7 MVAR Dro : Drop Load at MALAGA 115 #3 : 18.6 MW 3.7 MVAR Dro :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.8	110.7	0.9
3	Open Line WILSON A 115-MERCED 115 #1 : Open Line LE GRNDJ 115-WILSON B 115 #1 : Open Line LE GRNDJ 115-EL NIDO 115 #1 : Open Line EL NIDO 115-ORO LOMA 115 #1 : Drop Load at EL NIDO 115 #1 : 10 MW 2 MVAR Droppe : Drop Load at EL NIDO 115 #2 : 12 MW 2.4 MVAR Drop :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.7	110.6	0.9

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
97	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line WST FRSO 115-CAL AVE 115 #1 : Drop Load at WST FRSO 115 #1 : 30.2 MW 6.1 MVAR D : Drop Load at WST FRSO 115 #2 : 31.4 MW 6.3 MVAR D :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.7	110.6	0.9
53	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.7	110.6	0.9
29	Open Line DAIRYLND 115-LE GRAND 115 #1 : Open Line DAIRYLND 115-NEWHALL 115 #1 : Drop Load at DAIRYLND 115 #1 : 20.6 MW 4.1 MVAR D :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.7	110.5	0.9
40	Open Line MADERA 70-TRIGO 70 #1 : Open Line MADERA 70-BORDEN 70 #1 : Open Line MADERA 70-BORDEN 70 #2 : Drop Load at MADERA 70 #1 : 14.4 MW 2.9 MVAR Drop : Drop Load at MADERA 70 #2 : 18.5 MW 3.7 MVAR Drop :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.5	110.4	0.9
68	Open Line GATES 230-MIDWAY 230 #1 : Open Line GATES 230-ARCO 230 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.4	110.3	0.9
87	Open Line AIRWAYS 115-AIRWAYJ1 115 #1 : Open Line AIRWAYS 115-AIRWAYJ2 115 #1 : Drop Load at AIRWAYS 115 #1 : 30.9 MW 5.9 MVAR Dr : Drop Load at AIRWAYS 115 #2 : 10.1 MW 2 MVAR Drop :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.3	110.1	0.9
88	Open Line CLOVIS-1 115-CLOVISJ1 115 #1 : Drop Load at CLOVIS-1 115 #1 : 41 MW 8.3 MVAR Dro :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.3	110.1	0.9
121	Open Line REEDLEY 70-TVY VLLY 70 #1 : Open Line REEDLEY 70-PARLIER 70 #1 : Open Line REEDLEY 70-DNUBAJCT 70 #1 : Open Line REEDLEY 70-ORSI JCT 70 #1 : Open Xfmr REEDLEY 70/REEDLEY 115 #1 : Open Xfmr REEDLEY 70/REEDLEY 115 #2 : Drop Load at REEDLEY 70 #1 : 14 MW 2.8 MVAR Dropp :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.0	109.9	0.9
101	Open Line HERNDON 115-MANCHSTR 115 #1 : Open Line HERNDON 115-PNDLJ1 115 #1 : Open Line HERNDON 115-CHLDHOSP 115 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.0	109.8	0.8
45	Open Line BARTON 115-HERNDON 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.0	109.8	0.8

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
124	Open Line LEMOORE 70-LPRNO TP 70 #1 : Open Line LEMOORE 70-HNFRD SW 70 #1 : Drop Load at LEMOORE 70 #1 : 15.2 MW 3 MVAR Dropp : Drop Load at LEMOORE 70 #2 : 26.4 MW 5.3 MVAR Dro :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.6	109.5	0.9
107	Open Line CORCORAN 115-KINGSBRG 115 #1 : Open Line CORCORAN 115-KINGSBRG 115 #2 : Open Xfmr CORCORAN 115/CORCORAN 70 #2 : Drop Load at CORCORAN 115 #3 : 13 MW 2.6 MVAR Dro : Drop Load at CORCORAN 115 #4 : 14.3 MW 2.9 MVAR D :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.7	109.5	0.9
49	Open Line KINGSBRG 115-CORCORAN 115 #1 : Open Line KINGSBRG 115-CORCORAN 115 #2 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.6	109.5	0.9
34	Open Line CANAL 70-LVNGSTNT 70 #1 : Open Line CANAL 70-SNTA RTA 70 #1 : Open Line CANAL 70-ORTIGA 70 #1 : Drop Load at CANAL 70 #1 : 24.4 MW 4.9 MVAR Dropp : Drop Load at CANAL 70 #2 : 25 MW 5 MVAR Dropped :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.6	109.5	0.9
94	Open Line WAHTOKE 115-MC CALL 115 #1 : Open Line WAHTOKE 115-GERAWAN 115 #1 : Drop Load at WAHTOKE 115 #2 : 24.4 MW 4.9 MVAR Dr : Drop Load at WAHTOKE 115 #3 : 16.8 MW 3.4 MVAR Dr :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.5	109.4	0.9
100	Open Line HERNDON 115-BARTON 115 #1 : Open Line HERNDON 115-PNDLJ2 115 #1 : Open Xfmr HERNDON 115/HERNDN1M 115 #1 :	WILSON -WARNERVL 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.5	109.0	0.5
9	Open Line BELLOTA 230-COTTLE A 230 #1 : Open Line COTTLE A 230-MELONES 230 #1 : Drop Load at COTTLE A 230 #1 : 22.2 MW 0.9 MVAR D : Drop Generator at HELMS 3 18 #** : 400 MW Dropped : Open Line BELLOTA 230-COTTLE B 230 #1 : Open Line COTTLE B 230-WARNERVL 230 #1 : Drop Load at COTTLE B 230 #2 : 25.5 MW 1.1 MVAR D :	WARNERVL-WRNRVLE 230.00/ 115.00kV Bk#3	75	MVA	141.2	141.8	0.6
17	Open Line LOSBANOS 230-WESTLEY 230 #1 : Open Line LOSBANOS 230-PANOCHÉ 230 #2 : Open Line LOSBANOS 230-SN LS PP 230 #1 : Open Line LOSBANOS 230-SN LS PP 230 #2 : Open Xfmr LOSBANOS 230/LOS BANS 70 #3 :	WARNERVL-WRNRVLE 230.00/ 115.00kV Bk#3	75	MVA	103.1	103.4	0.3

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
9	Open Line BELLOTA 230-COTTLE A 230 #1 : Open Line COTTLE A 230-MELONES 230 #1 : Drop Load at COTTLE A 230 #1 : 22.2 MW 0.9 MVAR D : Drop Generator at HELMS 3 18 #** : 400 MW Dropped : Open Line BELLOTA 230-COTTLE B 230 #1 : Open Line COTTLE B 230-WARNERVL 230 #1 : Drop Load at COTTLE B 230 #2 : 25.5 MW 1.1 MVAR D :	WARNERVL-WRNRVLE 230.00/ 115.00kV Bk#2	75	MVA	141.2	141.8	0.6
17	Open Line LOSBANOS 230-WESTLEY 230 #1 : Open Line LOSBANOS 230-PANOCHÉ 230 #2 : Open Line LOSBANOS 230-SN LS PP 230 #1 : Open Line LOSBANOS 230-SN LS PP 230 #2 : Open Xfmr LOSBANOS 230/LOS BANS 70 #3 :	WARNERVL-WRNRVLE 230.00/ 115.00kV Bk#2	75	MVA	103.1	103.4	0.3
9	Open Line BELLOTA 230-COTTLE A 230 #1 : Open Line COTTLE A 230-MELONES 230 #1 : Drop Load at COTTLE A 230 #1 : 22.2 MW 0.9 MVAR D : Drop Generator at HELMS 3 18 #** : 400 MW Dropped : Open Line BELLOTA 230-COTTLE B 230 #1 : Open Line COTTLE B 230-WARNERVL 230 #1 : Drop Load at COTTLE B 230 #2 : 25.5 MW 1.1 MVAR D :	WARNERVL-WRNRVLE 230.00/ 115.00kV Bk#1	150	MVA	141.2	141.8	0.6
17	Open Line LOSBANOS 230-WESTLEY 230 #1 : Open Line LOSBANOS 230-PANOCHÉ 230 #2 : Open Line LOSBANOS 230-SN LS PP 230 #1 : Open Line LOSBANOS 230-SN LS PP 230 #2 : Open Xfmr LOSBANOS 230/LOS BANS 70 #3 :	WARNERVL-WRNRVLE 230.00/ 115.00kV Bk#1	150	MVA	103.1	103.4	0.3
lbs-dlo-ns*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	126.5	127.2	0.8
58	Open Line PANOCHÉ 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Open Line HELM 230-MC CALL 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.4	121.2	0.8
16	Open Line PANOCHÉ 230-HELM 230 #1 : Open Line PANOCHÉ 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.3	121.1	0.8

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
57	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Open Line PANOCHE 230-HELM 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.3	121.1	0.8
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.7	119.5	0.8
19	Open Line PANOCHE 230-COBURN 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #2 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line PANOCHE 230-GATES 230 #1 : Open Xfmr PANOCHE 230/PNCHE 1M 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.1	118.9	0.8
71	Open Line HERNDON 230-GREGG 230 #1 : Open Line HERNDON 230-KEARNEY 230 #1 : Open Xfmr HERNDON 230/HERNDN1M 115 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.0	118.7	0.7
lbn-dlons*	Los Banos - Tesla & Los Banos - Tracy 500-kV DLO	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.5	117.4	0.8
62	Open Line KEARNEY 230-HERNDON 230 #1 : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 59.1 MW 11.9 MVAR : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.5	117.2	0.7
70	Open Line KEARNEY 230-MCMULLN1 230 #1 : Open Line KEARNEY 230-HERNDON 230 #1 : Open Xfmr KEARNEY 230/KEARNEY 70 #2 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.1	116.8	0.7
83	Open Line GATES 230-HENTAP1 230 #1 : Open Line GATES 230-ARCO 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	115.1	116.1	1.1
75	Open Line ASHLAN 230-FGRDN T1 230 #1 : Open Line ASHLAN 230-FGRDN T2 230 #1 : Drop Load at ASHLAN 230 #1 : 55.7 MW 10.7 MVAR Dr : Drop Load at ASHLAN 230 #2 : 51.9 MW 10.3 MVAR Dr : Drop Load at ASHLAN 230 #3 : 52.7 MW 10 MVAR Drop :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	113.4	114.1	0.7



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
47	Open Line PNDLJ1 115-BULLARD 115 #1 : Open Line PNDLJ1 115-HERNDON 115 #1 : Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 24.7 MW 5 MVAR Dropp : Drop Load at PNEDLE 115 #3 : 32.5 MW 6.5 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	113.0	113.7	0.6
15	Open Line MOSSLND2 230-PANOCHÉ 230 #1 : Open Line COBURN 230-PANOCHÉ 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.8	112.5	0.7
7	Open Line LOSBANOS 230-PANOCHÉ 230 #2 : Open Line DS AMIGO 230-PANOCHÉ 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.4	112.1	0.7
18	Open Line LOSBANOS 230-PANOCHÉ 230 #1 : Open Line LOSBANOS 230-DS AMIGO 230 #1 : Open Xfmr LOSBANOS 230/LOS BANS 70 #4 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.9	111.6	0.7
6	Open Line LOSBANOS 230-PANOCHÉ 230 #2 : Open Line LOSBANOS 230-DS AMIGO 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.8	111.5	0.7
104	Open Line BULLARD 115-PNDLJ2 115 #1 : Open Line BULLARD 115-PNDLJ1 115 #1 : Drop Load at BULLARD 115 #1 : 36.1 MW 7.3 MVAR Dr : Drop Load at BULLARD 115 #2 : 35.9 MW 7.2 MVAR Dr : Drop Load at BULLARD 115 #3 : 34.2 MW 6.9 MVAR Dr :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.6	111.3	0.6
84	Open Line GATES 230-HENTAP2 230 #1 : Open Line GATES 230-MIDWAY 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.5	111.2	0.7
103	Open Line WOODWARD 115-WWARD JT 115 #1 : Open Line WOODWARD 115-CHLDHOSP 115 #1 : Drop Load at WOODWARD 115 #1 : 34 MW 6.9 MVAR Dro : Drop Load at WOODWARD 115 #2 : 42.4 MW 8.6 MVAR D : Drop Load at WOODWARD 115 #3 : 35.5 MW 7.2 MVAR D :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.5	111.1	0.6
41	Open Line BORDEN 70-MADERA 70 #1 : Open Line BORDEN 70-MADERA 70 #2 : Open Line BORDEN 70-GLASS 70 #1 : Open Line BORDEN 70-CASSIDY 70 #1 : Open Xfmr BORDEN 70/BORDEN 230 #1 : Open Xfmr BORDEN 70/BORDEN 230 #2 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.4	111.1	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
27	Open Line EL CAPTN 115-CASTLE 115 #1 : Open Line EL CAPTN 115-WILSON B 115 #1 : Drop Load at EL CAPTN 115 #1 : 15.5 MW 3.1 MVAR D : Drop Load at EL CAPTN 115 #2 : 20.7 MW 4.1 MVAR D : Drop Load at EL CAPTN 115 #3 : 26.4 MW 5.3 MVAR D :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.4	111.0	0.7
48	Open Line KERCKHF2 115-WWARD JT 115 #1 : Open Line WWARD JT 115-WOODWARD 115 #1 : Open Line WWARD JT 115-CLOVISJ1 115 #1 : Open Line CLOVISJ1 115-CLOVIS-1 115 #1 : Open Line CLOVISJ1 115-SANGER 115 #1 : Drop Load at CLOVIS-1 115 #1 : 41 MW 8.3 MVAR Dro : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 : Open Line CLOVIS-2 115-CLOVISJ2 115 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.2	110.8	0.6
54	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line DANISHCM 115-MC CALL 115 #1 : Open Line DANISHCM 115-CAL AVE 115 #1 : Drop Load at DANISHCM 115 #1 : 3.8 MW 3.2 MVAR Dr :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.1	110.7	0.7
76	Open Line HELM 230-PANOCHE 230 #1 : Open Line HELM 230-MC CALL 230 #1 : Open Xfmr HELM 230/HELM 70 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.7	110.4	0.7
17	Open Line LOSBANOS 230-WESTLEY 230 #1 : Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line LOSBANOS 230-SN LS PP 230 #1 : Open Line LOSBANOS 230-SN LS PP 230 #2 : Open Xfmr LOSBANOS 230/LOS BANS 70 #3 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.7	110.4	0.7
22	Open Line ATWATER 115-CASTLE 115 #1 : Open Line ATWATER 115-CRESEY T 115 #1 : Open Line ATWATER 115-WILSON A 115 #1 : Drop Load at ATWATER 115 #1 : 25.9 MW 5.2 MVAR Dr : Drop Load at ATWATER 115 #2 : 22.6 MW 4.5 MVAR Dr :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.4	110.1	0.7
98	Open Line BARTON 115-AIRWAYJ2 115 #1 : Open Line BARTON 115-HERNDON 115 #1 : Drop Load at BARTON 115 #1 : 34.8 MW 7 MVAR Dropp : Drop Load at BARTON 115 #2 : 29.9 MW 6 MVAR Dropp : Drop Load at BARTON 115 #3 : 21.7 MW 4.3 MVAR Dro :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	109.2	109.9	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
73	Open Line FIGRDN 1 230-FGRDN T1 230 #1 : Drop Load at FIGRDN 1 230 #1 : 59.1 MW 11.9 MVAR :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.9	109.5	0.7
28	Open Line MERCED 115-ATWATR J 115 #1 : Open Line MERCED 115-WILSON A 115 #1 : Open Line MERCED 115-WILSON B 115 #2 : Open Xfmr MERCED 115/MERCED M 115 #2 : Drop Load at MERCED 115 #1 : 29.6 MW 6 MVAR Dropp : Drop Load at MERCED 115 #3 : 15.5 MW 3.1 MVAR Dro :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.9	109.5	0.7
99	Open Line MANCHSTR 115-AIRWAYJ1 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 : Drop Load at MANCHSTR 115 #1 : 20.3 MW 4.1 MVAR D : Drop Load at MANCHSTR 115 #2 : 20.5 MW 4.1 MVAR D : Drop Load at MANCHSTR 115 #3 : 29.1 MW 5.9 MVAR D :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.8	109.5	0.6
89	Open Line CLOVIS-2 115-CLOVISJ2 115 #1 : Drop Load at CLOVIS-2 115 #3 : 36 MW 7.3 MVAR Dro :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.8	109.4	0.6
102	Open Line PNEDLE 115-PNDLJ2 115 #1 : Drop Load at PNEDLE 115 #2 : 24.7 MW 5 MVAR Dropp : Drop Load at PNEDLE 115 #3 : 32.5 MW 6.5 MVAR Dro :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.6	109.2	0.6
117	Open Line KEARNEY 70-FRWWTAP 70 #1 : Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line KEARNEY 70-CARUTHRS 70 #1 : Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.4	109.0	0.7
96	Open Line CAL AVE 115-DANISHCM 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 : Drop Load at CAL AVE 115 #1 : 23.3 MW 4.7 MVAR Dr : Drop Load at CAL AVE 115 #2 : 25.1 MW 5.1 MVAR Dr : Drop Load at CAL AVE 115 #3 : 19.6 MW 3.9 MVAR Dr :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.2	108.8	0.6
74	Open Line FIGRDN 2 230-FGRDN T2 230 #1 : Drop Load at FIGRDN 2 230 #1 : 42.3 MW 8.5 MVAR D :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.1	108.7	0.7
26	Open Line WILSON B 115-LE GRNDJ 115 #1 : Open Line WILSON B 115-WILSON A 115 #1 : Open Line WILSON B 115-EL CAPTN 115 #1 : Open Line WILSON B 115-MERCED 115 #2 : Open Xfmr WILSON B 115/WILSON 230 #2 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.1	108.7	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
91	Open Line MALAGA 115-SANGER 115 #1 : Open Line MALAGA 115-PPG 115 #1 : Open Line MALAGA 115-MALAGATP 115 #1 : Open Line MALAGA 115-KRCDP 115 #1 : Drop Load at MALAGA 115 #1 : 20.3 MW 4.1 MVAR Dro : Drop Load at MALAGA 115 #2 : 18.3 MW 3.7 MVAR Dro : Drop Load at MALAGA 115 #3 : 18.6 MW 3.7 MVAR Dro :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.0	108.7	0.7
97	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line WST FRSO 115-CAL AVE 115 #1 : Drop Load at WST FRSO 115 #1 : 30.2 MW 6.1 MVAR D : Drop Load at WST FRSO 115 #2 : 31.4 MW 6.3 MVAR D :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.0	108.6	0.7
53	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.0	108.6	0.6
32	Open Line ORO LOMA 70-DOS PALS 70 #1 : Open Line ORO LOMA 70-MRCYSPRS 70 #1 : Open Line ORO LOMA 70-POSO J1 70 #1 : Open Xfmr ORO LOMA 70/ORO LOMA 115 #2 : Drop Load at ORO LOMA 70 #1 : 6.9 MW 1.3 MVAR Dro :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.9	108.6	0.7
3	Open Line WILSON A 115-MERCED 115 #1 : Open Line LE GRNDJ 115-WILSON B 115 #1 : Open Line LE GRNDJ 115-EL NIDO 115 #1 : Open Line EL NIDO 115-ORO LOMA 115 #1 : Drop Load at EL NIDO 115 #1 : 10 MW 2 MVAR Droppe : Drop Load at EL NIDO 115 #2 : 12 MW 2.4 MVAR Drop :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.9	108.5	0.7
29	Open Line DAIRYLND 115-LE GRAND 115 #1 : Open Line DAIRYLND 115-NEWHALL 115 #1 : Drop Load at DAIRYLND 115 #1 : 20.6 MW 4.1 MVAR D :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.8	108.5	0.7
40	Open Line MADERA 70-TRIGO 70 #1 : Open Line MADERA 70-BORDEN 70 #1 : Open Line MADERA 70-BORDEN 70 #2 : Drop Load at MADERA 70 #1 : 14.4 MW 2.9 MVAR Drop : Drop Load at MADERA 70 #2 : 18.5 MW 3.7 MVAR Drop :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.8	108.4	0.7
68	Open Line GATES 230-MIDWAY 230 #1 : Open Line GATES 230-ARCO 230 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.7	108.4	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
87	Open Line AIRWAYS 115-AIRWAYJ1 115 #1 : Open Line AIRWAYS 115-AIRWAYJ2 115 #1 : Drop Load at AIRWAYS 115 #1 : 30.9 MW 5.9 MVAR Dr : Drop Load at AIRWAYS 115 #2 : 10.1 MW 2 MVAR Drop :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.6	108.3	0.7
88	Open Line CLOVIS-1 115-CLOVISJ1 115 #1 : Drop Load at CLOVIS-1 115 #1 : 41 MW 8.3 MVAR Dro :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.6	108.3	0.7
121	Open Line REEDLEY 70-TVY VLLY 70 #1 : Open Line REEDLEY 70-PARLIER 70 #1 : Open Line REEDLEY 70-DNUBAJCT 70 #1 : Open Line REEDLEY 70-ORSI JCT 70 #1 : Open Xfmr REEDLEY 70/REEDLEY 115 #1 : Open Xfmr REEDLEY 70/REEDLEY 115 #2 : Drop Load at REEDLEY 70 #1 : 14 MW 2.8 MVAR Dropp :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.5	108.1	0.6
34	Open Line CANAL 70-LVNGSTNT 70 #1 : Open Line CANAL 70-SNTA RTA 70 #1 : Open Line CANAL 70-ORTIGA 70 #1 : Drop Load at CANAL 70 #1 : 24.4 MW 4.9 MVAR Dropp : Drop Load at CANAL 70 #2 : 25 MW 5 MVAR Dropped :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.3	107.9	0.6
101	Open Line HERNDON 115-MANCHSTR 115 #1 : Open Line HERNDON 115-PNDLJ1 115 #1 : Open Line HERNDON 115-CHLDHOSP 115 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.3	107.9	0.6
45	Open Line BARTON 115-HERNDON 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 :	WARNERVL-COTTLE B 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.3	107.9	0.6
16	Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D :	STRD JCT-SCHLNDLR 70.00kV Ckt#1 Sec# 1	377.75	Amps	128.6	130.4	1.8
57	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Open Line PANOCHE 230-HELM 230 #1 :	STRD JCT-SCHLNDLR 70.00kV Ckt#1 Sec# 1	377.75	Amps	128.6	130.4	1.8
20	Open Line PANOCHE 230-MOSSLND2 230 #1 : Open Line PANOCHE 230-PANO_EC 230 #1 : Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-GATES 230 #2 : Open Line PANOCHE 230-DS AMIGO 230 #1 : Open Xfmr PANOCHE 230/PANOCHE 115 #2 :	STRD JCT-SCHLNDLR 70.00kV Ckt#1 Sec# 1	377.75	Amps	104.1	105.5	1.4

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
58	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Open Line HELM 230-MC CALL 230 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.9	109.7	0.8
16	Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.1	108.9	0.8
57	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Open Line PANOCHE 230-HELM 230 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.1	108.9	0.8
lbs-dlo-ns*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	106.7	107.4	0.7
71	Open Line HERNDON 230-GREGG 230 #1 : Open Line HERNDON 230-KEARNEY 230 #1 : Open Xfmr HERNDON 230/HERNDN1M 115 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	106.6	107.2	0.6
62	Open Line KEARNEY 230-HERNDON 230 #1 : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 59.1 MW 11.9 MVAR : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.1	104.7	0.6
70	Open Line KEARNEY 230-MCMULLN1 230 #1 : Open Line KEARNEY 230-HERNDON 230 #1 : Open Xfmr KEARNEY 230/KEARNEY 70 #2 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.7	104.4	0.6
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.3	104.1	0.8
19	Open Line PANOCHE 230-COBURN 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #2 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line PANOCHE 230-GATES 230 #1 : Open Xfmr PANOCHE 230/PNCHE 1M 230 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.7	103.4	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
83	Open Line GATES 230-HENTAP1 230 #1 : Open Line GATES 230-ARCO 230 #1 :	STOREY 2-WILSON 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.7	100.7	1.0
58	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Open Line HELM 230-MC CALL 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.7	118.4	0.8
16	Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.8	117.6	0.8
57	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Open Line PANOCHE 230-HELM 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.8	117.6	0.8
lbs-dlo-ns*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	115.5	116.1	0.7
71	Open Line HERNDON 230-GREGG 230 #1 : Open Line HERNDON 230-KEARNEY 230 #1 : Open Xfmr HERNDON 230/HERNDN1M 115 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	115.3	115.9	0.6
62	Open Line KEARNEY 230-HERNDON 230 #1 : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 59.1 MW 11.9 MVAR : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.7	113.4	0.6
70	Open Line KEARNEY 230-MCMULLN1 230 #1 : Open Line KEARNEY 230-HERNDON 230 #1 : Open Xfmr KEARNEY 230/KEARNEY 70 #2 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.4	113.0	0.6
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.0	112.8	0.8

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
19	Open Line PANOCHE 230-COBURN 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #2 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line PANOCHE 230-GATES 230 #1 : Open Xfmr PANOCHE 230/PNCHE 1M 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	111.4	112.1	0.7
83	Open Line GATES 230-HENTAP1 230 #1 : Open Line GATES 230-ARCO 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.4	109.4	1.0
75	Open Line ASHLAN 230-FGRDN T1 230 #1 : Open Line ASHLAN 230-FGRDN T2 230 #1 : Drop Load at ASHLAN 230 #1 : 55.7 MW 10.7 MVAR Dr : Drop Load at ASHLAN 230 #2 : 51.9 MW 10.3 MVAR Dr : Drop Load at ASHLAN 230 #3 : 52.7 MW 10 MVAR Drop :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.9	106.4	0.6
17	Open Line LOSBANOS 230-WESTLEY 230 #1 : Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line LOSBANOS 230-SN LS PP 230 #1 : Open Line LOSBANOS 230-SN LS PP 230 #2 : Open Xfmr LOSBANOS 230/LOS BANS 70 #3 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.5	106.1	0.6
47	Open Line PNDLJ1 115-BULLARD 115 #1 : Open Line PNDLJ1 115-HERNDON 115 #1 : Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 24.7 MW 5 MVAR Dropp : Drop Load at PNEDLE 115 #3 : 32.5 MW 6.5 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.0	105.6	0.6
lbn-dlons*	Los Banos - Tesla & Los Banos - Tracy 500-kV DLO	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.5	105.2	0.7
76	Open Line HELM 230-PANOCHE 230 #1 : Open Line HELM 230-MC CALL 230 #1 : Open Xfmr HELM 230/HELM 70 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.1	103.7	0.6
41	Open Line BORDEN 70-MADERA 70 #1 : Open Line BORDEN 70-MADERA 70 #2 : Open Line BORDEN 70-GLASS 70 #1 : Open Line BORDEN 70-CASSIDY 70 #1 : Open Xfmr BORDEN 70/BORDEN 230 #1 : Open Xfmr BORDEN 70/BORDEN 230 #2 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.9	103.5	0.5



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
7	Open Line LOSBANOS 230-PANOUCHE 230 #2 : Open Line DS AMIGO 230-PANOUCHE 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.7	103.2	0.6
104	Open Line BULLARD 115-PNDLJ2 115 #1 : Open Line BULLARD 115-PNDLJ1 115 #1 : Drop Load at BULLARD 115 #1 : 36.1 MW 7.3 MVAR Dr : Drop Load at BULLARD 115 #2 : 35.9 MW 7.2 MVAR Dr : Drop Load at BULLARD 115 #3 : 34.2 MW 6.9 MVAR Dr :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.6	103.2	0.5
18	Open Line LOSBANOS 230-PANOUCHE 230 #1 : Open Line LOSBANOS 230-DS AMIGO 230 #1 : Open Xfmr LOSBANOS 230/LOS BANS 70 #4 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.5	103.0	0.6
6	Open Line LOSBANOS 230-PANOUCHE 230 #2 : Open Line LOSBANOS 230-DS AMIGO 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.1	102.7	0.6
84	Open Line GATES 230-HENTAP2 230 #1 : Open Line GATES 230-MIDWAY 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.9	102.5	0.6
103	Open Line WOODWARD 115-WWARD JT 115 #1 : Open Line WOODWARD 115-CHLDHOSP 115 #1 : Drop Load at WOODWARD 115 #1 : 34 MW 6.9 MVAR Dro : Drop Load at WOODWARD 115 #2 : 42.4 MW 8.6 MVAR D : Drop Load at WOODWARD 115 #3 : 35.5 MW 7.2 MVAR D :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.8	102.3	0.5
54	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line DANISHCM 115-MC CALL 115 #1 : Open Line DANISHCM 115-CAL AVE 115 #1 : Drop Load at DANISHCM 115 #1 : 3.8 MW 3.2 MVAR Dr :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.4	102.0	0.6
15	Open Line MOSSLND2 230-PANOUCHE 230 #1 : Open Line COBURN 230-PANOUCHE 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.3	101.9	0.6
23	Open Line EXCHEQUR 115-LE GRAND 115 #1 : Open Xfmr EXCHEQUR 115/EXCHQ RTP 115 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.3	101.9	0.6
20	Open Line PANOUCHE 230-MOSSLND2 230 #1 : Open Line PANOUCHE 230-PANO_EC 230 #1 : Open Line PANOUCHE 230-HELM 230 #1 : Open Line PANOUCHE 230-GATES 230 #2 : Open Line PANOUCHE 230-DS AMIGO 230 #1 : Open Xfmr PANOUCHE 230/PANOUCHE 115 #2 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.2	101.8	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
73	Open Line FIGRDN 1 230-FGRDN T1 230 #1 : Drop Load at FIGRDN 1 230 #1 : 59.1 MW 11.9 MVAR :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.1	101.6	0.6
98	Open Line BARTON 115-AIRWAYJ2 115 #1 : Open Line BARTON 115-HERNDON 115 #1 : Drop Load at BARTON 115 #1 : 34.8 MW 7 MVAR Dropp : Drop Load at BARTON 115 #2 : 29.9 MW 6 MVAR Dropp : Drop Load at BARTON 115 #3 : 21.7 MW 4.3 MVAR Dro :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.0	101.5	0.5
101	Open Line HERNDON 115-MANCHSTR 115 #1 : Open Line HERNDON 115-PNDLJ1 115 #1 : Open Line HERNDON 115-CHLDHOSP 115 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.9	101.4	0.5
21	Open Line CHWCHLLA 115-CERTAN T 115 #1 : Open Line CHWCHLLA 115-CERTANJ1 115 #1 : Drop Load at CHWCHLLA 115 #1 : 8.1 MW 1.6 MVAR Dr : Drop Load at CHWCHLLA 115 #2 : 11.1 MW 2.2 MVAR D :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.7	101.3	0.6
99	Open Line MANCHSTR 115-AIRWAYJ1 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 : Drop Load at MANCHSTR 115 #1 : 20.3 MW 4.1 MVAR D : Drop Load at MANCHSTR 115 #2 : 20.5 MW 4.1 MVAR D : Drop Load at MANCHSTR 115 #3 : 29.1 MW 5.9 MVAR D :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.7	101.2	0.5
102	Open Line PNEDLE 115-PNDLJ2 115 #1 : Drop Load at PNEDLE 115 #2 : 24.7 MW 5 MVAR Dropp : Drop Load at PNEDLE 115 #3 : 32.5 MW 6.5 MVAR Dro :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.6	101.1	0.5
117	Open Line KEARNEY 70-FRWWTAP 70 #1 : Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line KEARNEY 70-CARUTHRS 70 #1 : Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.5	101.0	0.6
30	Open Line PANOCHÉ 115-CHENYT 115 #1 : Open Line PANOCHÉ 115-PANOCHÉJ 115 #1 : Open Xfmr PANOCHÉ 115/PANOCHÉ 230 #2 : Open Xfmr PANOCHÉ 115/DG_PAN1 13.8 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.4	101.0	0.6
86	Open Line KERCKHF2 115-K1-JCT 115 #2 : Open Line KERCKHF2 115-KERCKHF1 115 #1 : Open Line KERCKHF2 115-WWARD JT 115 #1 : Open Line KERCKHF2 115-CLOVISJ2 115 #1 : Open Xfmr KERCKHF2 115/KERCKHOF 13.8 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.4	101.0	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
74	Open Line FIGRDN 2 230-FGRDN T2 230 #1 : Drop Load at FIGRDN 2 230 #1 : 42.3 MW 8.5 MVAR D :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.2	100.8	0.5
89	Open Line CLOVIS-2 115-CLOVISJ2 115 #1 : Drop Load at CLOVIS-2 115 #3 : 36 MW 7.3 MVAR Dro :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.1	100.6	0.6
45	Open Line BARTON 115-HERNDON 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.1	100.5	0.5
40	Open Line MADERA 70-TRIGO 70 #1 : Open Line MADERA 70-BORDEN 70 #1 : Open Line MADERA 70-BORDEN 70 #2 : Drop Load at MADERA 70 #1 : 14.4 MW 2.9 MVAR Drop : Drop Load at MADERA 70 #2 : 18.5 MW 3.7 MVAR Drop :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.9	100.5	0.6
96	Open Line CAL AVE 115-DANISHCM 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 : Drop Load at CAL AVE 115 #1 : 23.3 MW 4.7 MVAR Dr : Drop Load at CAL AVE 115 #2 : 25.1 MW 5.1 MVAR Dr : Drop Load at CAL AVE 115 #3 : 19.6 MW 3.9 MVAR Dr :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.9	100.4	0.6
100	Open Line HERNDON 115-BARTON 115 #1 : Open Line HERNDON 115-PNDLJ2 115 #1 : Open Xfmr HERNDON 115/HERNDN1M 115 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.8	100.3	0.5
91	Open Line MALAGA 115-SANGER 115 #1 : Open Line MALAGA 115-PPG 115 #1 : Open Line MALAGA 115-MALAGATP 115 #1 : Open Line MALAGA 115-KRCDP 115 #1 : Drop Load at MALAGA 115 #1 : 20.3 MW 4.1 MVAR Dro : Drop Load at MALAGA 115 #2 : 18.3 MW 3.7 MVAR Dro : Drop Load at MALAGA 115 #3 : 18.6 MW 3.7 MVAR Dro :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.7	100.3	0.5
97	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line WST FRSO 115-CAL AVE 115 #1 : Drop Load at WST FRSO 115 #1 : 30.2 MW 6.1 MVAR D : Drop Load at WST FRSO 115 #2 : 31.4 MW 6.3 MVAR D :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.7	100.2	0.6
53	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.7	100.2	0.5
72	Open Line HERNDON 230-GREGG 230 #2 : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Xfmr HERNDON 230/HERNDN2M 115 #2 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.6	100.2	0.5

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
68	Open Line GATES 230-MIDWAY 230 #1 : Open Line GATES 230-ARCO 230 #1 :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.5	100.1	0.6
87	Open Line AIRWAYS 115-AIRWAYJ1 115 #1 : Open Line AIRWAYS 115-AIRWAYJ2 115 #1 : Drop Load at AIRWAYS 115 #1 : 30.9 MW 5.9 MVAR Dr : Drop Load at AIRWAYS 115 #2 : 10.1 MW 2 MVAR Drop :	STOREY 2-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.5	100.0	0.6
58	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Open Line HELM 230-MC CALL 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	119.6	120.5	0.9
16	Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	118.7	119.6	0.9
57	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Open Line PANOCHE 230-HELM 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	118.7	119.6	0.9
lbs-dl-ns*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	117.2	117.9	0.7
71	Open Line HERNDON 230-GREGG 230 #1 : Open Line HERNDON 230-KEARNEY 230 #1 : Open Xfmr HERNDON 230/HERNDN1M 115 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	117.1	117.7	0.7
62	Open Line KEARNEY 230-HERNDON 230 #1 : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 59.1 MW 11.9 MVAR : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	114.3	115.0	0.7
70	Open Line KEARNEY 230-MCMULLN1 230 #1 : Open Line KEARNEY 230-HERNDON 230 #1 : Open Xfmr KEARNEY 230/KEARNEY 70 #2 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	113.9	114.6	0.7
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	113.5	114.3	0.8

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
19	Open Line PANOCHE 230-COBURN 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #2 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line PANOCHE 230-GATES 230 #1 : Open Xfmr PANOCHE 230/PNCHE 1M 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	112.8	113.6	0.8
83	Open Line GATES 230-HENTAP1 230 #1 : Open Line GATES 230-ARCO 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	109.5	110.6	1.1
75	Open Line ASHLAN 230-FGRDN T1 230 #1 : Open Line ASHLAN 230-FGRDN T2 230 #1 : Drop Load at ASHLAN 230 #1 : 55.7 MW 10.7 MVAR Dr : Drop Load at ASHLAN 230 #2 : 51.9 MW 10.3 MVAR Dr : Drop Load at ASHLAN 230 #3 : 52.7 MW 10 MVAR Drop :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	106.8	107.4	0.6
17	Open Line LOSBANOS 230-WESTLEY 230 #1 : Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line LOSBANOS 230-SN LS PP 230 #1 : Open Line LOSBANOS 230-SN LS PP 230 #2 : Open Xfmr LOSBANOS 230/LOS BANS 70 #3 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	106.4	107.0	0.7
47	Open Line PNDLJ1 115-BULLARD 115 #1 : Open Line PNDLJ1 115-HERNDON 115 #1 : Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 24.7 MW 5 MVAR Dropp : Drop Load at PNEDLE 115 #3 : 32.5 MW 6.5 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	105.8	106.5	0.6
lbn-dlons*	Los Banos - Tesla & Los Banos - Tracy 500-kV DLO	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	105.3	106.0	0.7
76	Open Line HELM 230-PANOCHE 230 #1 : Open Line HELM 230-MC CALL 230 #1 : Open Xfmr HELM 230/HELM 70 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	103.7	104.4	0.7
41	Open Line BORDEN 70-MADERA 70 #1 : Open Line BORDEN 70-MADERA 70 #2 : Open Line BORDEN 70-GLASS 70 #1 : Open Line BORDEN 70-CASSIDY 70 #1 : Open Xfmr BORDEN 70/BORDEN 230 #1 : Open Xfmr BORDEN 70/BORDEN 230 #2 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	103.5	104.1	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
7	Open Line LOSBANOS 230-PANOUCHE 230 #2 : Open Line DS AMIGO 230-PANOUCHE 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	103.2	103.9	0.7
104	Open Line BULLARD 115-PNDLJ2 115 #1 : Open Line BULLARD 115-PNDLJ1 115 #1 : Drop Load at BULLARD 115 #1 : 36.1 MW 7.3 MVAR Dr : Drop Load at BULLARD 115 #2 : 35.9 MW 7.2 MVAR Dr : Drop Load at BULLARD 115 #3 : 34.2 MW 6.9 MVAR Dr :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	103.2	103.8	0.6
18	Open Line LOSBANOS 230-PANOUCHE 230 #1 : Open Line LOSBANOS 230-DS AMIGO 230 #1 : Open Xfmr LOSBANOS 230/LOS BANS 70 #4 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	103.0	103.7	0.6
6	Open Line LOSBANOS 230-PANOUCHE 230 #2 : Open Line LOSBANOS 230-DS AMIGO 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	102.7	103.3	0.6
84	Open Line GATES 230-HENTAP2 230 #1 : Open Line GATES 230-MIDWAY 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	102.4	103.1	0.7
103	Open Line WOODWARD 115-WWARD JT 115 #1 : Open Line WOODWARD 115-CHLDHOSP 115 #1 : Drop Load at WOODWARD 115 #1 : 34 MW 6.9 MVAR Dro : Drop Load at WOODWARD 115 #2 : 42.4 MW 8.6 MVAR D : Drop Load at WOODWARD 115 #3 : 35.5 MW 7.2 MVAR D :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	102.3	102.9	0.6
54	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line DANISHCM 115-MC CALL 115 #1 : Open Line DANISHCM 115-CAL AVE 115 #1 : Drop Load at DANISHCM 115 #1 : 3.8 MW 3.2 MVAR Dr :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.9	102.5	0.6
15	Open Line MOSSLND2 230-PANOUCHE 230 #1 : Open Line COBURN 230-PANOUCHE 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.8	102.4	0.6
23	Open Line EXCHEQUR 115-LE GRAND 115 #1 : Open Xfmr EXCHEQUR 115/EXCHQ RTP 115 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.8	102.4	0.6
20	Open Line PANOUCHE 230-MOSSLND2 230 #1 : Open Line PANOUCHE 230-PANO_EC 230 #1 : Open Line PANOUCHE 230-HELM 230 #1 : Open Line PANOUCHE 230-GATES 230 #2 : Open Line PANOUCHE 230-DS AMIGO 230 #1 : Open Xfmr PANOUCHE 230/PANOUCHE 115 #2 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.6	102.3	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
73	Open Line FIGRDN 1 230-FGRDN T1 230 #1 : Drop Load at FIGRDN 1 230 #1 : 59.1 MW 11.9 MVAR :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.5	102.1	0.6
98	Open Line BARTON 115-AIRWAYJ2 115 #1 : Open Line BARTON 115-HERNDON 115 #1 : Drop Load at BARTON 115 #1 : 34.8 MW 7 MVAR Dropp : Drop Load at BARTON 115 #2 : 29.9 MW 6 MVAR Dropp : Drop Load at BARTON 115 #3 : 21.7 MW 4.3 MVAR Dro :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.4	102.0	0.6
101	Open Line HERNDON 115-MANCHSTR 115 #1 : Open Line HERNDON 115-PNDLJ1 115 #1 : Open Line HERNDON 115-CHLDHOSP 115 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.4	101.9	0.5
21	Open Line CHWCHLLA 115-CERTAN T 115 #1 : Open Line CHWCHLLA 115-CERTANJ1 115 #1 : Drop Load at CHWCHLLA 115 #1 : 8.1 MW 1.6 MVAR Dr : Drop Load at CHWCHLLA 115 #2 : 11.1 MW 2.2 MVAR D :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.2	101.8	0.6
99	Open Line MANCHSTR 115-AIRWAYJ1 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 : Drop Load at MANCHSTR 115 #1 : 20.3 MW 4.1 MVAR D : Drop Load at MANCHSTR 115 #2 : 20.5 MW 4.1 MVAR D : Drop Load at MANCHSTR 115 #3 : 29.1 MW 5.9 MVAR D :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.1	101.7	0.6
102	Open Line PNEDLE 115-PNDLJ2 115 #1 : Drop Load at PNEDLE 115 #2 : 24.7 MW 5 MVAR Dropp : Drop Load at PNEDLE 115 #3 : 32.5 MW 6.5 MVAR Dro :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.0	101.6	0.6
117	Open Line KEARNEY 70-FRWWTAP 70 #1 : Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line KEARNEY 70-CARUTHRS 70 #1 : Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.9	101.5	0.6
30	Open Line PANOCHÉ 115-CHENYT 115 #1 : Open Line PANOCHÉ 115-PANOCHÉJ 115 #1 : Open Xfmr PANOCHÉ 115/PANOCHÉ 230 #2 : Open Xfmr PANOCHÉ 115/DG_PAN1 13.8 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.8	101.4	0.6
86	Open Line KERCKHF2 115-K1-JCT 115 #2 : Open Line KERCKHF2 115-KERCKHF1 115 #1 : Open Line KERCKHF2 115-WWARD JT 115 #1 : Open Line KERCKHF2 115-CLOVISJ2 115 #1 : Open Xfmr KERCKHF2 115/KERCKHOF 13.8 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.7	101.4	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
74	Open Line FIGRDN 2 230-FGRDN T2 230 #1 : Drop Load at FIGRDN 2 230 #1 : 42.3 MW 8.5 MVAR D :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.6	101.2	0.6
89	Open Line CLOVIS-2 115-CLOVISJ2 115 #1 : Drop Load at CLOVIS-2 115 #3 : 36 MW 7.3 MVAR Dro :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.4	101.0	0.6
45	Open Line BARTON 115-HERNDON 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.4	100.9	0.5
40	Open Line MADERA 70-TRIGO 70 #1 : Open Line MADERA 70-BORDEN 70 #1 : Open Line MADERA 70-BORDEN 70 #2 : Drop Load at MADERA 70 #1 : 14.4 MW 2.9 MVAR Drop : Drop Load at MADERA 70 #2 : 18.5 MW 3.7 MVAR Drop :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.2	100.9	0.6
96	Open Line CAL AVE 115-DANISHCM 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 : Drop Load at CAL AVE 115 #1 : 23.3 MW 4.7 MVAR Dr : Drop Load at CAL AVE 115 #2 : 25.1 MW 5.1 MVAR Dr : Drop Load at CAL AVE 115 #3 : 19.6 MW 3.9 MVAR Dr :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.2	100.8	0.6
100	Open Line HERNDON 115-BARTON 115 #1 : Open Line HERNDON 115-PNDLJ2 115 #1 : Open Xfmr HERNDON 115/HERNDN1M 115 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.1	100.7	0.6
91	Open Line MALAGA 115-SANGER 115 #1 : Open Line MALAGA 115-PPG 115 #1 : Open Line MALAGA 115-MALAGATP 115 #1 : Open Line MALAGA 115-KRCDP 115 #1 : Drop Load at MALAGA 115 #1 : 20.3 MW 4.1 MVAR Dro : Drop Load at MALAGA 115 #2 : 18.3 MW 3.7 MVAR Dro : Drop Load at MALAGA 115 #3 : 18.6 MW 3.7 MVAR Dro :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.0	100.6	0.6
97	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line WST FRSO 115-CAL AVE 115 #1 : Drop Load at WST FRSO 115 #1 : 30.2 MW 6.1 MVAR D : Drop Load at WST FRSO 115 #2 : 31.4 MW 6.3 MVAR D :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.0	100.6	0.6
53	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	100.0	100.6	0.6
72	Open Line HERNDON 230-GREGG 230 #2 : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Xfmr HERNDON 230/HERNDN2M 115 #2 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	99.9	100.5	0.6



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
68	Open Line GATES 230-MIDWAY 230 #1 : Open Line GATES 230-ARCO 230 #1 :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	99.8	100.4	0.6
87	Open Line AIRWAYS 115-AIRWAYJ1 115 #1 : Open Line AIRWAYS 115-AIRWAYJ2 115 #1 : Drop Load at AIRWAYS 115 #1 : 30.9 MW 5.9 MVAR Dr : Drop Load at AIRWAYS 115 #2 : 10.1 MW 2 MVAR Drop :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	99.8	100.4	0.6
88	Open Line CLOVIS-1 115-CLOVISJ1 115 #1 : Drop Load at CLOVIS-1 115 #1 : 41 MW 8.3 MVAR Dro :	STOREY 1-WILSON 230.00kV Ckt#1 Sec# 1	850.96	Amps	99.6	100.2	0.6
58	Open Line PANOCHÉ 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Open Line HELM 230-MC CALL 230 #1 :	STOREY 1-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	137.9	138.8	0.9
16	Open Line PANOCHÉ 230-HELM 230 #1 : Open Line PANOCHÉ 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D :	STOREY 1-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	136.9	137.8	0.9
57	Open Line PANOCHÉ 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Open Line PANOCHÉ 230-HELM 230 #1 :	STOREY 1-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	136.9	137.8	0.9
71	Open Line HERNDON 230-GREGG 230 #1 : Open Line HERNDON 230-KEARNEY 230 #1 : Open Xfmr HERNDON 230/HERNDN1M 115 #1 :	STOREY 1-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	135.2	135.9	0.7
62	Open Line KEARNEY 230-HERNDON 230 #1 : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 59.1 MW 11.9 MVAR : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 :	STOREY 1-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	132.2	132.9	0.7
70	Open Line KEARNEY 230-MCMULLN1 230 #1 : Open Line KEARNEY 230-HERNDON 230 #1 : Open Xfmr KEARNEY 230/KEARNEY 70 #2 :	STOREY 1-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.8	132.5	0.8
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	STOREY 1-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	131.3	132.2	0.9

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
19	Open Line PANOCHE 230-COBURN 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #2 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line PANOCHE 230-GATES 230 #1 : Open Xfmr PANOCHE 230/PNCHE 1M 230 #1 :	STOREY 1-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	130.6	131.4	0.8
17	Open Line LOSBANOS 230-WESTLEY 230 #1 : Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line LOSBANOS 230-SN LS PP 230 #1 : Open Line LOSBANOS 230-SN LS PP 230 #2 : Open Xfmr LOSBANOS 230/LOS BANS 70 #3 :	STOREY 1-BORDEN 230.00kV Ckt#1 Sec# 1	793.23	Amps	123.7	124.4	0.7
9	Open Line BELLOTA 230-COTTLE A 230 #1 : Open Line COTTLE A 230-MELONES 230 #1 : Drop Load at COTTLE A 230 #1 : 22.2 MW 0.9 MVAR D : Drop Generator at HELMS 3 18 #** : 400 MW Dropped : Open Line BELLOTA 230-COTTLE B 230 #1 : Open Line COTTLE B 230-WARNERVL 230 #1 : Drop Load at COTTLE B 230 #2 : 25.5 MW 1.1 MVAR D :	STANDFRD-WRNRVLE 115.00kV Ckt#2 Sec# 1	938.82	Amps	118.4	119.0	0.6
9	Open Line BELLOTA 230-COTTLE A 230 #1 : Open Line COTTLE A 230-MELONES 230 #1 : Drop Load at COTTLE A 230 #1 : 22.2 MW 0.9 MVAR D : Drop Generator at HELMS 3 18 #** : 400 MW Dropped : Open Line BELLOTA 230-COTTLE B 230 #1 : Open Line COTTLE B 230-WARNERVL 230 #1 : Drop Load at COTTLE B 230 #2 : 25.5 MW 1.1 MVAR D :	STANDFRD-WRNRVLE 115.00kV Ckt#1 Sec# 1	938.82	Amps	118.4	119.0	0.6
35	Open Line LOS BANS 70-CHEVPIPE 70 #1 : Open Line LOS BANS 70-WRGHT PP 70 #1 : Open Line LOS BANS 70-PCHCO PP 70 #1 : Open Line LOS BANS 70-ONLL PMP 69 #1 : Open Xfmr LOS BANS 70/LOSBANOS 230 #3 : Open Xfmr LOS BANS 70/LOSBANOS 230 #4 :	SNTA RTA-DOS PALS 70.00kV Ckt#1 Sec# 1	297.75	Amps	118.2	118.3	0.1
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	SN LS OB-Q238TAP 115.00kV Ckt#1 Sec# 1	436.78	Amps	110.9	110.9	0.0
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 27 MW 5.4 MVAR Dro : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D :	SHARON T-CERTANJ1 115.00kV Ckt#1 Sec# 1	396.61	Amps	154.6	156.0	1.4

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
48	Open Line KERCKHF2 115-WWARD JT 115 #1 : Open Line WWARD JT 115-WOODWARD 115 #1 : Open Line WWARD JT 115-CLOVISJ1 115 #1 : Open Line CLOVISJ1 115-CLOVIS-1 115 #1 : Open Line CLOVISJ1 115-SANGER 115 #1 : Drop Load at CLOVIS-1 115 #1 : 41 MW 8.3 MVAR Dro : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 : Open Line CLOVIS-2 115-CLOVISJ2 115 #1 :	SHARON T-CERTANJ1 115.00kV Ckt#1 Sec# 1	396.61	Amps	119.3	119.3	0.1
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	SHARON T-CERTANJ1 115.00kV Ckt#1 Sec# 1	396.61	Amps	113.1	114.7	1.6
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	SANGER -MC CALL 115.00kV Ckt#3 Sec# 1	973.96	Amps	100.3	101.8	1.4
58	Open Line PANOCHÉ 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Open Line HELM 230-MC CALL 230 #1 :	SAN JOQN-SNJQJCT 70.00kV Ckt#1 Sec# 1	395.9	Amps	112.2	113.4	1.2
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q239SWST-Q166 230.00kV Ckt#2 Sec# 1	976.48	Amps	140.4	140.4	0.0
82	Open Line GATES 230-PANOCHÉ 230 #2 : Open Line GATES 230-MORROBAY 230 #1 :	Q239SWST-Q166 230.00kV Ckt#2 Sec# 1	976.48	Amps	104.5	104.6	0.1
81	Open Line GATES 230-PANOCHÉ 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 : Open Xfmr GATES 230/GATES 1M 230 #1 :	Q239SWST-Q166 230.00kV Ckt#2 Sec# 1	976.48	Amps	101.1	101.2	0.1
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q239SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	140.4	140.4	0.0
82	Open Line GATES 230-PANOCHÉ 230 #2 : Open Line GATES 230-MORROBAY 230 #1 :	Q239SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	104.5	104.6	0.1
81	Open Line GATES 230-PANOCHÉ 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 : Open Xfmr GATES 230/GATES 1M 230 #1 :	Q239SWST-Q166 230.00kV Ckt#1 Sec# 1	976.48	Amps	101.1	101.2	0.1
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q239SWST-MORROBAY 230.00kV Ckt#2 Sec# 1	976.48	Amps	106.7	106.7	0.0

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q239SWST-MORROBAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	106.7	106.7	0.0
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q238TAP -CARRIZO 115.00kV Ckt#1 Sec# 1	436.78	Amps	106.8	106.8	0.0
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	140.3	140.4	0.0
82	Open Line GATES 230-PANOCHE 230 #2 : Open Line GATES 230-MORROBAY 230 #1 :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	104.4	104.5	0.1
81	Open Line GATES 230-PANOCHE 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 : Open Xfmr GATES 230/GATES 1M 230 #1 :	Q194SWST-MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	101.1	101.2	0.1
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	140.4	140.4	0.0
82	Open Line GATES 230-PANOCHE 230 #2 : Open Line GATES 230-MORROBAY 230 #1 :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	104.4	104.6	0.1
81	Open Line GATES 230-PANOCHE 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 : Open Xfmr GATES 230/GATES 1M 230 #1 :	Q166 -Q194SWST 230.00kV Ckt#1 Sec# 1	976.48	Amps	101.1	101.2	0.1
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	140.3	140.4	0.0
82	Open Line GATES 230-PANOCHE 230 #2 : Open Line GATES 230-MORROBAY 230 #1 :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	104.4	104.5	0.1
81	Open Line GATES 230-PANOCHE 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 : Open Xfmr GATES 230/GATES 1M 230 #1 :	Q166 -MIDWAY 230.00kV Ckt#1 Sec# 1	976.48	Amps	101.1	101.2	0.1
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	PSA RBLS-SAN MIGL 70.00kV Ckt#1 Sec# 1	346.41	Amps	102.3	102.1	-0.2
93	Open Line REEDLEY 115-GERAWAN 115 #1 : Open Line REEDLEY 115-PIEDRA 1 115 #1 : Open Xfmr REEDLEY 115/REEDLEY 70 #1 : Open Xfmr REEDLEY 115/REEDLEY 70 #2 : Drop Load at REEDLEY 115 #3 : 21.1 MW 4.2 MVAR Dr :	PARLIER -SNGRJCT 70.00kV Ckt#1 Sec# 1	470.13	Amps	113.7	113.9	0.2

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
18	Open Line LOSBANOS 230-PANOCHE 230 #1 : Open Line LOSBANOS 230-DS AMIGO 230 #1 : Open Xfmr LOSBANOS 230/LOS BANS 70 #4 :	PANOCHE -LOSBANOS 230.00kV Ckt#2 Sec# 1	849.96	Amps	110.5	111.4	0.8
7	Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line DS AMIGO 230-PANOCHE 230 #1 :	PANOCHE -LOSBANOS 230.00kV Ckt#1 Sec# 1	974.97	Amps	105.9	106.6	0.8
6	Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line LOSBANOS 230-DS AMIGO 230 #1 :	PANOCHE -LOSBANOS 230.00kV Ckt#1 Sec# 1	974.97	Amps	101.1	101.9	0.8
19	Open Line PANOCHE 230-COBURN 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #2 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line PANOCHE 230-GATES 230 #1 : Open Xfmr PANOCHE 230/PNCHE 1M 230 #1 :	PANOCHE -DS AMIGO 230.00kV Ckt#1 Sec# 1	849.96	Amps	116.2	117.0	0.8
35	Open Line LOS BANS 70-CHEVPIPE 70 #1 : Open Line LOS BANS 70-WRGHT PP 70 #1 : Open Line LOS BANS 70-PCHCO PP 70 #1 : Open Line LOS BANS 70-ONLL PMP 69 #1 : Open Xfmr LOS BANS 70/LOSBANOS 230 #3 : Open Xfmr LOS BANS 70/LOSBANOS 230 #4 :	ORO LOMA-ORO LOMA 115.00/ 70.00kV Bk#2	72	MVA	141.3	141.3	0.0
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 27 MW 5.4 MVAR Dro : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D :	OAKH_JCT-SHARON T 115.00kV Ckt#1 Sec# 1	396.61	Amps	160.9	162.3	1.4
48	Open Line KERCKHF2 115-WWARD JT 115 #1 : Open Line WWARD JT 115-WOODWARD 115 #1 : Open Line WWARD JT 115-CLOVISJ1 115 #1 : Open Line CLOVISJ1 115-CLOVIS-1 115 #1 : Open Line CLOVISJ1 115-SANGER 115 #1 : Drop Load at CLOVIS-1 115 #1 : 41 MW 8.3 MVAR Dro : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 : Open Line CLOVIS-2 115-CLOVISJ2 115 #1 :	OAKH_JCT-SHARON T 115.00kV Ckt#1 Sec# 1	396.61	Amps	125.9	126.0	0.1
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	OAKH_JCT-SHARON T 115.00kV Ckt#1 Sec# 1	396.61	Amps	119.2	120.8	1.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
35	Open Line LOS BANS 70-CHEVPIPE 70 #1 : Open Line LOS BANS 70-WRGHT PP 70 #1 : Open Line LOS BANS 70-PCHCO PP 70 #1 : Open Line LOS BANS 70-ONLL PMP 69 #1 : Open Xfmr LOS BANS 70/LOSBANOS 230 #3 : Open Xfmr LOS BANS 70/LOSBANOS 230 #4 :	MRCYSPRS-ORO LOMA 70.00kV Ckt#1 Sec# 1	511.37	Amps	114.4	114.5	0.1
24	Open Line LE GRAND 115-CERTAN T 115 #1 : Open Line LE GRAND 115-EXCHEQUR 115 #1 : Open Line LE GRAND 115-WILSON A 115 #1 : Open Line LE GRAND 115-DAIRYLND 115 #1 : Drop Load at LE GRAND 115 #1 : 10.7 MW 2.1 MVAR D :	MRCDFLLS-MERCED 70.00kV Ckt#1 Sec# 1	377.75	Amps	146.6	146.6	0.0
1	Open Line WILSON A 115-ATWATER 115 #1 : Open Line WILSON B 115-EL CAPTN 115 #1 :	MERCED -WILSON A 115.00kV Ckt#1 Sec# 1	471.92	Amps	109.4	109.5	0.1
24	Open Line LE GRAND 115-CERTAN T 115 #1 : Open Line LE GRAND 115-EXCHEQUR 115 #1 : Open Line LE GRAND 115-WILSON A 115 #1 : Open Line LE GRAND 115-DAIRYLND 115 #1 : Drop Load at LE GRAND 115 #1 : 10.7 MW 2.1 MVAR D :	MERCED -MERCED M 115.00/ 115.00kV Bk#2	60	MVA	129.1	129.0	0.0
24	Open Line LE GRAND 115-CERTAN T 115 #1 : Open Line LE GRAND 115-EXCHEQUR 115 #1 : Open Line LE GRAND 115-WILSON A 115 #1 : Open Line LE GRAND 115-DAIRYLND 115 #1 : Drop Load at LE GRAND 115 #1 : 10.7 MW 2.1 MVAR D :	MERCED -MERCED M 70.00/ 115.00kV Bk#2	60	MVA	117.7	117.7	0.0
24	Open Line LE GRAND 115-CERTAN T 115 #1 : Open Line LE GRAND 115-EXCHEQUR 115 #1 : Open Line LE GRAND 115-WILSON A 115 #1 : Open Line LE GRAND 115-DAIRYLND 115 #1 : Drop Load at LE GRAND 115 #1 : 10.7 MW 2.1 MVAR D :	MCSWAINJ-MRCDFLLS 70.00kV Ckt#1 Sec# 1	379.4	Amps	154.9	155.0	0.0
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 27 MW 5.4 MVAR Dro : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D :	MCMULLN1-PANOCHÉ 230.00kV Ckt#1 Sec# 1	974.97	Amps	104.9	105.7	0.8

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
55	Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Drop Generator at HELMS 3 18 #** : 400 MW Dropped : Close Line HENTAP2 230-HENRIETA 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	MC CALL -HELM 230.00kV Ckt#1 Sec# 1	849.96	Amps	115.0	118.3	3.3
90	Open Line SANGER 115-CLOVISJ1 115 #1 : Open Line SANGER 115-CLOVISJ2 115 #1 : Open Line SANGER 115-AIRWAYJ2 115 #1 : Open Line SANGER 115-LASPALMS 115 #1 : Open Line SANGER 115-MC CALL 115 #1 : Open Line SANGER 115-MC CALL 115 #2 : Open Line SANGER 115-MC CALL 115 #3 : Open Line SANGER 115-MALAGA 115 #1 : Open Line SANGER 115-RAINBWTP 115 #1 : Open Line SANGER 115-PIEDRA 2 115 #1 :	MC CALL -HELM 230.00kV Ckt#1 Sec# 1	849.96	Amps	112.5	114.2	1.7
84	Open Line GATES 230-HENTAP2 230 #1 : Open Line GATES 230-MIDWAY 230 #1 :	MC CALL -HELM 230.00kV Ckt#1 Sec# 1	849.96	Amps	109.2	110.8	1.7
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 27 MW 5.4 MVAR Dro : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D :	MC CALL -HELM 230.00kV Ckt#1 Sec# 1	849.96	Amps	104.1	105.5	1.3
78	Open Line MC CALL 230-PINE FLT 230 #1 : Open Line MC CALL 230-Q128 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Xfmr MC CALL 230/MCCALL2M 115 #2 :	MC CALL -HELM 230.00kV Ckt#1 Sec# 1	849.96	Amps	98.9	100.5	1.6
62	Open Line KEARNEY 230-HERNDON 230 #1 : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 59.1 MW 11.9 MVAR : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 :	MC CALL -HELM 230.00kV Ckt#1 Sec# 1	849.96	Amps	99.2	100.5	1.3
70	Open Line KEARNEY 230-MCMULLN1 230 #1 : Open Line KEARNEY 230-HERNDON 230 #1 : Open Xfmr KEARNEY 230/KEARNEY 70 #2 :	MC CALL -HELM 230.00kV Ckt#1 Sec# 1	849.96	Amps	98.7	100.0	1.3
lbn-dlo-ns*	Los Banos - Tesla & Los Banos - Tracy 500-kV DLO	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	105.0	105.9	0.9

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
lbs-dlo-ns*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	LOSBANOS-WESTLEY 230.00kV Ckt#1 Sec# 1	1699.92	Amps	103.1	103.6	0.5
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	LEPRNOFD-GWF_HEP 115.00kV Ckt#1 Sec# 1	743.02	Amps	101.1	110.0	8.8
126	Open Line HENRITTA 70-MUSLSLGH 70 #1 : Open Line HENRITTA 70-LPRNO TP 70 #1 : Open Line HENRITTA 70-GWF_HENR 70 #1 : Open Line HENRITTA 70-JCBSCRNR 70 #1 : Open Xfmr HENRITTA 70/HENRIETA 230 #2 : Open Xfmr HENRITTA 70/HENRIETA 230 #4 : Drop Load at HENRITTA 70 #1 : 6.6 MW 1.3 MVAR Dro :	LEMOORE -HNFRD SW 70.00kV Ckt#1 Sec# 1	280.43	Amps	190.2	189.9	-0.3
80	Open Line HENRIETA 230-HENTAP1 230 #1 : Open Xfmr HENRIETA 230/HENRETTA 115 #3 : Open Xfmr HENRIETA 230/HENRITTA 70 #2 : Open Xfmr HENRIETA 230/HENRITTA 70 #4 :	LEMOORE -HNFRD SW 70.00kV Ckt#1 Sec# 1	280.43	Amps	121.1	121.1	0.0
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 27 MW 5.4 MVAR Dro : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D :	LE GRAND-WILSON A 115.00kV Ckt#1 Sec# 1	512.08	Amps	160.1	161.1	1.0
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	KNGLOBUS-HRDWK TP 70.00kV Ckt#1 Sec# 1	377.75	Amps	114.7	117.4	2.6
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	KINGS J2-KINGS J1 115.00kV Ckt#1 Sec# 1	599.98	Amps	103.2	99.4	-3.8
70	Open Line KEARNEY 230-MCMULLN1 230 #1 : Open Line KEARNEY 230-HERNDON 230 #1 : Open Xfmr KEARNEY 230/KEARNEY 70 #2 :	KERMAN -AGRCJCT 70.00kV Ckt#1 Sec# 1	379.4	Amps	162.1	161.5	-0.5
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 27 MW 5.4 MVAR Dro : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D :	KERCKHF2-K1-JCT 115.00kV Ckt#2 Sec# 1	743.02	Amps	115.2	115.9	0.8



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 27 MW 5.4 MVAR Dro : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D :	KEARNEY -MCMULLN1 230.00kV Ckt#1 Sec# 1	974.97	Amps	109.1	109.9	0.8
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 27 MW 5.4 MVAR Dro : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D :	KEARNEY -HERNDON 230.00kV Ckt#1 Sec# 1	974.97	Amps	133.7	134.5	0.8
70	Open Line KEARNEY 230-MCMULLN1 230 #1 : Open Line KEARNEY 230-HERNDON 230 #1 : Open Xfmr KEARNEY 230/KEARNEY 70 #2 :	KEARNEY -FRWWTAP 70.00kV Ckt#1 Sec# 1	379.4	Amps	110.7	110.2	-0.4
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 27 MW 5.4 MVAR Dro : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D :	K1-JCT -OAKH_JCT 115.00kV Ckt#1 Sec# 1	743.02	Amps	115.2	115.9	0.8
126	Open Line HENRITTA 70-MUSLSLGH 70 #1 : Open Line HENRITTA 70-LPRNO TP 70 #1 : Open Line HENRITTA 70-GWF_HENR 70 #1 : Open Line HENRITTA 70-JCBSCRNR 70 #1 : Open Xfmr HENRITTA 70/HENRIETA 230 #2 : Open Xfmr HENRITTA 70/HENRIETA 230 #4 : Drop Load at HENRITTA 70 #1 : 6.6 MW 1.3 MVAR Dro :	HRDWK TP-KNGLOBUS 70.00kV Ckt#1 Sec# 1	377.75	Amps	165.7	165.4	-0.2
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	HNFRD SW-LEMOORE 70.00kV Ckt#1 Sec# 1	280.43	Amps	128.5	131.9	3.5
126	Open Line HENRITTA 70-MUSLSLGH 70 #1 : Open Line HENRITTA 70-LPRNO TP 70 #1 : Open Line HENRITTA 70-GWF_HENR 70 #1 : Open Line HENRITTA 70-JCBSCRNR 70 #1 : Open Xfmr HENRITTA 70/HENRIETA 230 #2 : Open Xfmr HENRITTA 70/HENRIETA 230 #4 : Drop Load at HENRITTA 70 #1 : 6.6 MW 1.3 MVAR Dro :	HNFRD SW-HRDWK TP 70.00kV Ckt#1 Sec# 1	379.4	Amps	140.5	140.3	-0.2

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	HERNDON -KEARNEY 230.00kV Ckt#1 Sec# 1	974.97	Amps	103.6	104.5	0.9
16	Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D :	HELM -STRD JCT 70.00kV Ckt#1 Sec# 1	377.75	Amps	149.5	151.3	1.8
57	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Open Line PANOCHE 230-HELM 230 #1 :	HELM -STRD JCT 70.00kV Ckt#1 Sec# 1	377.75	Amps	149.5	151.3	1.8
20	Open Line PANOCHE 230-MOSSLND2 230 #1 : Open Line PANOCHE 230-PANO_EC 230 #1 : Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-GATES 230 #2 : Open Line PANOCHE 230-DS AMIGO 230 #1 : Open Xfmr PANOCHE 230/PANOCHE 115 #2 :	HELM -STRD JCT 70.00kV Ckt#1 Sec# 1	377.75	Amps	125.3	126.7	1.4
55	Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Drop Generator at HELMS 3 18 #** : 400 MW Dropped : Close Line HENTAP2 230-HENRIETA 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	HELM -PANOCHE 230.00kV Ckt#1 Sec# 1	849.96	Amps	101.7	104.7	3.0
90	Open Line SANGER 115-CLOVISJ1 115 #1 : Open Line SANGER 115-CLOVISJ2 115 #1 : Open Line SANGER 115-AIRWAYJ2 115 #1 : Open Line SANGER 115-LASPALMS 115 #1 : Open Line SANGER 115-MC CALL 115 #1 : Open Line SANGER 115-MC CALL 115 #2 : Open Line SANGER 115-MC CALL 115 #3 : Open Line SANGER 115-MALAGA 115 #1 : Open Line SANGER 115-RAINBWP 115 #1 : Open Line SANGER 115-PIEDRA 2 115 #1 :	HELM -PANOCHE 230.00kV Ckt#1 Sec# 1	849.96	Amps	99.0	100.5	1.5
70	Open Line KEARNEY 230-MCMULLN1 230 #1 : Open Line KEARNEY 230-HERNDON 230 #1 : Open Xfmr KEARNEY 230/KEARNEY 70 #2 :	FRWWTAP -KERMAN 70.00kV Ckt#1 Sec# 1	379.4	Amps	107.1	106.7	-0.4

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
61	Open Line GREGG 230-HERNDON 230 #1 : Drop Generator at HELMS 3 18 #** : 400 MW Dropped : Open Line GREGG 230-HERNDON 230 #2 :	FGRDN T2-GREGG 230.00kV Ckt#1 Sec# 1	849.96	Amps	160.7	160.4	-0.4
61	Open Line GREGG 230-HERNDON 230 #1 : Drop Generator at HELMS 3 18 #** : 400 MW Dropped : Open Line GREGG 230-HERNDON 230 #2 :	FGRDN T2-ASHLAN 230.00kV Ckt#1 Sec# 1	849.96	Amps	148.4	148.0	-0.4
61	Open Line GREGG 230-HERNDON 230 #1 : Drop Generator at HELMS 3 18 #** : 400 MW Dropped : Open Line GREGG 230-HERNDON 230 #2 :	FGRDN T1-ASHLAN 230.00kV Ckt#1 Sec# 1	850.96	Amps	101.4	101.0	-0.4
24	Open Line LE GRAND 115-CERTAN T 115 #1 : Open Line LE GRAND 115-EXCHEQUR 115 #1 : Open Line LE GRAND 115-WILSON A 115 #1 : Open Line LE GRAND 115-DAIRYLND 115 #1 : Drop Load at LE GRAND 115 #1 : 10.7 MW 2.1 MVAR D :	EXCHEQUR-MCSWAINJ 70.00kV Ckt#1 Sec# 1	280.43	Amps	183.2	183.3	0.0
19	Open Line PANOCHE 230-COBURN 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #2 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line PANOCHE 230-GATES 230 #1 : Open Xfmr PANOCHE 230/PNCHE 1M 230 #1 :	DS AMIGO-LOSBANOS 230.00kV Ckt#1 Sec# 1	849.96	Amps	101.7	102.5	0.8
35	Open Line LOS BANS 70-CHEVPIPE 70 #1 : Open Line LOS BANS 70-WRGT PP 70 #1 : Open Line LOS BANS 70-PCHCO PP 70 #1 : Open Line LOS BANS 70-ONLL PMP 69 #1 : Open Xfmr LOS BANS 70/LOSBANOS 230 #3 : Open Xfmr LOS BANS 70/LOSBANOS 230 #4 :	DOS PALS-ORO LOMA 70.00kV Ckt#1 Sec# 1	282.08	Amps	151.7	151.9	0.1
1	Open Line WILSON A 115-ATWATER 115 #1 : Open Line WILSON B 115-EL CAPTN 115 #1 :	CRESEY T-ATWATR J 115.00kV Ckt#1 Sec# 1	512.08	Amps	146.7	146.8	0.1
lbs-dlo-ns*	Los Banos - Gates & Los Banos - Midway 500-kV DLO	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.6	119.3	0.8
58	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Open Line HELM 230-MC CALL 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.6	113.4	0.8

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
16	Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.5	113.3	0.8
57	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Open Line PANOCHE 230-HELM 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	112.5	113.3	0.8
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.9	111.7	0.8
19	Open Line PANOCHE 230-COBURN 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #1 : Open Line PANOCHE 230-LOSBANOS 230 #2 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line PANOCHE 230-GATES 230 #1 : Open Xfmr PANOCHE 230/PNCHE 1M 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.3	111.1	0.8
71	Open Line HERNDON 230-GREGG 230 #1 : Open Line HERNDON 230-KEARNEY 230 #1 : Open Xfmr HERNDON 230/HERNDN1M 115 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	110.2	110.9	0.7
lbn-dlons*	Los Banos - Tesla & Los Banos - Tracy 500-kV DLO	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.7	109.5	0.8
62	Open Line KEARNEY 230-HERNDON 230 #1 : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 59.1 MW 11.9 MVAR : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.7	109.4	0.7
70	Open Line KEARNEY 230-MCMULLN1 230 #1 : Open Line KEARNEY 230-HERNDON 230 #1 : Open Xfmr KEARNEY 230/KEARNEY 70 #2 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	108.3	109.0	0.7
83	Open Line GATES 230-HENTAP1 230 #1 : Open Line GATES 230-ARCO 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	107.3	108.3	1.0

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
75	Open Line ASHLAN 230-FGRDN T1 230 #1 : Open Line ASHLAN 230-FGRDN T2 230 #1 : Drop Load at ASHLAN 230 #1 : 55.7 MW 10.7 MVAR Dr : Drop Load at ASHLAN 230 #2 : 51.9 MW 10.3 MVAR Dr : Drop Load at ASHLAN 230 #3 : 52.7 MW 10 MVAR Drop :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.6	106.3	0.6
47	Open Line PNDLJ1 115-BULLARD 115 #1 : Open Line PNDLJ1 115-HERNDON 115 #1 : Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 24.7 MW 5 MVAR Dropp : Drop Load at PNEDLE 115 #3 : 32.5 MW 6.5 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	105.2	105.9	0.7
15	Open Line MOSSLND2 230-PANOCHE 230 #1 : Open Line COBURN 230-PANOCHE 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	104.0	104.7	0.7
7	Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line DS AMIGO 230-PANOCHE 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.6	104.3	0.7
18	Open Line LOSBANOS 230-PANOCHE 230 #1 : Open Line LOSBANOS 230-DS AMIGO 230 #1 : Open Xfmr LOSBANOS 230/LOS BANS 70 #4 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.1	103.8	0.7
6	Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line LOSBANOS 230-DS AMIGO 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	103.0	103.7	0.7
104	Open Line BULLARD 115-PNDLJ2 115 #1 : Open Line BULLARD 115-PNDLJ1 115 #1 : Drop Load at BULLARD 115 #1 : 36.1 MW 7.3 MVAR Dr : Drop Load at BULLARD 115 #2 : 35.9 MW 7.2 MVAR Dr : Drop Load at BULLARD 115 #3 : 34.2 MW 6.9 MVAR Dr :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.8	103.5	0.6
84	Open Line GATES 230-HENTAP2 230 #1 : Open Line GATES 230-MIDWAY 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.7	103.4	0.7
103	Open Line WOODWARD 115-WWARD JT 115 #1 : Open Line WOODWARD 115-CHLDHOSP 115 #1 : Drop Load at WOODWARD 115 #1 : 34 MW 6.9 MVAR Dro : Drop Load at WOODWARD 115 #2 : 42.4 MW 8.6 MVAR D : Drop Load at WOODWARD 115 #3 : 35.5 MW 7.2 MVAR D :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.7	103.3	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
41	Open Line BORDEN 70-MADERA 70 #1 : Open Line BORDEN 70-MADERA 70 #2 : Open Line BORDEN 70-GLASS 70 #1 : Open Line BORDEN 70-CASSIDY 70 #1 : Open Xfmr BORDEN 70/BORDEN 230 #1 : Open Xfmr BORDEN 70/BORDEN 230 #2 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.6	103.3	0.6
27	Open Line EL CAPTN 115-CASTLE 115 #1 : Open Line EL CAPTN 115-WILSON B 115 #1 : Drop Load at EL CAPTN 115 #1 : 15.5 MW 3.1 MVAR D : Drop Load at EL CAPTN 115 #2 : 20.7 MW 4.1 MVAR D : Drop Load at EL CAPTN 115 #3 : 26.4 MW 5.3 MVAR D :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.6	103.2	0.7
48	Open Line KERCKHF2 115-WWARD JT 115 #1 : Open Line WWARD JT 115-WOODWARD 115 #1 : Open Line WWARD JT 115-CLOVISJ1 115 #1 : Open Line CLOVISJ1 115-CLOVIS-1 115 #1 : Open Line CLOVISJ1 115-SANGER 115 #1 : Drop Load at CLOVIS-1 115 #1 : 41 MW 8.3 MVAR Dro : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 : Open Line CLOVIS-2 115-CLOVISJ2 115 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.4	103.0	0.6
54	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line DANISHCM 115-MC CALL 115 #1 : Open Line DANISHCM 115-CAL AVE 115 #1 : Drop Load at DANISHCM 115 #1 : 3.8 MW 3.2 MVAR Dr :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.3	102.9	0.6
76	Open Line HELM 230-PANOCHE 230 #1 : Open Line HELM 230-MC CALL 230 #1 : Open Xfmr HELM 230/HELM 70 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	102.0	102.7	0.7
17	Open Line LOSBANOS 230-WESTLEY 230 #1 : Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line LOSBANOS 230-SN LS PP 230 #1 : Open Line LOSBANOS 230-SN LS PP 230 #2 : Open Xfmr LOSBANOS 230/LOS BANS 70 #3 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.9	102.6	0.7
22	Open Line ATWATER 115-CASTLE 115 #1 : Open Line ATWATER 115-CRESEY T 115 #1 : Open Line ATWATER 115-WILSON A 115 #1 : Drop Load at ATWATER 115 #1 : 25.9 MW 5.2 MVAR Dr : Drop Load at ATWATER 115 #2 : 22.6 MW 4.5 MVAR Dr :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.6	102.3	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
98	Open Line BARTON 115-AIRWAYJ2 115 #1 : Open Line BARTON 115-HERNDON 115 #1 : Drop Load at BARTON 115 #1 : 34.8 MW 7 MVAR Dropp : Drop Load at BARTON 115 #2 : 29.9 MW 6 MVAR Dropp : Drop Load at BARTON 115 #3 : 21.7 MW 4.3 MVAR Dro :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.5	102.1	0.6
73	Open Line FIGRDN 1 230-FGRDN T1 230 #1 : Drop Load at FIGRDN 1 230 #1 : 59.1 MW 11.9 MVAR :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.1	101.7	0.7
28	Open Line MERCED 115-ATWATR J 115 #1 : Open Line MERCED 115-WILSON A 115 #1 : Open Line MERCED 115-WILSON B 115 #2 : Open Xfmr MERCED 115/MERCED M 115 #2 : Drop Load at MERCED 115 #1 : 29.6 MW 6 MVAR Dropp : Drop Load at MERCED 115 #3 : 15.5 MW 3.1 MVAR Dro :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.1	101.7	0.6
99	Open Line MANCHSTR 115-AIRWAYJ1 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 : Drop Load at MANCHSTR 115 #1 : 20.3 MW 4.1 MVAR D : Drop Load at MANCHSTR 115 #2 : 20.5 MW 4.1 MVAR D : Drop Load at MANCHSTR 115 #3 : 29.1 MW 5.9 MVAR D :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.0	101.7	0.6
89	Open Line CLOVIS-2 115-CLOVISJ2 115 #1 : Drop Load at CLOVIS-2 115 #3 : 36 MW 7.3 MVAR Dro :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	101.0	101.6	0.6
102	Open Line PNEDLE 115-PNDLJ2 115 #1 : Drop Load at PNEDLE 115 #2 : 24.7 MW 5 MVAR Dropp : Drop Load at PNEDLE 115 #3 : 32.5 MW 6.5 MVAR Dro :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.8	101.4	0.6
117	Open Line KEARNEY 70-FRWWTAP 70 #1 : Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line KEARNEY 70-CARUTHRS 70 #1 : Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.6	101.3	0.6
96	Open Line CAL AVE 115-DANISHCM 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 : Drop Load at CAL AVE 115 #1 : 23.3 MW 4.7 MVAR Dr : Drop Load at CAL AVE 115 #2 : 25.1 MW 5.1 MVAR Dr : Drop Load at CAL AVE 115 #3 : 19.6 MW 3.9 MVAR Dr :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.4	101.0	0.6
74	Open Line FIGRDN 2 230-FGRDN T2 230 #1 : Drop Load at FIGRDN 2 230 #1 : 42.3 MW 8.5 MVAR D :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.3	100.9	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
26	Open Line WILSON B 115-LE GRNDJ 115 #1 : Open Line WILSON B 115-WILSON A 115 #1 : Open Line WILSON B 115-EL CAPTN 115 #1 : Open Line WILSON B 115-MERCED 115 #2 : Open Xfmr WILSON B 115/WILSON 230 #2 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.3	100.9	0.7
91	Open Line MALAGA 115-SANGER 115 #1 : Open Line MALAGA 115-PPG 115 #1 : Open Line MALAGA 115-MALAGATP 115 #1 : Open Line MALAGA 115-KRCDP 115 #1 : Drop Load at MALAGA 115 #1 : 20.3 MW 4.1 MVAR Dro : Drop Load at MALAGA 115 #2 : 18.3 MW 3.7 MVAR Dro : Drop Load at MALAGA 115 #3 : 18.6 MW 3.7 MVAR Dro :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.2	100.9	0.6
53	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.2	100.8	0.6
97	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line WST FRSO 115-CAL AVE 115 #1 : Drop Load at WST FRSO 115 #1 : 30.2 MW 6.1 MVAR D : Drop Load at WST FRSO 115 #2 : 31.4 MW 6.3 MVAR D :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.2	100.8	0.6
32	Open Line ORO LOMA 70-DOS PALS 70 #1 : Open Line ORO LOMA 70-MRCYSPRS 70 #1 : Open Line ORO LOMA 70-POSO J1 70 #1 : Open Xfmr ORO LOMA 70/ORO LOMA 115 #2 : Drop Load at ORO LOMA 70 #1 : 6.9 MW 1.3 MVAR Dro :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.2	100.8	0.6
3	Open Line WILSON A 115-MERCED 115 #1 : Open Line LE GRNDJ 115-WILSON B 115 #1 : Open Line LE GRNDJ 115-EL NIDO 115 #1 : Open Line EL NIDO 115-ORO LOMA 115 #1 : Drop Load at EL NIDO 115 #1 : 10 MW 2 MVAR Droppe : Drop Load at EL NIDO 115 #2 : 12 MW 2.4 MVAR Drop :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.1	100.7	0.7
29	Open Line DAIRYLND 115-LE GRAND 115 #1 : Open Line DAIRYLND 115-NEWHALL 115 #1 : Drop Load at DAIRYLND 115 #1 : 20.6 MW 4.1 MVAR D :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.0	100.7	0.7
40	Open Line MADERA 70-TRIGO 70 #1 : Open Line MADERA 70-BORDEN 70 #1 : Open Line MADERA 70-BORDEN 70 #2 : Drop Load at MADERA 70 #1 : 14.4 MW 2.9 MVAR Drop : Drop Load at MADERA 70 #2 : 18.5 MW 3.7 MVAR Drop :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	100.0	100.6	0.7



#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
68	Open Line GATES 230-MIDWAY 230 #1 : Open Line GATES 230-ARCO 230 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.9	100.6	0.7
88	Open Line CLOVIS-1 115-CLOVISJ1 115 #1 : Drop Load at CLOVIS-1 115 #1 : 41 MW 8.3 MVAR Dro :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.8	100.5	0.7
87	Open Line AIRWAYS 115-AIRWAYJ1 115 #1 : Open Line AIRWAYS 115-AIRWAYJ2 115 #1 : Drop Load at AIRWAYS 115 #1 : 30.9 MW 5.9 MVAR Dr : Drop Load at AIRWAYS 115 #2 : 10.1 MW 2 MVAR Drop :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.8	100.5	0.6
121	Open Line REEDLEY 70-TVY VLLY 70 #1 : Open Line REEDLEY 70-PARLIER 70 #1 : Open Line REEDLEY 70-DNUBAJCT 70 #1 : Open Line REEDLEY 70-ORSI JCT 70 #1 : Open Xfmr REEDLEY 70/REEDLEY 115 #1 : Open Xfmr REEDLEY 70/REEDLEY 115 #2 : Drop Load at REEDLEY 70 #1 : 14 MW 2.8 MVAR Dropp :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.7	100.3	0.6
101	Open Line HERNDON 115-MANCHSTR 115 #1 : Open Line HERNDON 115-PNDLJ1 115 #1 : Open Line HERNDON 115-CHLDHOSP 115 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.5	100.2	0.6
45	Open Line BARTON 115-HERNDON 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.6	100.2	0.6
34	Open Line CANAL 70-LVNGSTNT 70 #1 : Open Line CANAL 70-SNTA RTA 70 #1 : Open Line CANAL 70-ORTIGA 70 #1 : Drop Load at CANAL 70 #1 : 24.4 MW 4.9 MVAR Dropp : Drop Load at CANAL 70 #2 : 25 MW 5 MVAR Dropped :	COTTLE B-BELLOTA 230.00kV Ckt#1 Sec# 1	793.23	Amps	99.5	100.1	0.6
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 27 MW 5.4 MVAR Dro : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D :	CERTANJ1-CHWCHLLA 115.00kV Ckt#1 Sec# 1	396.61	Amps	154.4	155.8	1.4
48	Open Line KERCKHF2 115-WWARD JT 115 #1 : Open Line WWARD JT 115-WOODWARD 115 #1 : Open Line WWARD JT 115-CLOVISJ1 115 #1 : Open Line CLOVISJ1 115-CLOVIS-1 115 #1 : Open Line CLOVISJ1 115-SANGER 115 #1 : Drop Load at CLOVIS-1 115 #1 : 41 MW 8.3 MVAR Dro : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 : Open Line CLOVIS-2 115-CLOVISJ2 115 #1 :	CERTANJ1-CHWCHLLA 115.00kV Ckt#1 Sec# 1	396.61	Amps	119.0	119.1	0.1

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
59	Open Line HELM 230-MC CALL 230 #1 : Open Line MC CALL 230-HENTAP2 230 #1 : Open Line HENTAP2 230-GATES 230 #1 :	CERTANJ1-CHWCHLLA 115.00kV Ckt#1 Sec# 1	396.61	Amps	112.8	114.4	1.6
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 27 MW 5.4 MVAR Dro : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D :	CERTAN T-LE GRAND 115.00kV Ckt#1 Sec# 1	396.61	Amps	137.9	139.3	1.4
48	Open Line KERCKHF2 115-WWARD JT 115 #1 : Open Line WWARD JT 115-WOODWARD 115 #1 : Open Line WWARD JT 115-CLOVISJ1 115 #1 : Open Line CLOVISJ1 115-CLOVIS-1 115 #1 : Open Line CLOVISJ1 115-SANGER 115 #1 : Drop Load at CLOVIS-1 115 #1 : 41 MW 8.3 MVAR Dro : Close Line CLOVIS-1 115-CLOVIS-2 115 #1 : Open Line CLOVIS-2 115-CLOVISJ2 115 #1 :	CERTAN T-LE GRAND 115.00kV Ckt#1 Sec# 1	396.61	Amps	101.8	101.8	0.1
13	Open Line STOREY 2 230-BORDEN 230 #1 : Open Line STOREY 2 230-WILSON 230 #1 : Drop Load at STOREY 2 230 #2 : 27 MW 5.4 MVAR Dro : Open Line STOREY 1 230-WILSON 230 #1 : Open Line STOREY 1 230-BORDEN 230 #1 : Drop Load at STOREY 1 230 #1 : 30.2 MW 6.1 MVAR D :	CERTAN T-CHWCHLLA 115.00kV Ckt#1 Sec# 1	512.08	Amps	105.0	106.1	1.1
67	Open Line GATES 230-MORROBAY 230 #1 : Open Line GATES 230-TEMPLETN 230 #1 :	CARRIZO -TEMBLOR 115.00kV Ckt#1 Sec# 1	436.78	Amps	106.4	106.4	0.0
35	Open Line LOS BANS 70-CHEVPIPE 70 #1 : Open Line LOS BANS 70-WRGHT PP 70 #1 : Open Line LOS BANS 70-PCHCO PP 70 #1 : Open Line LOS BANS 70-ONLL PMP 69 #1 : Open Xfmr LOS BANS 70/LOSBANOS 230 #3 : Open Xfmr LOS BANS 70/LOSBANOS 230 #4 :	CANAL -SNTA RTA 70.00kV Ckt#1 Sec# 1	282.08	Amps	104.2	104.3	0.1
70	Open Line KEARNEY 230-MCMULLN1 230 #1 : Open Line KEARNEY 230-HERNDON 230 #1 : Open Xfmr KEARNEY 230/KEARNEY 70 #2 :	CAMDEN -KNGLOBUS 70.00kV Ckt#1 Sec# 1	398.37	Amps	103.8	104.7	1.0
100	Open Line HERNDON 115-BARTON 115 #1 : Open Line HERNDON 115-PNDLJ2 115 #1 : Open Xfmr HERNDON 115/HERNDN1M 115 #1 :	BULLARD -PNDLJ1 115.00kV Ckt#1 Sec# 1	743.02	Amps	114.7	114.8	0.0
lbs-dlo-	Los Banos - Gates & Los Banos - Midway 500-kV DLO	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	135.3	136.0	0.8

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
ns*							
83	Open Line GATES 230-HENTAP1 230 #1 : Open Line GATES 230-ARCO 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	127.1	128.3	1.2
75	Open Line ASHLAN 230-FGRDN T1 230 #1 : Open Line ASHLAN 230-FGRDN T2 230 #1 : Drop Load at ASHLAN 230 #1 : 55.7 MW 10.7 MVAR Dr : Drop Load at ASHLAN 230 #2 : 51.9 MW 10.3 MVAR Dr : Drop Load at ASHLAN 230 #3 : 52.7 MW 10 MVAR Drop :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	124.1	124.8	0.7
47	Open Line PNDLJ1 115-BULLARD 115 #1 : Open Line PNDLJ1 115-HERNDON 115 #1 : Open Line PNDLJ2 115-PNEDLE 115 #1 : Open Line PNDLJ2 115-BULLARD 115 #1 : Open Line PNDLJ2 115-HERNDON 115 #1 : Drop Load at PNEDLE 115 #2 : 24.7 MW 5 MVAR Dropp : Drop Load at PNEDLE 115 #3 : 32.5 MW 6.5 MVAR Dro : Close Line PNDLJ1 115-PNEDLE 115 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	123.1	123.7	0.7
lbn-dlo-ns*	Los Banos - Tesla & Los Banos - Tracy 500-kV DLO	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	122.5	123.3	0.8
76	Open Line HELM 230-PANOCHE 230 #1 : Open Line HELM 230-MC CALL 230 #1 : Open Xfmr HELM 230/HELM 70 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.8	121.6	0.7
41	Open Line BORDEN 70-MADERA 70 #1 : Open Line BORDEN 70-MADERA 70 #2 : Open Line BORDEN 70-GLASS 70 #1 : Open Line BORDEN 70-CASSIDY 70 #1 : Open Xfmr BORDEN 70/BORDEN 230 #1 : Open Xfmr BORDEN 70/BORDEN 230 #2 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.6	121.3	0.6
7	Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line DS AMIGO 230-PANOCHE 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.3	121.0	0.7
104	Open Line BULLARD 115-PNDLJ2 115 #1 : Open Line BULLARD 115-PNDLJ1 115 #1 : Drop Load at BULLARD 115 #1 : 36.1 MW 7.3 MVAR Dr : Drop Load at BULLARD 115 #2 : 35.9 MW 7.2 MVAR Dr : Drop Load at BULLARD 115 #3 : 34.2 MW 6.9 MVAR Dr :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.3	121.0	0.7
18	Open Line LOSBANOS 230-PANOCHE 230 #1 : Open Line LOSBANOS 230-DS AMIGO 230 #1 : Open Xfmr LOSBANOS 230/LOS BANS 70 #4 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	120.1	120.8	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
6	Open Line LOSBANOS 230-PANOCHE 230 #2 : Open Line LOSBANOS 230-DS AMIGO 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.7	120.4	0.7
84	Open Line GATES 230-HENTAP2 230 #1 : Open Line GATES 230-MIDWAY 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.5	120.2	0.7
103	Open Line WOODWARD 115-WWARD JT 115 #1 : Open Line WOODWARD 115-CHLDHOSP 115 #1 : Drop Load at WOODWARD 115 #1 : 34 MW 6.9 MVAR Dro : Drop Load at WOODWARD 115 #2 : 42.4 MW 8.6 MVAR D : Drop Load at WOODWARD 115 #3 : 35.5 MW 7.2 MVAR D :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	119.3	120.0	0.6
54	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line DANISHCM 115-MC CALL 115 #1 : Open Line DANISHCM 115- CAL AVE 115 #1 : Drop Load at DANISHCM 115 #1 : 3.8 MW 3.2 MVAR Dr :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.9	119.5	0.7
15	Open Line MOSSLND2 230-PANOCHE 230 #1 : Open Line COBURN 230-PANOCHE 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.8	119.5	0.7
23	Open Line EXCHEQUR 115-LE GRAND 115 #1 : Open Xfmr EXCHEQUR 115/EXCHQ RTP 115 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.8	119.4	0.6
20	Open Line PANOCHE 230-MOSSLND2 230 #1 : Open Line PANOCHE 230-PANO_EC 230 #1 : Open Line PANOCHE 230- HELM 230 #1 : Open Line PANOCHE 230-GATES 230 #2 : Open Line PANOCHE 230-DS AMIGO 230 #1 : Open Xfmr PANOCHE 230/PANOCHE 115 #2 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.7	119.4	0.7
73	Open Line FIGRDN 1 230-FGRDN T1 230 #1 : Drop Load at FIGRDN 1 230 #1 : 59.1 MW 11.9 MVAR :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.5	119.2	0.7
98	Open Line BARTON 115-AIRWAYJ2 115 #1 : Open Line BARTON 115-HERNDON 115 #1 : Drop Load at BARTON 115 #1 : 34.8 MW 7 MVAR Dropp : Drop Load at BARTON 115 #2 : 29.9 MW 6 MVAR Dropp : Drop Load at BARTON 115 #3 : 21.7 MW 4.3 MVAR Dro :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.4	119.0	0.6
101	Open Line HERNDON 115-MANCHSTR 115 #1 : Open Line HERNDON 115-PNDLJ1 115 #1 : Open Line HERNDON 115- CHLDHOSP 115 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.4	118.9	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
21	Open Line CHWCHLLA 115-CERTAN T 115 #1 : Open Line CHWCHLLA 115-CERTANJ1 115 #1 : Drop Load at CHWCHLLA 115 #1 : 8.1 MW 1.6 MVAR Dr : Drop Load at CHWCHLLA 115 #2 : 11.1 MW 2.2 MVAR D :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.2	118.9	0.7
99	Open Line MANCHSTR 115-AIRWAYJ1 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 : Drop Load at MANCHSTR 115 #1 : 20.3 MW 4.1 MVAR D : Drop Load at MANCHSTR 115 #2 : 20.5 MW 4.1 MVAR D : Drop Load at MANCHSTR 115 #3 : 29.1 MW 5.9 MVAR D :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	118.0	118.7	0.6
102	Open Line PNEBLE 115-PNDLJ2 115 #1 : Drop Load at PNEBLE 115 #2 : 24.7 MW 5 MVAR Dropp : Drop Load at PNEBLE 115 #3 : 32.5 MW 6.5 MVAR Dro :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.9	118.6	0.6
117	Open Line KEARNEY 70-FRWWTAP 70 #1 : Open Line KEARNEY 70-OLDKERN 70 #1 : Open Line KEARNEY 70-CARUTHRS 70 #1 : Open Xfmr KEARNEY 70/KEARNEY 230 #2 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.8	118.5	0.6
86	Open Line KERCKHF2 115-K1-JCT 115 #2 : Open Line KERCKHF2 115-KERCKHF1 115 #1 : Open Line KERCKHF2 115-WWARD JT 115 #1 : Open Line KERCKHF2 115-CLOVISJ2 115 #1 : Open Xfmr KERCKHF2 115/KERCKHOF 13.8 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.7	118.4	0.7
30	Open Line PANOCHÉ 115-CHENYT 115 #1 : Open Line PANOCHÉ 115-PANOCHÉJ 115 #1 : Open Xfmr PANOCHÉ 115/PANOCHÉ 230 #2 : Open Xfmr PANOCHÉ 115/DG_PAN1 13.8 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.7	118.4	0.6
74	Open Line FIGRDN 2 230-FGRDN T2 230 #1 : Drop Load at FIGRDN 2 230 #1 : 42.3 MW 8.5 MVAR D :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.5	118.1	0.6
89	Open Line CLOVIS-2 115-CLOVISJ2 115 #1 : Drop Load at CLOVIS-2 115 #3 : 36 MW 7.3 MVAR Dro :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.3	118.0	0.6
45	Open Line BARTON 115-HERNDON 115 #1 : Open Line MANCHSTR 115-HERNDON 115 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.3	117.9	0.6
40	Open Line MADERA 70-TRIGO 70 #1 : Open Line MADERA 70-BORDEN 70 #1 : Open Line MADERA 70-BORDEN 70 #2 : Drop Load at MADERA 70 #1 : 14.4 MW 2.9 MVAR Drop : Drop Load at	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.2	117.8	0.6

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
	MADERA 70 #2 : 18.5 MW 3.7 MVAR Drop :						
96	Open Line CAL AVE 115-DANISHCM 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 : Drop Load at CAL AVE 115 #1 : 23.3 MW 4.7 MVAR Dr : Drop Load at CAL AVE 115 #2 : 25.1 MW 5.1 MVAR Dr : Drop Load at CAL AVE 115 #3 : 19.6 MW 3.9 MVAR Dr :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.1	117.7	0.7
100	Open Line HERNDON 115-BARTON 115 #1 : Open Line HERNDON 115-PNDLJ2 115 #1 : Open Xfmr HERNDON 115/HERNDN1M 115 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	117.1	117.7	0.6
91	Open Line MALAGA 115-SANGER 115 #1 : Open Line MALAGA 115-PPG 115 #1 : Open Line MALAGA 115-MALAGATP 115 #1 : Open Line MALAGA 115-KRCDP 115 #1 : Drop Load at MALAGA 115 #1 : 20.3 MW 4.1 MVAR Dro : Drop Load at MALAGA 115 #2 : 18.3 MW 3.7 MVAR Dro : Drop Load at MALAGA 115 #3 : 18.6 MW 3.7 MVAR Dro :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.9	117.6	0.6
97	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line WST FRSO 115-CAL AVE 115 #1 : Drop Load at WST FRSO 115 #1 : 30.2 MW 6.1 MVAR D : Drop Load at WST FRSO 115 #2 : 31.4 MW 6.3 MVAR D :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.9	117.5	0.7
53	Open Line WST FRSO 115-MC CALL 115 #1 : Open Line CAL AVE 115-WST FRSO 115 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.9	117.5	0.6
72	Open Line HERNDON 230-GREGG 230 #2 : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Xfmr HERNDON 230/HERNDN2M 115 #2 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.8	117.5	0.6
68	Open Line GATES 230-MIDWAY 230 #1 : Open Line GATES 230-ARCO 230 #1 :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.7	117.3	0.7
87	Open Line AIRWAYS 115-AIRWAYJ1 115 #1 : Open Line AIRWAYS 115-AIRWAYJ2 115 #1 : Drop Load at AIRWAYS 115 #1 : 30.9 MW 5.9 MVAR Dr : Drop Load at AIRWAYS 115 #2 : 10.1 MW 2 MVAR Drop :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.6	117.3	0.7

#	Outage Description	Facility	Rating	Unit	Pre-Project PU Flow	Post-Project PU Flow	% Change
88	Open Line CLOVIS-1 115-CLOVISJ1 115 #1 : Drop Load at CLOVIS-1 115 #1 : 41 MW 8.3 MVAR Dro :	BORDEN -STOREY 1 230.00kV Ckt#1 Sec# 1	793.23	Amps	116.5	117.1	0.6
16	Open Line PANOCHE 230-HELM 230 #1 : Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D :	BIOMSJCT-MENDOTA 70.00kV Ckt#1 Sec# 1	395.9	Amps	105.8	106.6	0.8
57	Open Line PANOCHE 230-MCMULLN1 230 #1 : Open Line MCMULLN1 230-KEARNEY 230 #1 : Drop Load at MCMULLN1 230 #1 : 16.4 MW 3.3 MVAR D : Open Line PANOCHE 230-HELM 230 #1 :	BIOMSJCT-MENDOTA 70.00kV Ckt#1 Sec# 1	395.9	Amps	105.8	106.6	0.8
1	Open Line WILSON A 115-ATWATER 115 #1 : Open Line WILSON B 115-EL CAPTN 115 #1 :	ATWATR J-MERCED 115.00kV Ckt#1 Sec# 1	738	Amps	119.7	119.8	0.1
62	Open Line KEARNEY 230-HERNDON 230 #1 : Open Line HERNDON 230-FGRDN T1 230 #1 : Open Line FGRDN T1 230-FIGRDN 1 230 #1 : Open Line FGRDN T1 230-ASHLAN 230 #1 : Drop Load at FIGRDN 1 230 #1 : 59.1 MW 11.9 MVAR : Close Line FIGRDN 1 230-FIGRDN 2 230 #1 :	AGRCJCT -KERMAN 70.00kV Ckt#1 Sec# 1	379.4	Amps	101.4	101.5	0.0
71	Open Line HERNDON 230-GREGG 230 #1 : Open Line HERNDON 230-KEARNEY 230 #1 : Open Xfmr HERNDON 230/HERNDN1M 115 #1 :	AGRCJCT -KERMAN 70.00kV Ckt#1 Sec# 1	379.4	Amps	101.1	101.2	0.0
63	Open Line KEARNEY 230-HERNDON 230 #1 : Open Line GREGG 230-HENTAP1 230 #1 : Open Line HENTAP1 230-HENRIETA 230 #1 : Open Line HENTAP1 230-GATES 230 #1 : Drop Generator at HELMS 3 18 #** : 400 MW Dropped : Close Line HENTAP2 230-HENRIETA 230 #1 :	AGRCJCT -KERMAN 70.00kV Ckt#1 Sec# 1	379.4	Amps	99.8	100.0	0.2

\* Contingency simulated with governor powerflow program

**Appendix D**  
**Powerflow Plots of Worst New Overloads**



2013 Summer Peak Conditions		
Plot #	Descriptions	Plot Area
<b>Category A</b>		
Plot #1	2013 Summer Peak - Pre-Project : Normal Conditions (MW/MVAr)	Fresno South 115-kV
Plot #2	2013 Summer Peak - Post-Project : Normal Conditions (Amps/Pct)	Fresno South 115-kV
Plot #3	2013 Summer Peak - Pre-Project : Normal Conditions (MW/MVAr)	Fresno South 115-kV
Plot #4	2013 Summer Peak - Post-Project : Normal Conditions (Amps/Pct)	Fresno South 115-kV
<b>Worst New Category B Overloads</b>		
Plot #5	2013 Summer Peak - Pre-Project : Gates-Arco 230-kV Line & Melones Outage (MW/MVAr)	Greater Fresno 115-kV
Plot #6	2013 Summer Peak - Post-Project : Gates-Arco 230-kV Line & Melones Outage (Amps/Pct)	Greater Fresno 115-kV
Plot #7	2013 Summer Peak - Pre-Project : Gates-Arco 230-kV Line & Melones Outage (MW/MVAr)	Greater Fresno 115-kV
Plot #8	2013 Summer Peak - Post-Project : Gates-Arco 230-kV Line & Melones Outage (Amps/Pct)	Greater Fresno 115-kV
Plot #9	2013 Summer Peak - Pre-Project : Coburn-Panoche 230-kV Line & Exchequer PH Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #10	2013 Summer Peak - Post-Project : Coburn-Panoche 230-kV Line & Exchequer PH Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #11	2013 Summer Peak - Pre-Project : Coburn-Panoche 230-kV Line & Exchequer PH Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #12	2013 Summer Peak - Post-Project : Coburn-Panoche 230-kV Line & Exchequer PH Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #13	2013 Summer Peak - Pre-Project : Templeton-Gates 230-kV Line & Melones Outage (MW/MVAr)	Greater Fresno 115-kV
Plot #14	2013 Summer Peak - Post-Project : Templeton-Gates 230-kV Line & Melones Outage (Amps/Pct)	Greater Fresno 115-kV
Plot #15	2013 Summer Peak - Pre-Project : Templeton-Gates 230-kV Line & Melones Outage (MW/MVAr)	Greater Fresno 115-kV
Plot #16	2013 Summer Peak - Post-Project : Templeton-Gates 230-kV Line & Melones Outage (Amps/Pct)	Greater Fresno 115-kV
<b>Worst New Category C Overloads</b>		
Plot #17	2013 Summer Peak - Pre-Project : Los Banos South 500-kV DLO (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #18	2013 Summer Peak - Post-Project : Los Banos South 500-kV DLO (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #19	2013 Summer Peak - Pre-Project : Los Banos South 500-kV DLO (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #20	2013 Summer Peak - Post-Project : Los Banos South 500-kV DLO (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #21	2013 Summer Peak - Pre-Project : Panoche 230-kV Bus 2 Outage (MW/MVAr)	Greater Fresno 115-kV
Plot #22	2013 Summer Peak - Post-Project : Panoche 230-kV Bus 2 Outage (Amps/Pct)	Greater Fresno 115-kV
Plot #23	2013 Summer Peak - Pre-Project : Panoche 230-kV Bus 2 Outage (MW/MVAr)	Greater Fresno 115-kV
Plot #24	2013 Summer Peak - Post-Project : Panoche 230-kV Bus 2 Outage (Amps/Pct)	Greater Fresno 115-kV
Plot #25	2013 Summer Peak - Pre-Project : Gates 230-kV Bus 1E Outage (MW/MVAr)	Greater Fresno 500 &

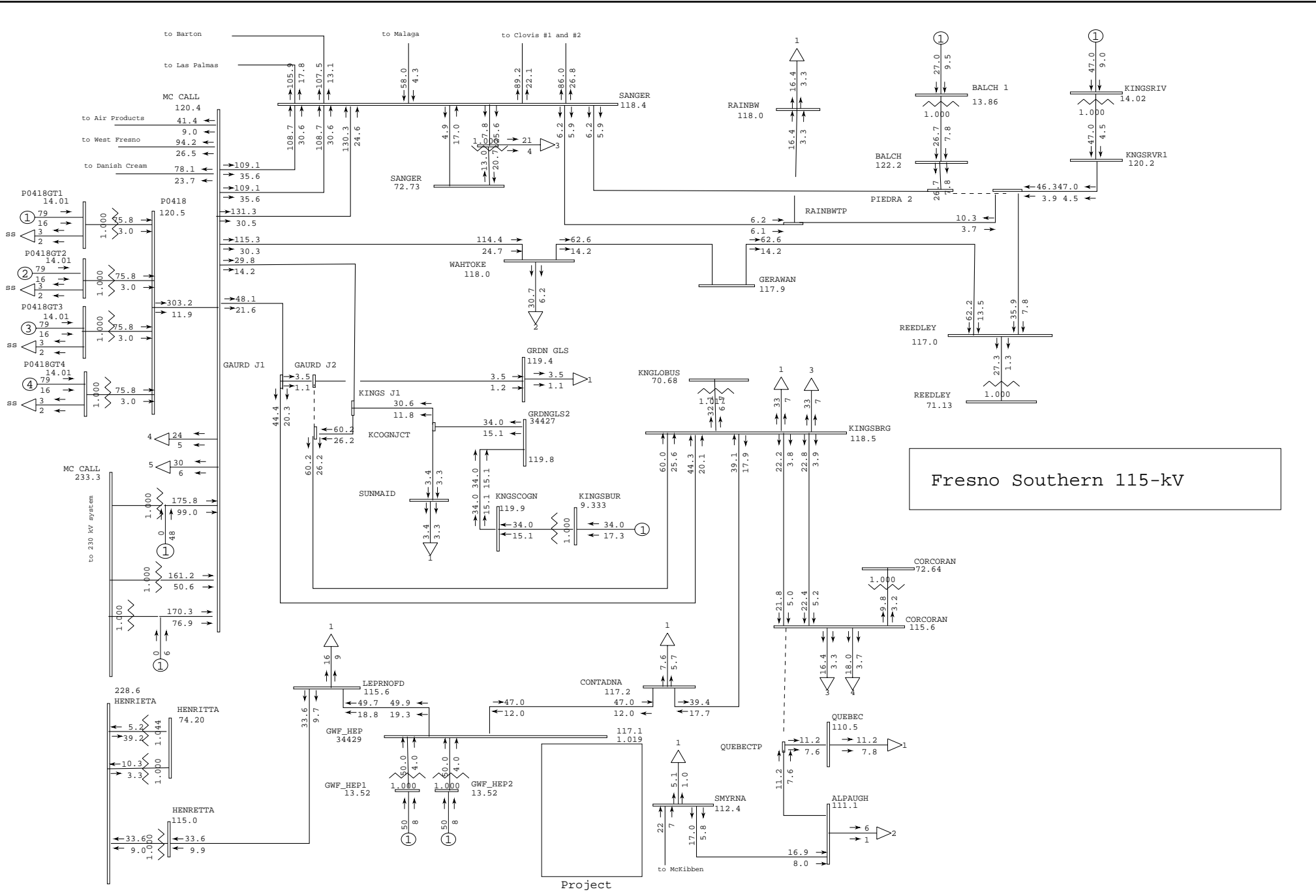
		230-kV
Plot #26	2013 Summer Peak - Post-Project : Gates 230-kV Bus 1E Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #27	2013 Summer Peak - Pre-Project : Gates 230-kV Bus 1E Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #28	2013 Summer Peak - Post-Project : Gates 230-kV Bus 1E Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
<b>2013 Summer Off-Peak Conditions</b>		
<b>Plot #</b>	<b>Descriptions</b>	<b>Plot Area</b>
<b>Category A</b>		
Plot #29	2013 Summer Off-Peak - Pre-Project : Normal Conditions (MW/MVAr)	Fresno South 115-kV
Plot #30	2013 Summer Off-Peak - Post-Project : Normal Conditions (Amps/Pct)	Fresno South 115-kV
Plot #31	2013 Summer Off-Peak - Pre-Project : Normal Conditions (MW/MVAr)	Fresno South 115-kV
Plot #32	2013 Summer Off-Peak - Post-Project : Normal Conditions (Amps/Pct)	Fresno South 115-kV
<b>Worst New Category B Overloads</b>		
Plot #33	2013 Summer Off-Peak - Pre-Project : Westley-Los Banos 230-kV Line & Helms 1 Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #34	2013 Summer Off-Peak - Post-Project : Westley-Los Banos 230-kV Line & Helms 1 Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #35	2013 Summer Off-Peak - Pre-Project : Westley-Los Banos 230-kV Line & Helms 1 Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #36	2013 Summer Off-Peak - Post-Project : Westley-Los Banos 230-kV Line & Helms 1 Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #37	2013 Summer Off-Peak - Pre-Project : Manchester-Herndon 115-kV Line Outage (MW/MVAr)	Greater Fresno 115-kV
Plot #38	2013 Summer Off-Peak - Post-Project : Manchester-Herndon 115-kV Line Outage (Amps/Pct)	Greater Fresno 115-kV
Plot #39	2013 Summer Off-Peak - Pre-Project : Manchester-Herndon 115-kV Line Outage (MW/MVAr)	Greater Fresno 115-kV
Plot #40	2013 Summer Off-Peak - Post-Project : Manchester-Herndon 115-kV Line Outage (Amps/Pct)	Greater Fresno 115-kV
Plot #41	2013 Summer Off-Peak - Pre-Project : Gates-Gregg 230-kV Line & Kerckhoff PH Outage (MW/MVAr)	Greater Fresno 115-kV
Plot #42	2013 Summer Off-Peak - Post-Project : Gates-Gregg 230-kV Line & Kerckhoff PH Outage (Amps/Pct)	Greater Fresno 115-kV
Plot #43	2013 Summer Off-Peak - Pre-Project : Gates-Gregg 230-kV Line & Kerckhoff PH Outage (MW/MVAr)	Greater Fresno 115-kV
Plot #44	2013 Summer Off-Peak - Post-Project : Gates-Gregg 230-kV Line & Kerckhoff PH Outage (Amps/Pct)	Greater Fresno 115-kV
Plot #45	2013 Summer Off-Peak - Pre-Project : McCall-Balch 230-kV Line & Helms 1 Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #46	2013 Summer Off-Peak - Post-Project : McCall-Balch 230-kV Line & Helms 1 Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #47	2013 Summer Off-Peak - Pre-Project : McCall-Balch 230-kV Line & Helms 1 Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #48	2013 Summer Off-Peak - Post-Project : McCall-Balch 230-kV Line & Helms 1 Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
<b>Worst New Category C Overloads</b>		
Plot #49	2013 Summer Off-Peak - Pre-Project : Panoche 230-kV Bus 1 Outage	Greater Fresno 500 &

	(MW/MVAr)	230-kV
Plot #50	2013 Summer Off-Peak - Post-Project : Panoche 230-kV Bus 1 Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #51	2013 Summer Off-Peak - Pre-Project : Panoche 230-kV Bus 1 Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #52	2013 Summer Off-Peak - Post-Project : Panoche 230-kV Bus 1 Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #53	2013 Summer Off-Peak - Pre-Project : Kerckhoff PH-Clovis-Sanger 1 & 2 115-kV Lines Outage (MW/MVAr)	Greater Fresno 115-kV
Plot #54	2013 Summer Off-Peak - Post-Project : Kerckhoff PH-Clovis-Sanger 1 & 2 115-kV Lines Outage (Amps/Pct)	Greater Fresno 115-kV
Plot #55	2013 Summer Off-Peak - Pre-Project : Kerckhoff PH-Clovis-Sanger 1 & 2 115-kV Lines Outage (MW/MVAr)	Greater Fresno 115-kV
Plot #56	2013 Summer Off-Peak - Post-Project : Kerckhoff PH-Clovis-Sanger 1 & 2 115-kV Lines Outage (Amps/Pct)	Greater Fresno 115-kV
Plot #57	2013 Summer Off-Peak - Pre-Project : Sanger 115-kV Bus Outage (MW/MVAr)	Yosemite 70-kV
Plot #58	2013 Summer Off-Peak - Post-Project : Sanger 115-kV Bus Outage (Amps/Pct)	Yosemite 70-kV
Plot #59	2013 Summer Off-Peak - Pre-Project : Sanger 115-kV Bus Outage (MW/MVAr)	Yosemite 70-kV
Plot #60	2013 Summer Off-Peak - Post-Project : Sanger 115-kV Bus Outage (Amps/Pct)	Yosemite 70-kV
Plot #61	2013 Summer Off-Peak - Pre-Project : Sanger 115-kV Bus Outage (MW/MVAr)	Fresno South 115-kV
Plot #62	2013 Summer Off-Peak - Post-Project : Sanger 115-kV Bus Outage (Amps/Pct)	Fresno South 115-kV
Plot #63	2013 Summer Off-Peak - Pre-Project : Sanger 115-kV Bus Outage (MW/MVAr)	Fresno South 115-kV
Plot #64	2013 Summer Off-Peak - Post-Project : Sanger 115-kV Bus Outage (Amps/Pct)	Fresno South 115-kV
Plot #65	2013 Summer Off-Peak - Pre-Project : Herndon-Kearney&Gates-Gregg 230-kV Lines Outage (MW/MVAr)	Greater Fresno 115-kV
Plot #66	2013 Summer Off-Peak - Post-Project : Herndon-Kearney&Gates-Gregg 230-kV Lines Outage (Amps/Pct)	Greater Fresno 115-kV
Plot #67	2013 Summer Off-Peak - Pre-Project : Herndon-Kearney&Gates-Gregg 230-kV Lines Outage (MW/MVAr)	Greater Fresno 115-kV
Plot #68	2013 Summer Off-Peak - Post-Project : Herndon-Kearney&Gates-Gregg 230-kV Lines Outage (Amps/Pct)	Greater Fresno 115-kV
Plot #69	2013 Summer Off-Peak - Pre-Project : Herndon-Barton&Manchester-Sanger 115-kV Outage (MW/MVAr)	Greater Fresno 115-kV
Plot #70	2013 Summer Off-Peak - Post-Project : Herndon-Barton&Manchester-Sanger 115-kV Outage (Amps/Pct)	Greater Fresno 115-kV
Plot #71	2013 Summer Off-Peak - Pre-Project : Herndon-Barton&Manchester-Sanger 115-kV Outage (MW/MVAr)	Greater Fresno 115-kV
Plot #72	2013 Summer Off-Peak - Post-Project : Herndon-Barton&Manchester-Sanger 115-kV Outage (Amps/Pct)	Greater Fresno 115-kV
Plot #73	2013 Summer Off-Peak - Pre-Project : Helm-McCall&Gates-McCall 230-kV Lines Outage (MW/MVAr)	Greater Fresno 115-kV
Plot #74	2013 Summer Off-Peak - Post-Project : Helm-McCall&Gates-McCall 230-kV Lines Outage (Amps/Pct)	Greater Fresno 115-kV

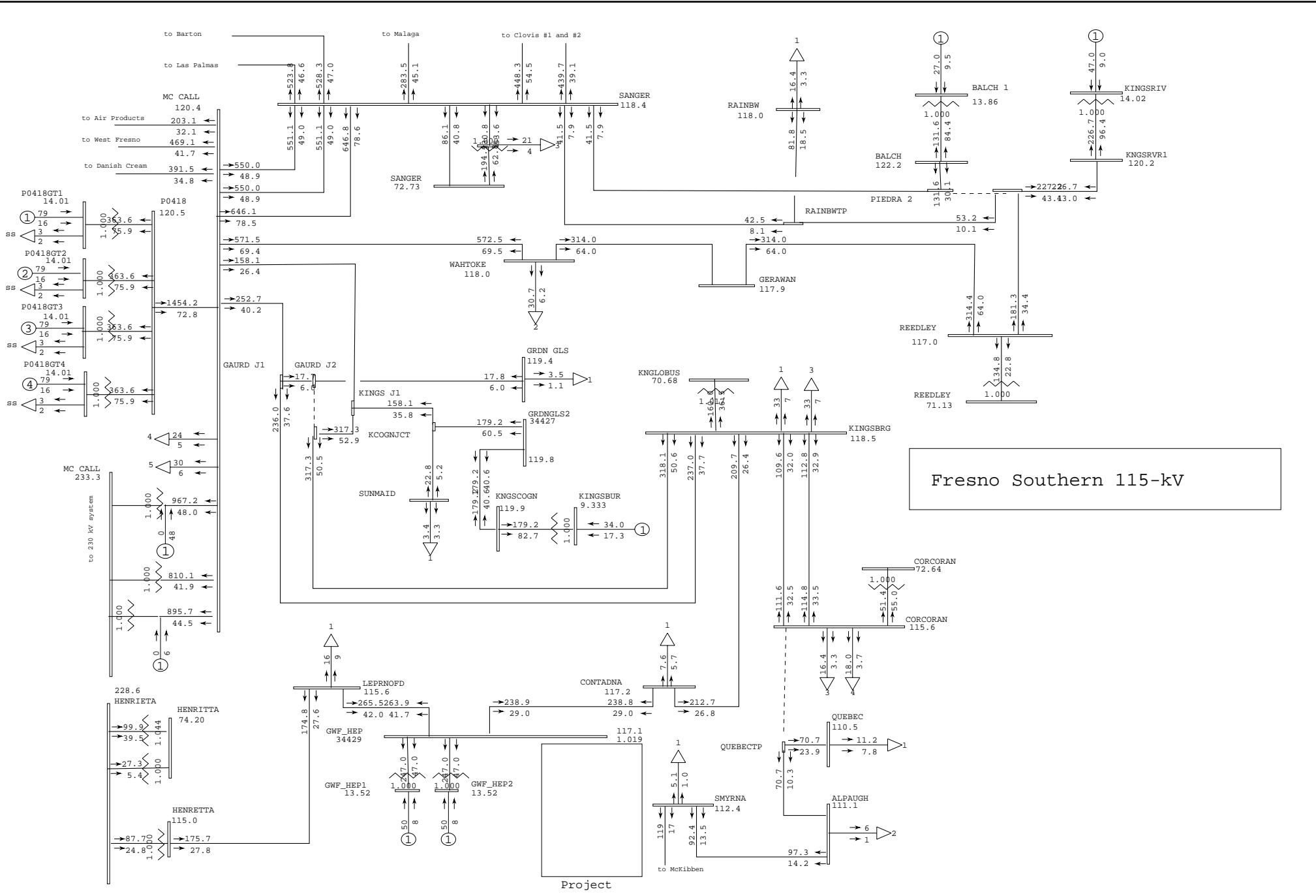
Plot #75	2013 Summer Off-Peak - Pre-Project : Helm-McCall&Gates-McCall 230-kV Lines Outage (MW/MVAr)	Greater Fresno 115-kV
Plot #76	2013 Summer Off-Peak - Post-Project : Helm-McCall&Gates-McCall 230-kV Lines Outage (Amps/Pct)	Greater Fresno 115-kV
Plot #77	2013 Summer Off-Peak - Pre-Project : LosBanos-Panoche #2&DosAmigo-Panoche 230-kV Lines Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #78	2013 Summer Off-Peak - Post-Project : LosBanos-Panoche #2&DosAmigo-Panoche 230-kV Lines Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #79	2013 Summer Off-Peak - Pre-Project : LosBanos-Panoche #2&DosAmigo-Panoche 230-kV Lines Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #80	2013 Summer Off-Peak - Post-Project : LosBanos-Panoche #2&DosAmigo-Panoche 230-kV Lines Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
<b>2013 Spring Peak Conditions</b>		
<b>Plot #</b>	<b>Descriptions</b>	<b>Plot Area</b>
<b>Category A</b>		
Plot #81	2013 Spring Peak - Pre-Project : Normal Conditions (MW/MVAr)	Fresno South 115-kV
Plot #82	2013 Spring Peak - Post-Project : Normal Conditions (Amps/Pct)	Fresno South 115-kV
Plot #83	2013 Spring Peak - Pre-Project : Normal Conditions (MW/MVAr)	Fresno South 115-kV
Plot #84	2013 Spring Peak - Post-Project : Normal Conditions (Amps/Pct)	Fresno South 115-kV
<b>Worst New Category B Overloads</b>		
Plot #85	2013 Spring Peak - Pre-Project : Wilson-Borden 230-kV Line & Exchequer PH Outage (MW/MVAr)	Greater Fresno 115-kV
Plot #86	2013 Spring Peak - Post-Project : Wilson-Borden 230-kV Line & Exchequer PH Outage (Amps/Pct)	Greater Fresno 115-kV
Plot #87	2013 Spring Peak - Pre-Project : Wilson-Borden 230-kV Line & Exchequer PH Outage (MW/MVAr)	Greater Fresno 115-kV
Plot #88	2013 Spring Peak - Post-Project : Wilson-Borden 230-kV Line & Exchequer PH Outage (Amps/Pct)	Greater Fresno 115-kV
Plot #89	2013 Spring Peak - Pre-Project : Cressey 115-kV Tap Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #90	2013 Spring Peak - Post-Project : Cressey 115-kV Tap Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #91	2013 Spring Peak - Pre-Project : Cressey 115-kV Tap Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #92	2013 Spring Peak - Post-Project : Cressey 115-kV Tap Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #93	2013 Spring Peak - Pre-Project : Gates 500/230-kV Bk #11 Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #94	2013 Spring Peak - Post-Project : Gates 500/230-kV Bk #11 Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #95	2013 Spring Peak - Pre-Project : Gates 500/230-kV Bk #11 Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #96	2013 Spring Peak - Post-Project : Gates 500/230-kV Bk #11 Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #97	2013 Spring Peak - Pre-Project : Warnerville-Wilson 230-kV Line & Exchequer PH Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #98	2013 Spring Peak - Post-Project : Warnerville-Wilson 230-kV Line & Exchequer PH Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #99	2013 Spring Peak - Pre-Project : Warnerville-Wilson 230-kV Line & Exchequer PH Outage (MW/MVAr)	Greater Fresno 500 & 230-kV

Plot #100	2013 Spring Peak - Post-Project : Warnerville-Wilson 230-kV Line & Exchequer PH Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #101	2013 Spring Peak - Pre-Project : Helm-McCall 230-kV Line & Kerckhoff PH Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #102	2013 Spring Peak - Post-Project : Helm-McCall 230-kV Line & Kerckhoff PH Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #103	2013 Spring Peak - Pre-Project : Helm-McCall 230-kV Line & Kerckhoff PH Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #104	2013 Spring Peak - Post-Project : Helm-McCall 230-kV Line & Kerckhoff PH Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #105	2013 Spring Peak - Pre-Project : Panoche-Dos Amigos 230-kV Line Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #106	2013 Spring Peak - Post-Project : Panoche-Dos Amigos 230-kV Line Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #107	2013 Spring Peak - Pre-Project : Panoche-Dos Amigos 230-kV Line Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #108	2013 Spring Peak - Post-Project : Panoche-Dos Amigos 230-kV Line Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
<b>Worst New Category C Overloads</b>		
Plot #109	2013 Spring Peak - Pre-Project : Herndon-Kearny&Gates-Gregg 230-kV Lines Outage (MW/MVAr)	Fresno Central 70-kV
Plot #110	2013 Spring Peak - Post-Project : Herndon-Kearny&Gates-Gregg 230-kV Lines Outage (Amps/Pct)	Fresno Central 70-kV
Plot #111	2013 Spring Peak - Pre-Project : Herndon-Kearny&Gates-Gregg 230-kV Lines Outage (MW/MVAr)	Fresno Central 70-kV
Plot #112	2013 Spring Peak - Post-Project : Herndon-Kearny&Gates-Gregg 230-kV Lines Outage (Amps/Pct)	Fresno Central 70-kV
Plot #113	2013 Spring Peak - Pre-Project : Dairyland 115-kV Bus Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #114	2013 Spring Peak - Post-Project : Dairyland 115-kV Bus Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #115	2013 Spring Peak - Pre-Project : Dairyland 115-kV Bus Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #116	2013 Spring Peak - Post-Project : Dairyland 115-kV Bus Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #117	2013 Spring Peak - Pre-Project : Sanger 115-kV Bus Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #118	2013 Spring Peak - Post-Project : Sanger 115-kV Bus Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #119	2013 Spring Peak - Pre-Project : Sanger 115-kV Bus Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #120	2013 Spring Peak - Post-Project : Sanger 115-kV Bus Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #121	2013 Spring Peak - Pre-Project : McCall 230-kV Line Bus 1 Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #122	2013 Spring Peak - Post-Project : McCall 230-kV Line Bus 1 Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #123	2013 Spring Peak - Pre-Project : McCall 230-kV Line Bus 1 Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #124	2013 Spring Peak - Post-Project : McCall 230-kV Line Bus 1 Outage (Amps/Pct)	Greater Fresno 500 & 230-kV

Plot #125	2013 Spring Peak - Pre-Project : Malaga 115-kV Bus Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #126	2013 Spring Peak - Post-Project : Malaga 115-kV Bus Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #127	2013 Spring Peak - Pre-Project : Malaga 115-kV Bus Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #128	2013 Spring Peak - Post-Project : Malaga 115-kV Bus Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #129	2013 Spring Peak - Pre-Project : Madera 115-kV Bus Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #130	2013 Spring Peak - Post-Project : Madera 115-kV Bus Outage (Amps/Pct)	Greater Fresno 500 & 230-kV
Plot #131	2013 Spring Peak - Pre-Project : Madera 115-kV Bus Outage (MW/MVAr)	Greater Fresno 500 & 230-kV
Plot #132	2013 Spring Peak - Post-Project : Madera 115-kV Bu Outage (Amps/Pct)	Greater Fresno 500 & 230-kV

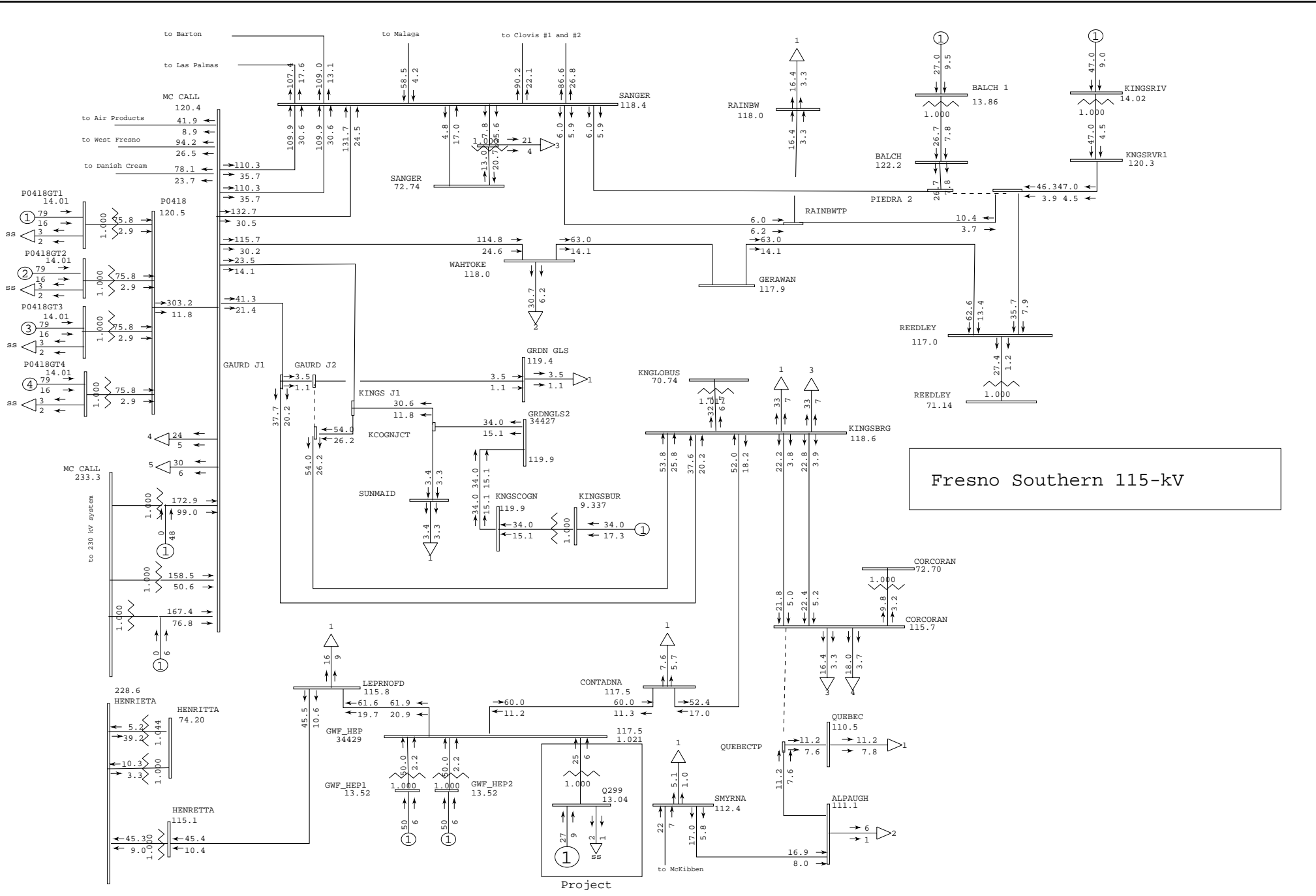


Fresno Southern 115-kV

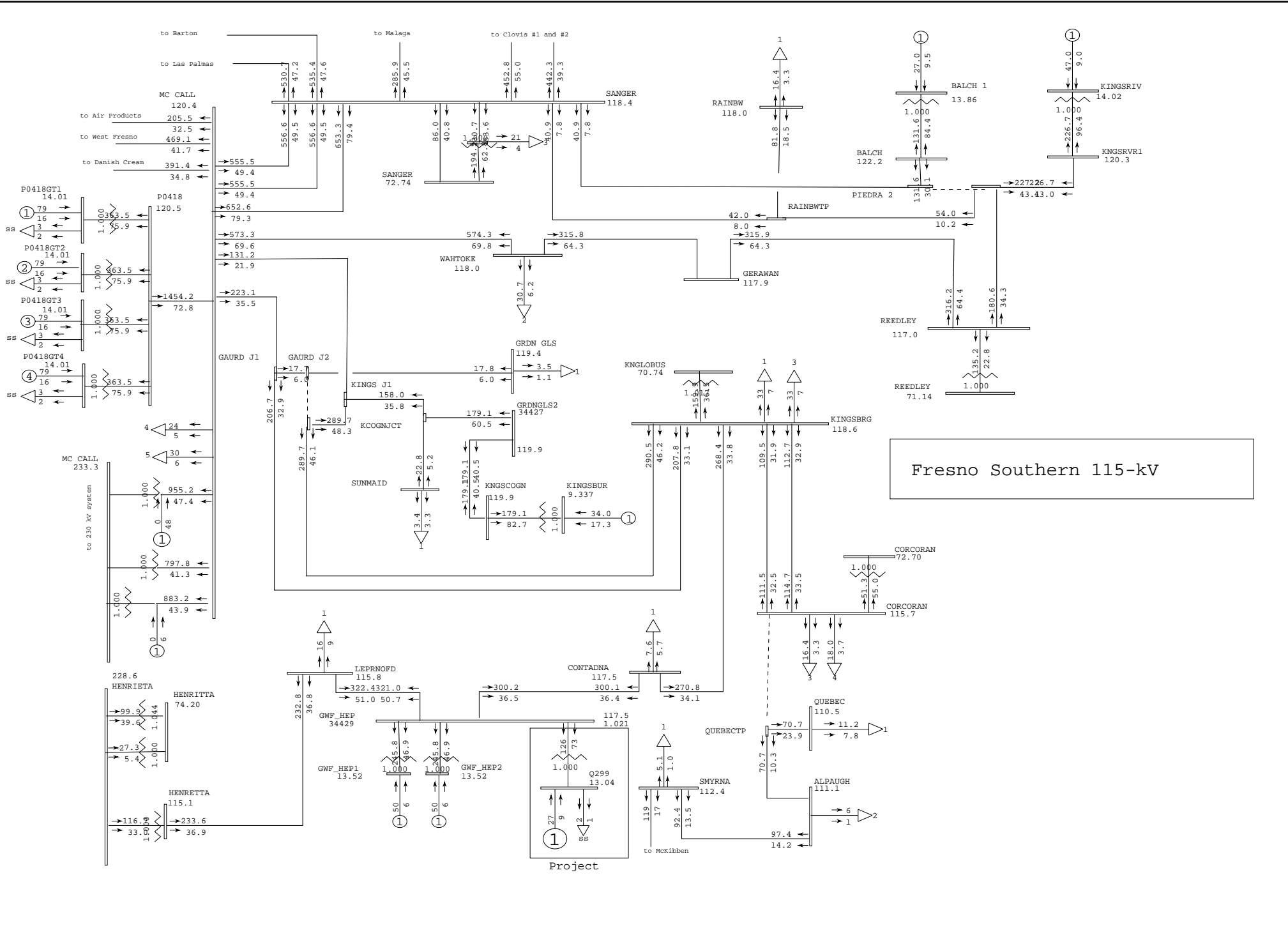


Fresno Southern 115-kV

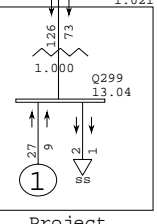


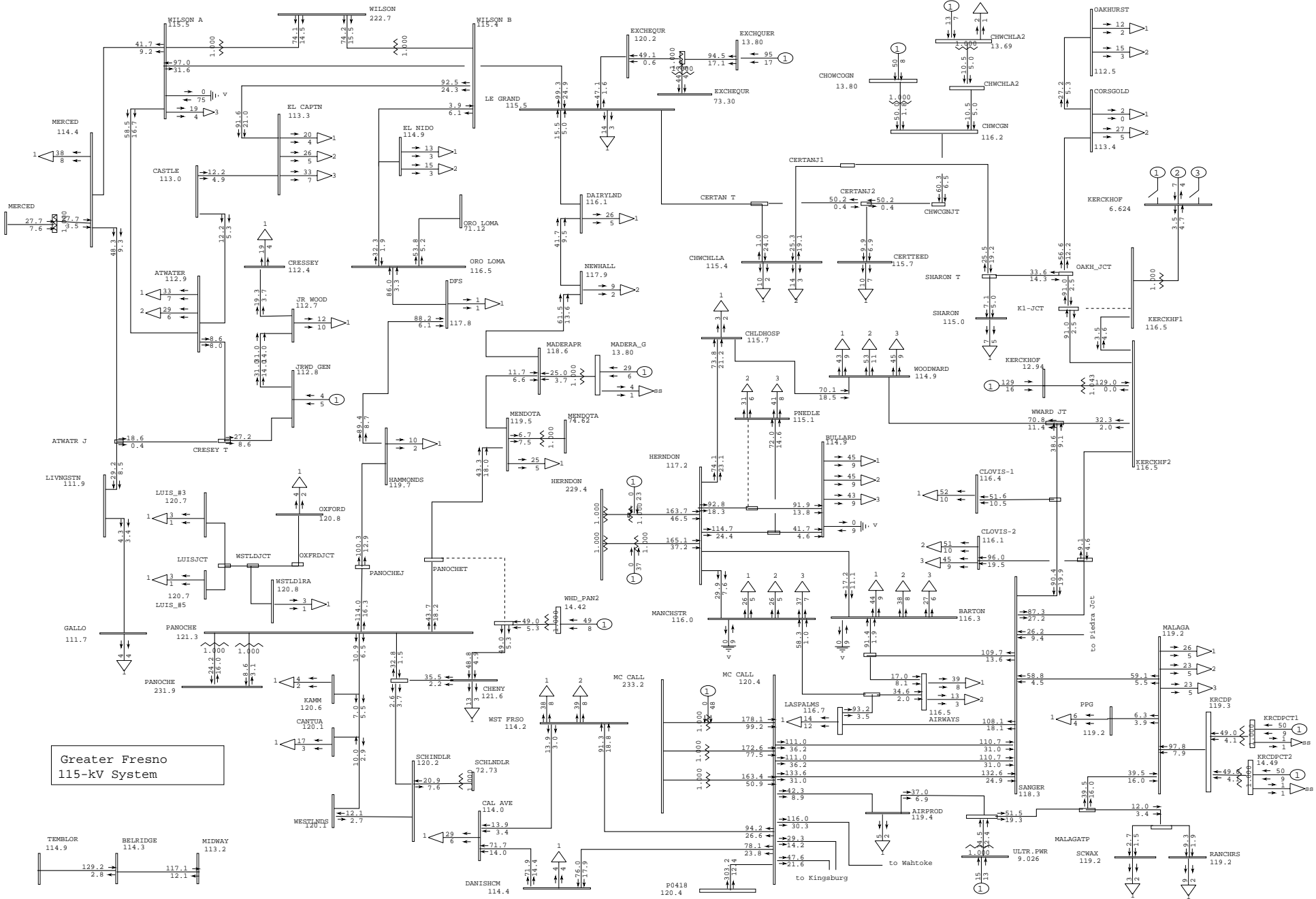


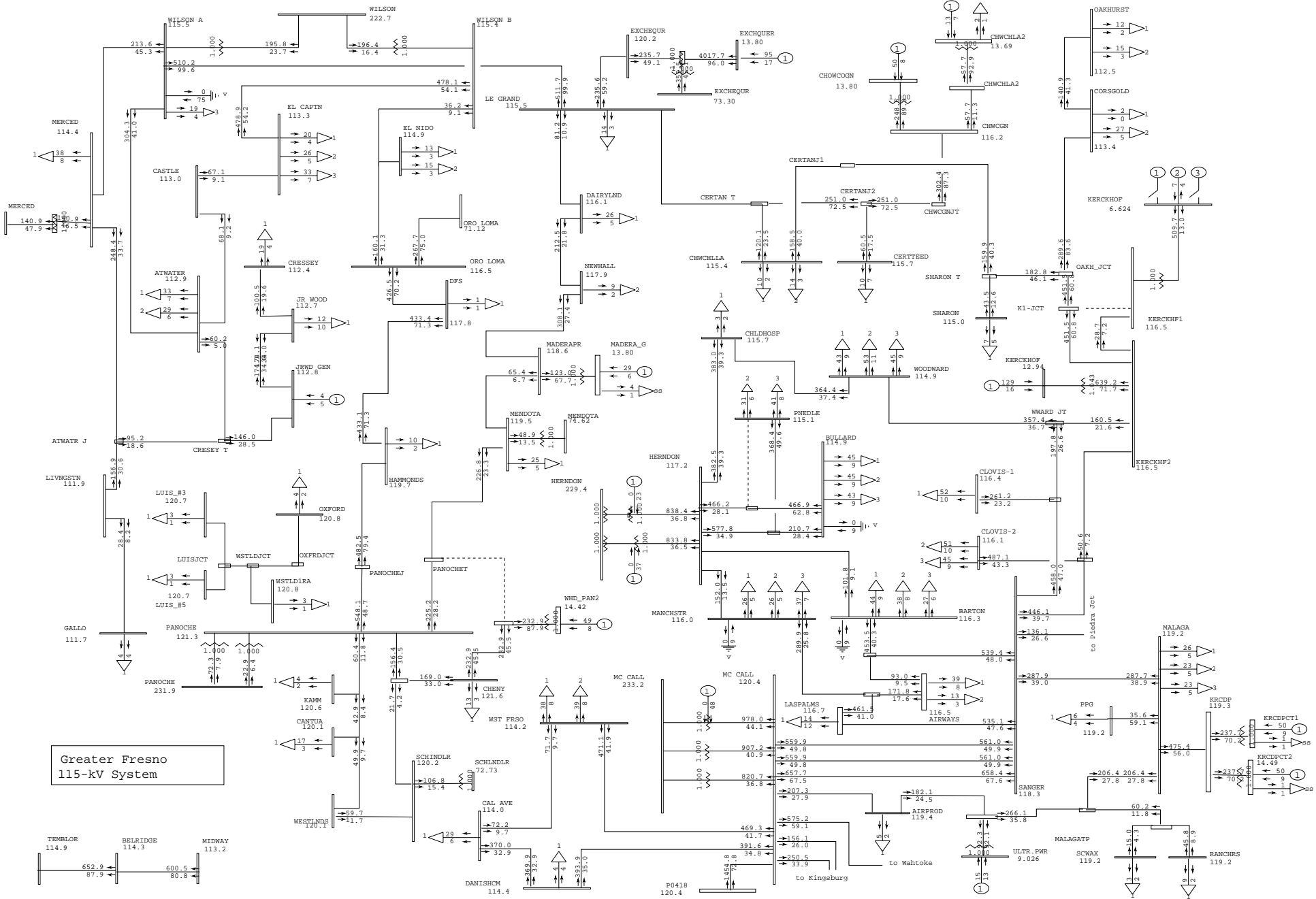
Fresno Southern 115-kV



Fresno Southern 115-kV



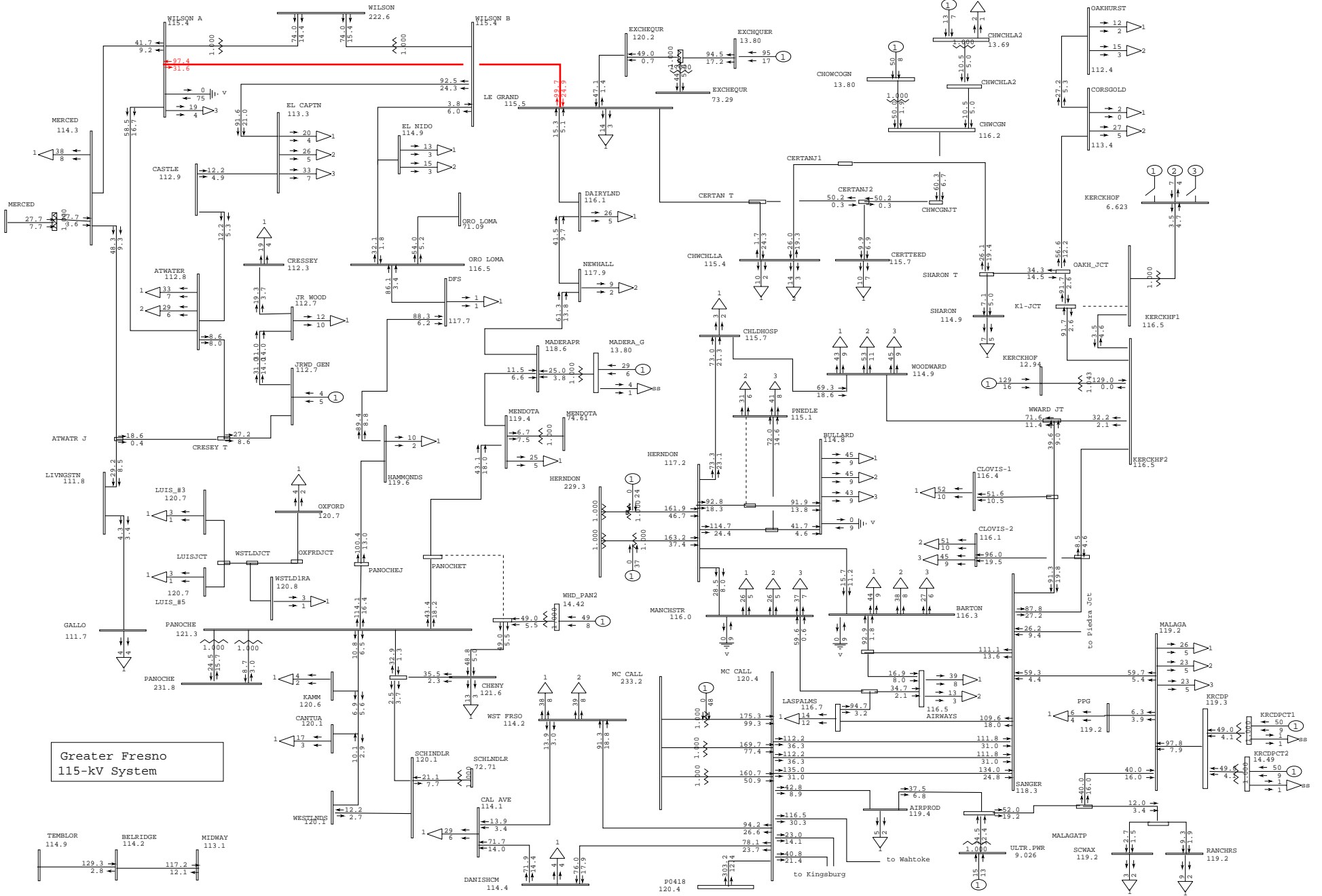




PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27 W at GWF Hanford 115 kV - 2013 Summer Peak Pre-Project

Plot 06-Outage: Gates-Arco 230-kV & Melones

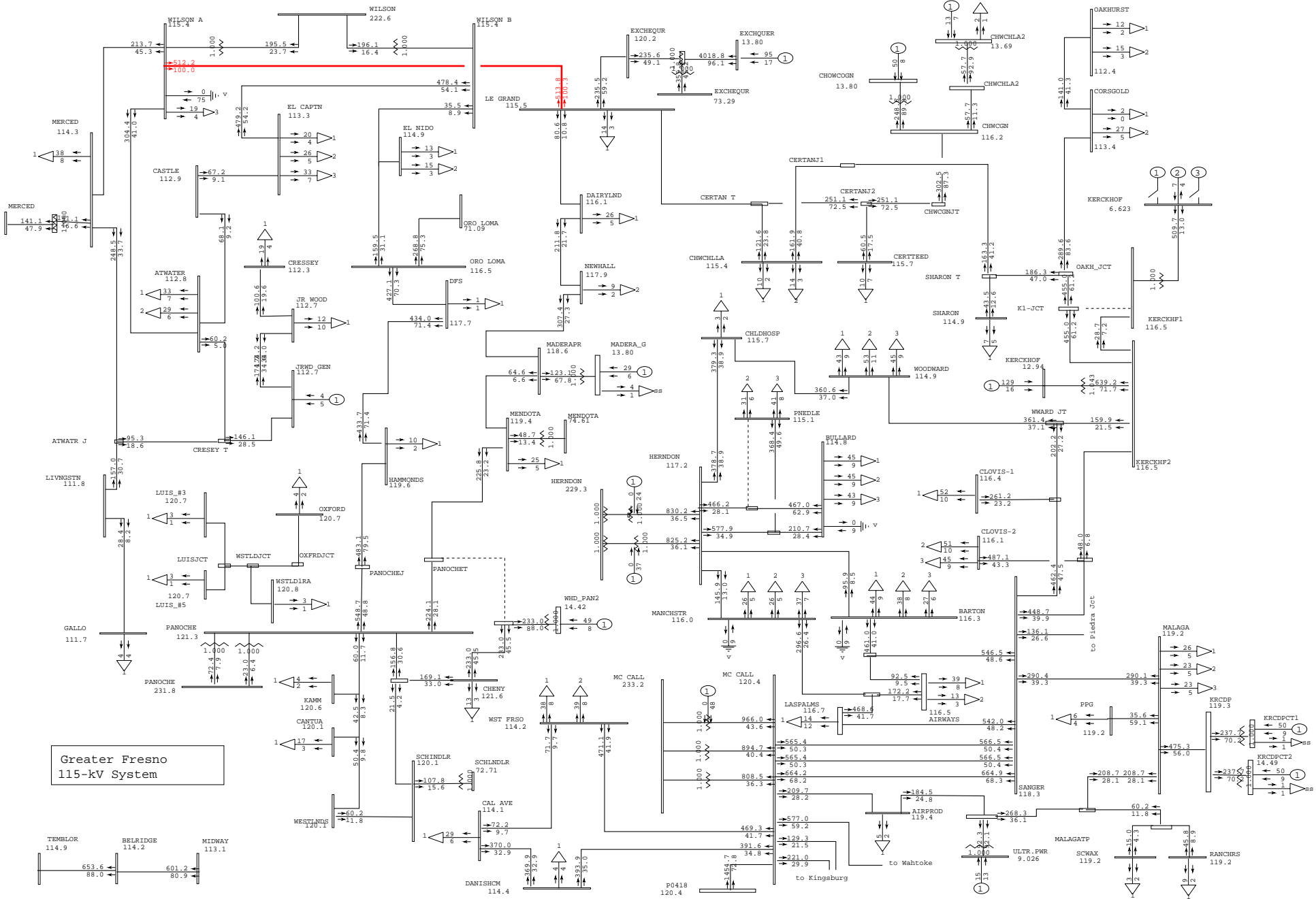
amps/rate  
 gfred115.drw  
 Rating = 2



PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Peak Post-Project

Plot 07-Outage: Gates-Arco 230-kV & Melones

MW/MVAR  
 gfres115.drw  
 Rating = 2

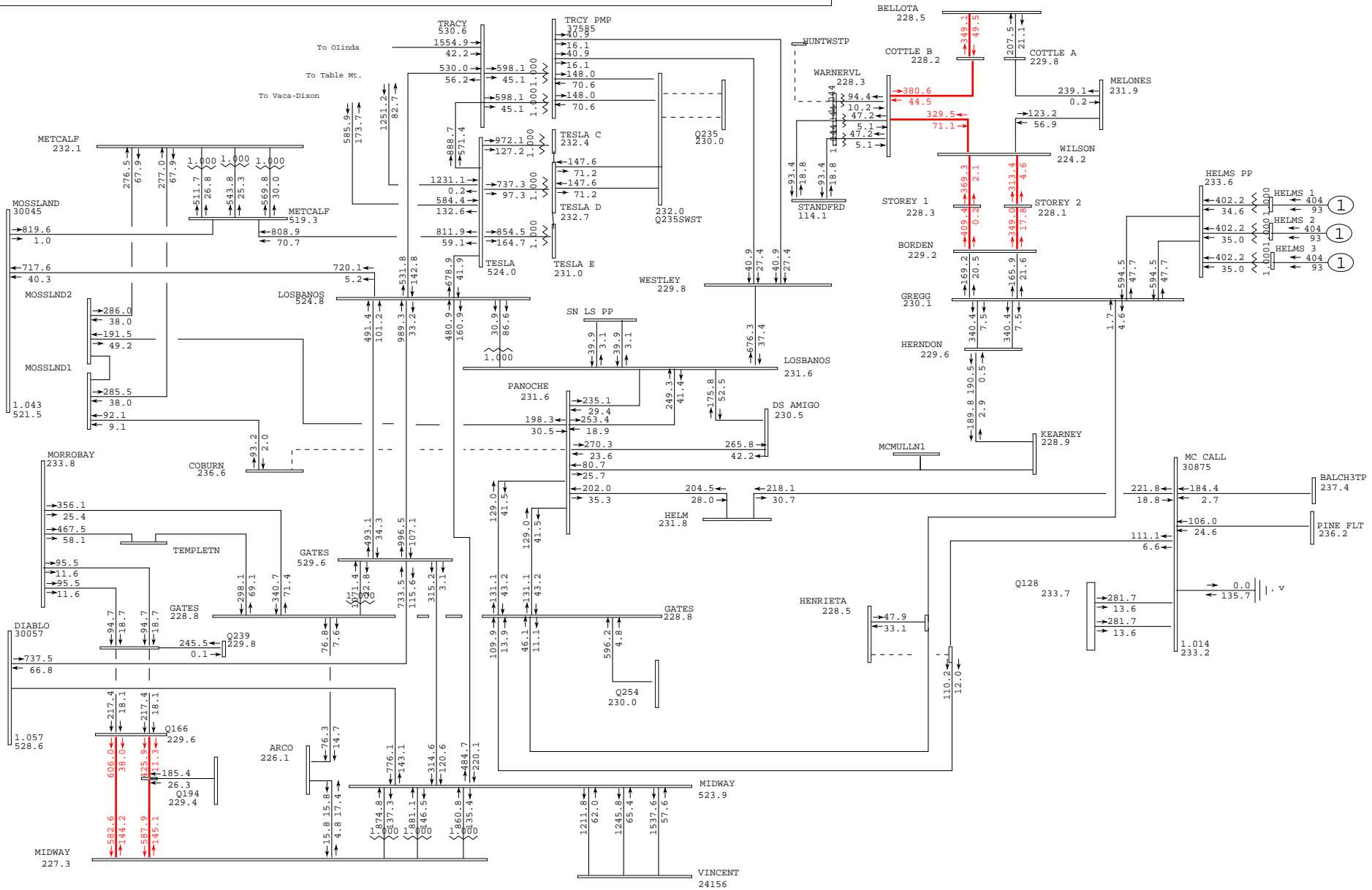


PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Peak Post-Project

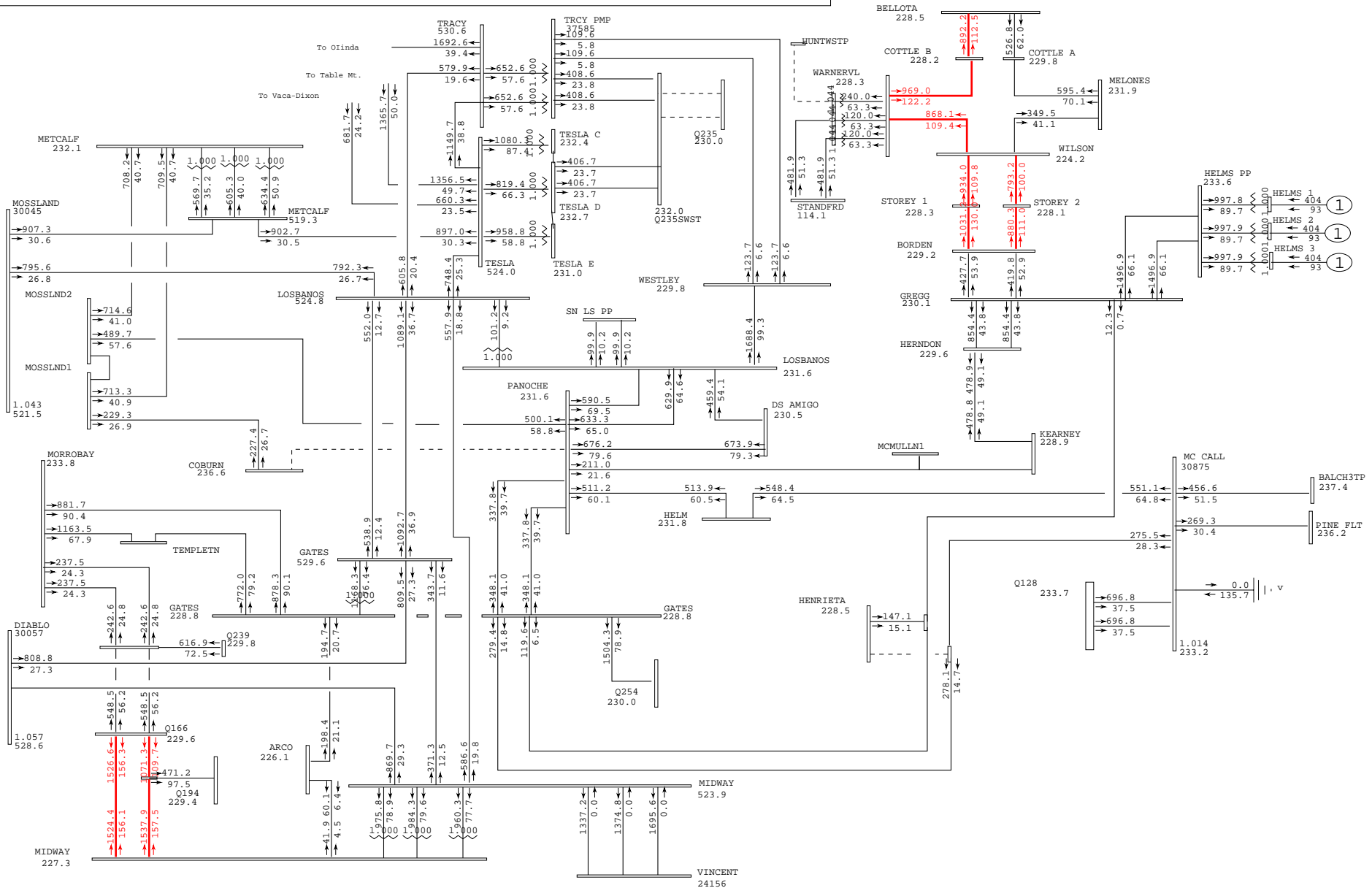
Plot 08-Outage: Gates-Arco 230-kV & Melones

amps/rate  
 gfred15.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System



# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:41:19 2008 2013sumpk\_q299\_pre.sav



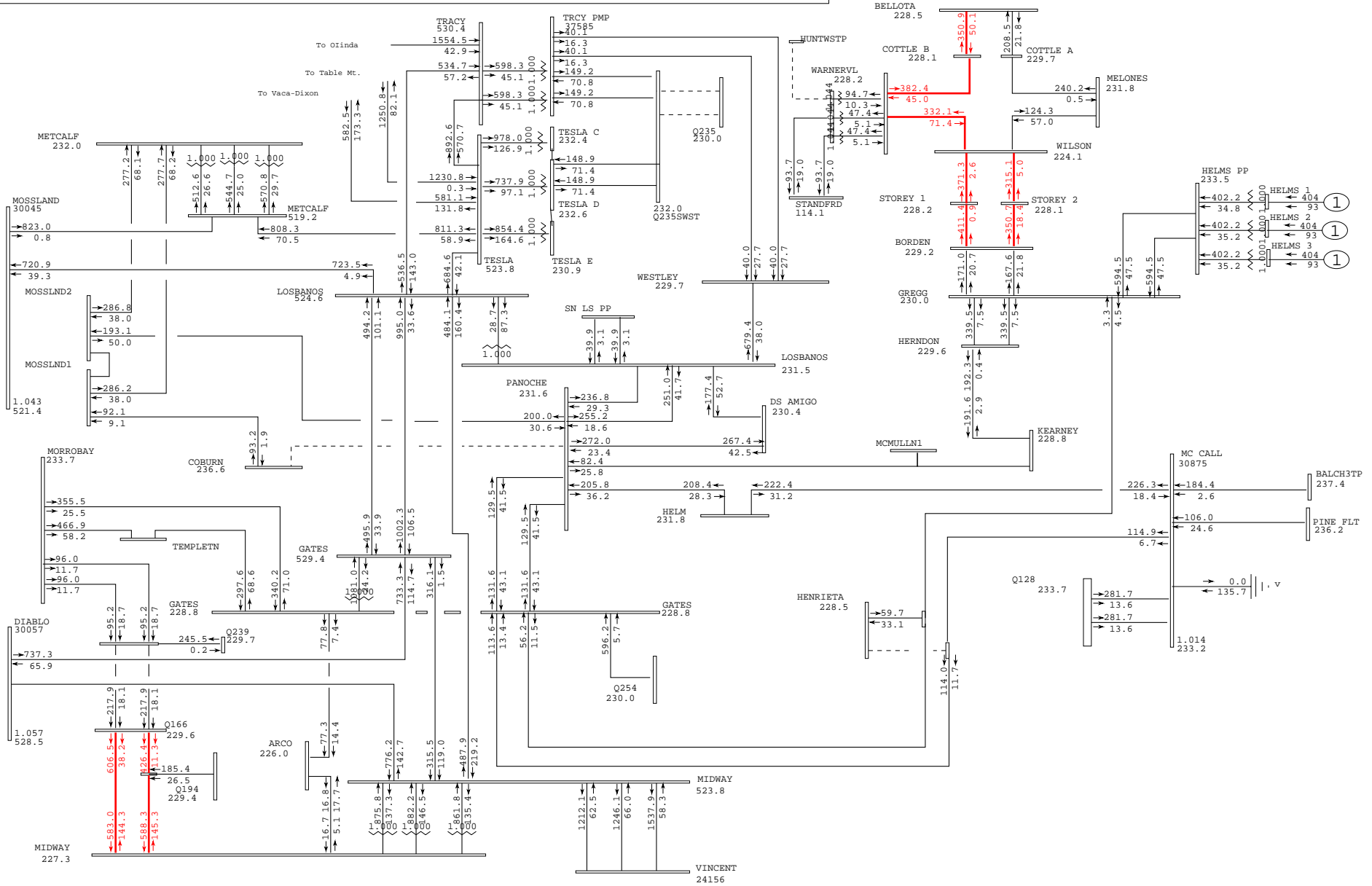
PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27 W at GWF Hanford 115 kV - 2013 Summer Peak Pre-Project

Plot 10-Outlet: Coburn-Panoche 230-kV & Exchequer

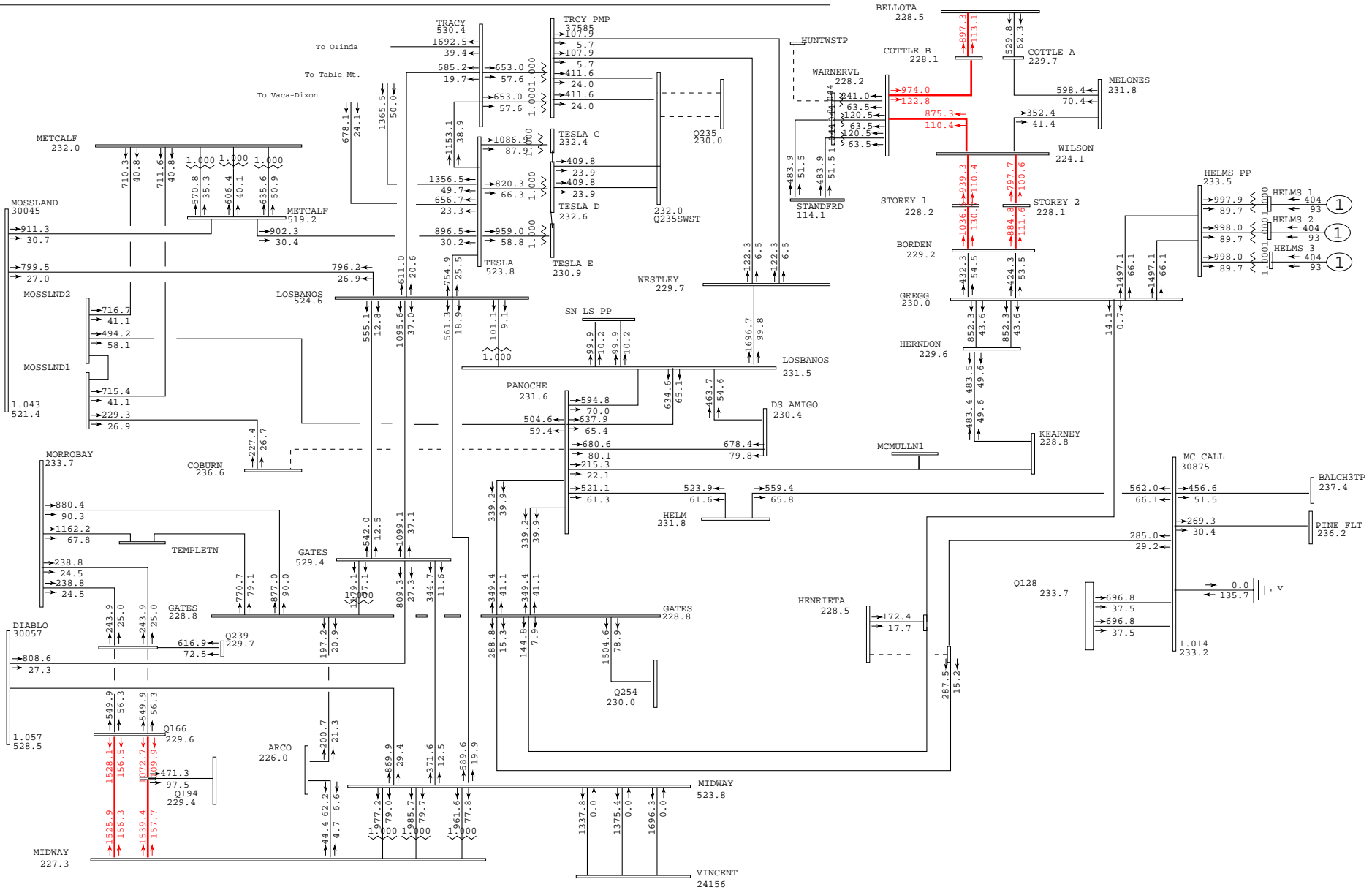
amps/rate  
 gfreq2.drw  
 Rating = 2



# Greater Fresno 500-kV & 230-kV System



# Greater Fresno 500-kV & 230-kV System



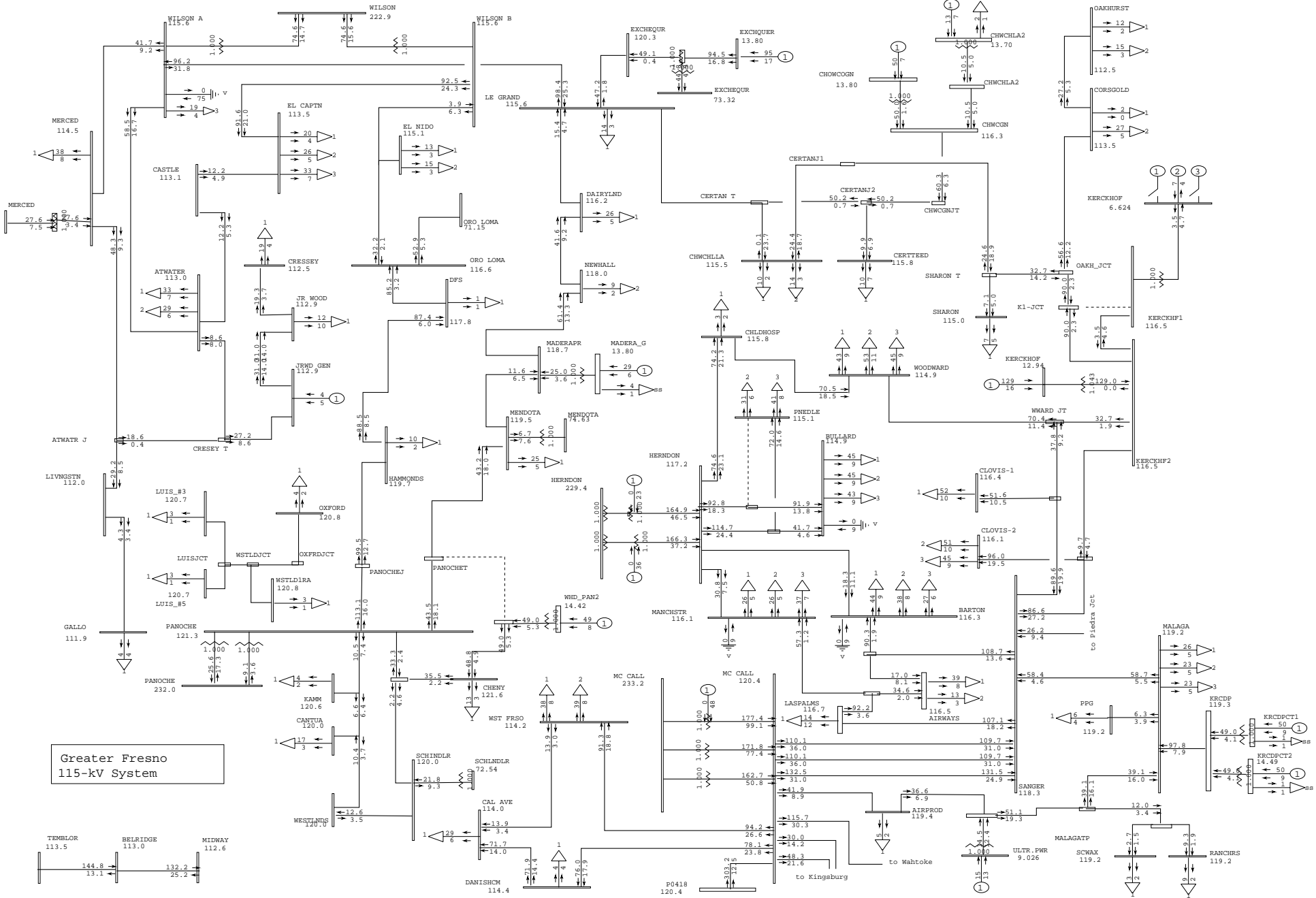
General Electric International, Inc. PSLF Program Thu Oct 09 10:41:21 2008 2013sumpk\_q299\_post.sav

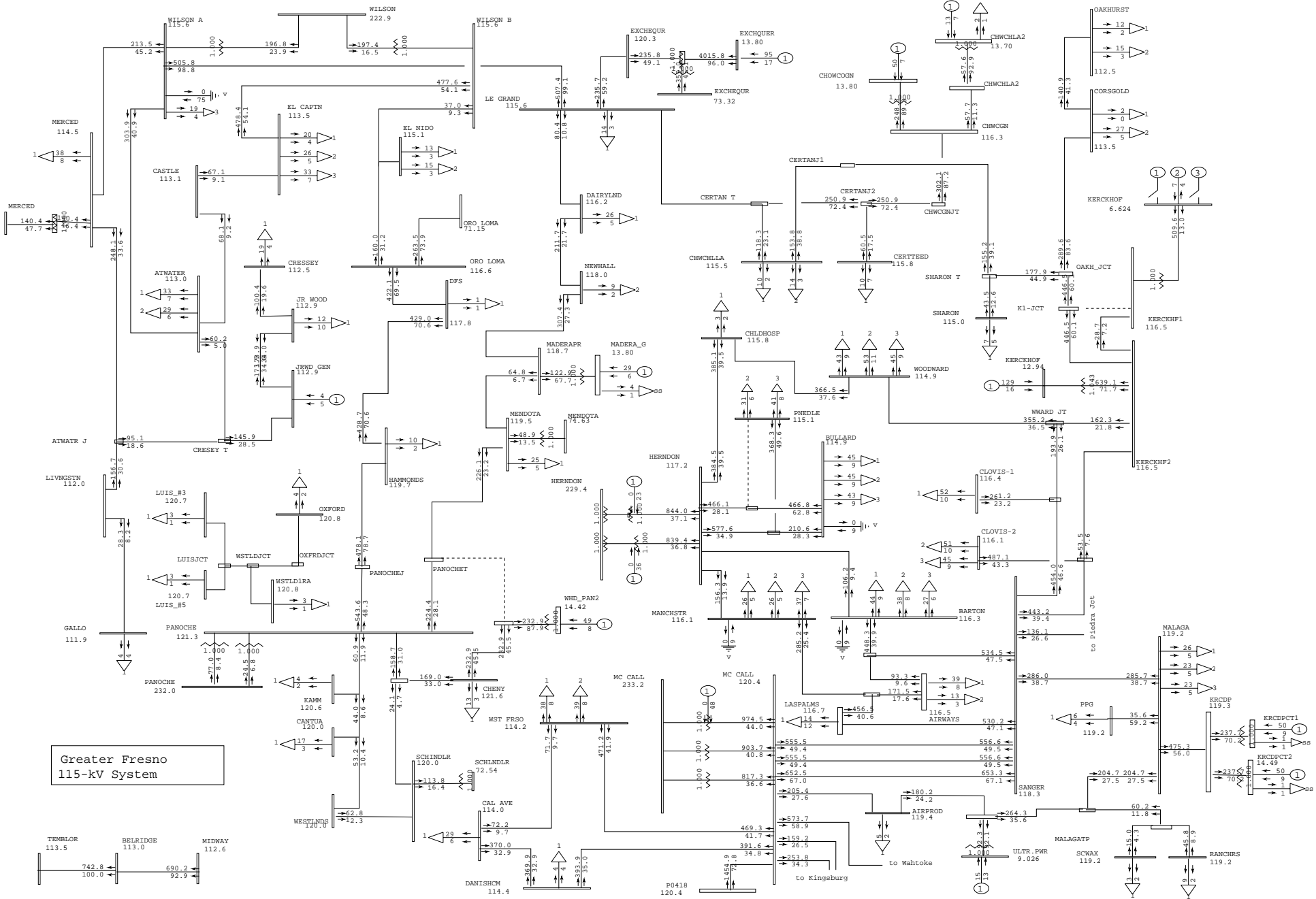


PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Peak Post-Project

Plot 12-Outlet: Coburn-Panoche 230-kV & Exchequer

amps/rate  
 gfred2.drw  
 Rating = 2

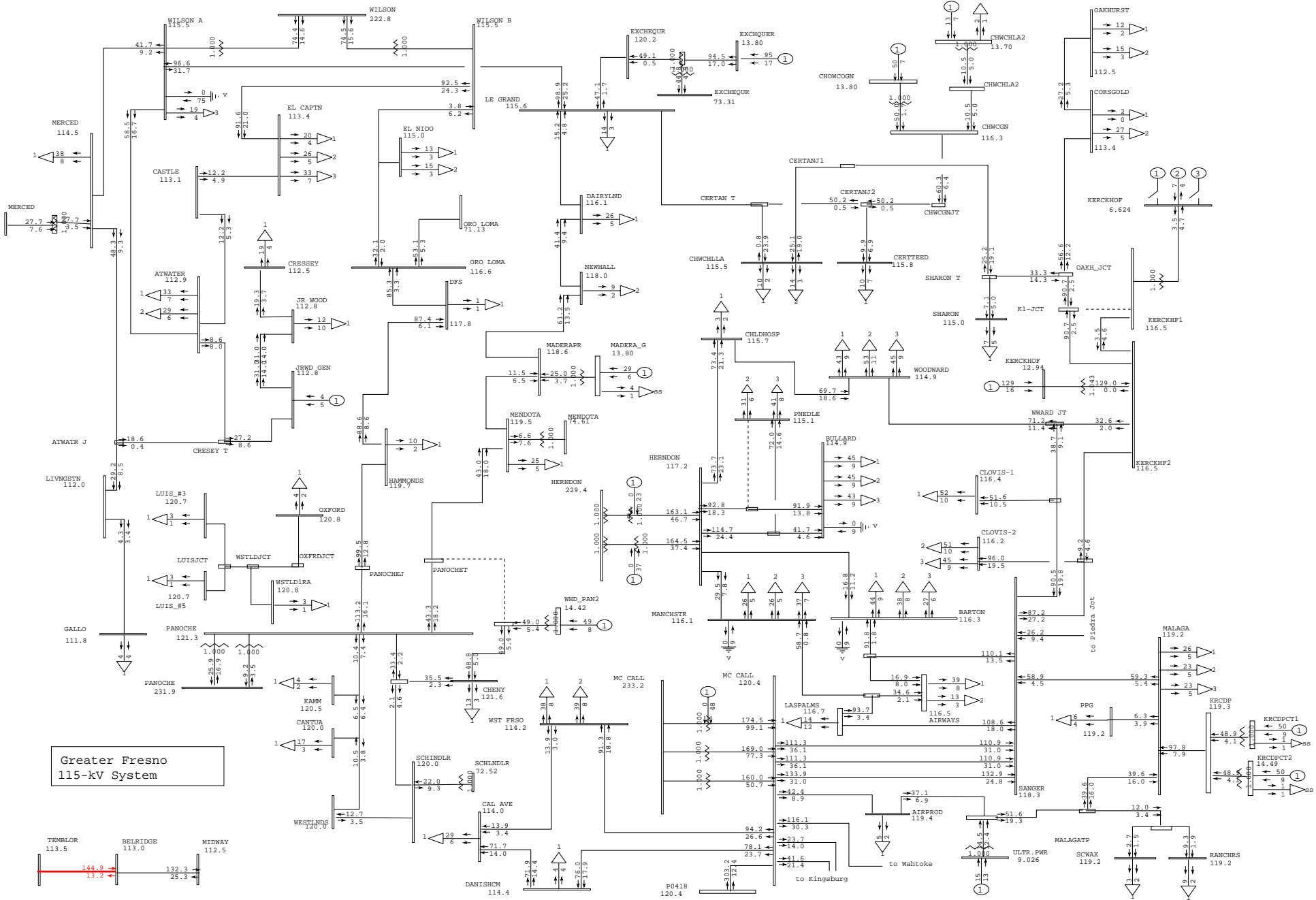


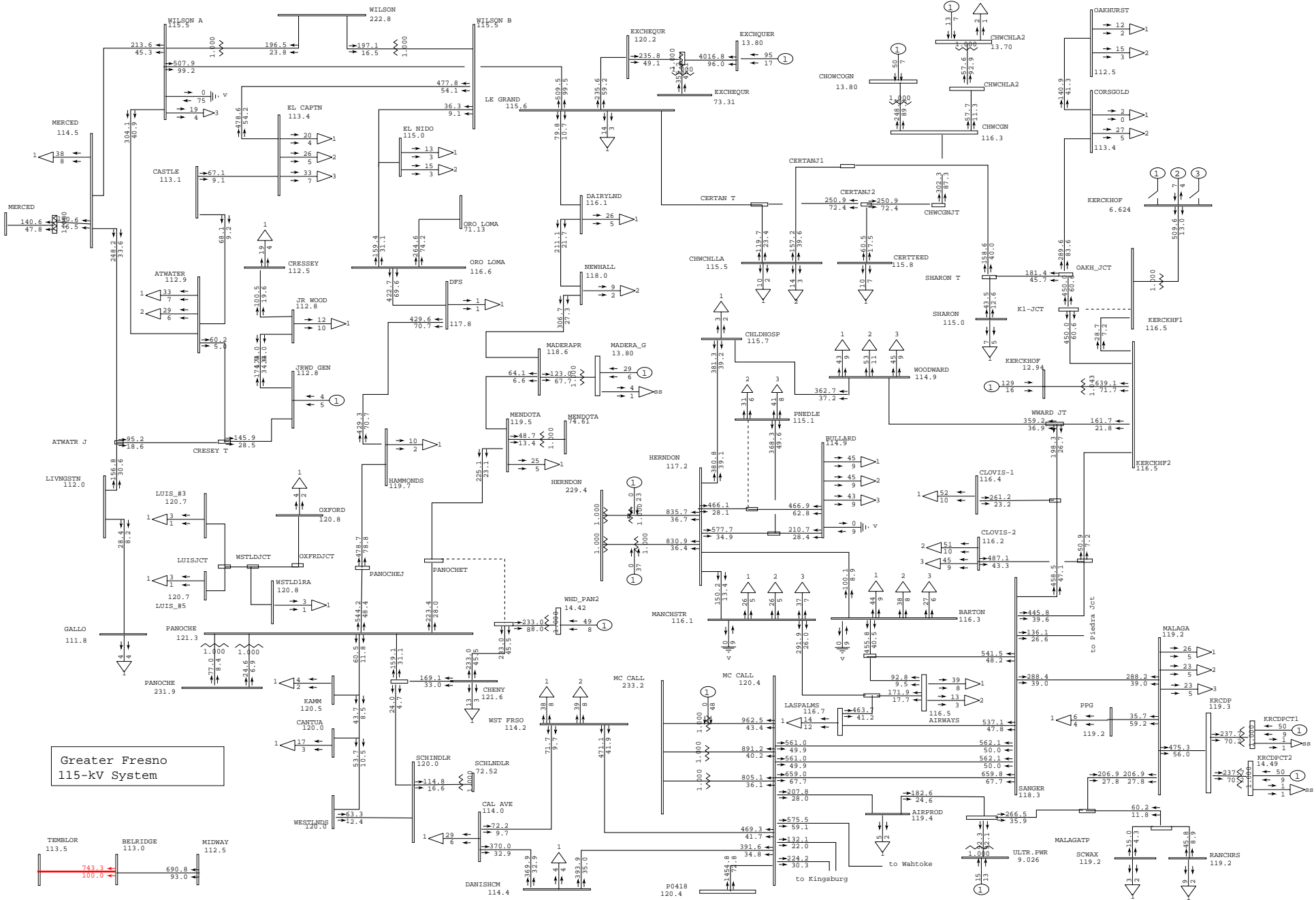


PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27 W at GWF Hanford 115 kV - 2013 Summer Peak Pre-Project

Plot 14-Outage: Templeton-Gates 230-kV & Melones

amps/rate  
 gfred115.drw  
 Rating = 2



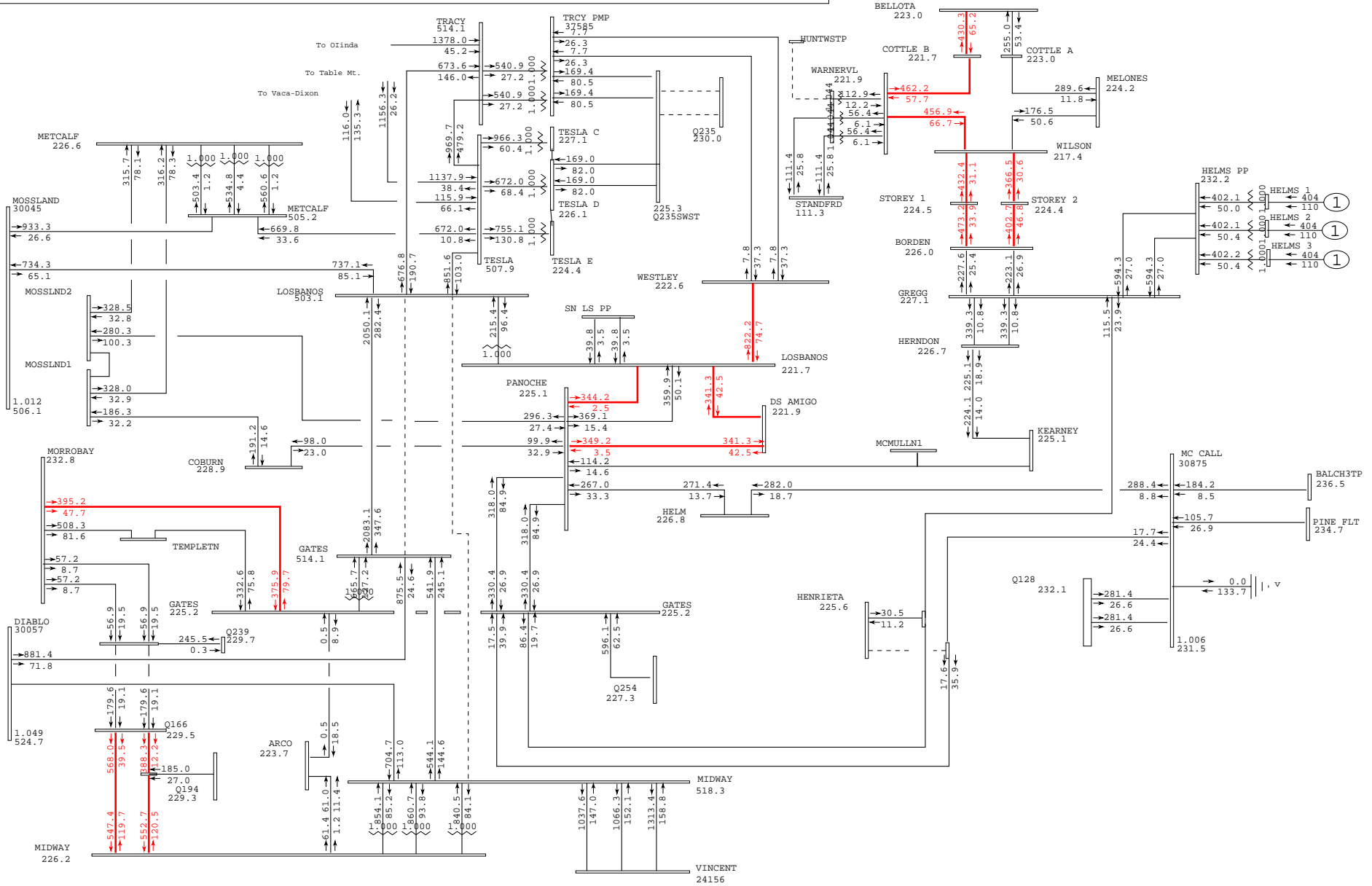


PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Peak Post-Project

Plot 16-Outage: Templeton-Gates 230-kV & Melones

amps/rate  
 gfred15.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:41:28 2008 post-2013sumpk\_q299\_pre\_lbs-dlo-ns.sav

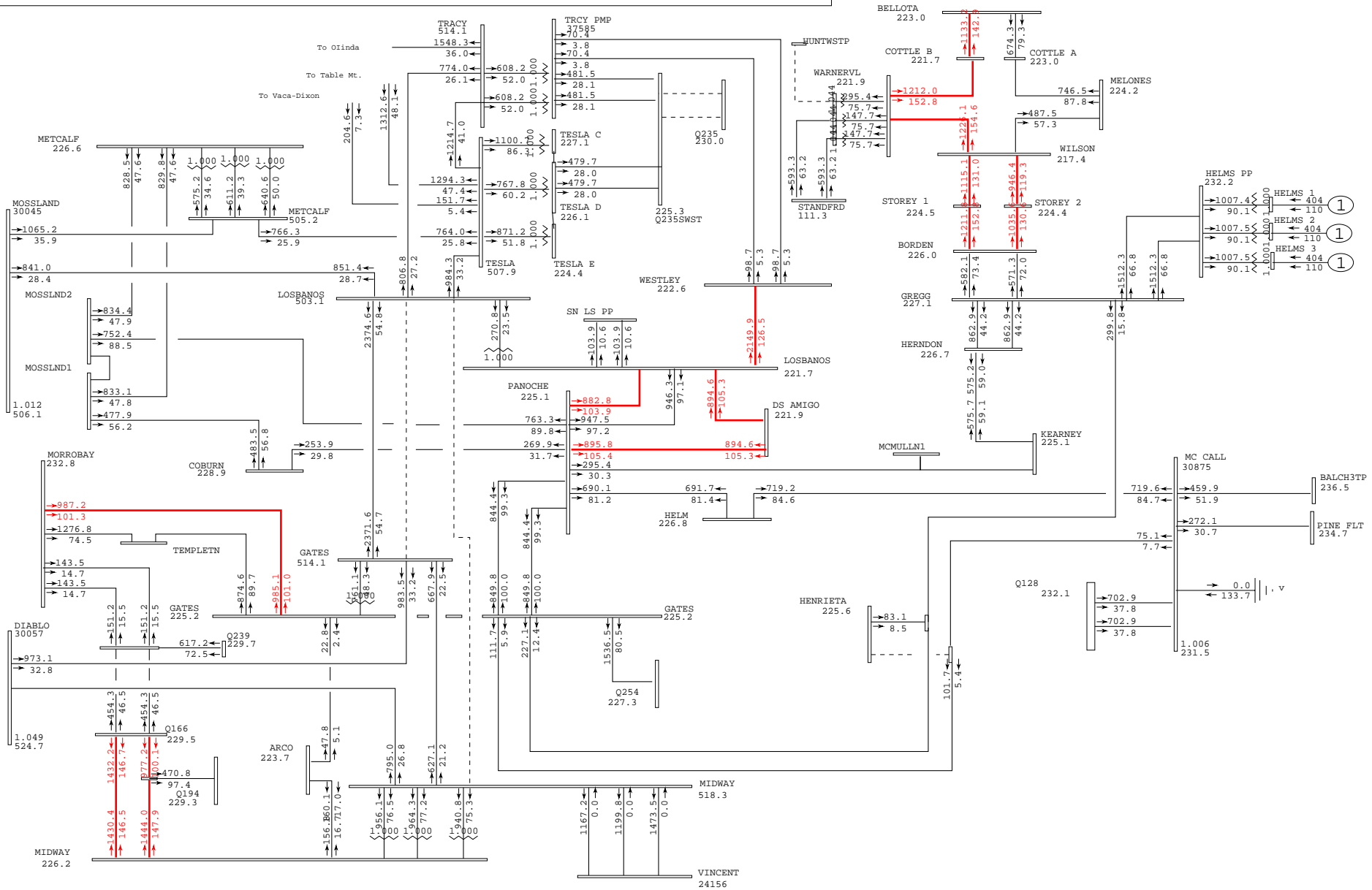


PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27 W at GWF Hanford 115 kV - 2013 Summer Peak Pre-Project

Plot 17-Outlet: Los Banos South DLO  
 Los Banos - Gates, Los Banos - Midway Double Line Out

MW/MVAR  
 gfred2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:41:29 2008 post-2013sumpk\_q299\_pre\_lbs-dlo-ns.sav



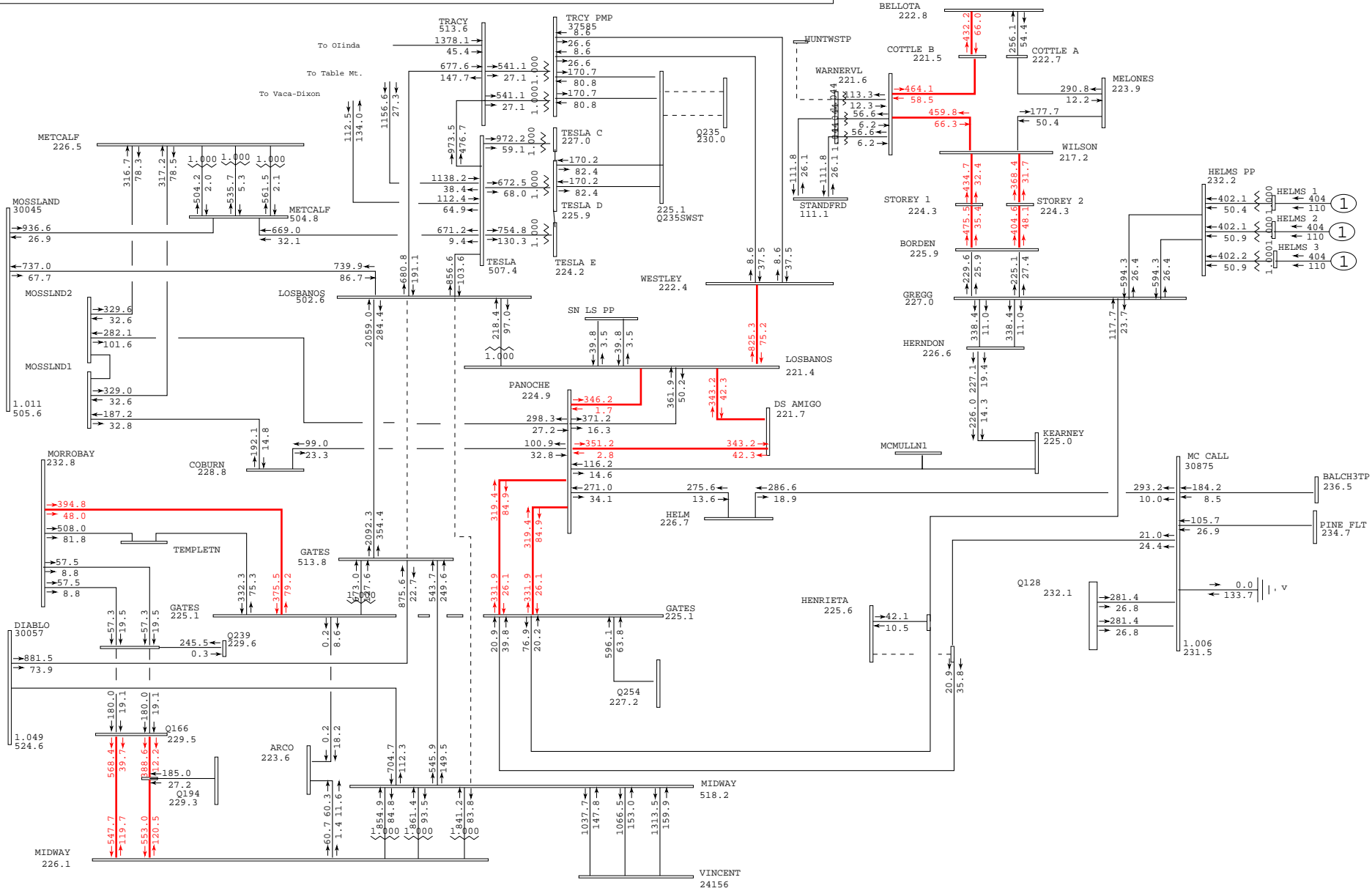
PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27 W at GWF Hanford 115 kV - 2013 Summer Peak Pre-Project

Plot 18-Outlet: Los Banos South DLO  
 Los Banos - Gates, Los Banos - Midway Double Line Out

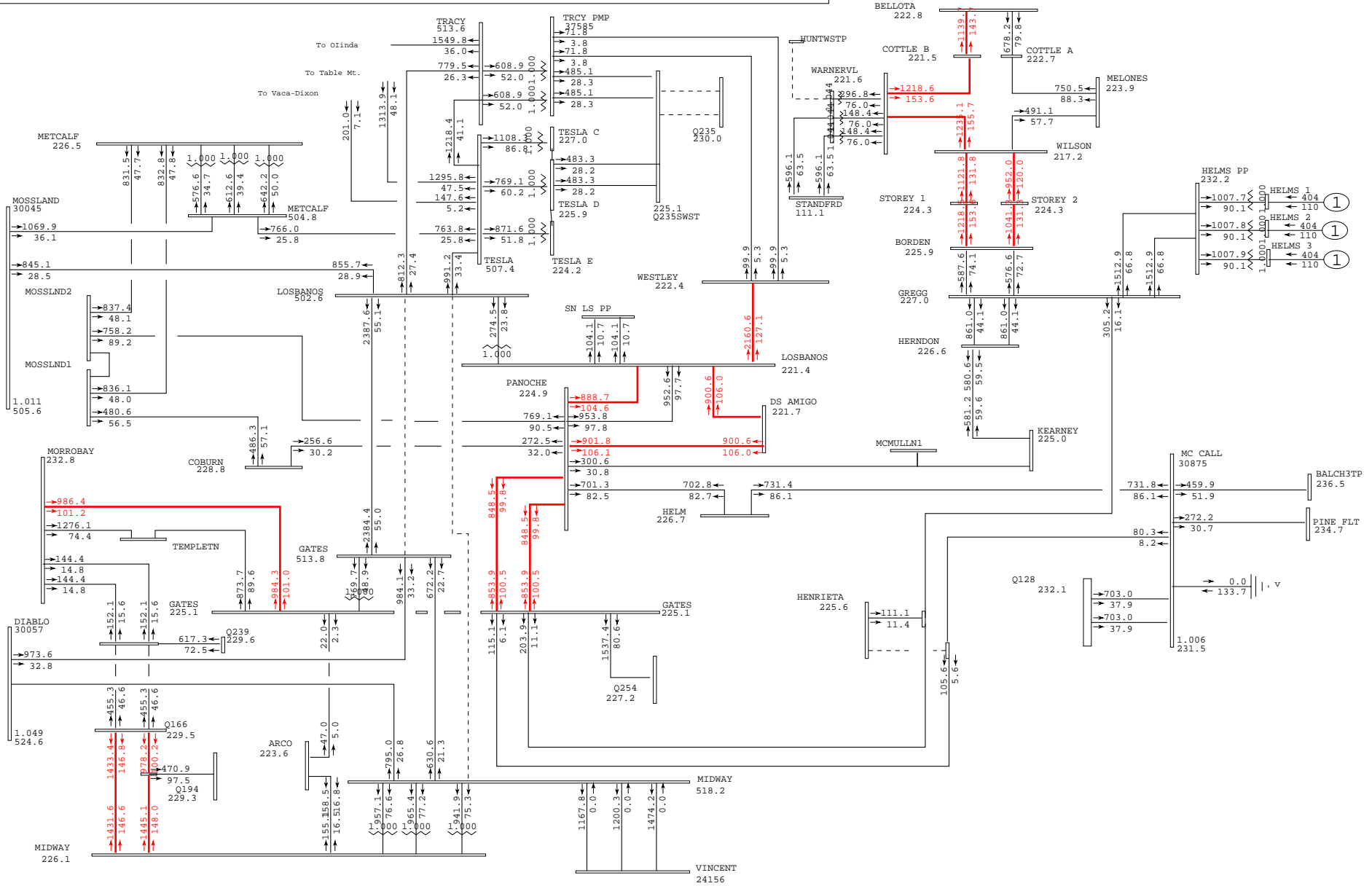
amps/rate  
 gfred2.drw  
 Rating = 2

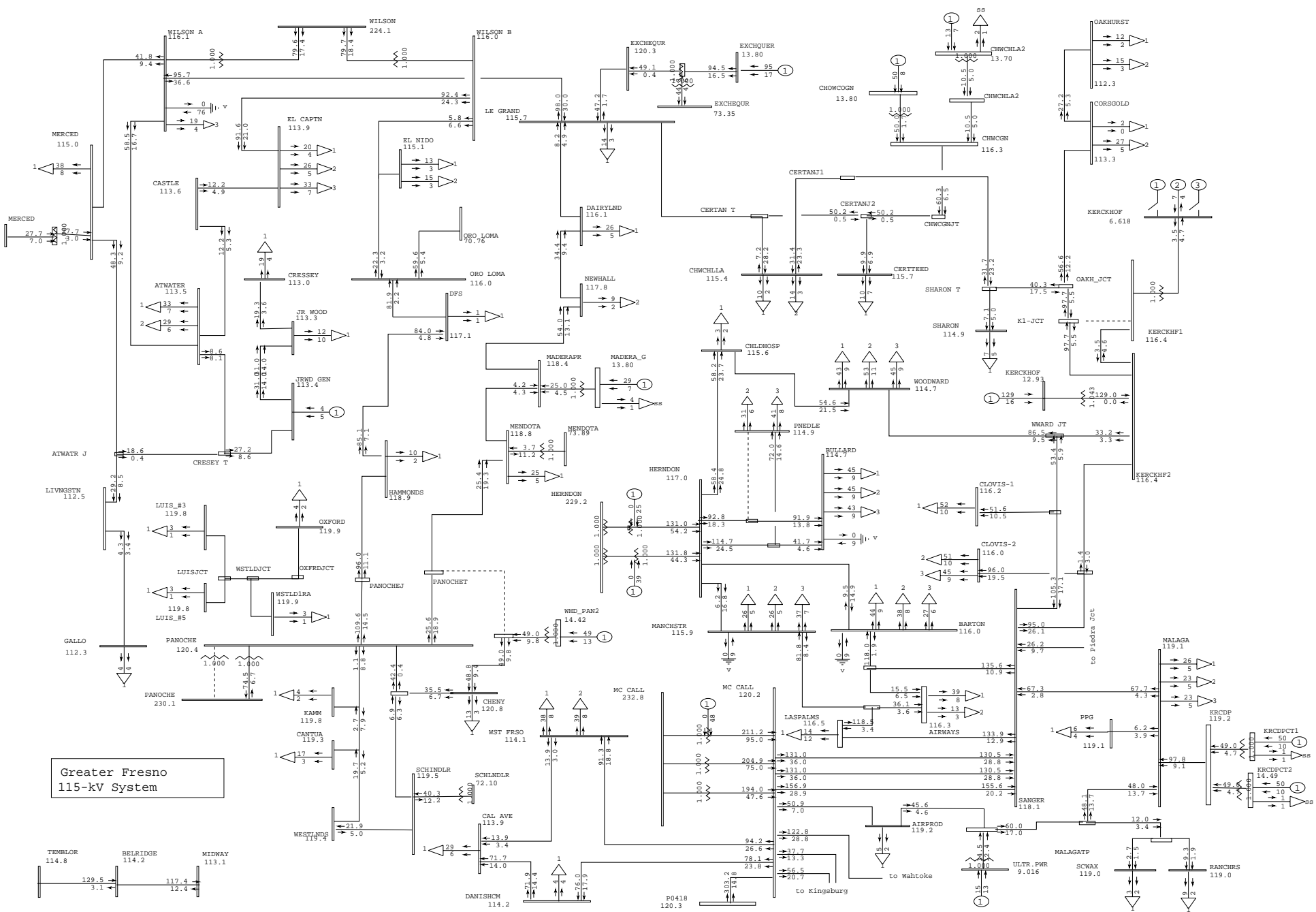


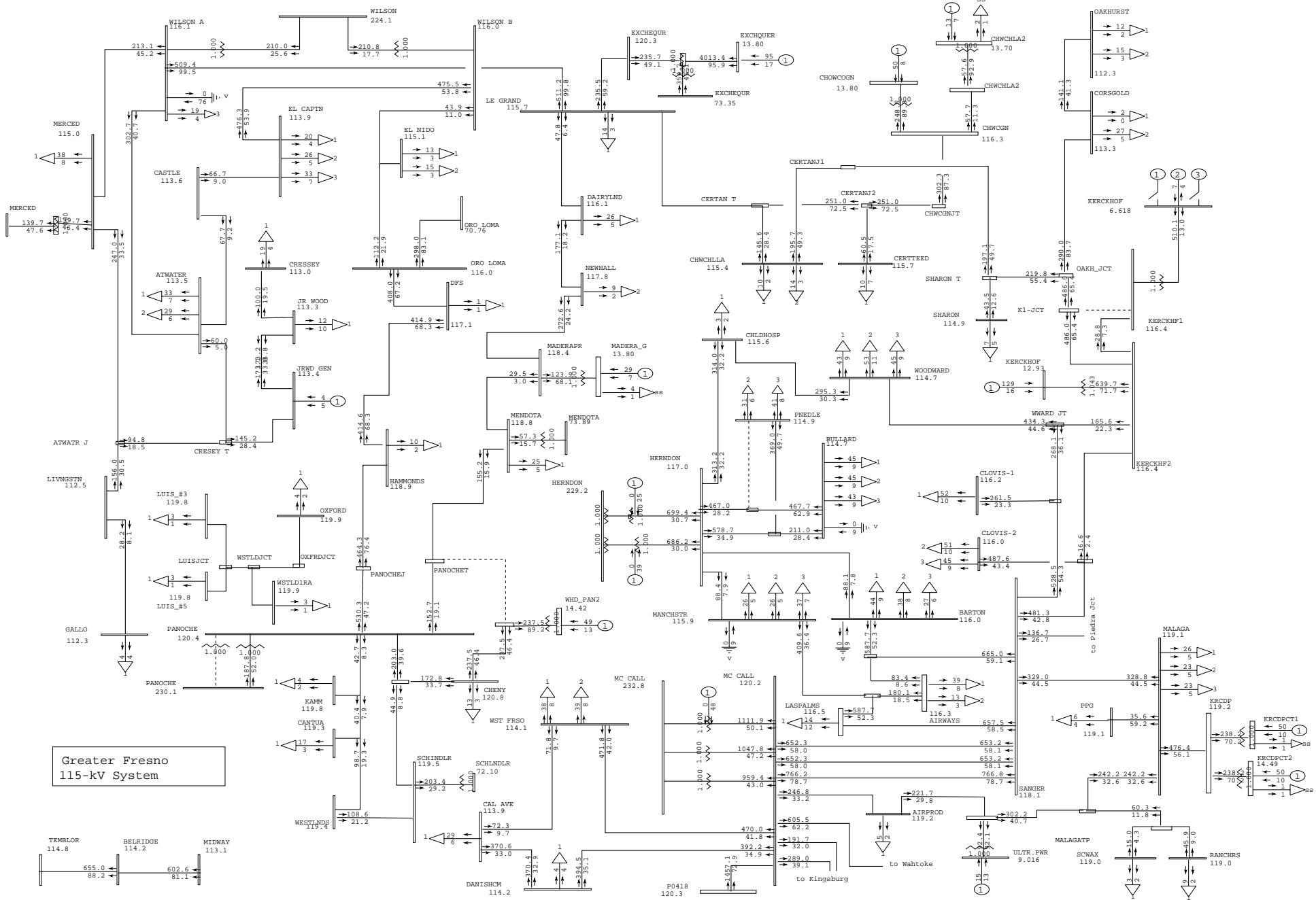
# Greater Fresno 500-kV & 230-kV System



# Greater Fresno 500-kV & 230-kV System



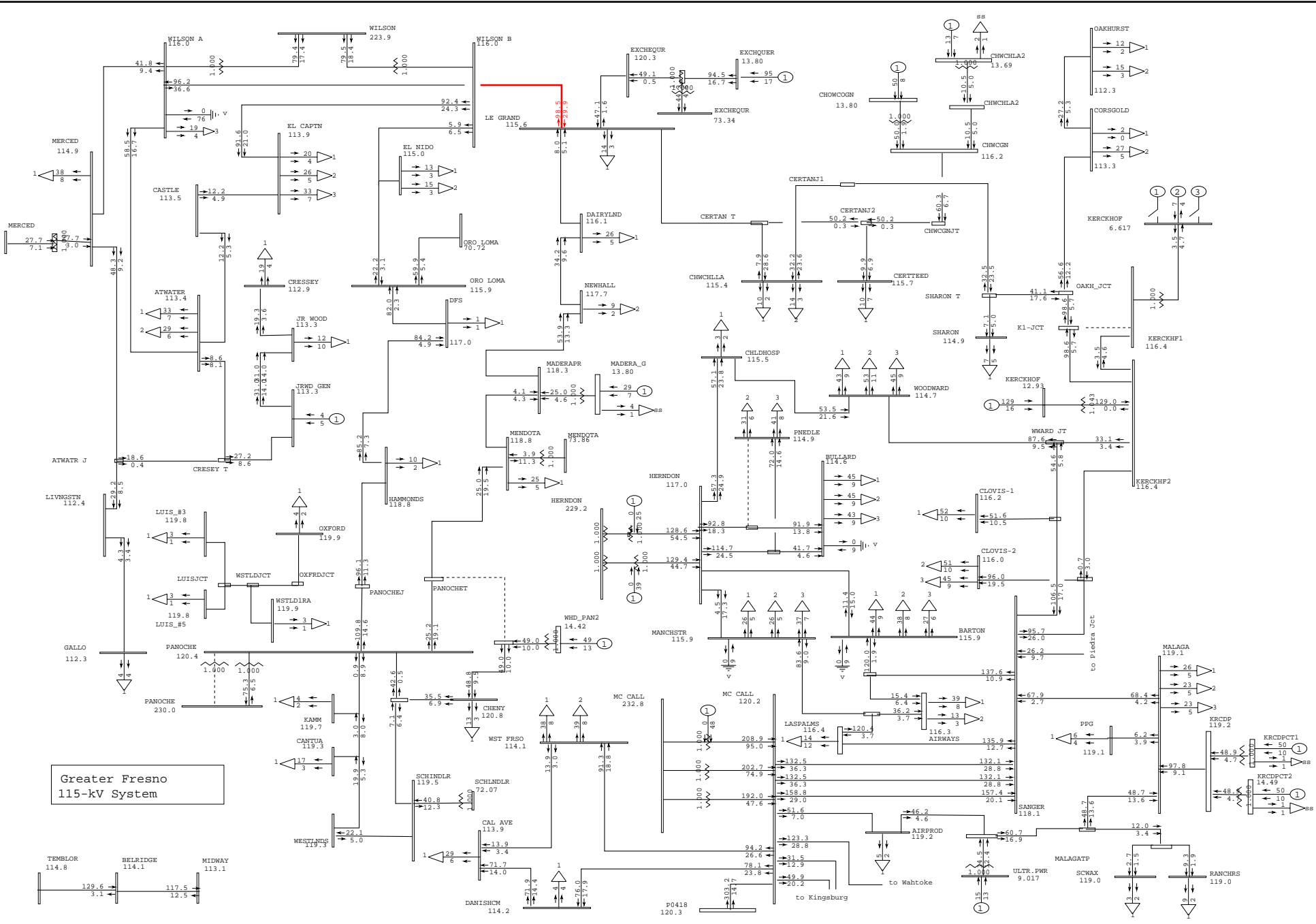


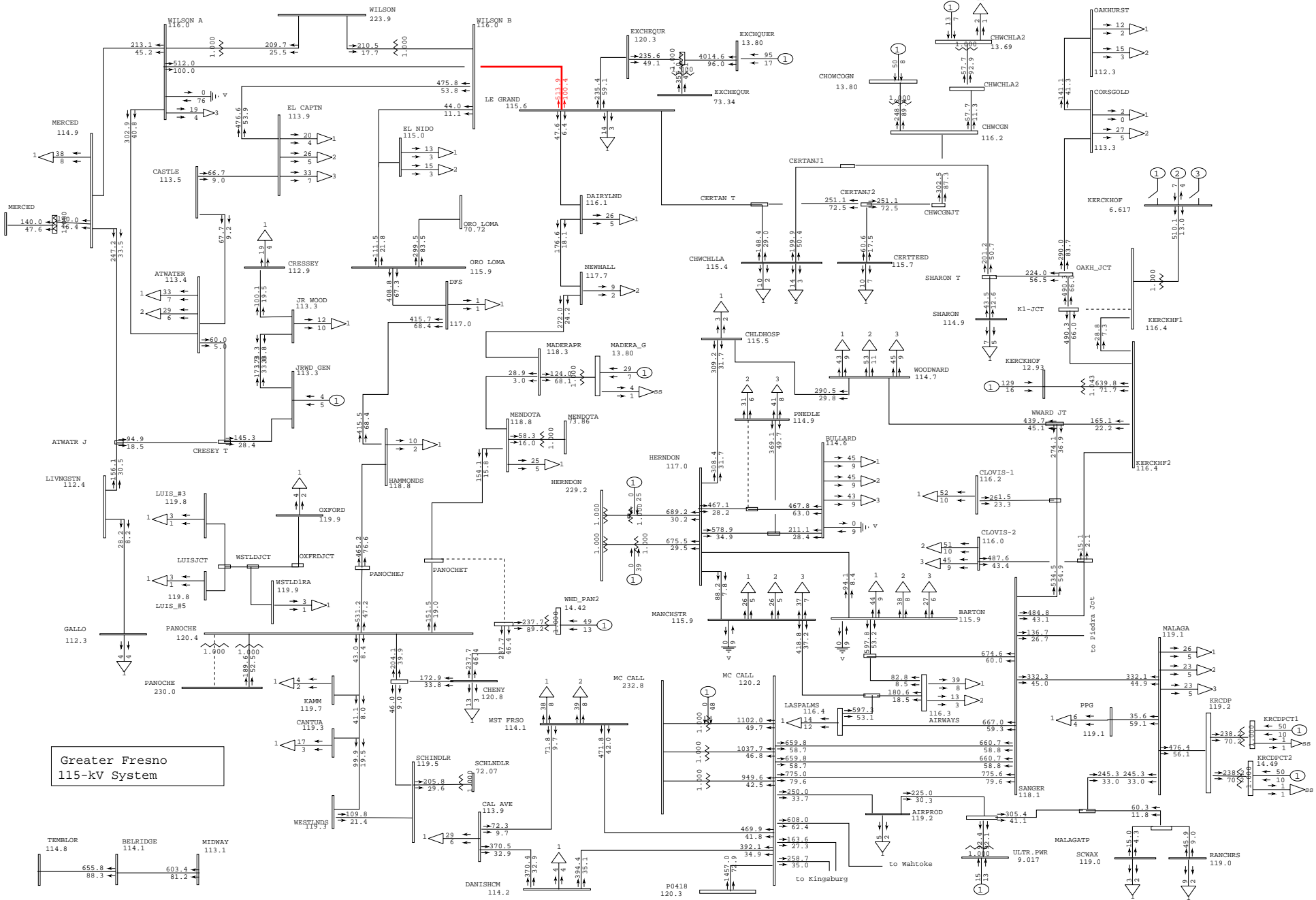


PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27 W at GWF Hanford 115 kV - 2013 Summer Peak Pre-Project

Plot 22-Outage: Panoche 230-kV Bus 2

amps/rate  
 gfred15.drw  
 Rating = 2





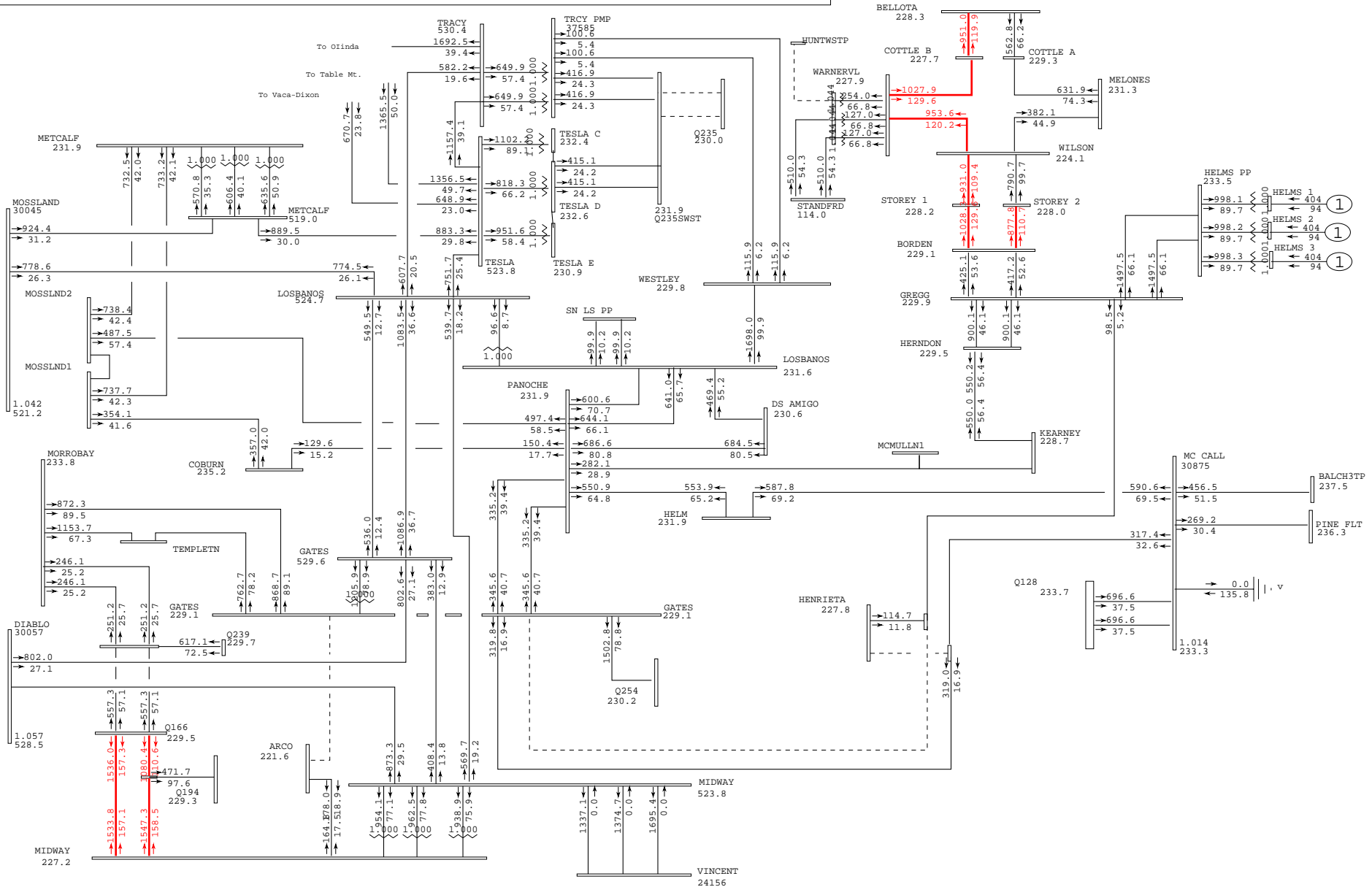
PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Peak Post-Project

Plot 24-Outage: Panoche 230-kV Bus 2

amps/rate  
 gfred15.drw  
 Rating = 2



# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:41:39 2008 2013sumpk\_q299\_pre.sav



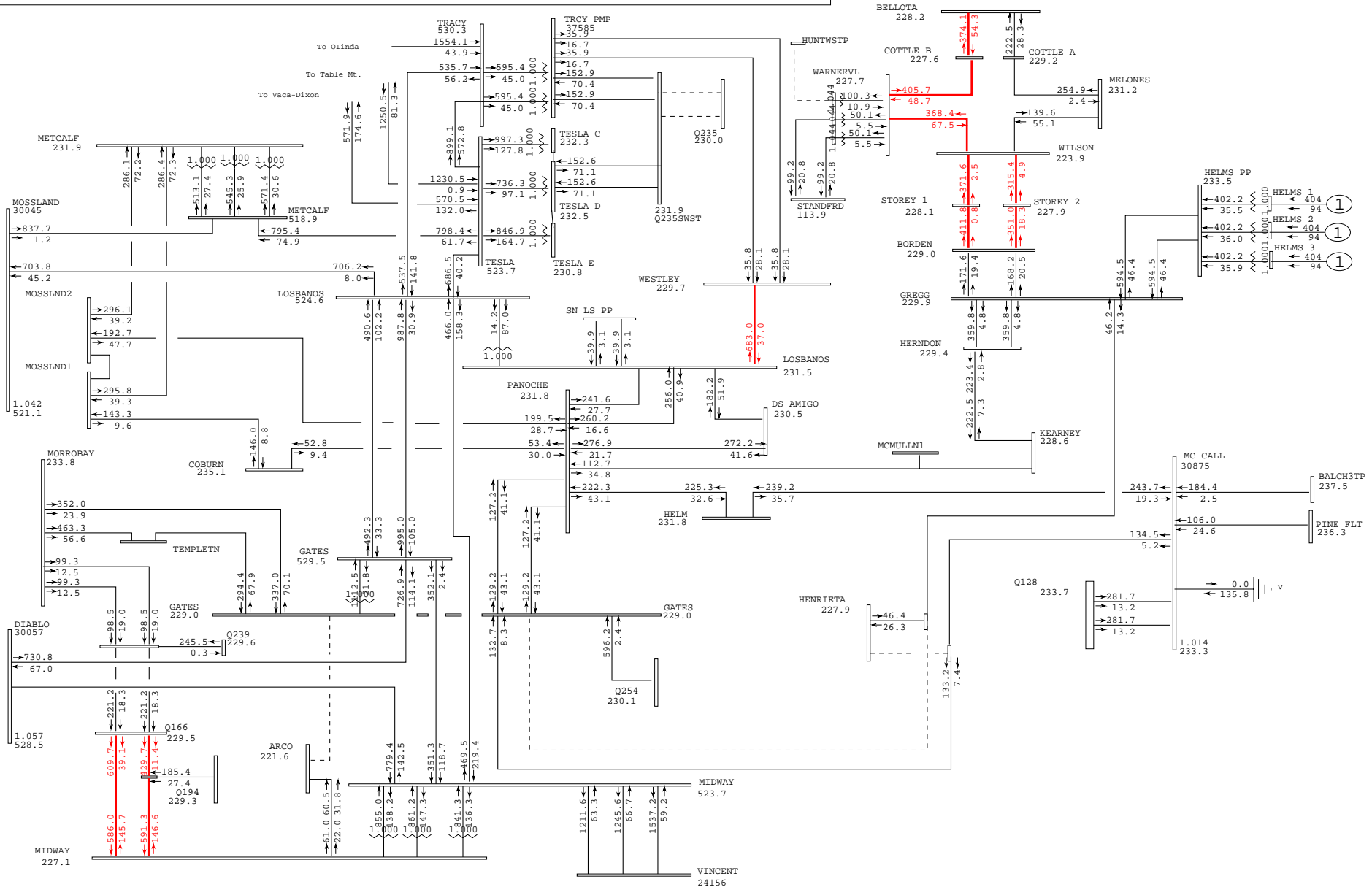
PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27 W at GWF Hanford 115 kV - 2013 Summer Peak Pre-Project

Plot 26-Outage: Gates 230-kV Bus 1E

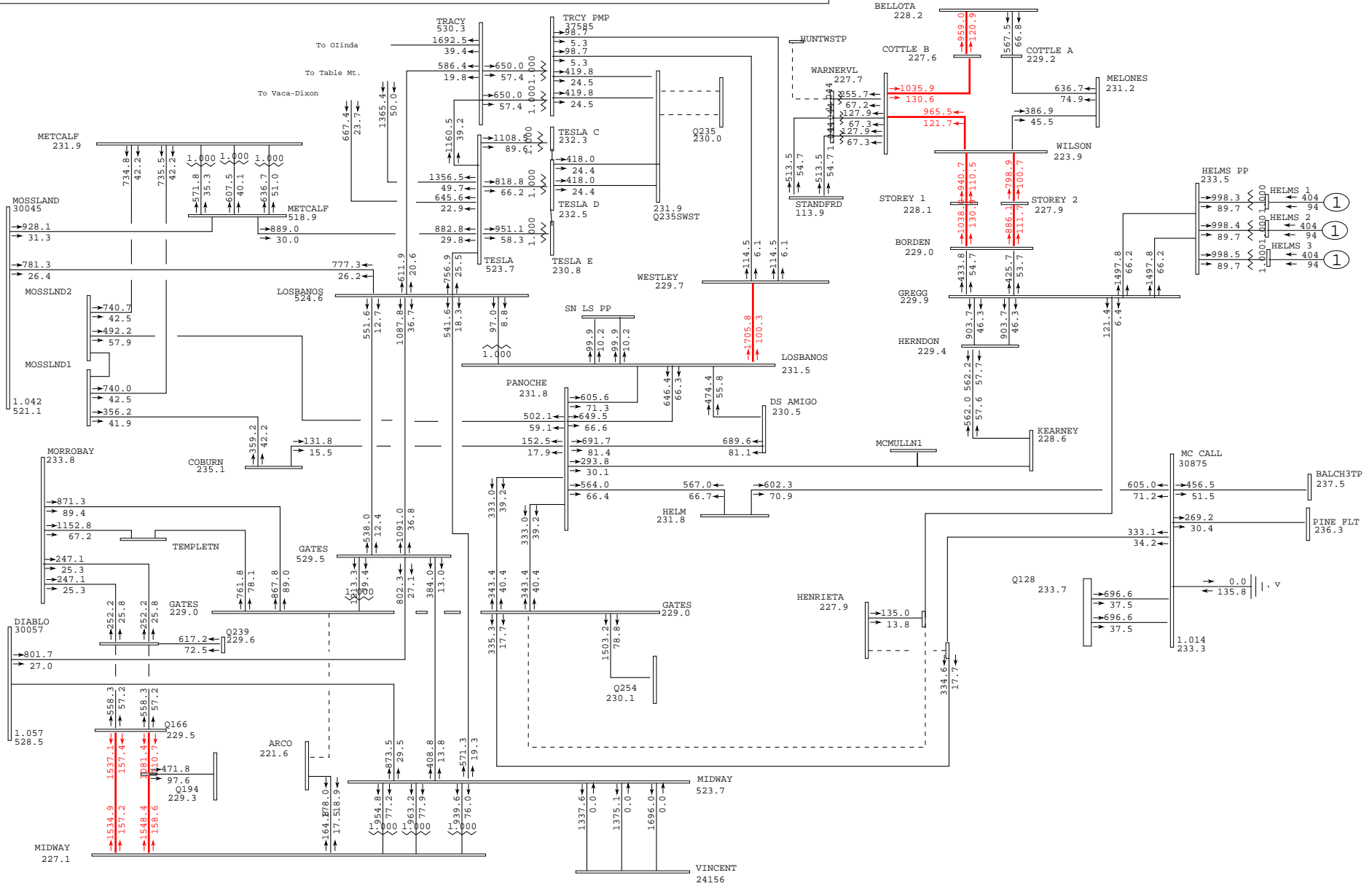
amps/rate  
 gfred2.drw  
 Rating = 2

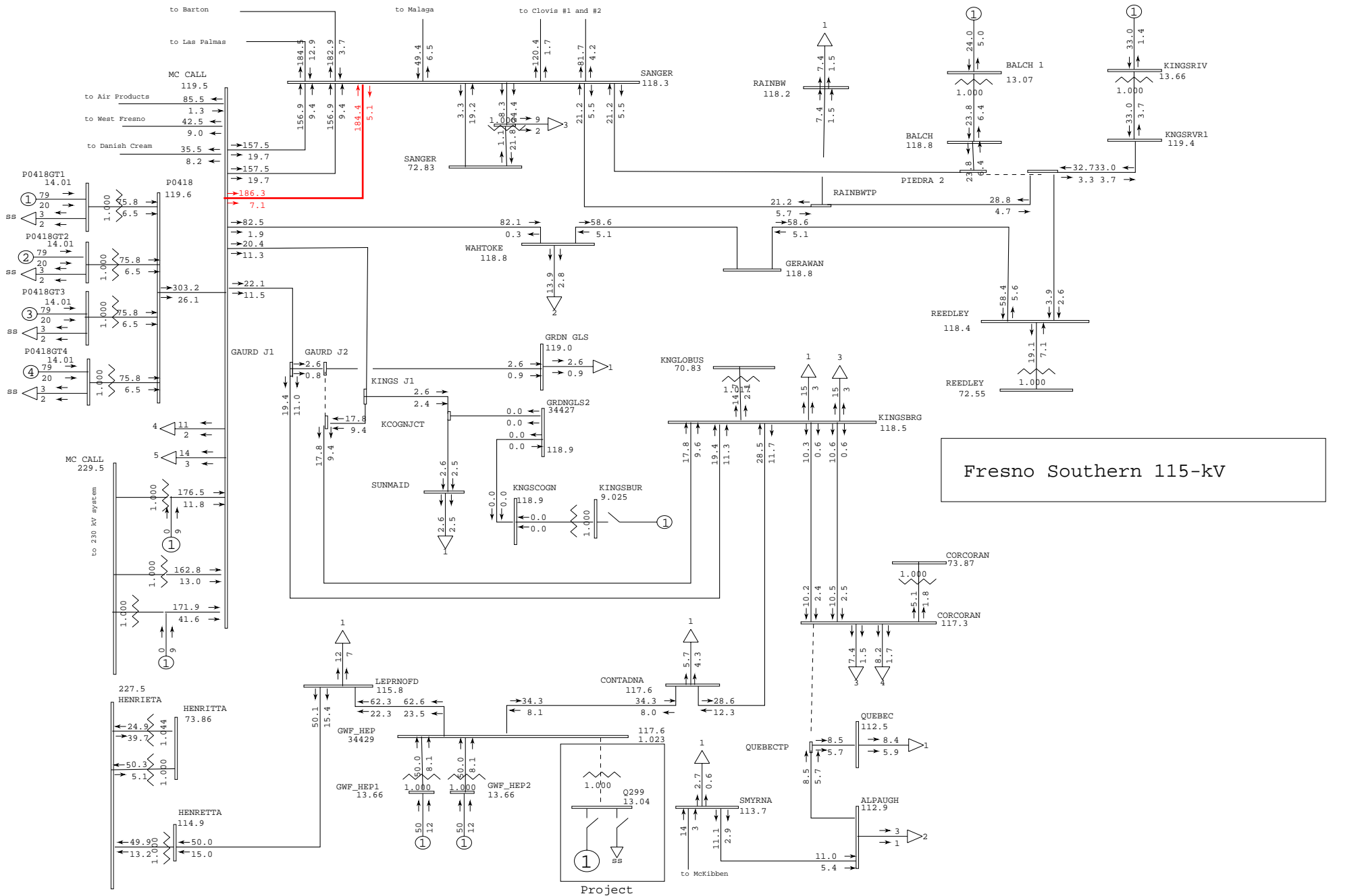


# Greater Fresno 500-kV & 230-kV System



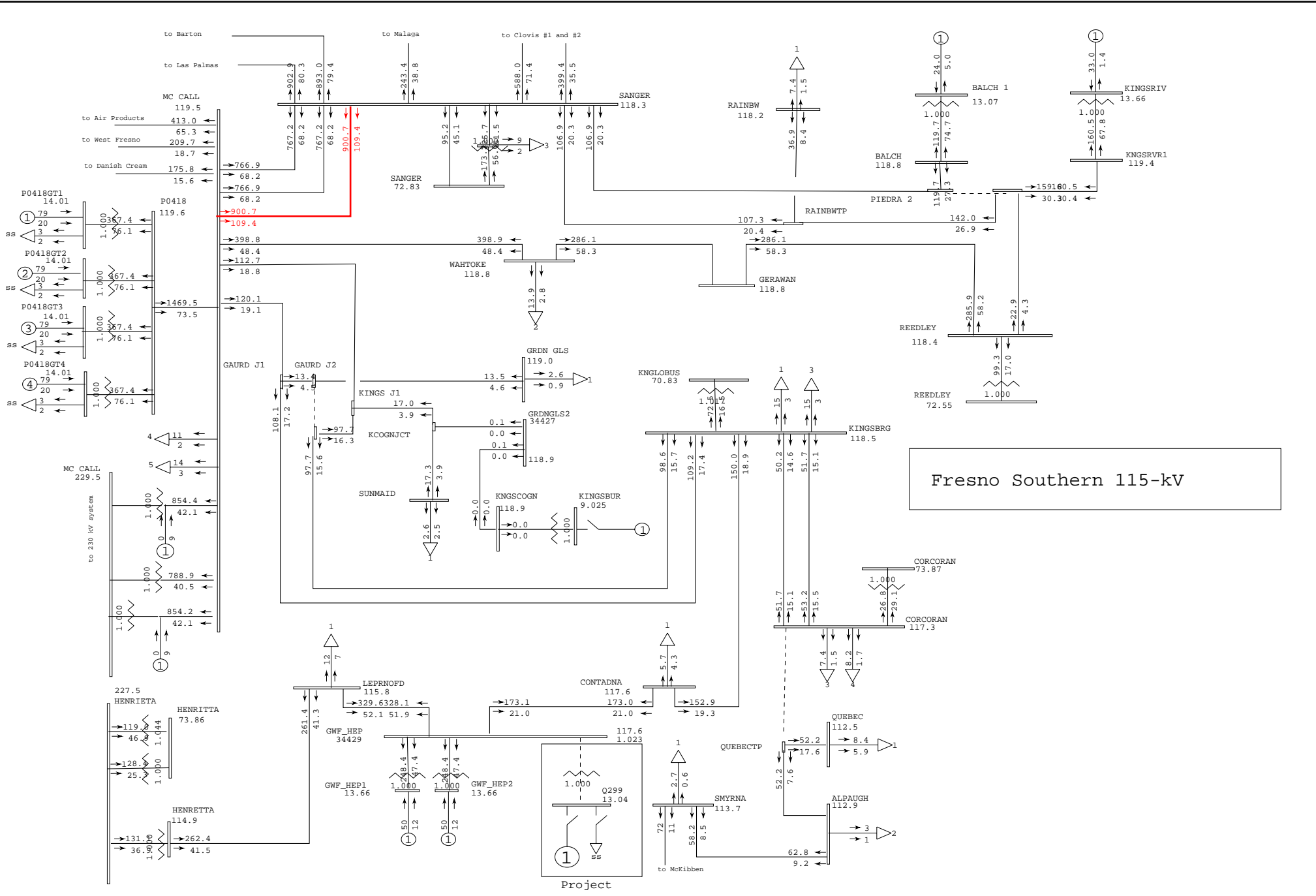
# Greater Fresno 500-kV & 230-kV System



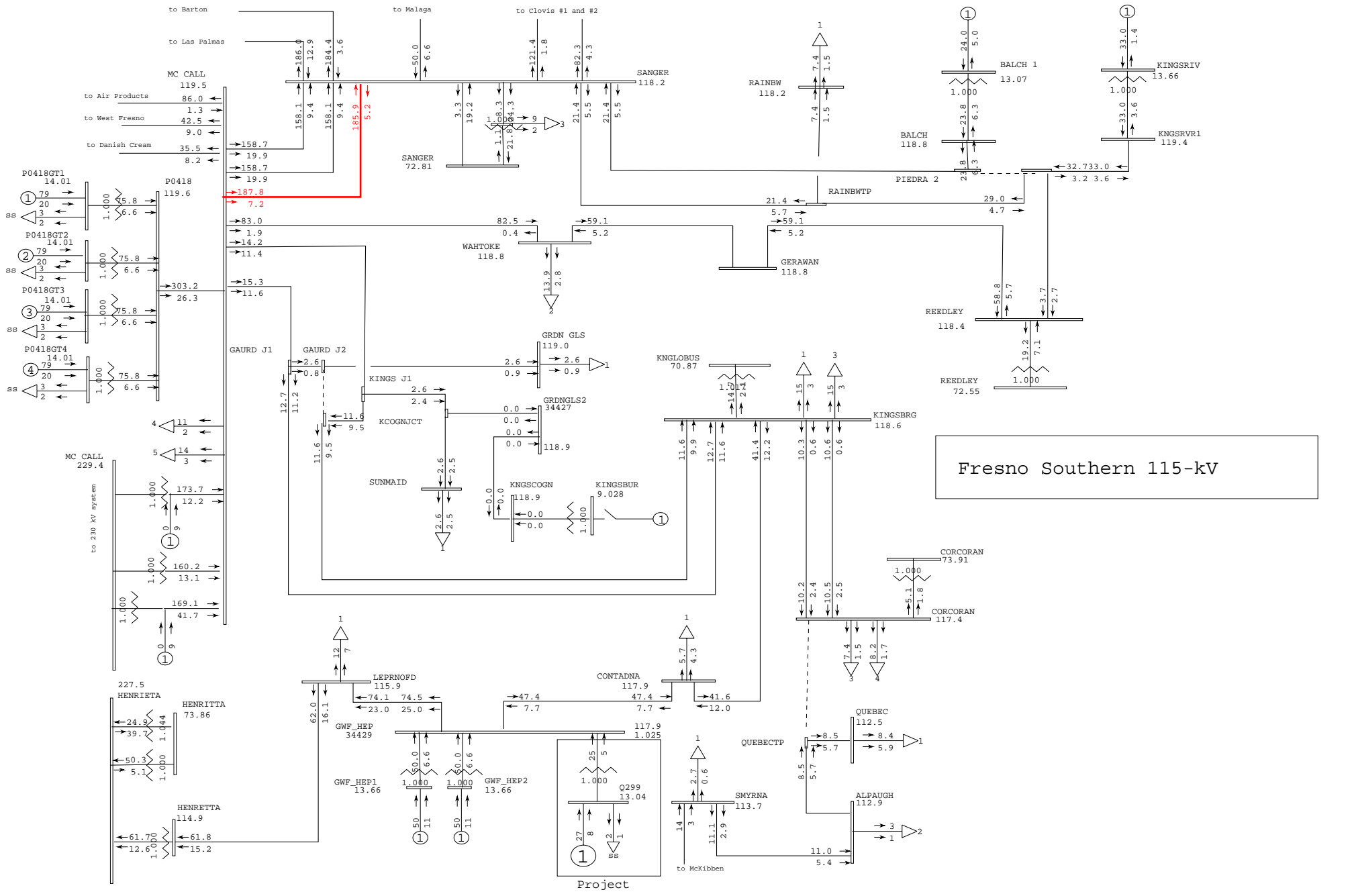


Fresno Southern 115-kV





Fresno Southern 115-kV

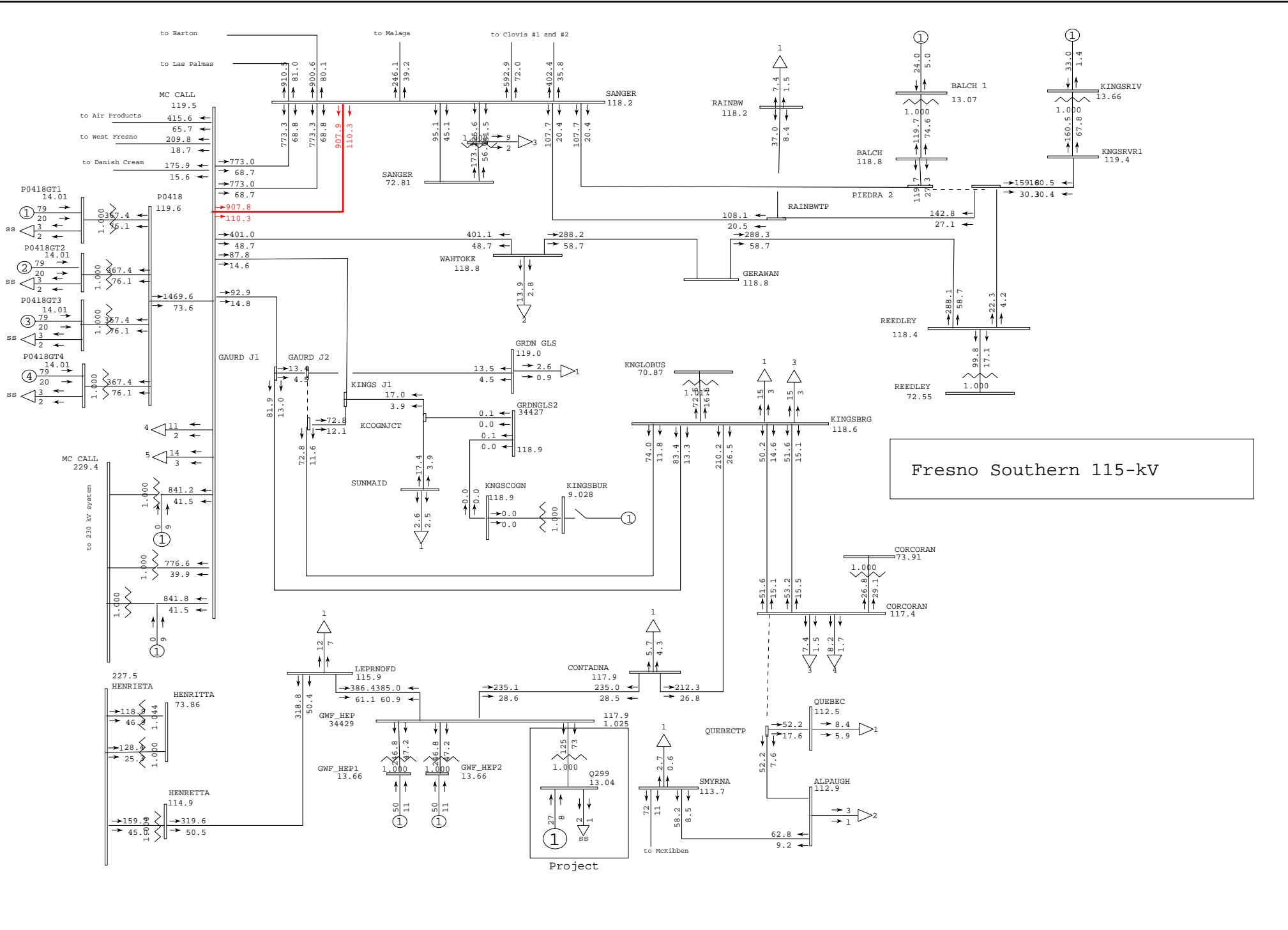


Fresno Southern 115-kV



PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Post-Project

Plot 31 - No Outage  
 MW/MVAR  
 fres\_so\_115.drw  
 Rating = 1

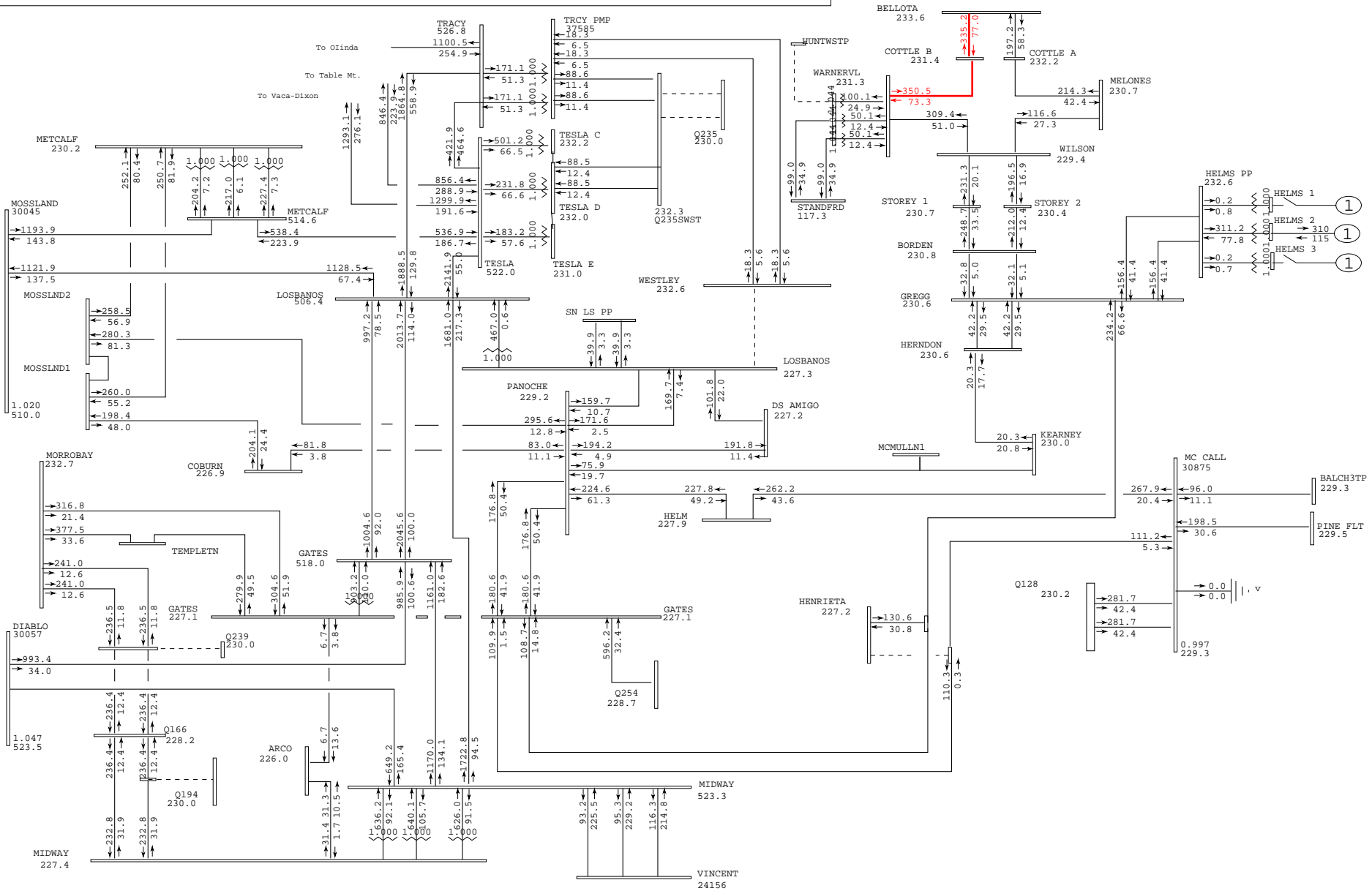


Fresno Southern 115-kV

PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Post-Project

Plot 32 - No Outage  
 amps/rate  
 fres\_so\_115.drw  
 Rating = 1

# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:41:46 2008 2013sumop\_q299\_pre.sav

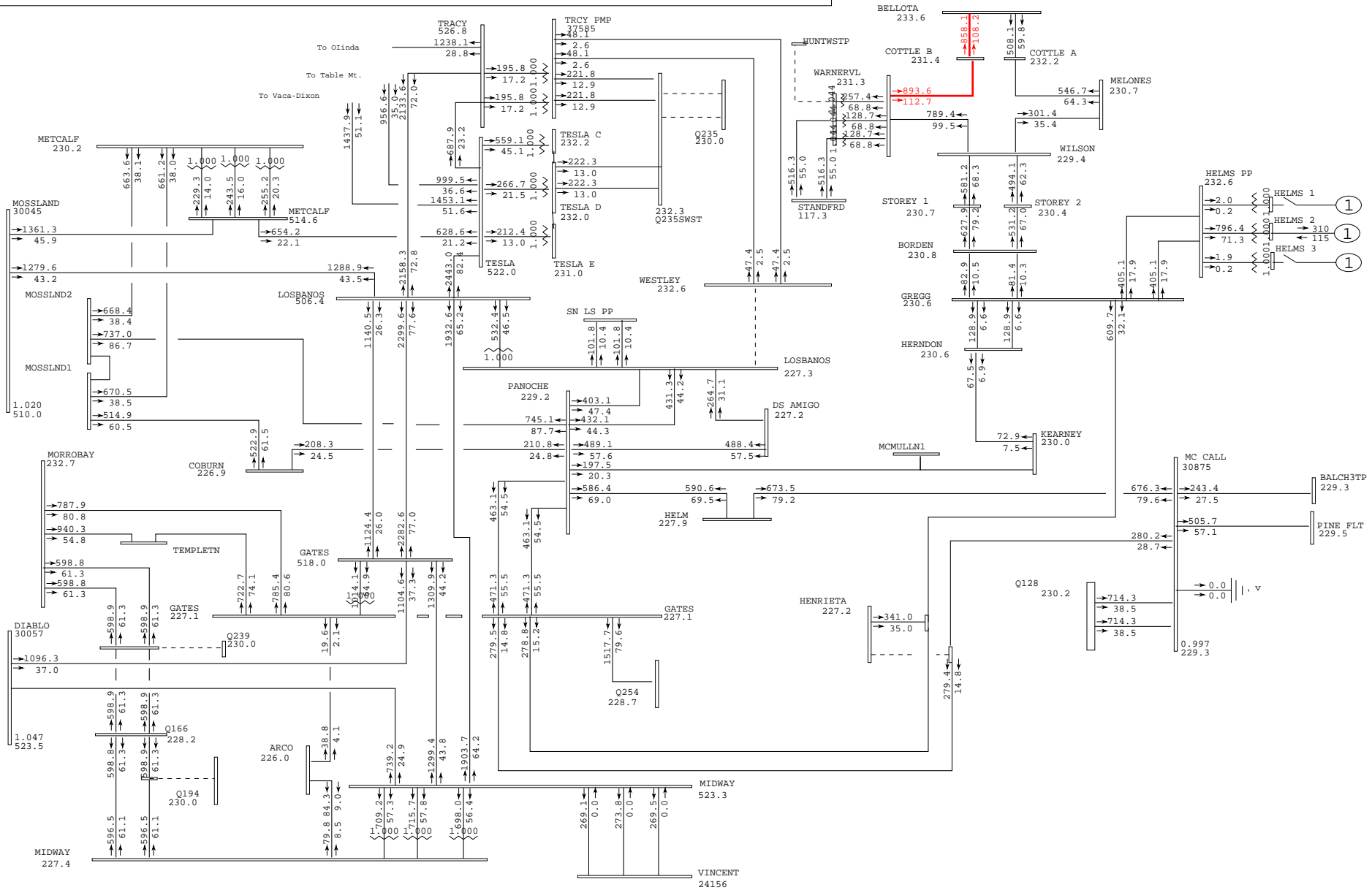


PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Pre-Project

Plot 33-Outage: Westley-Los Banos 230-kV & Helms 1

MW/MVAR  
 gfred2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:41:48 2008 2013sumop\_q299\_pre.sav



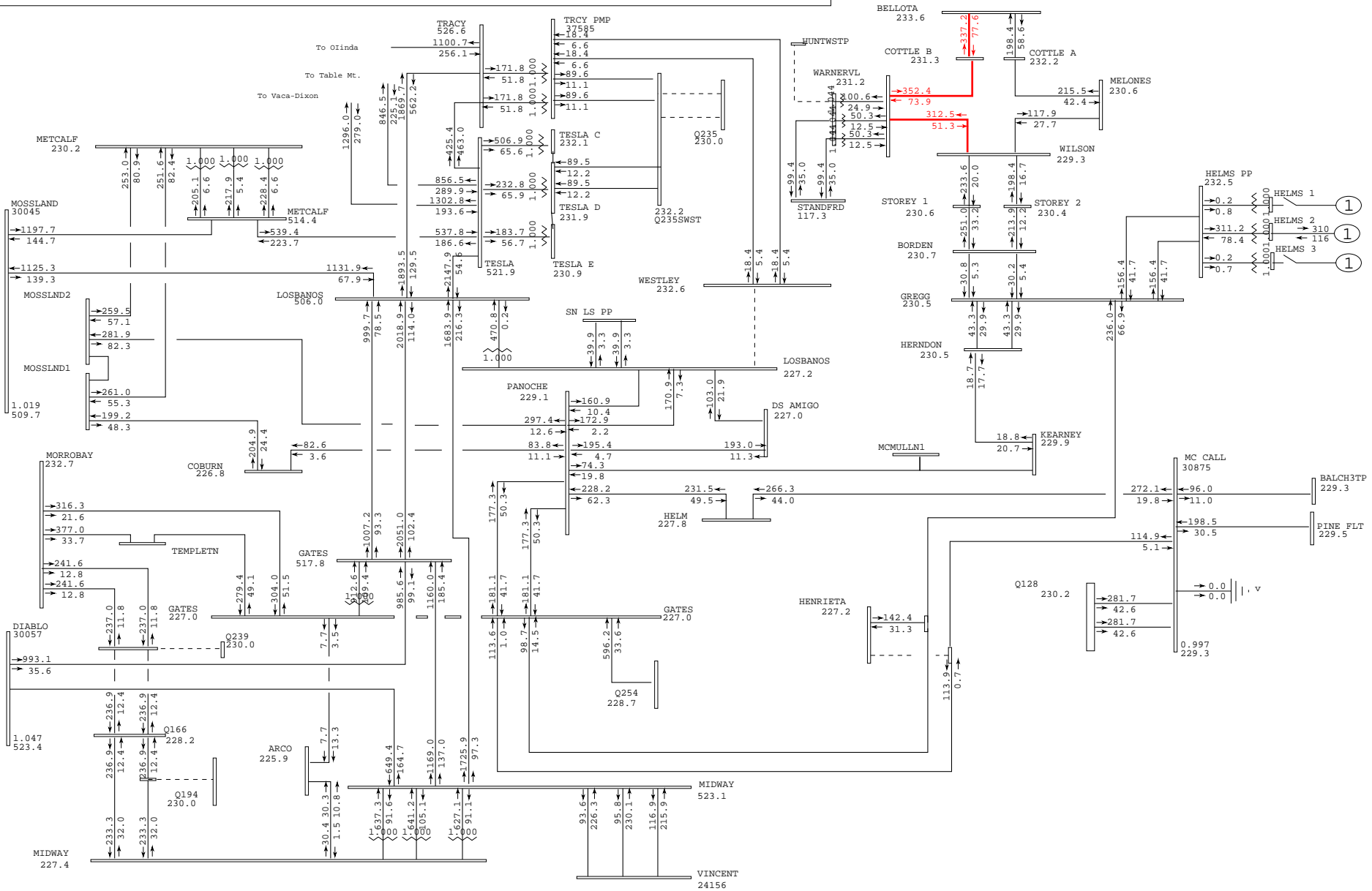
PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Pre-Project

Plot 34-Outage: Westley-Los Banos 230-kV & Helms 1

amps/rate  
 gfred2.drw  
 Rating = 2



# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:41:49 2008 2013sumop\_q299\_post.sav

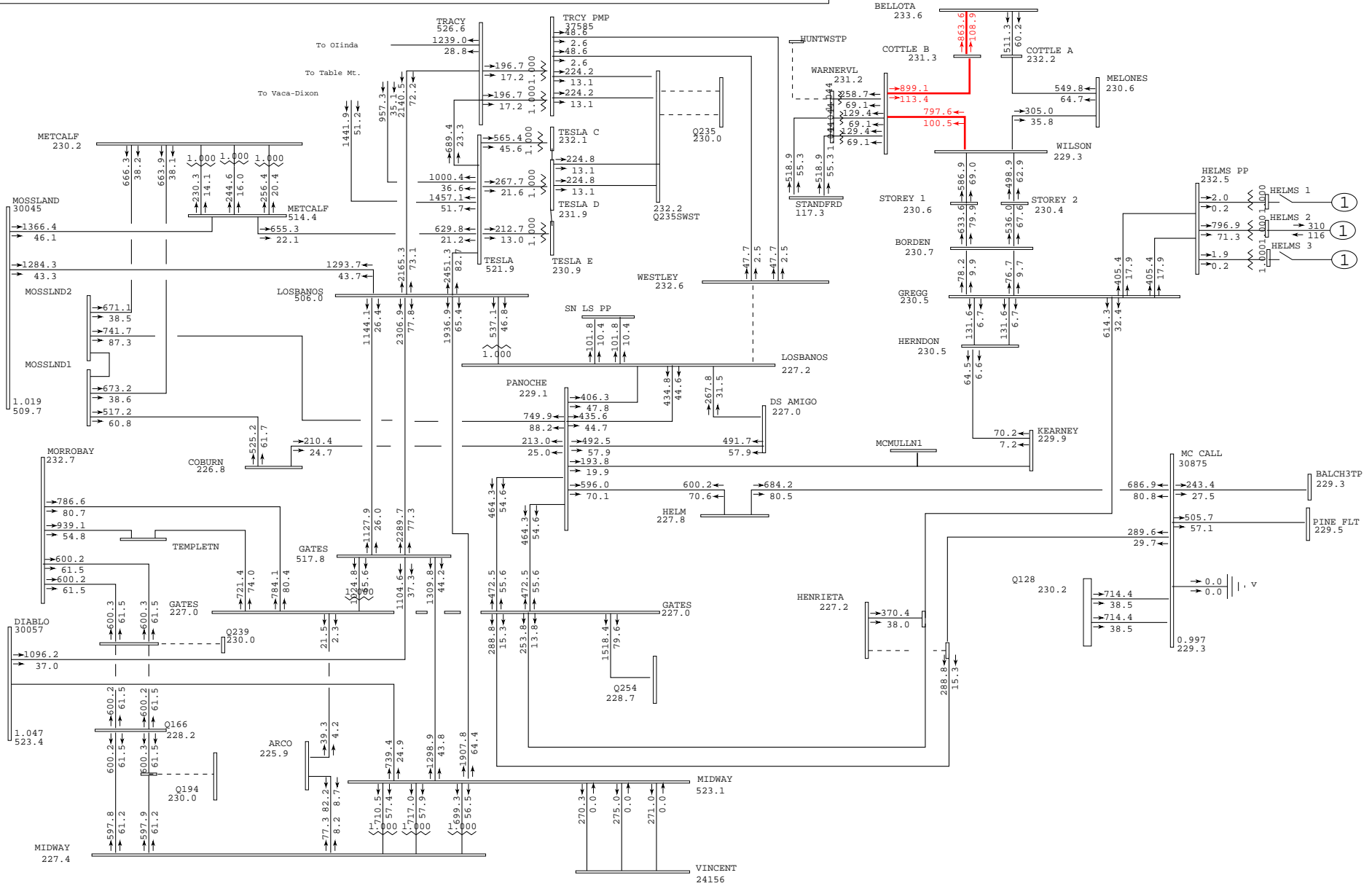


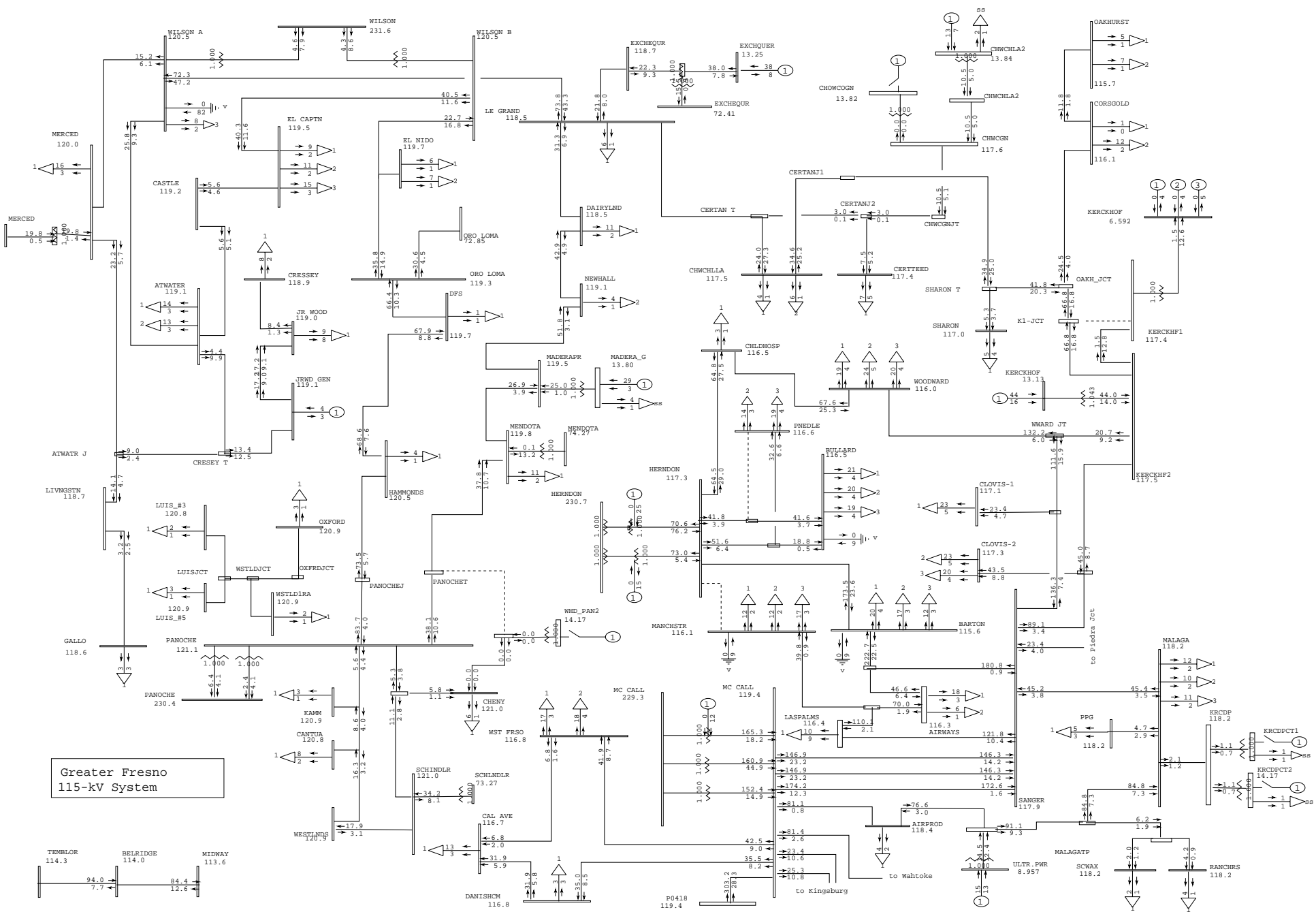
PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Post-Project

Plot 35-Outage: Westley-Los Banos 230-kV & Helms 1

MW/MVAR  
 gfred2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System

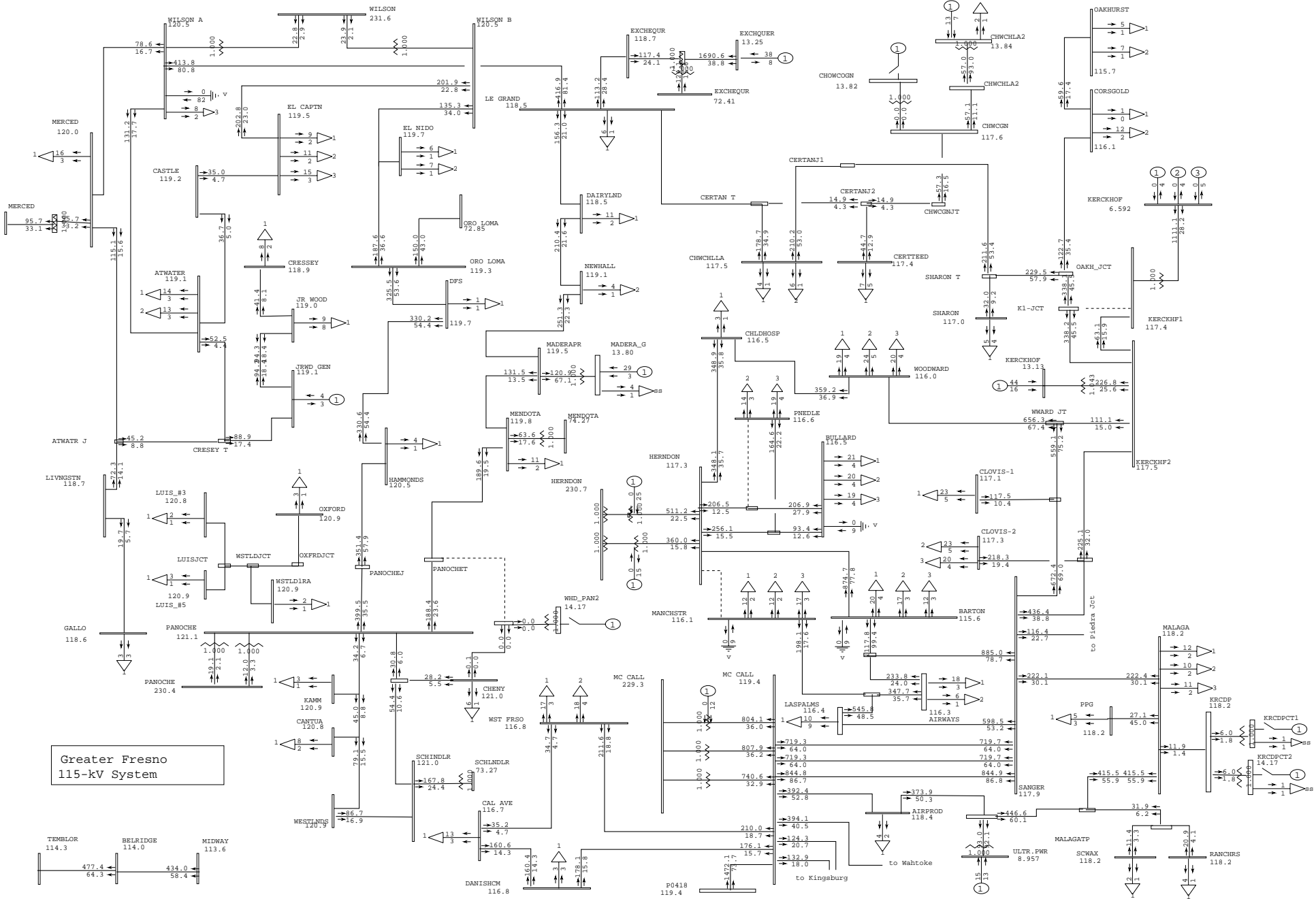




PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Pre-Project

Plot 37-Outage: Manchester-Herndon 115-kV

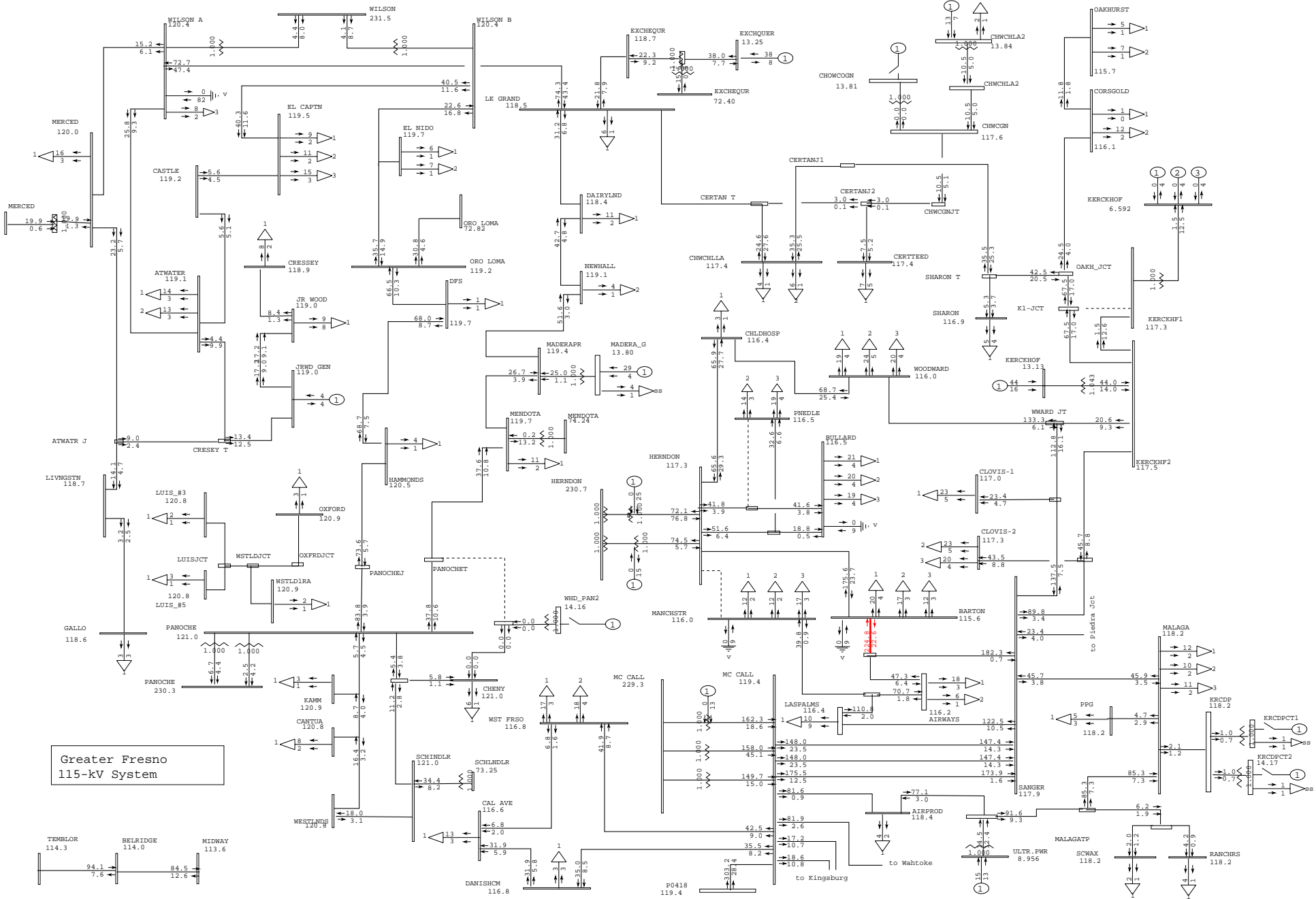
MW/MVAR  
 gfred115.drw  
 Rating = 2



PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Pre-Project

Plot 38-Outage: Manchester-Herndon 115-kV

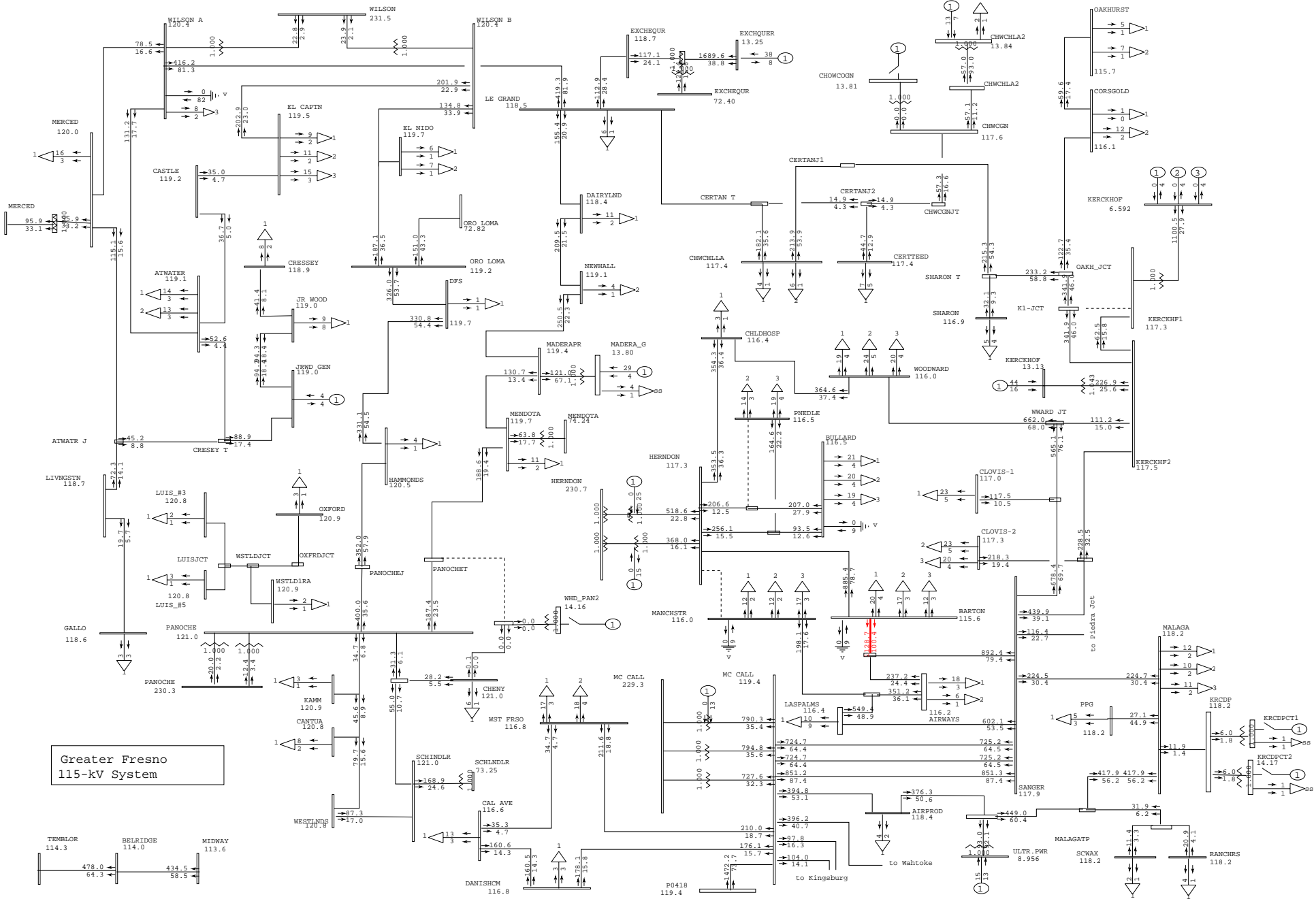
amps/rate  
 gfred15.drw  
 Rating = 2



PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Post-Project

Plot 39-Outage: Manchester-Herndon 115-kV

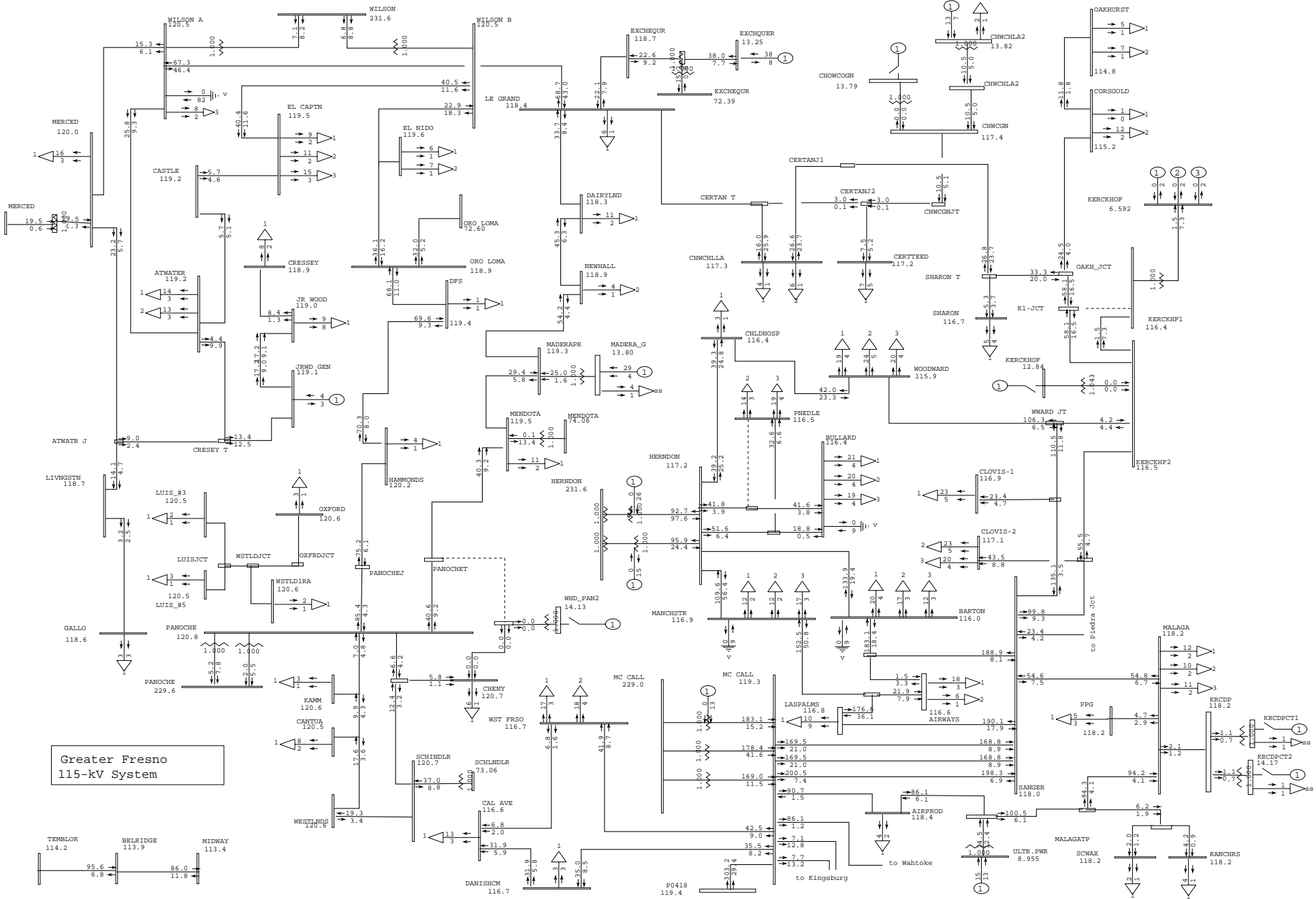
MW/MVAR  
 gfres115.drw  
 Rating = 2



PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Post-Project

Plot 40-Outage: Manchester-Herndon 115-kV

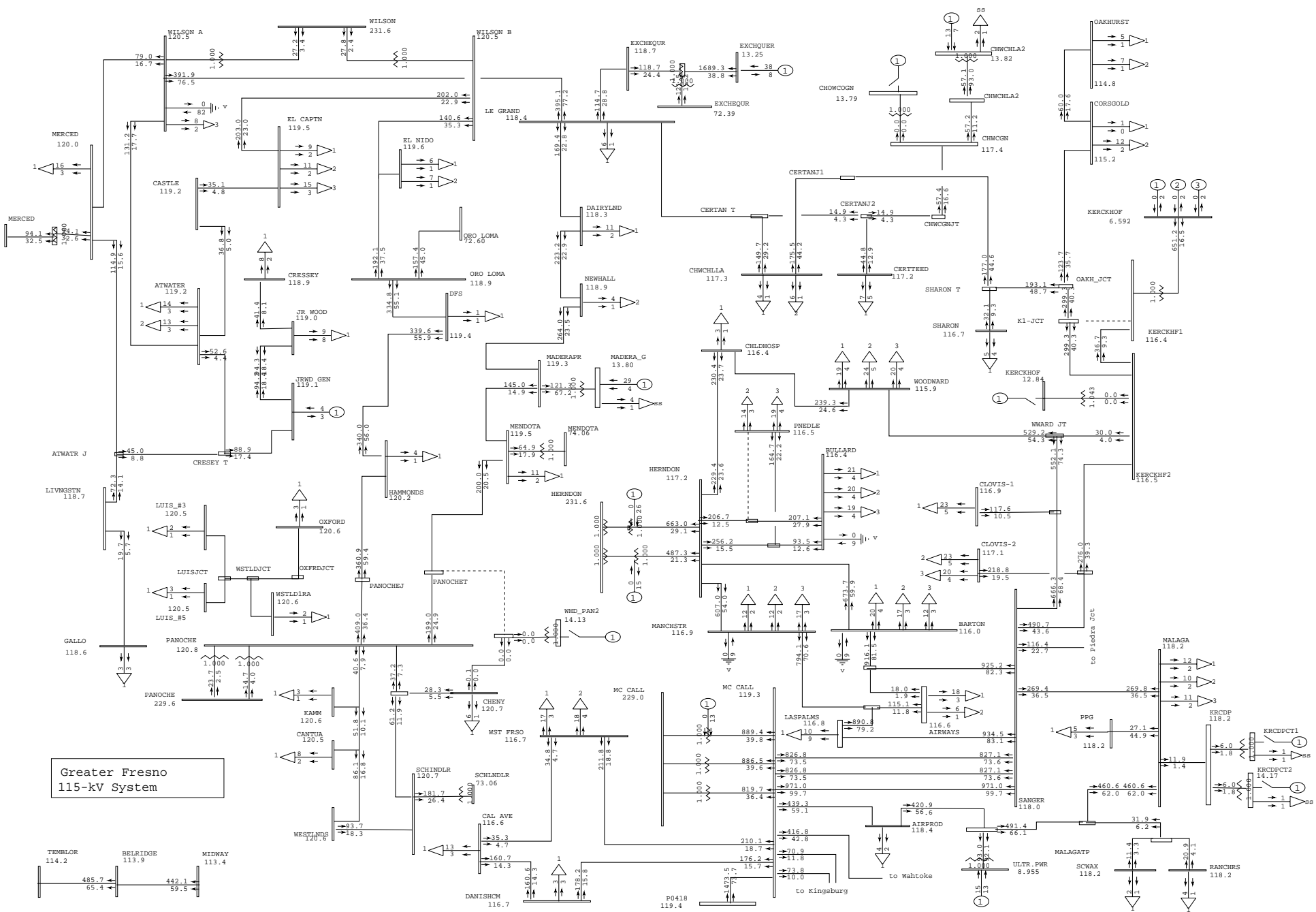
amps/rate  
 gfred15.drw  
 Rating = 2



PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Pre-Project

Plot 41-Outage: Gates-Gregg 230-kV & Kerckhoff

MW/MVAR  
 gfred115.drw  
 Rating = 2



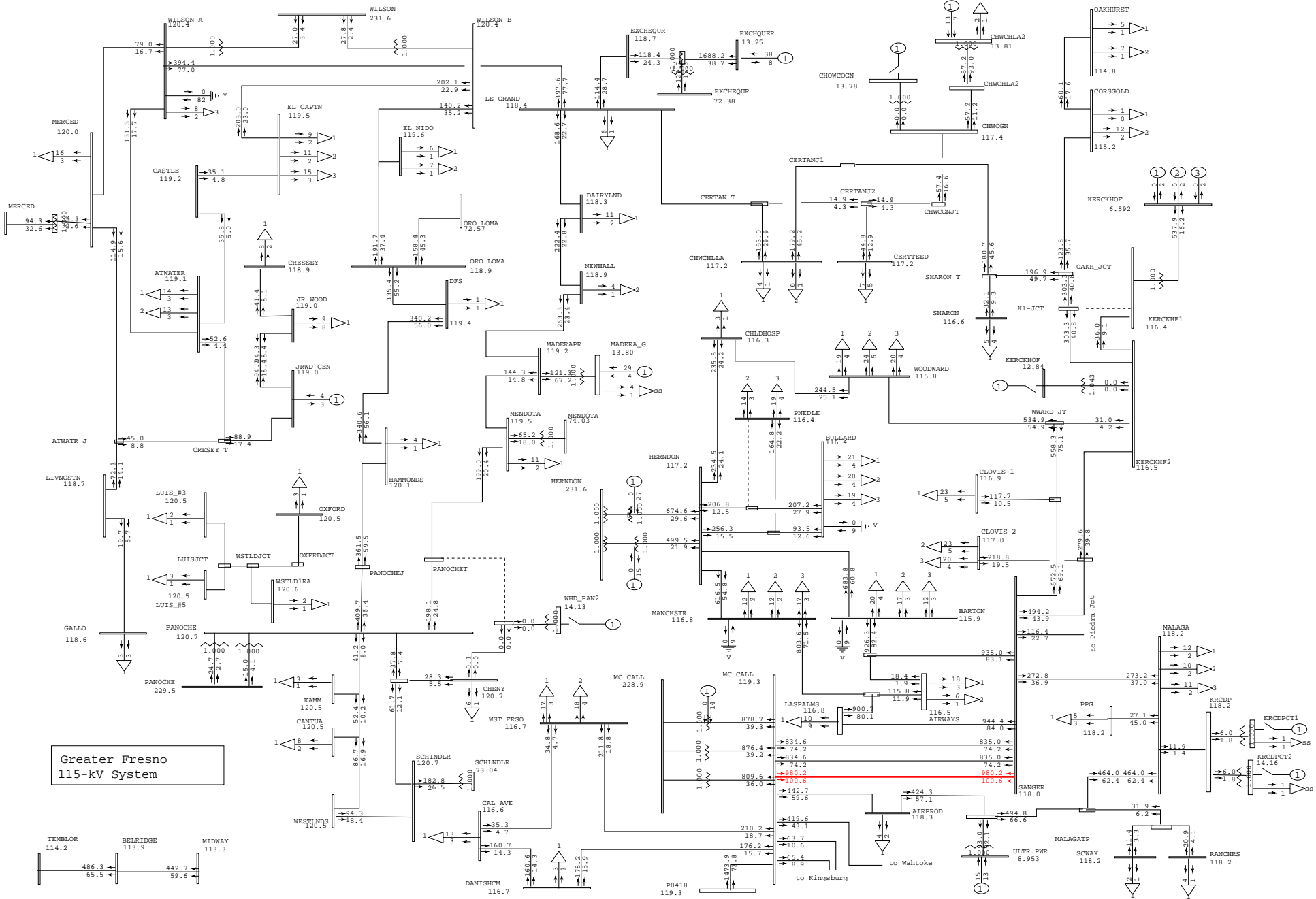
PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Pre-Project

Plot 42-Outage: Gates-Gregg 230-kV & Kerckhoff

amps/rate  
 gfred15.drw  
 Rating = 2



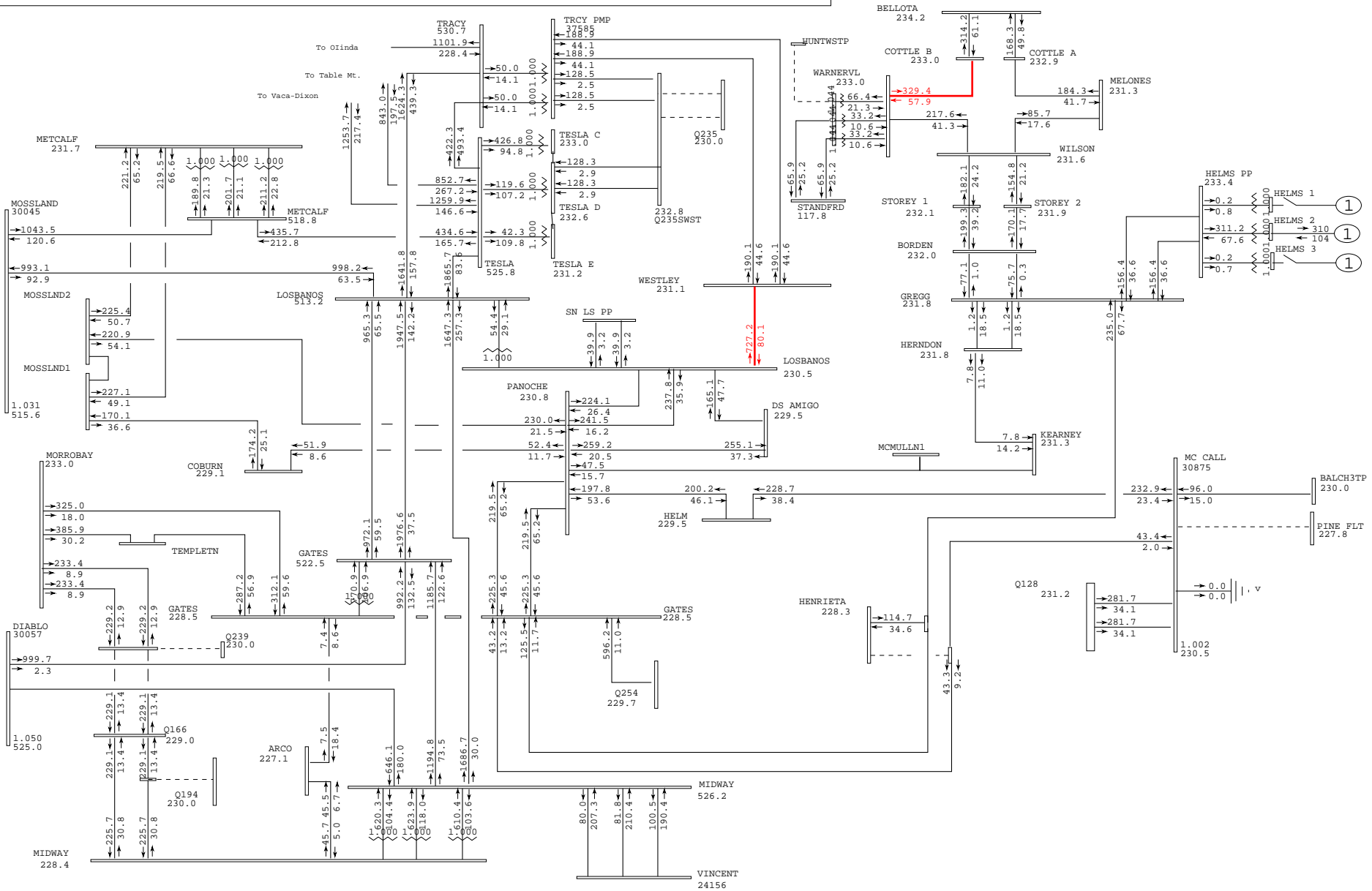




PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Post-Project

Plot 44-Outage: Gates-Gregg 230-kV & Kerckhoff  
 amps/rate  
 gfred15.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:42:07 2008 2013sumop\_q299\_pre.sav

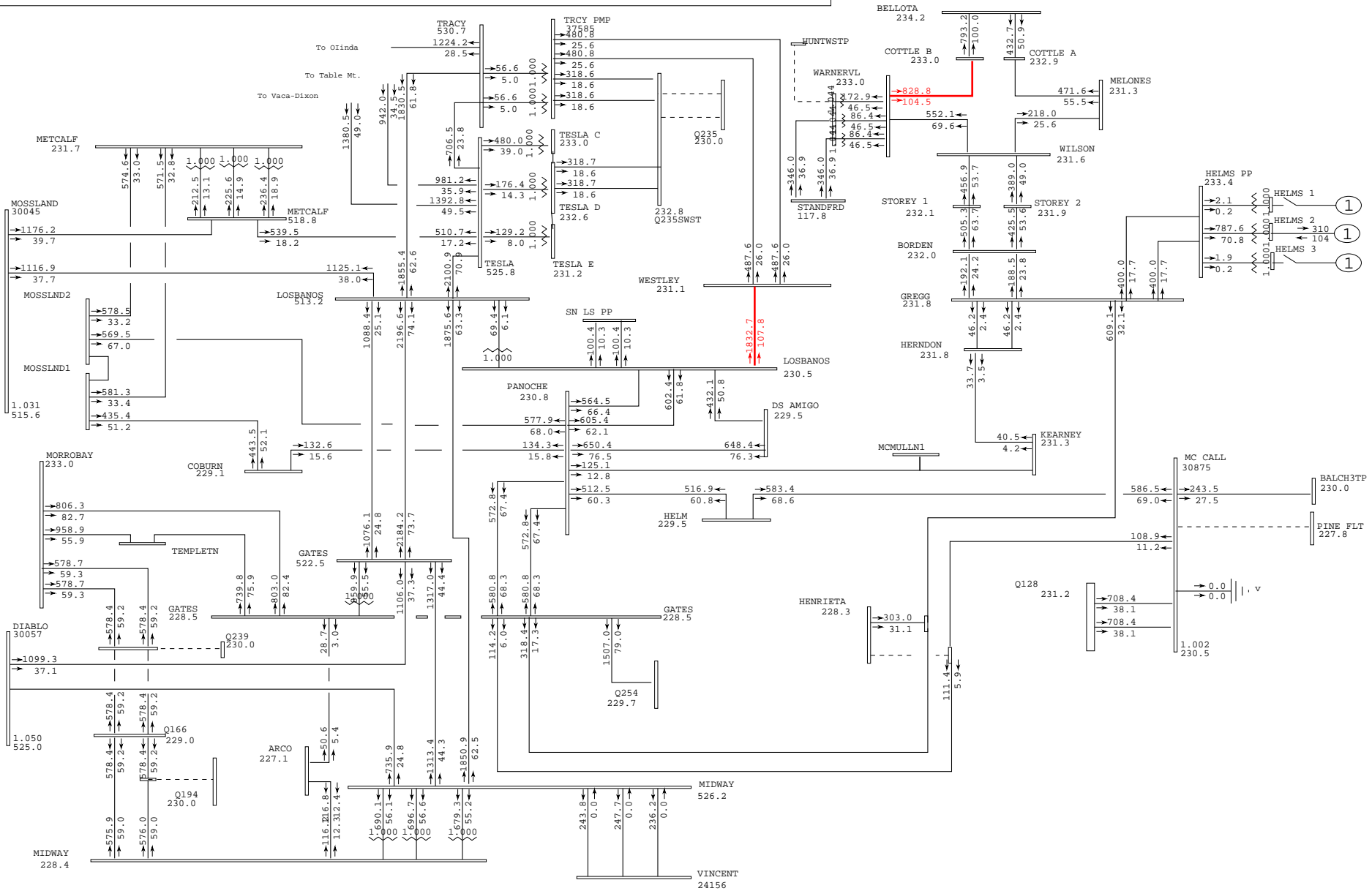


PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Pre-Project

Plot 45-Outlet: McCall-Balch 230-kV & Helms 1

MW/MVAR  
 gfres2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:42:08 2008 2013sumop\_q299\_pre.sav

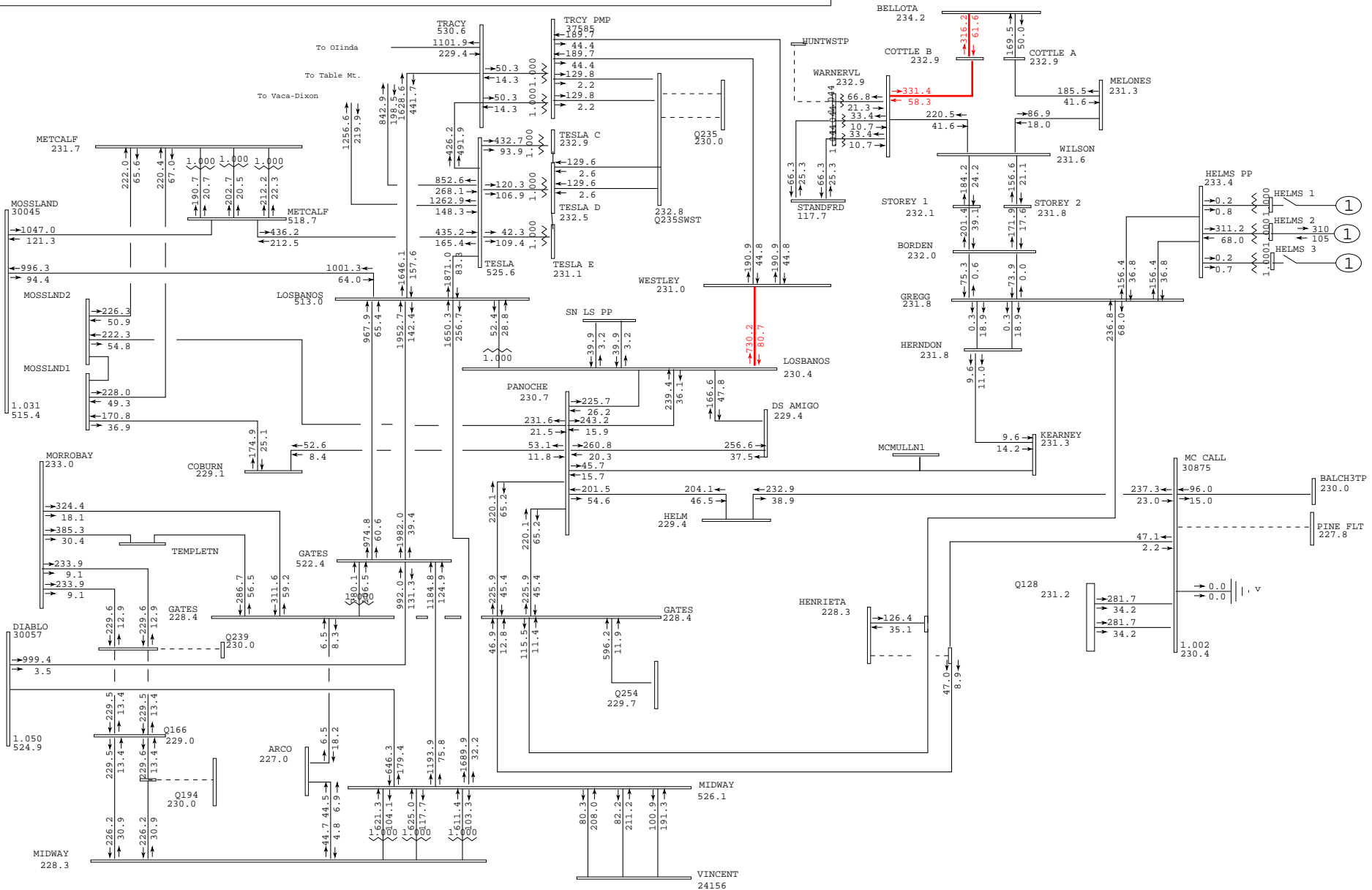


PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Pre-Project

Plot 46-Outlet: McCall-Balch 230-kV & Helms 1

amps/rate  
 gfred2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:42:10 2008 2013sumop\_q299\_post.sav

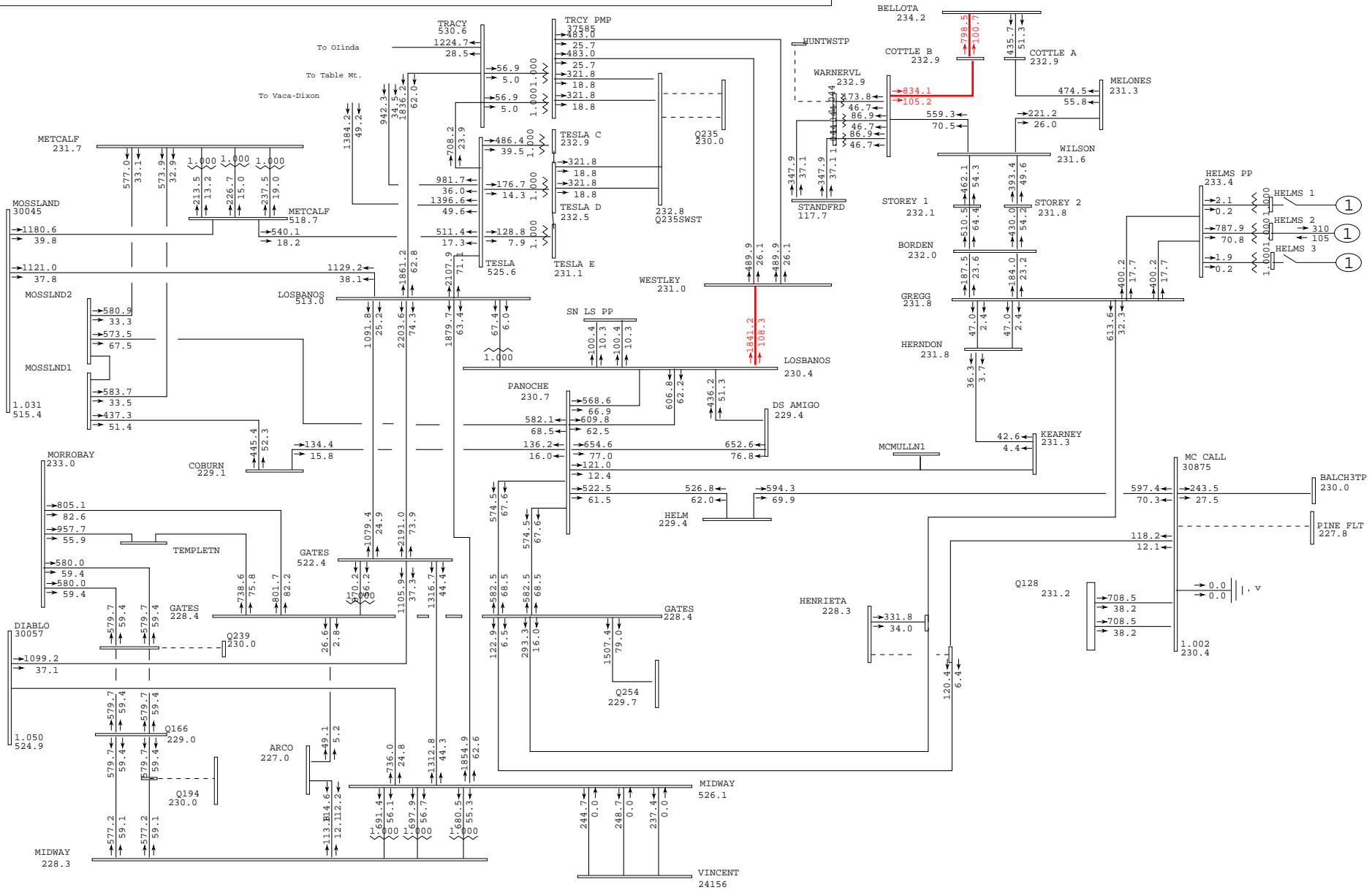


PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Post-Project

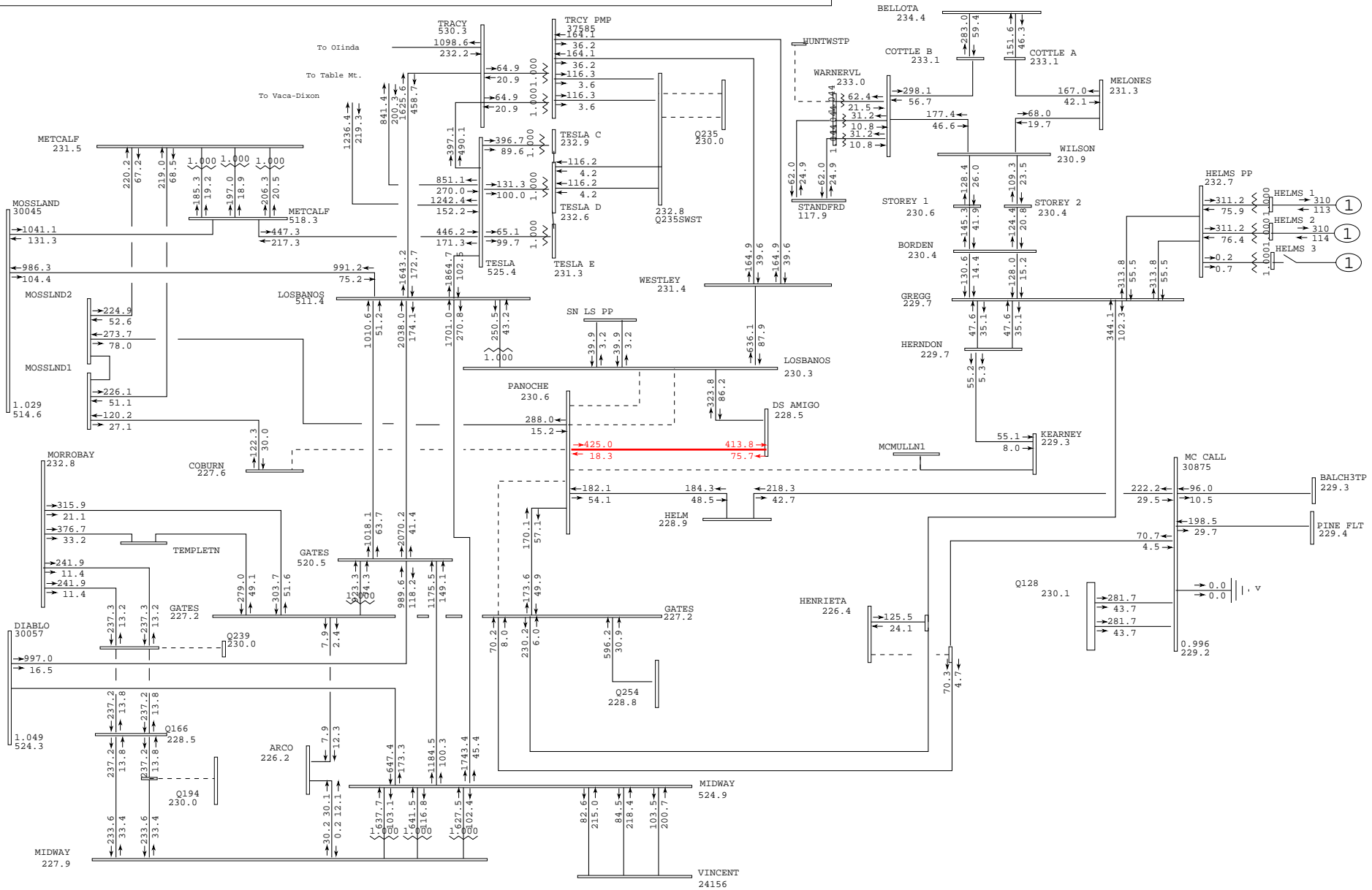
Plot 47-Outlet: McCall-Balch 230-kV & Helms 1

MW/MVAR  
 gfred2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System



# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:42:13 2008 2013sumop\_q299\_pre.sav

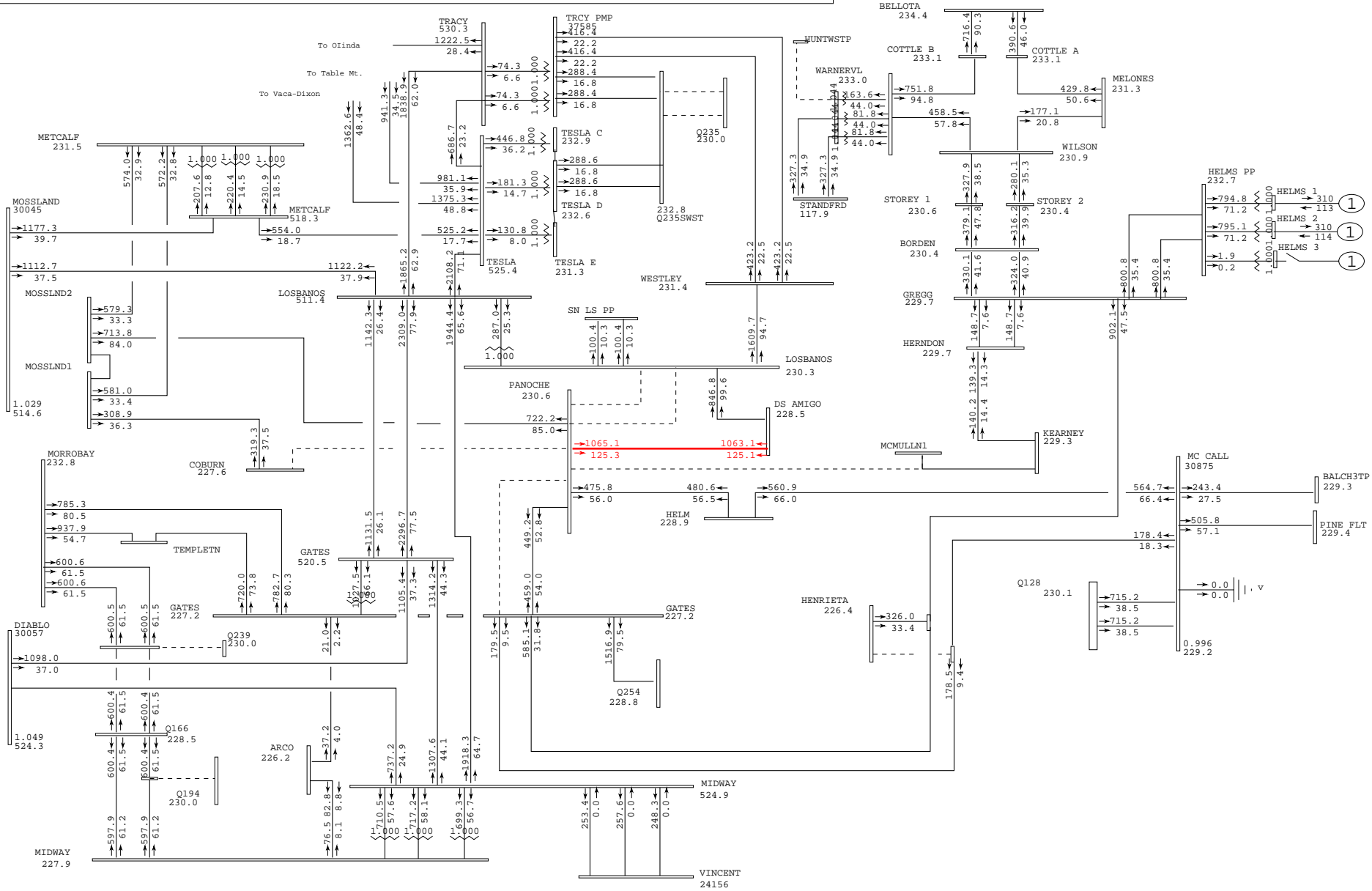


PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Pre-Project

Plot 49-Outage: Panoche Bus 1

MW/MVAR  
 gfres2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:42:15 2008 2013sumop\_q299\_pre.sav



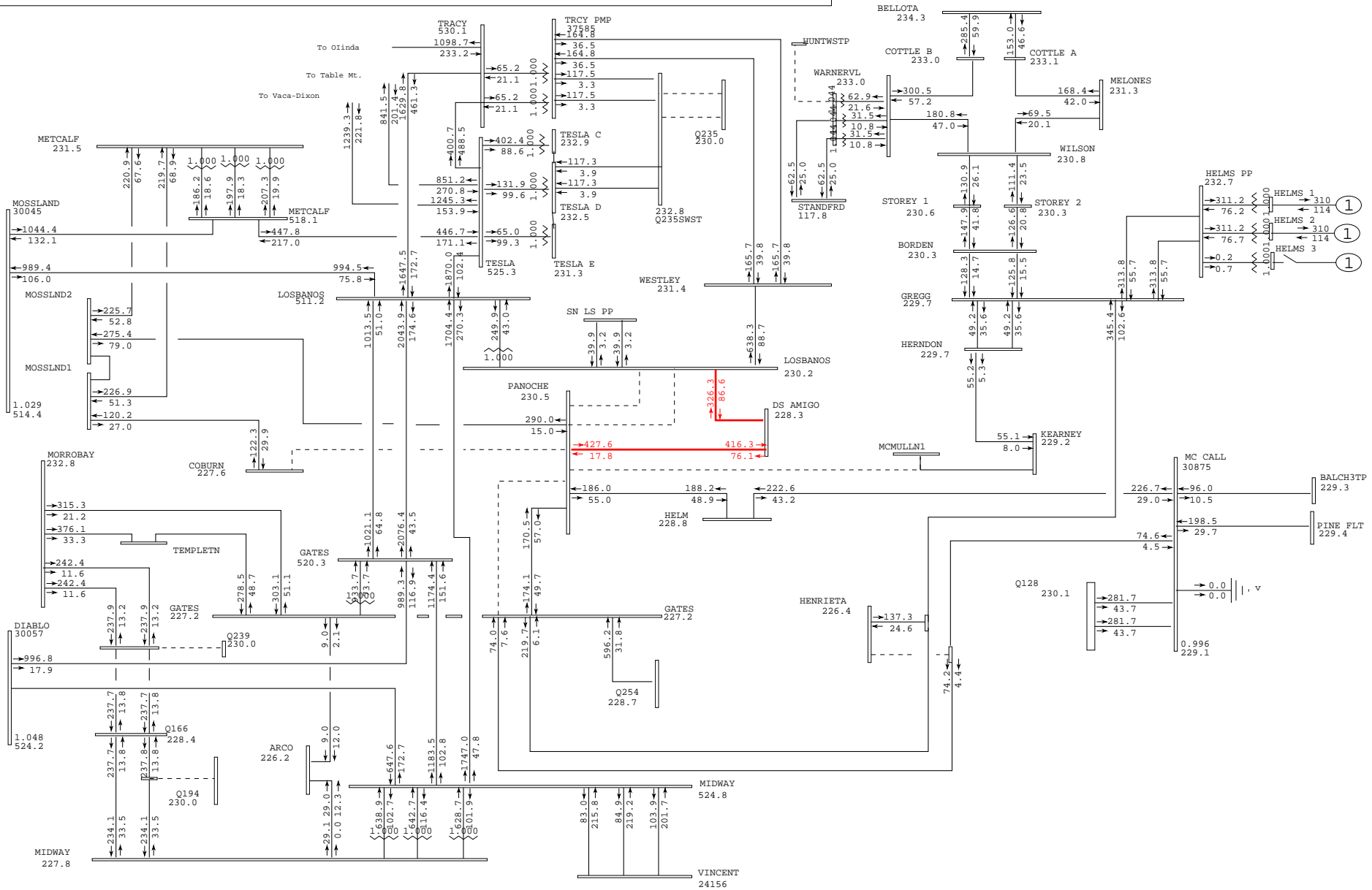
PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Pre-Project

Plot 50-Outage: Panoche Bus 1

amps/rate  
 gfred2.drw  
 Rating = 2



# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:42:16 2008 2013sumop\_q299\_post.sav

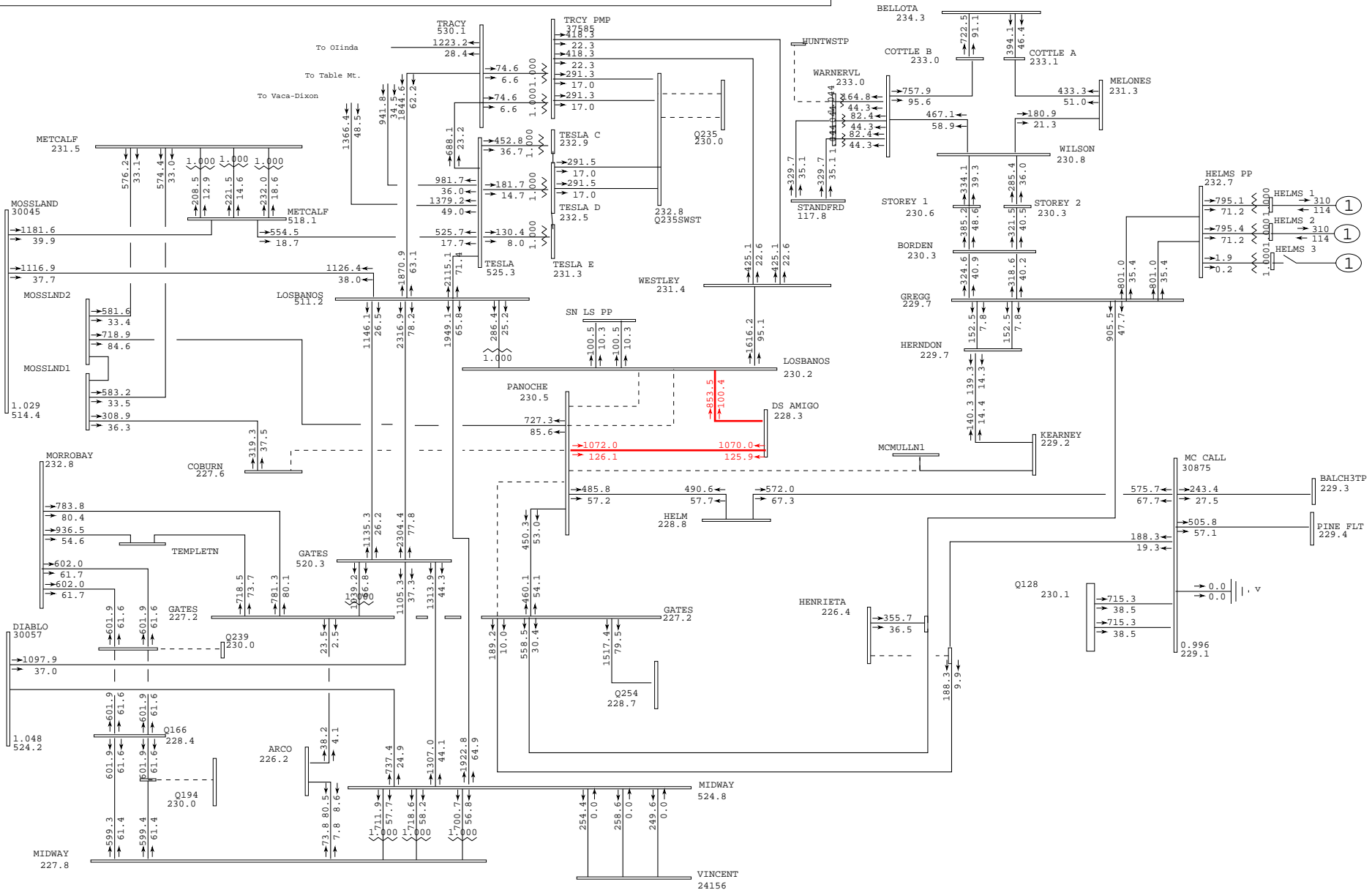


PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Post-Project

Plot 51-Outage: Panoche Bus 1

MW/MVAR  
 gfred2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System



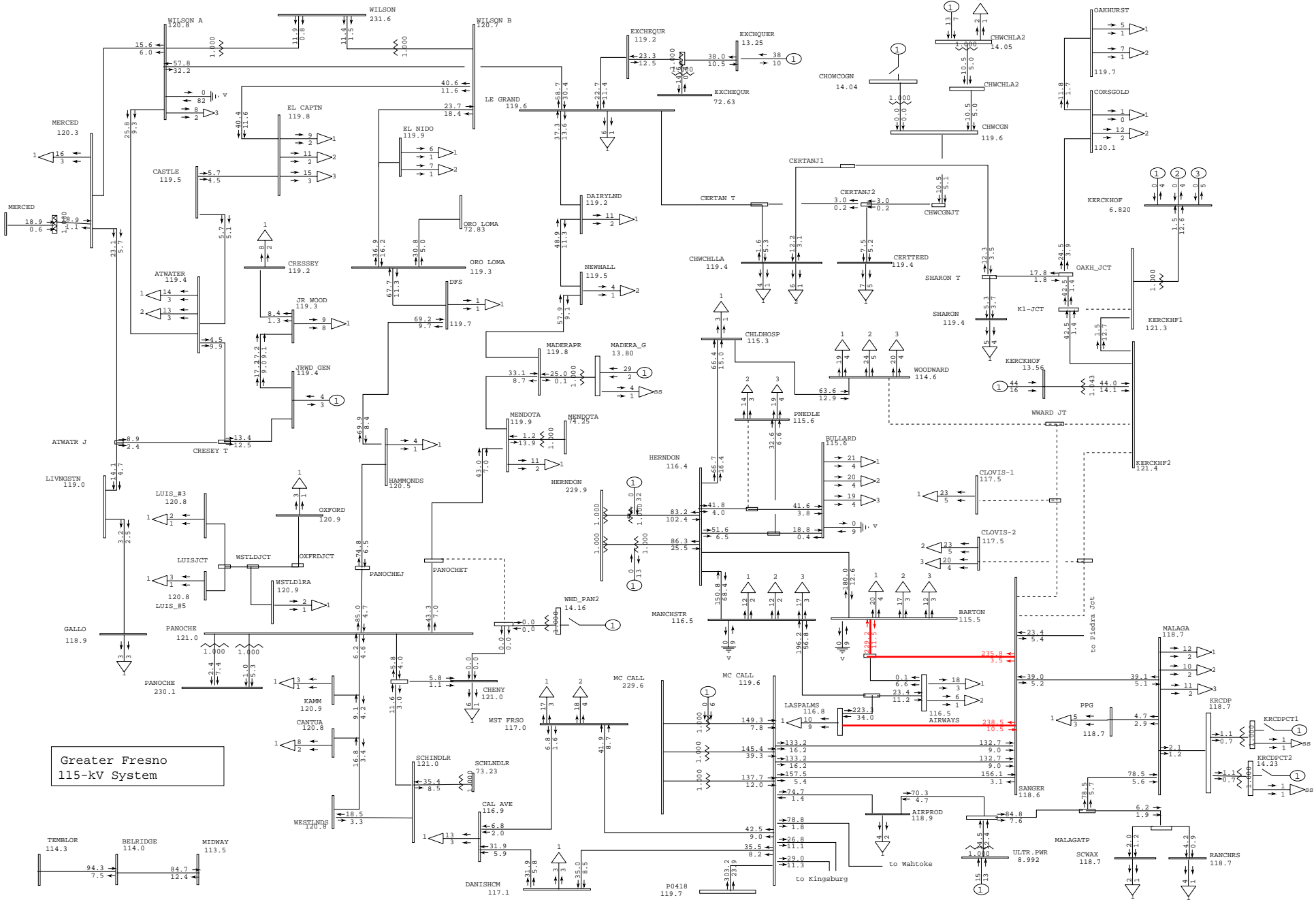
General Electric International, Inc. PSLF Program Thu Oct 09 10:42:18 2008 2013sumop\_q299\_post.sav



PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Post-Project

Plot 52-Outage: Panoche Bus 1

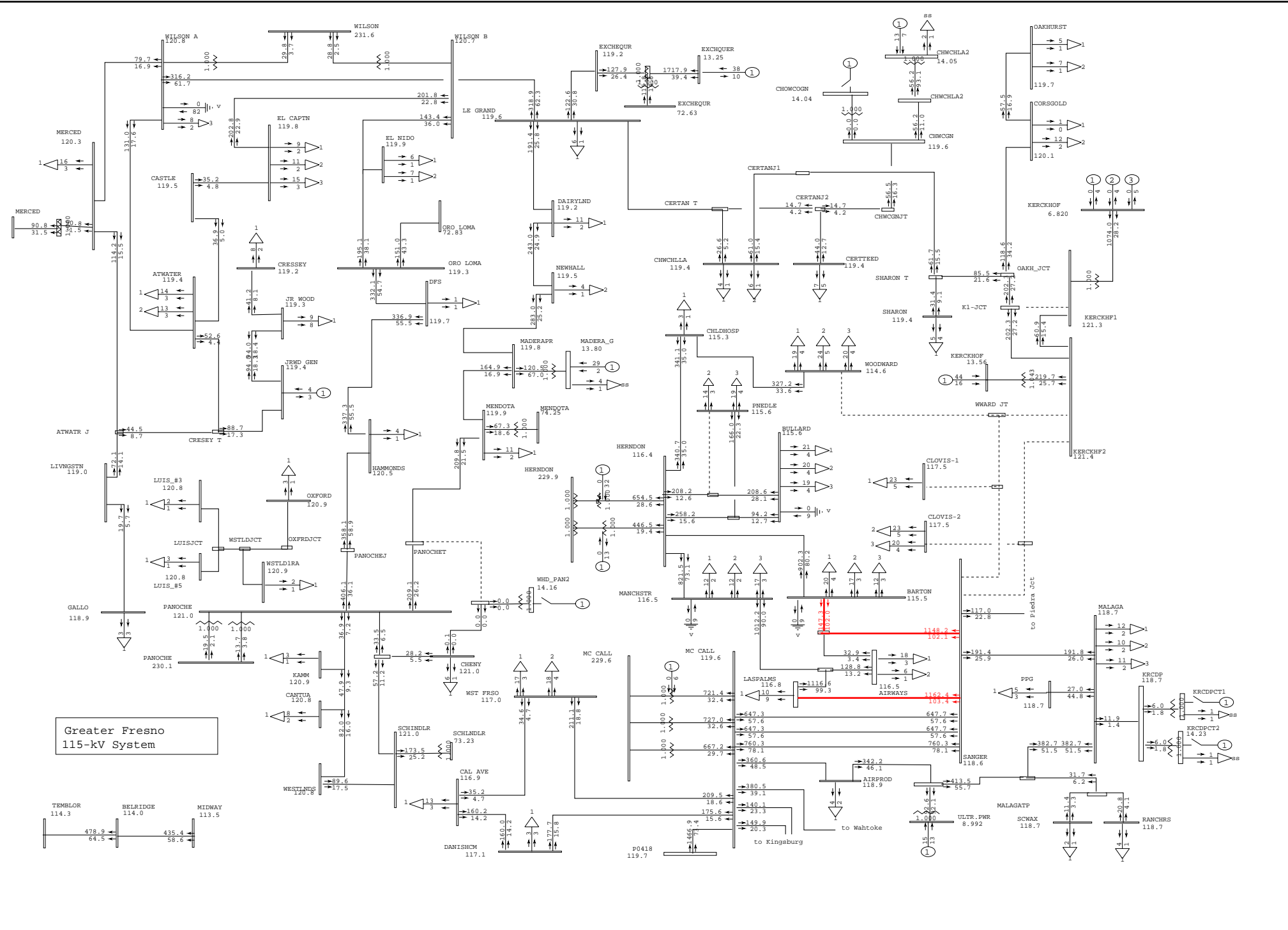
amps/rate  
 gfred2.drw  
 Rating = 2



PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Pre-Project

Plot 53-Outlet: Kerckhoff-Clovis-Sanger 1 & 2 115-kV

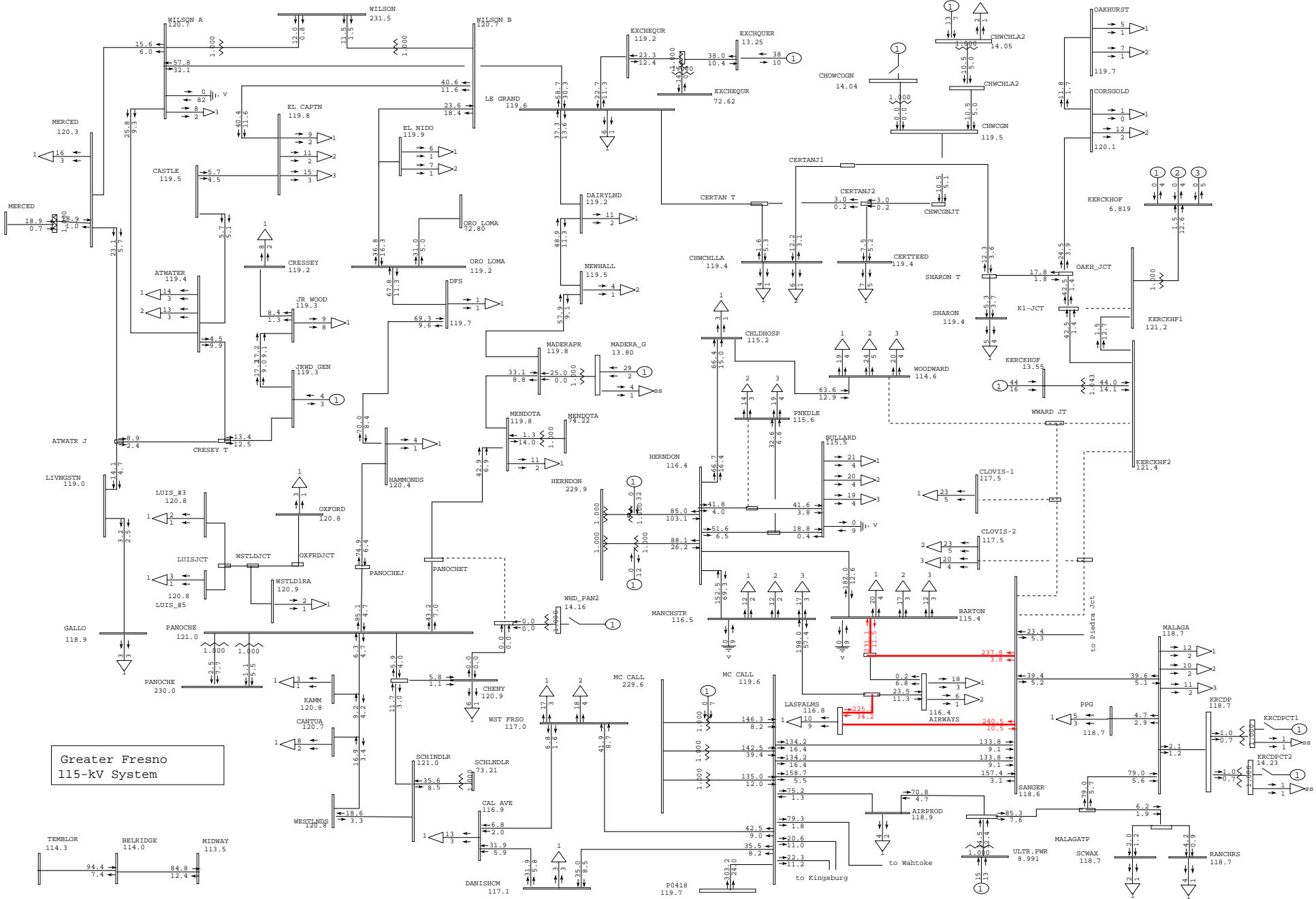
MW/MVAR  
 gfred115.drw  
 Rating = 2



PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Pre-Project

Plot 54-Outage: Kerckhoff-Clovis-Sanger 1 & 2 115-kV

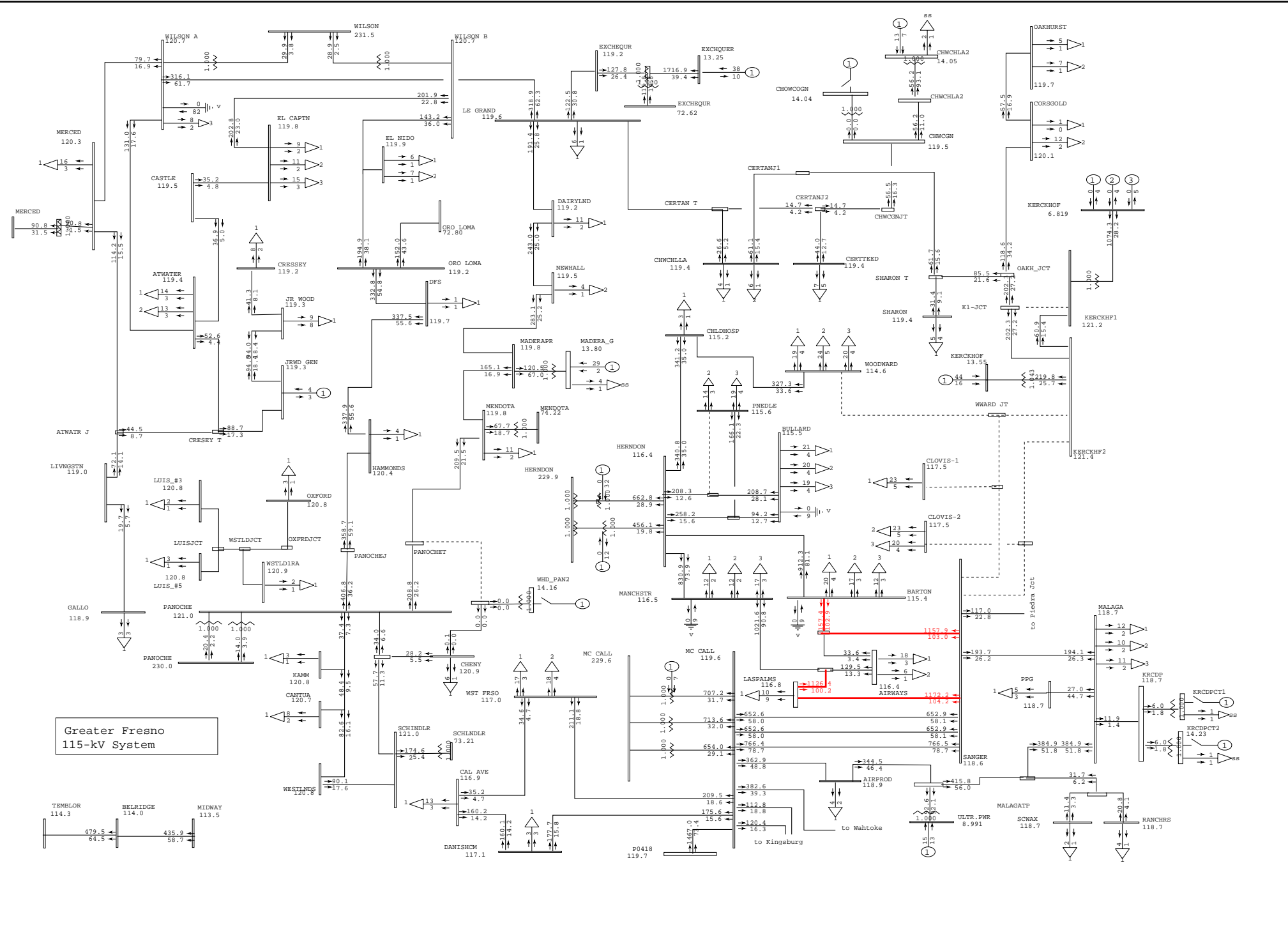
amps/rate  
 gfred15.drw  
 Rating = 2



PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Post-Project

Plot 55-Outage: Kerckhoff-Clovis-Sanger 1 & 2 115-kV

MW/MVAR  
 gfred115.drw  
 Rating = 2

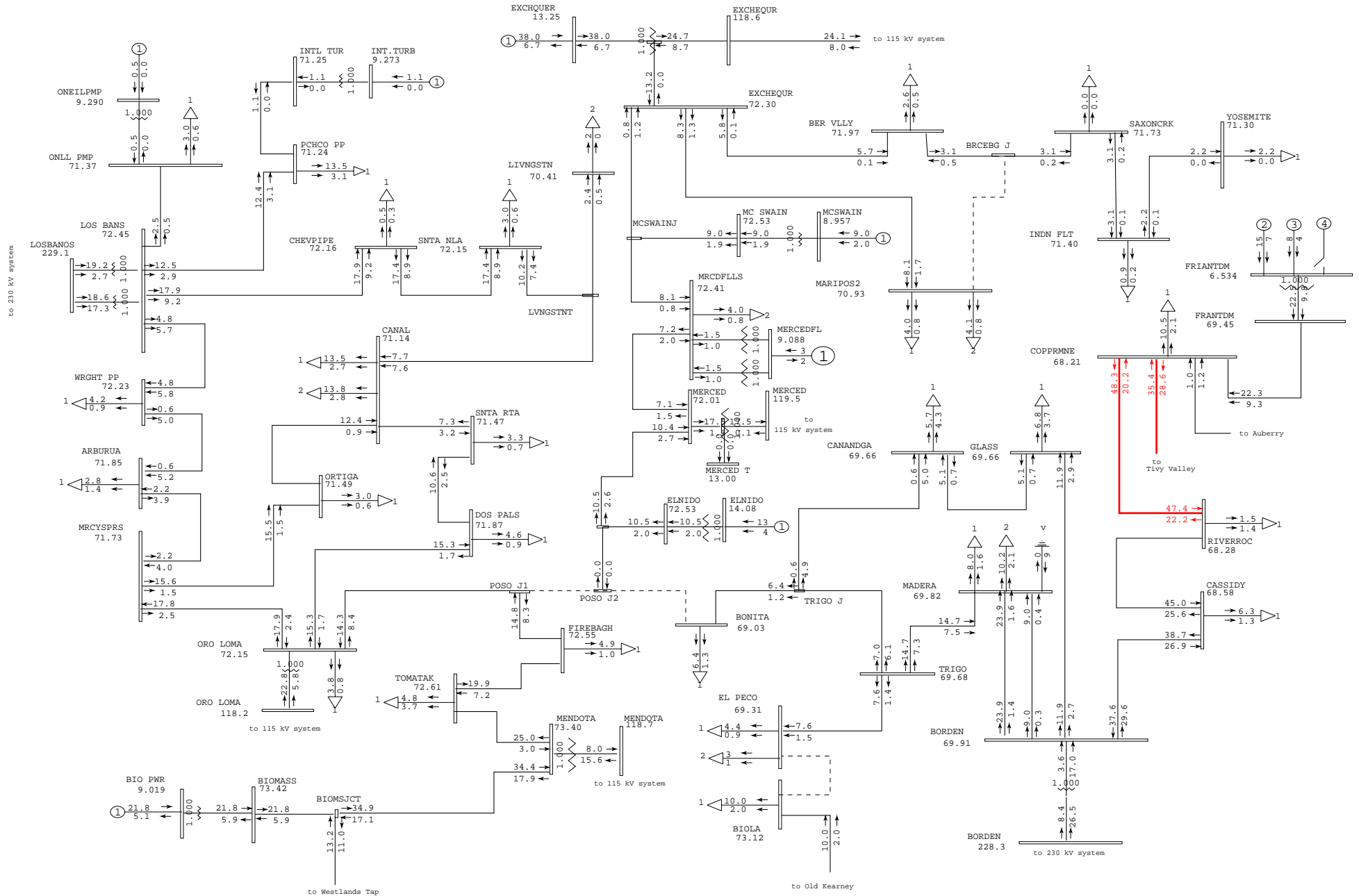


PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Post-Project

Plot 56-Outage: Kerckhoff-Clovis-Sanger 1 & 2 115-kV

amps/rate  
 gfred15.drw  
 Rating = 2

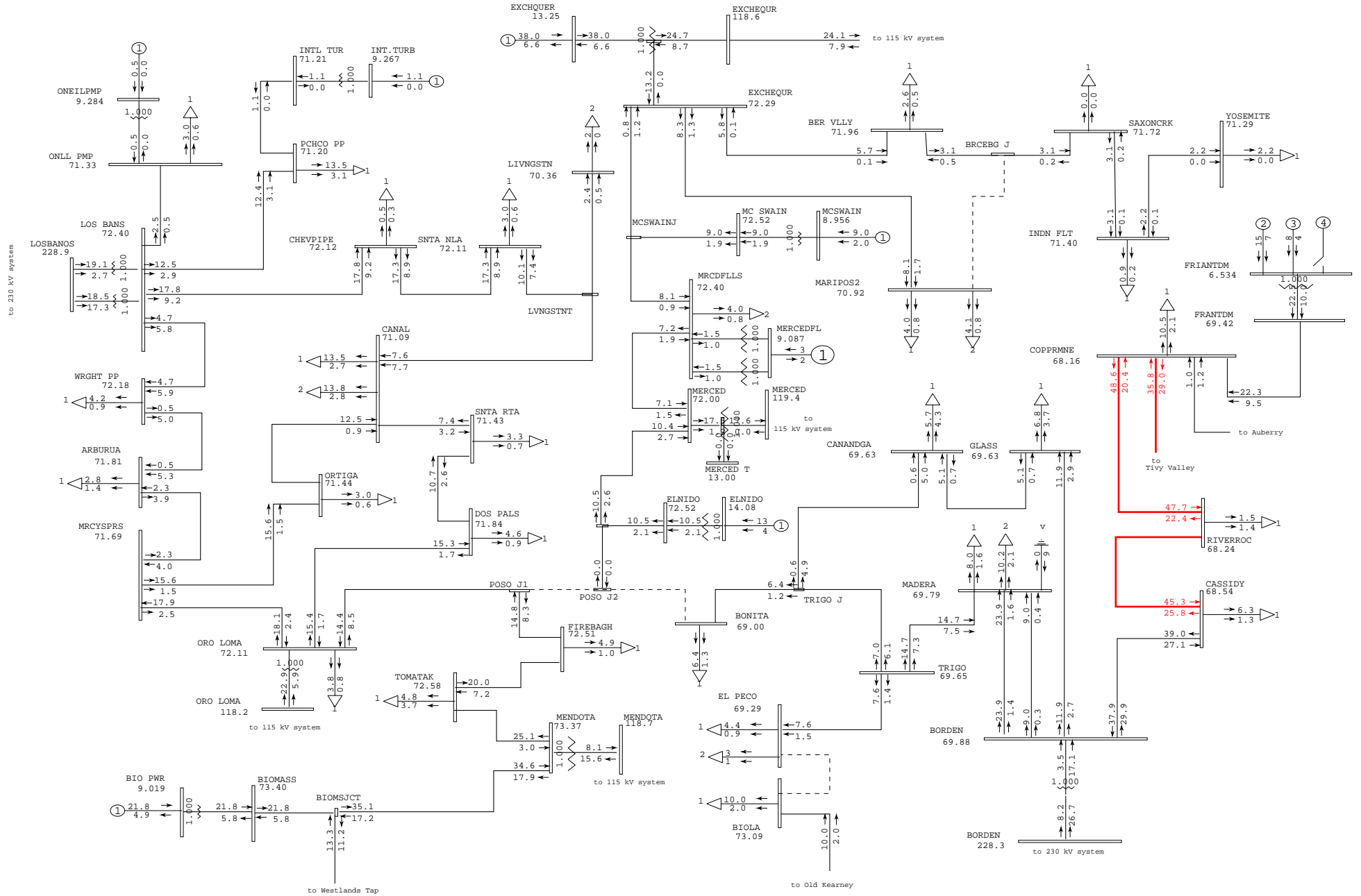
# Yosemite 70 kV system



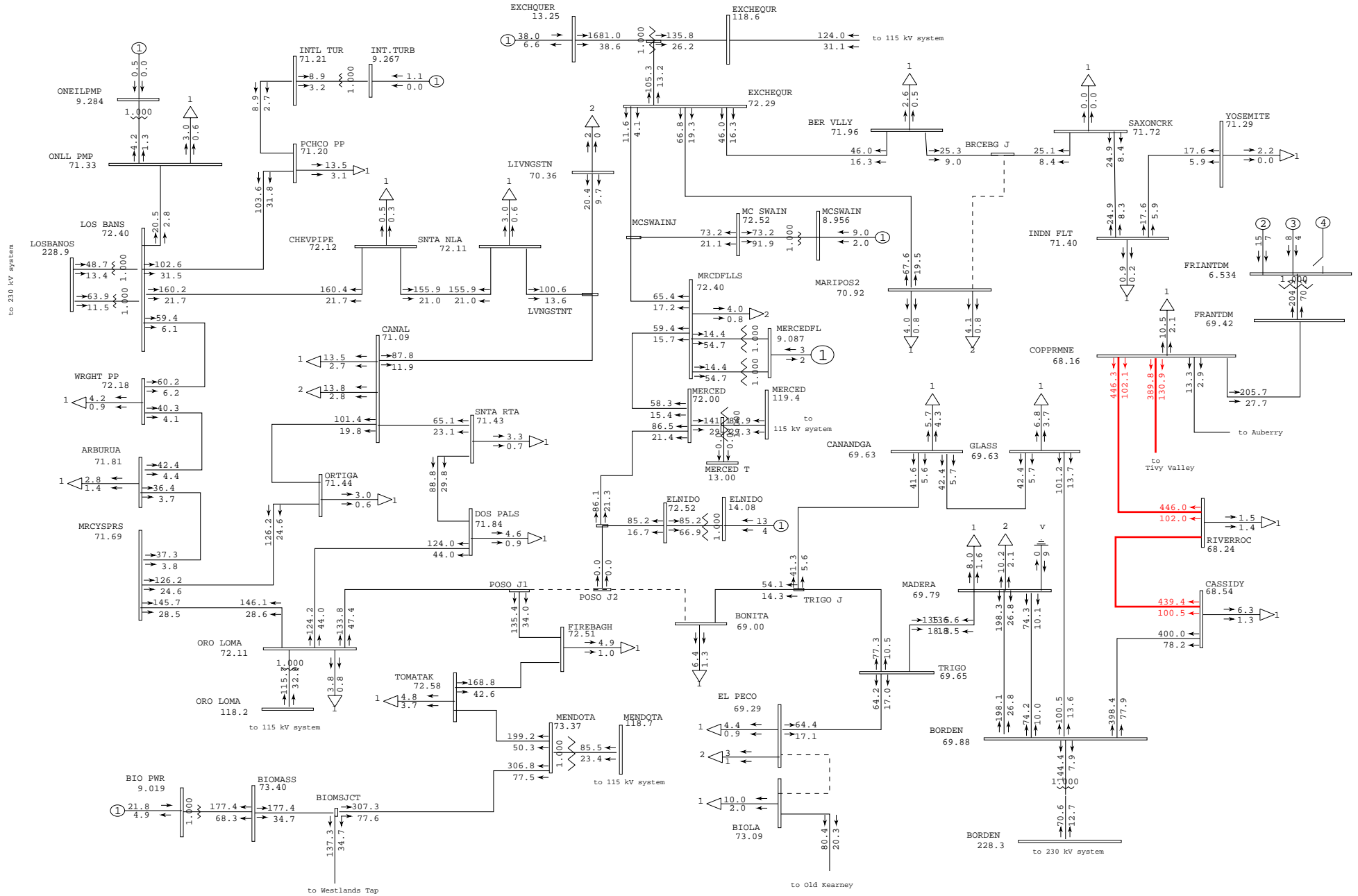




# Yosemite 70 kV system



# Yosemite 70 kV system



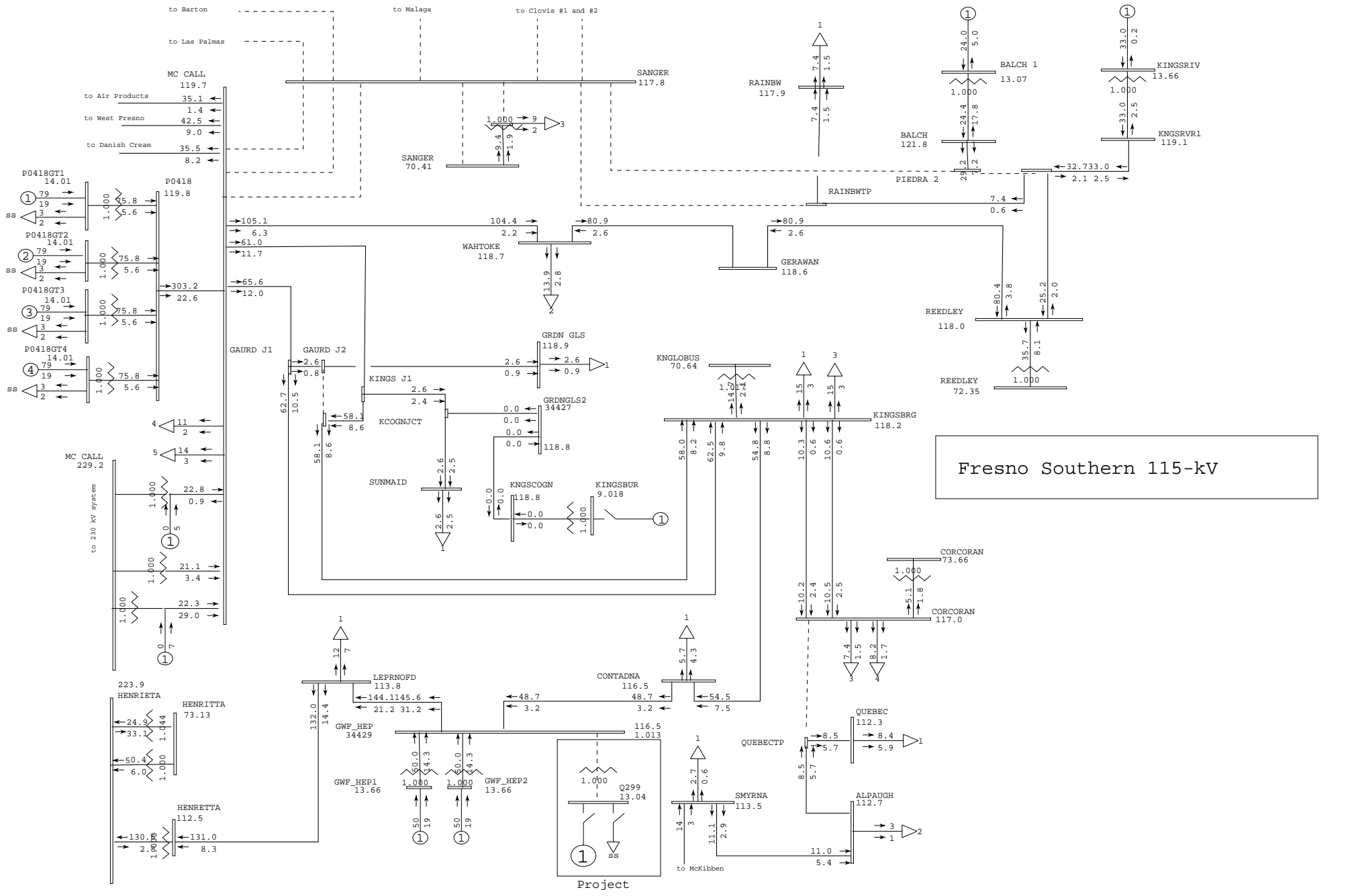
General Electric International, Inc. PSLF Program Thu Oct 09 10:42:31 2008 2013sumop\_q299\_post.sav

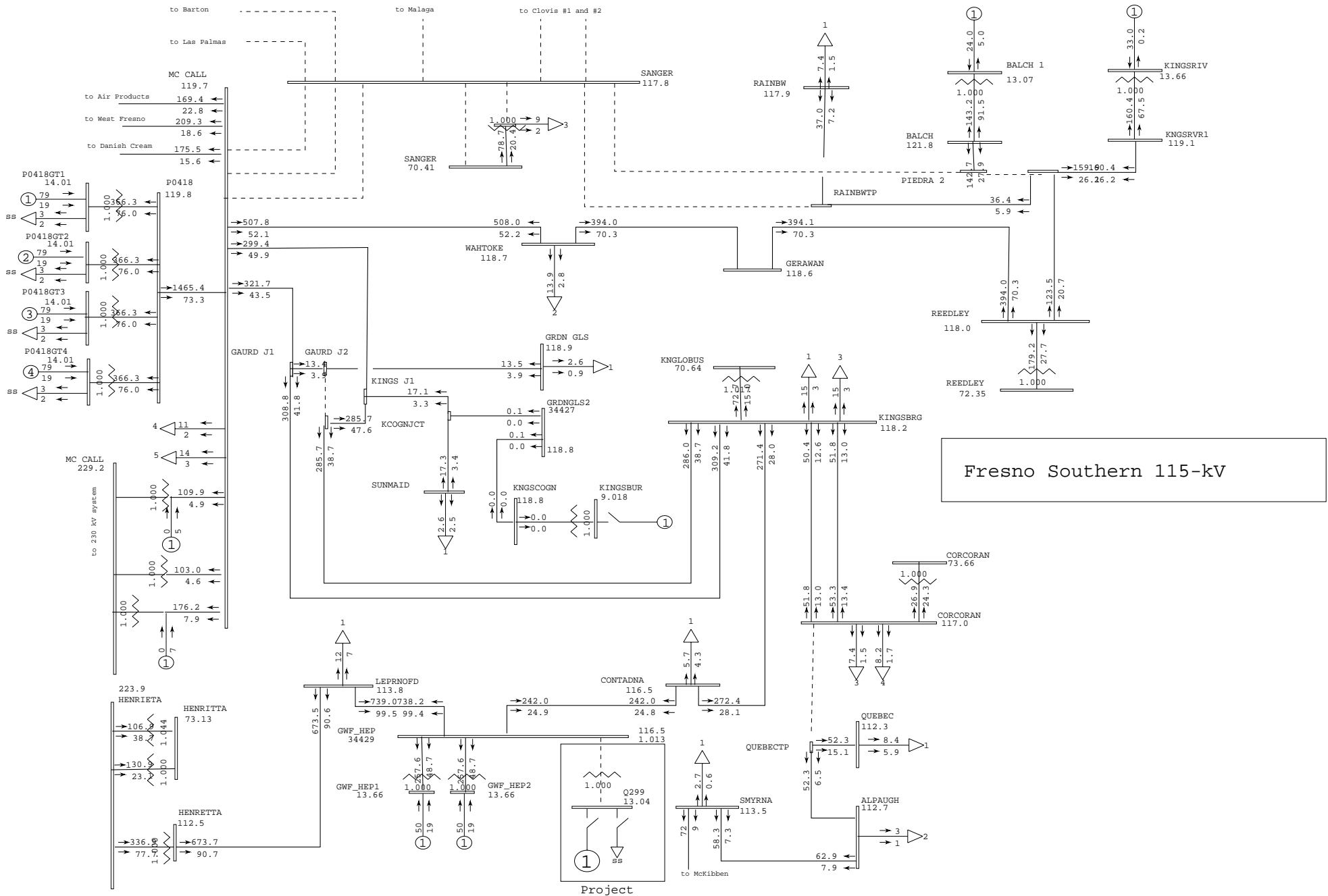


PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Post-Project

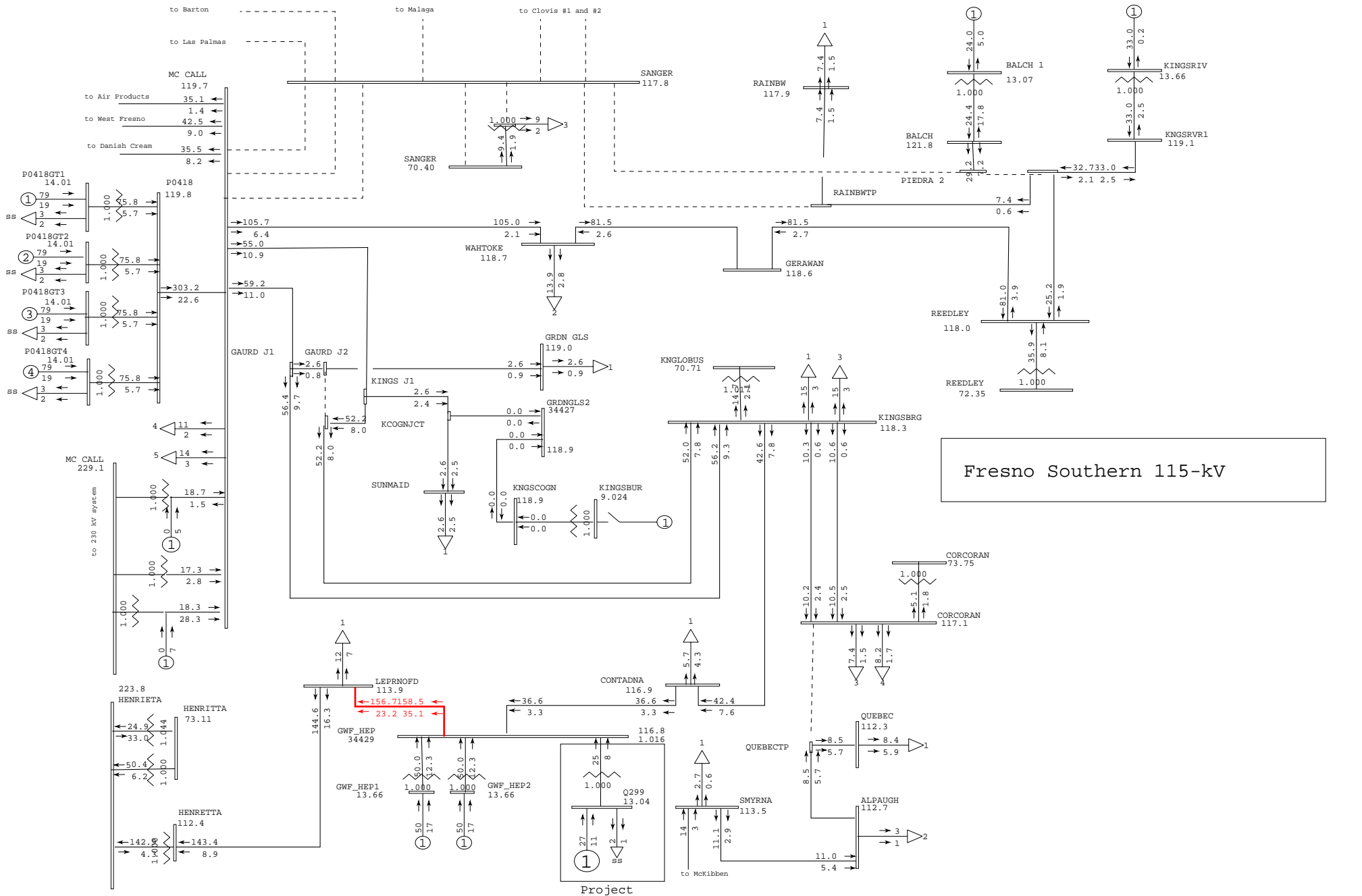
Plot 60-Outage: Sanger 115-kV Bus

amps/rate  
 yose70.drw  
 Rating = 2



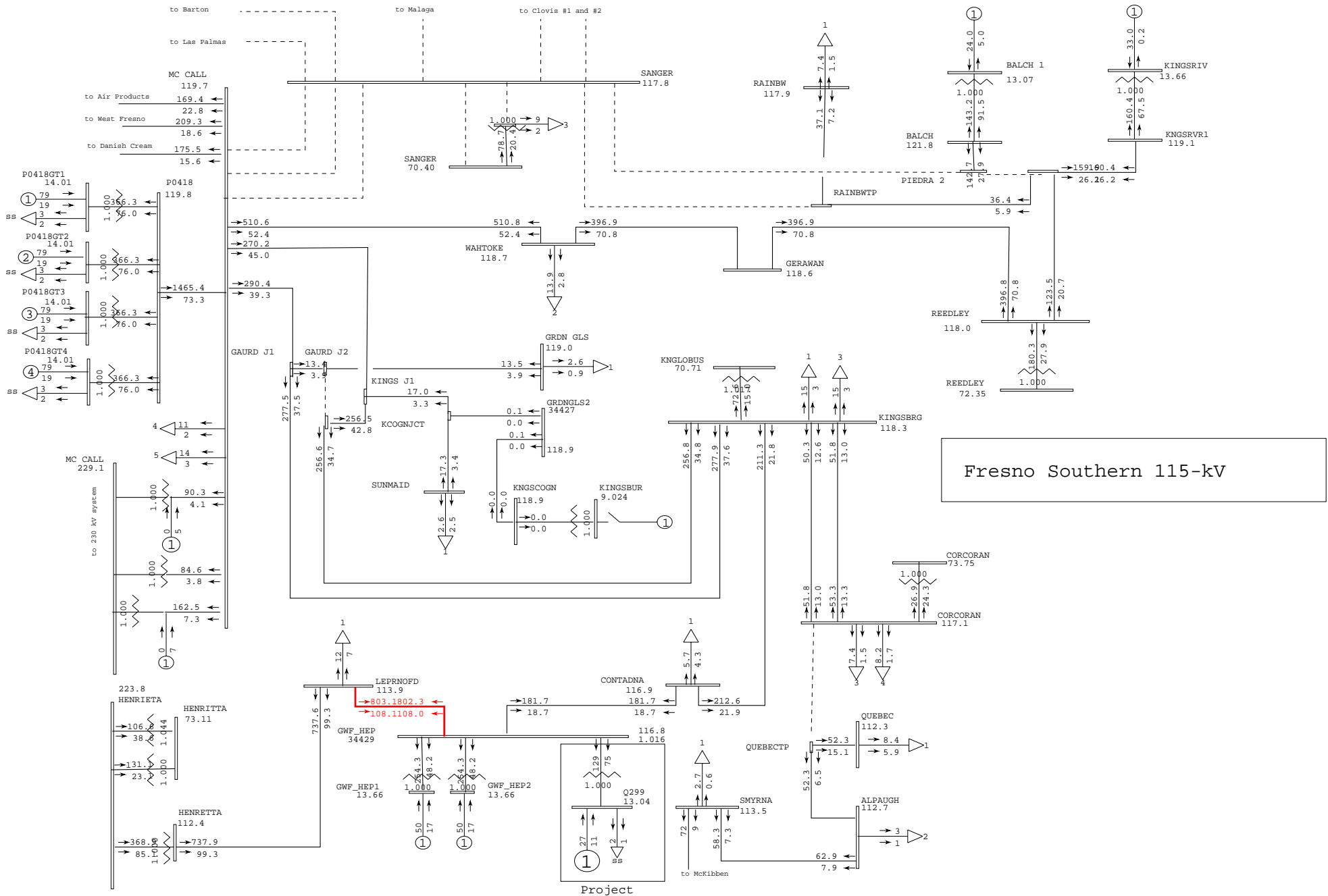


Fresno Southern 115-kV



Fresno Southern 115-kV

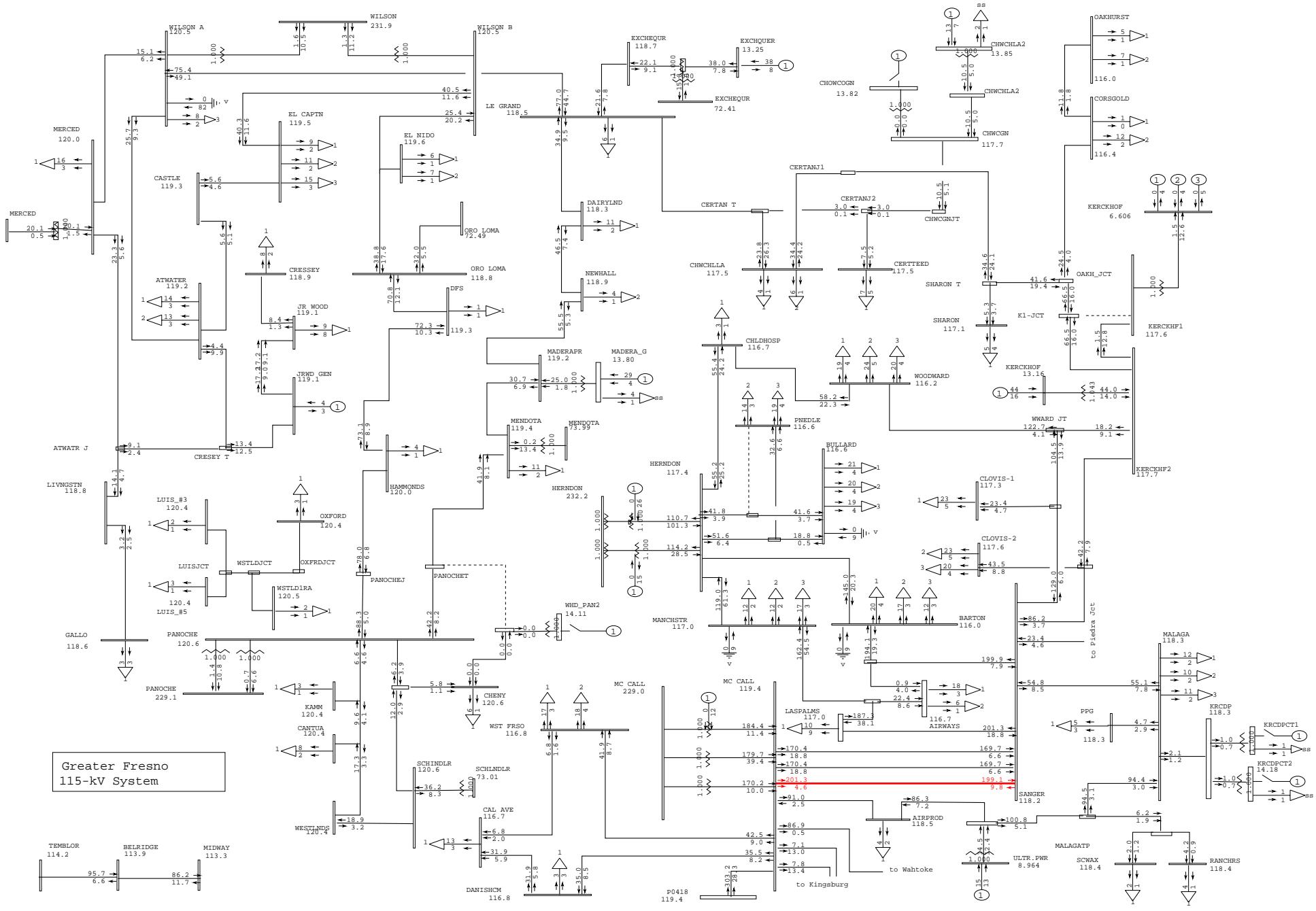




PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Post-Project

Plot 64-Outage: Sanger 115-kV Bus

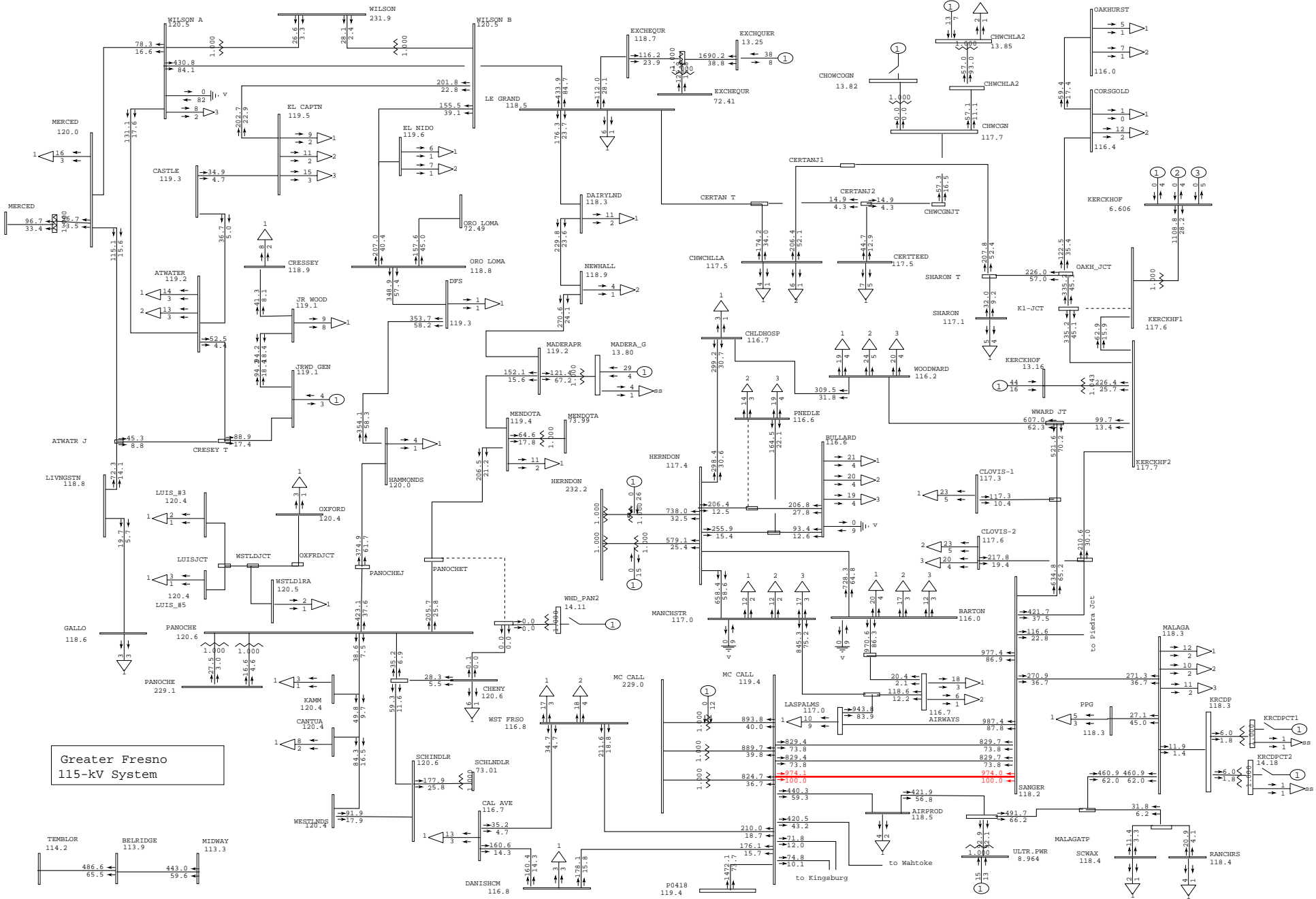
amps/rate  
 fres\_so\_115.drw  
 Rating = 2



PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Pre-Project

Plot 65-Outage: Herndon-Kearney&Gates-Gregg 230-kV

MW/MVAR  
 gfred15.drw  
 Rating = 2

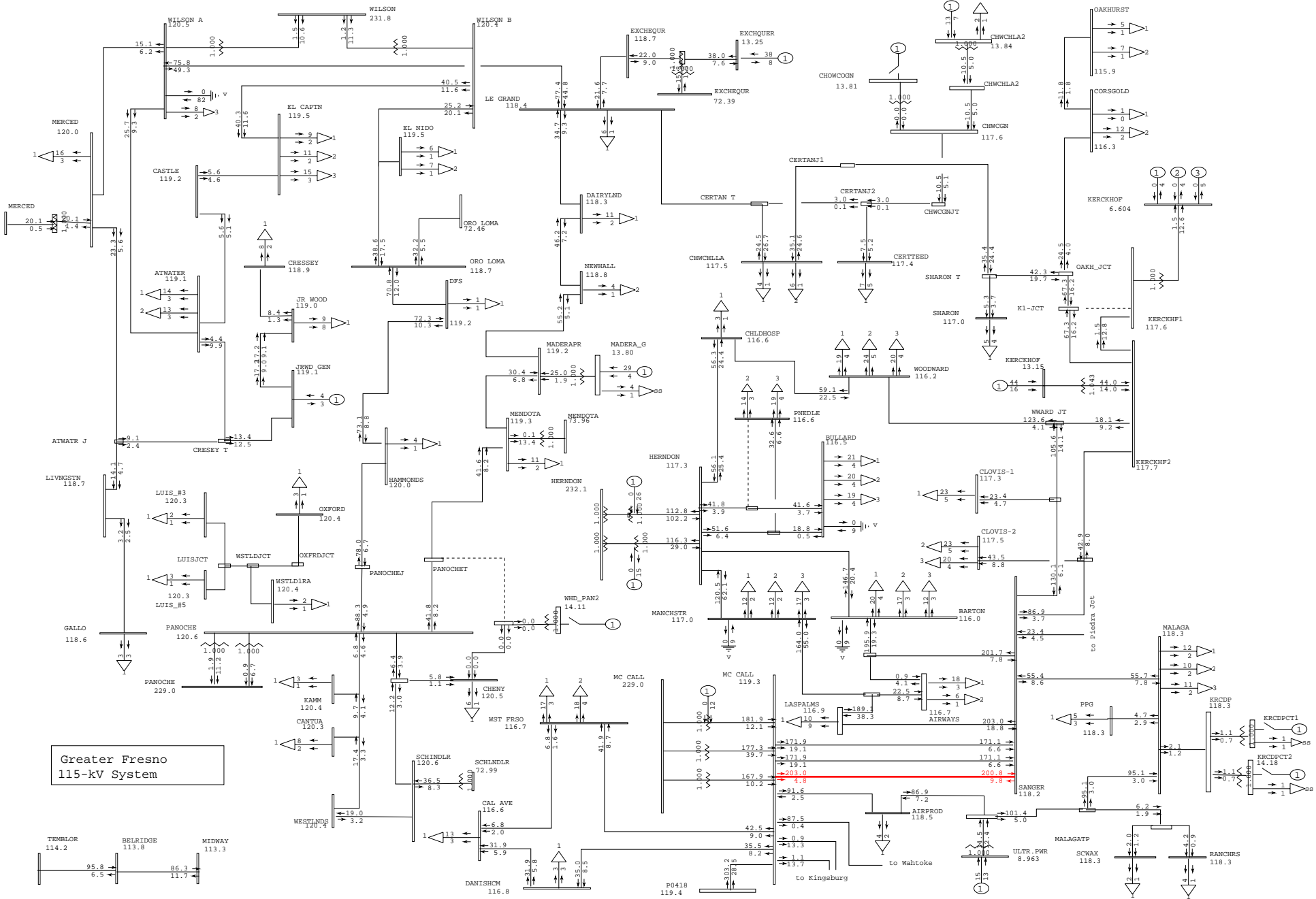


PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Pre-Project

Plot 66-Outage: Herndon-Kearney&Gates-Gregg 230-kV

amps/rate  
 gfred15.drw  
 Rating = 2

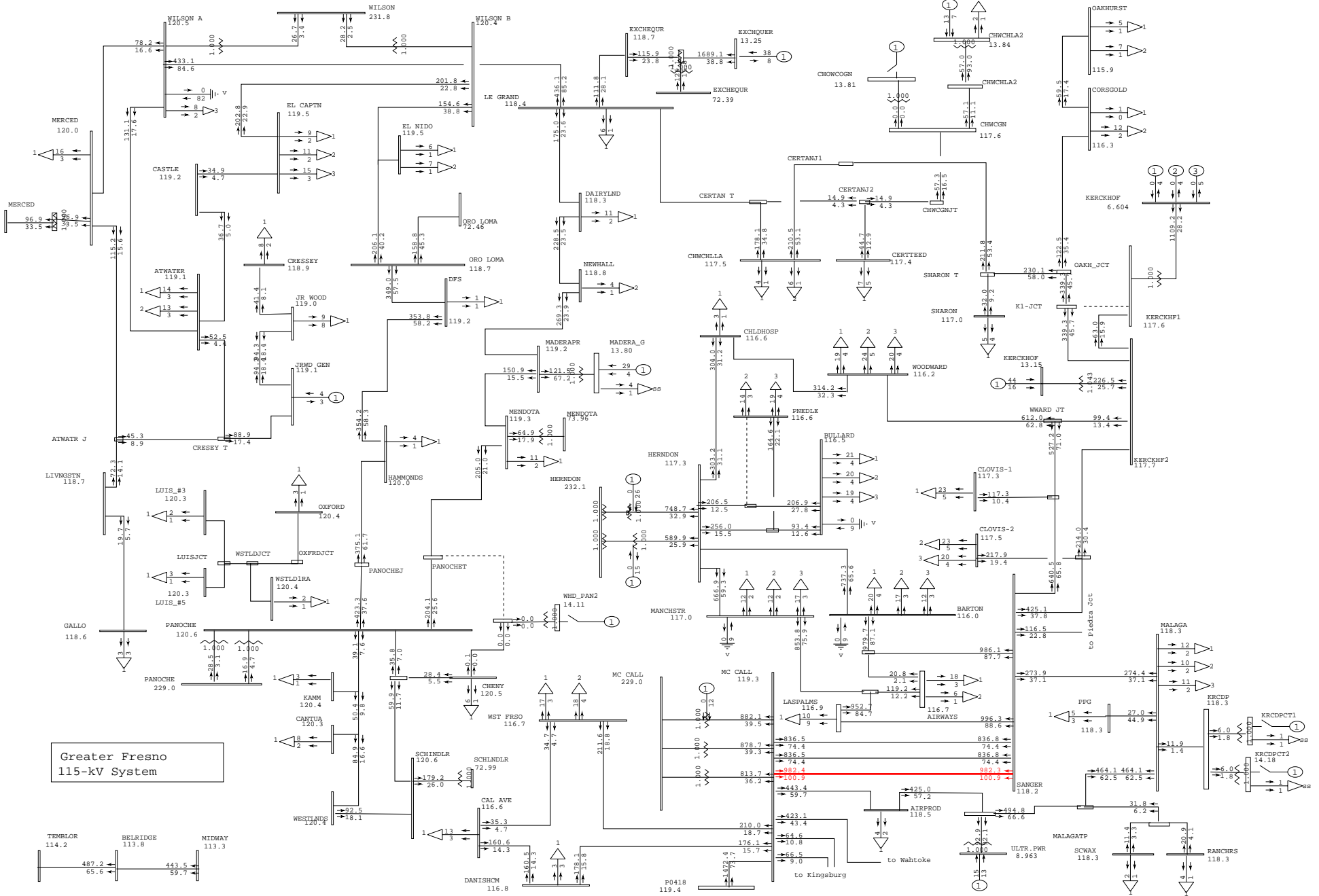




PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Post-Project

Plot 67-Outage: Herndon-Kearney&Gates-Gregg 230-kV

MW/MVAR  
 gfred115.drw  
 Rating = 2



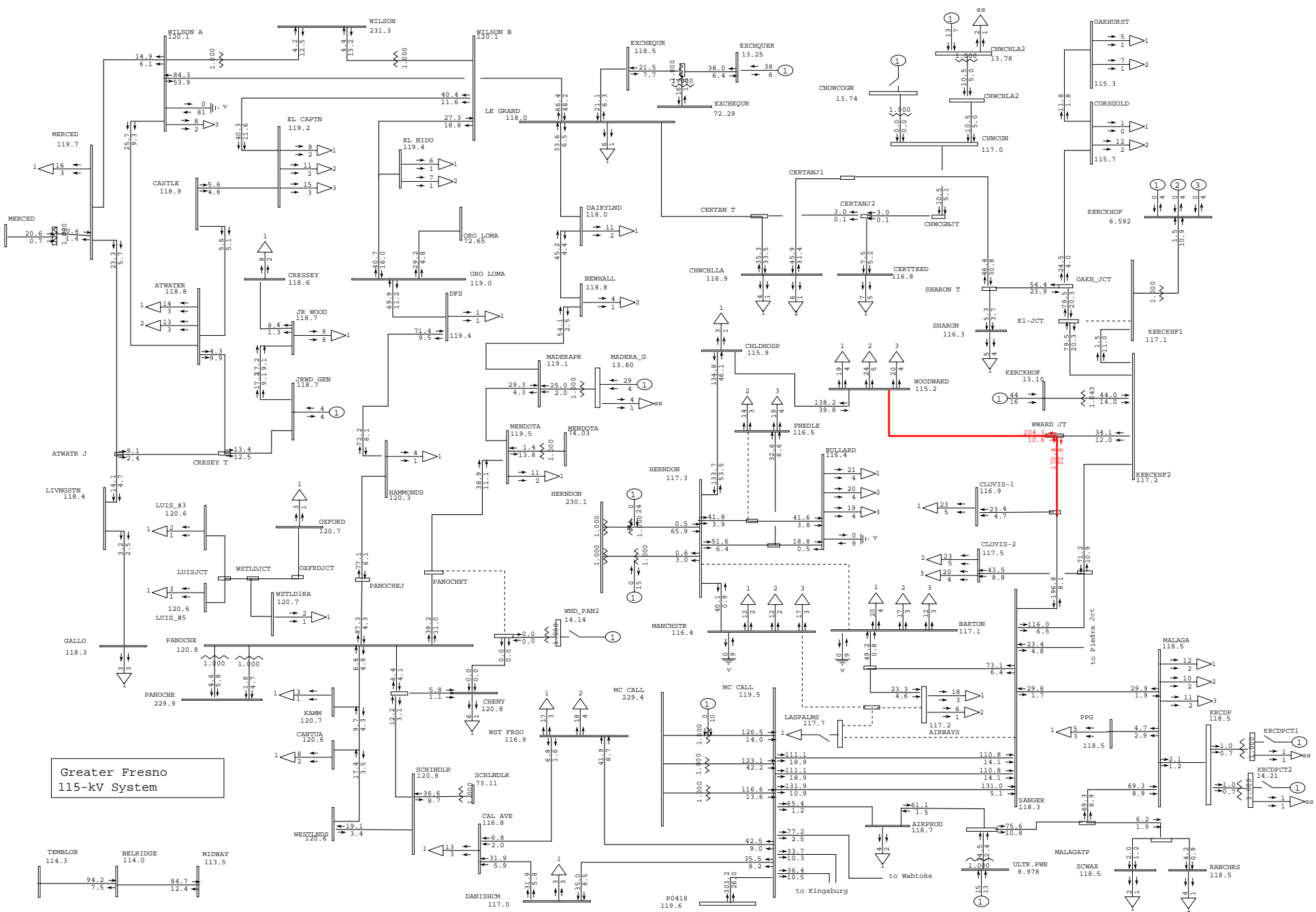
Greater Fresno  
115-kV System



PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Post-Project

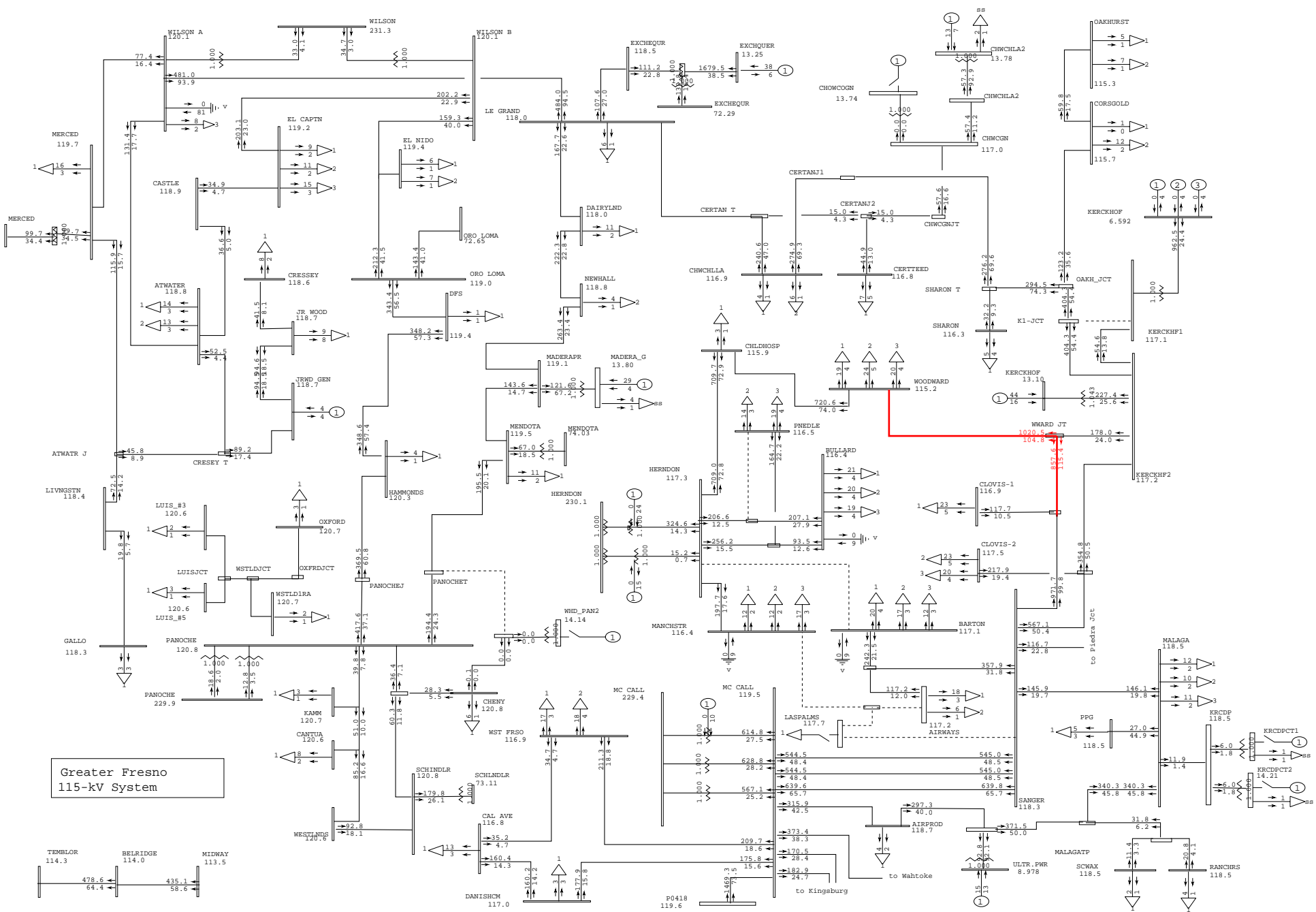
Plot 68-Outage: Herndon-Kearney&Gates-Gregg 230-kV

amps/rate  
 gfred15.drw  
 Rating = 2



Greater Fresno  
115-kV System





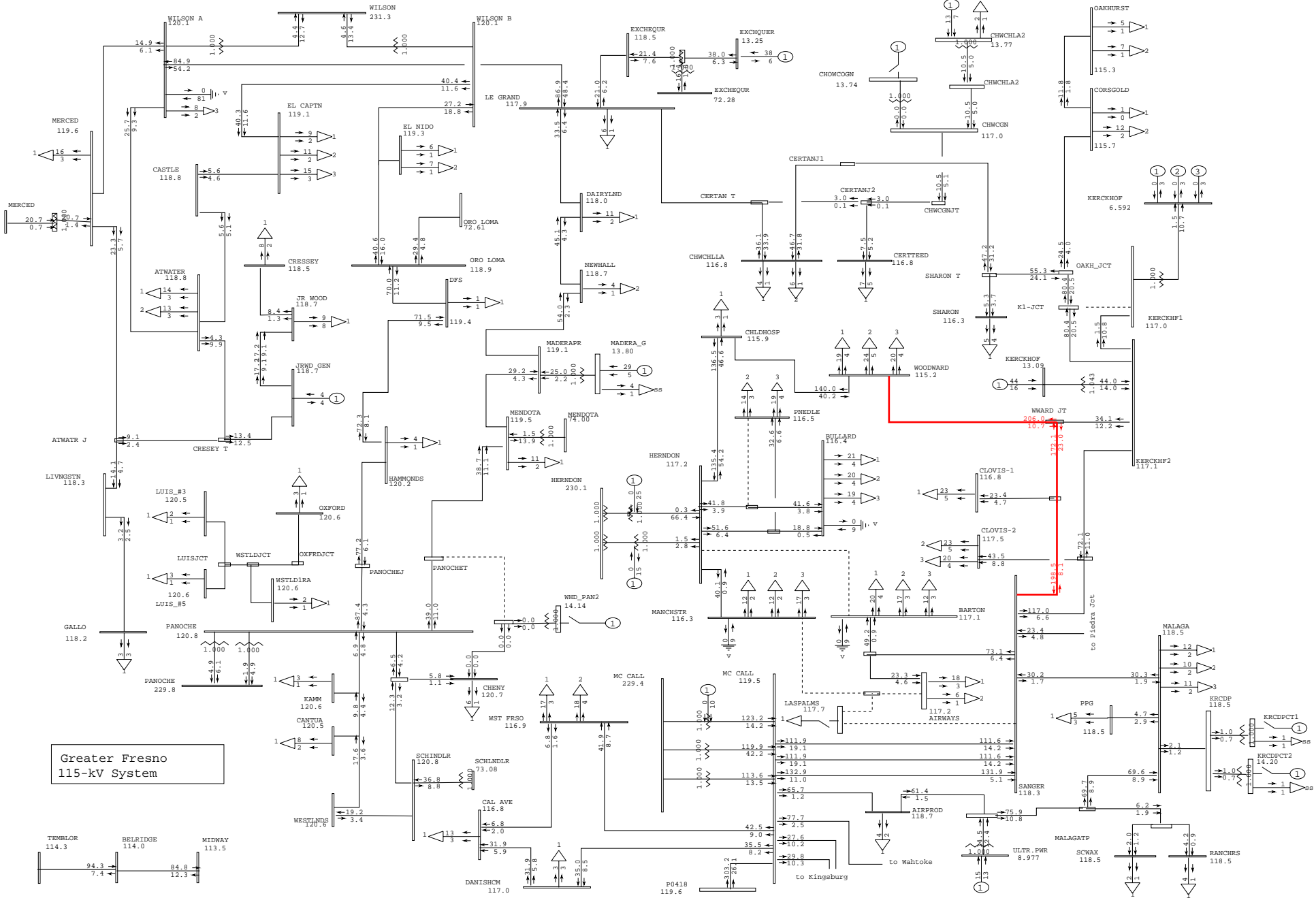
Greater Fresno  
115-kV System



PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Pre-Project

Plot 70-Outlet: Herndon-Barton&Manchester-Sanger 115-kV

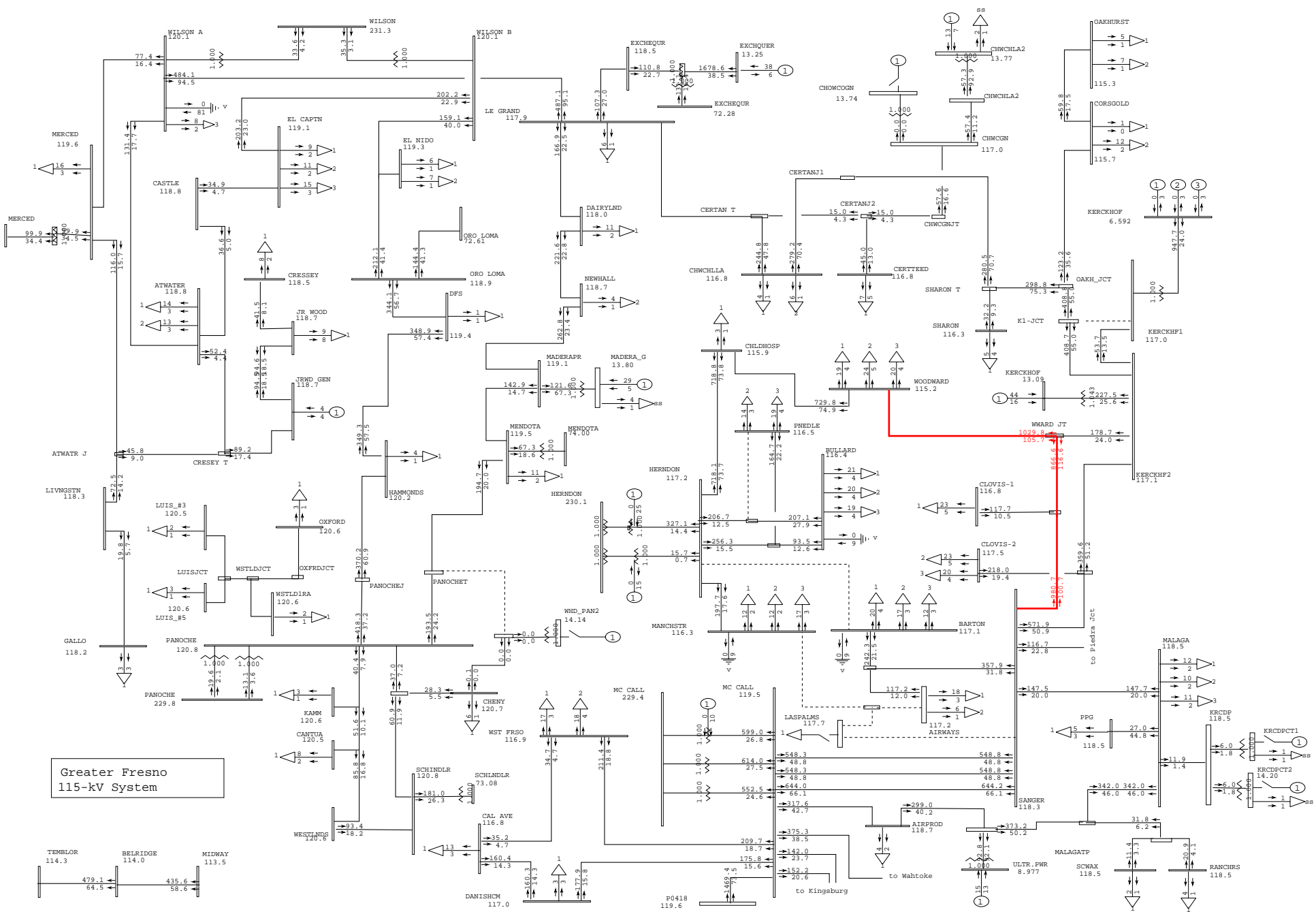
amps/rate  
 gfred115.drw  
 Rating = 2



PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Post-Project

Plot 71-Outlet: Herndon-Barton&Manchester-Sanger 115-kV

MW/MVAR  
 gfres115.drw  
 Rating = 2

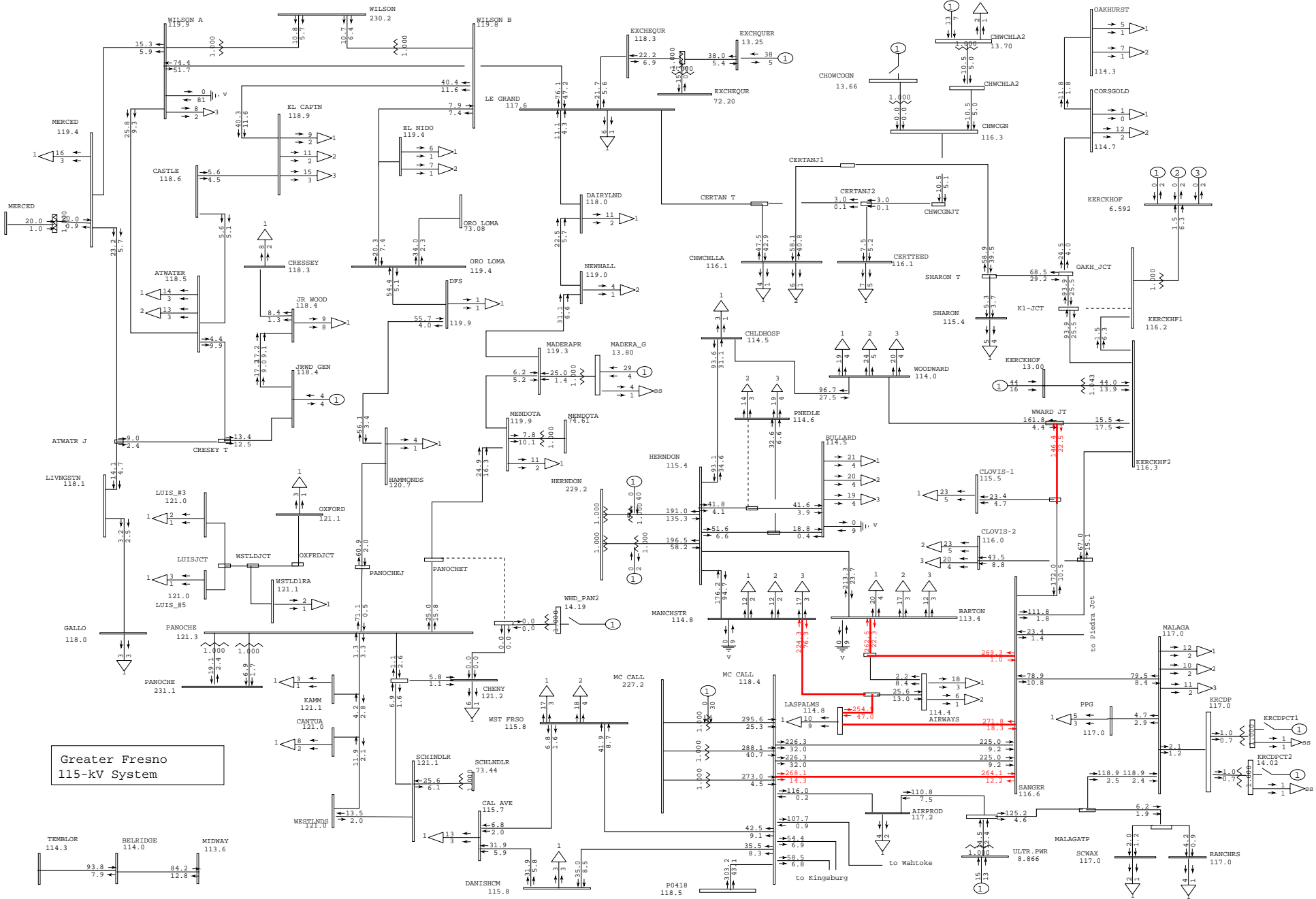


Greater Fresno  
115-kV System



PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Post-Project

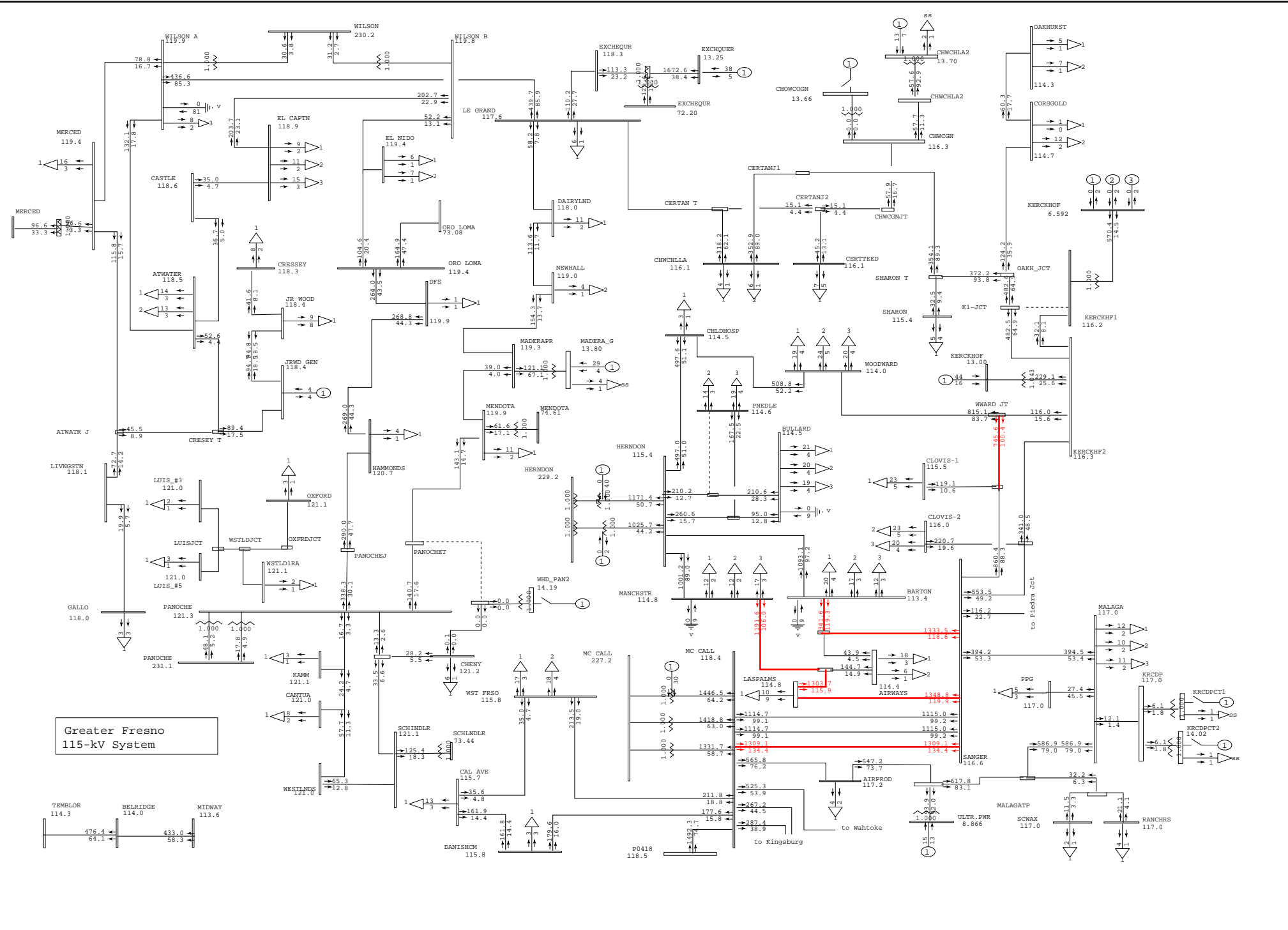
Plot 72-Outlet: Herndon-Barton&Manchester-Sanger 115-kV  
 amps/rate  
 gfred15.drw  
 Rating = 2



PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Pre-Project

Plot 73-Outlet: Helm-McCall&Gates-McCall 230-kV

MW/MVAR  
 gfred115.drw  
 Rating = 2

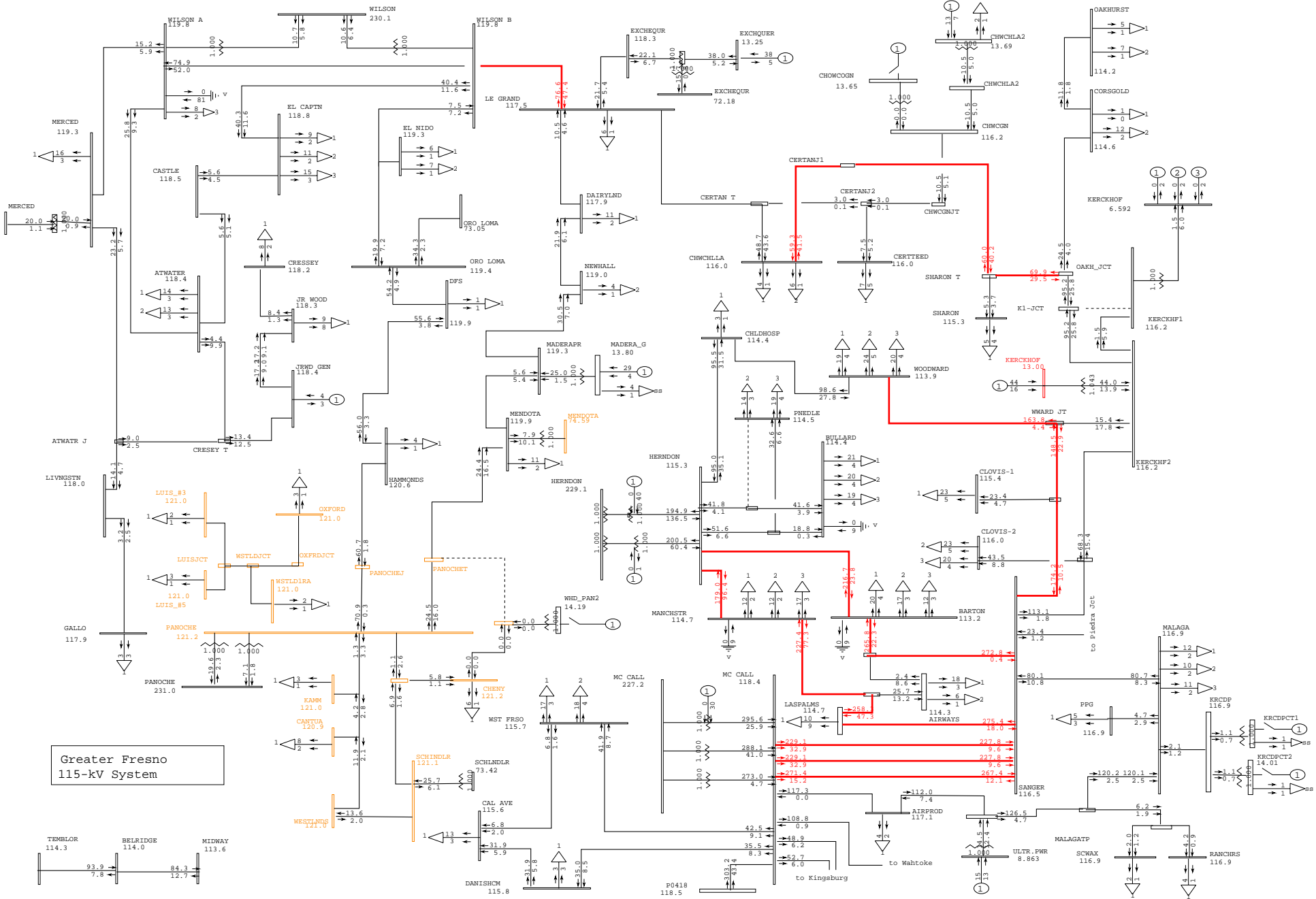


PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Pre-Project

Plot 74-Outlet: Helm-McCall&Gates-McCall 230-kV  
 Rating = 2

amps/rate  
 gfred15.drw  
 Rating = 2

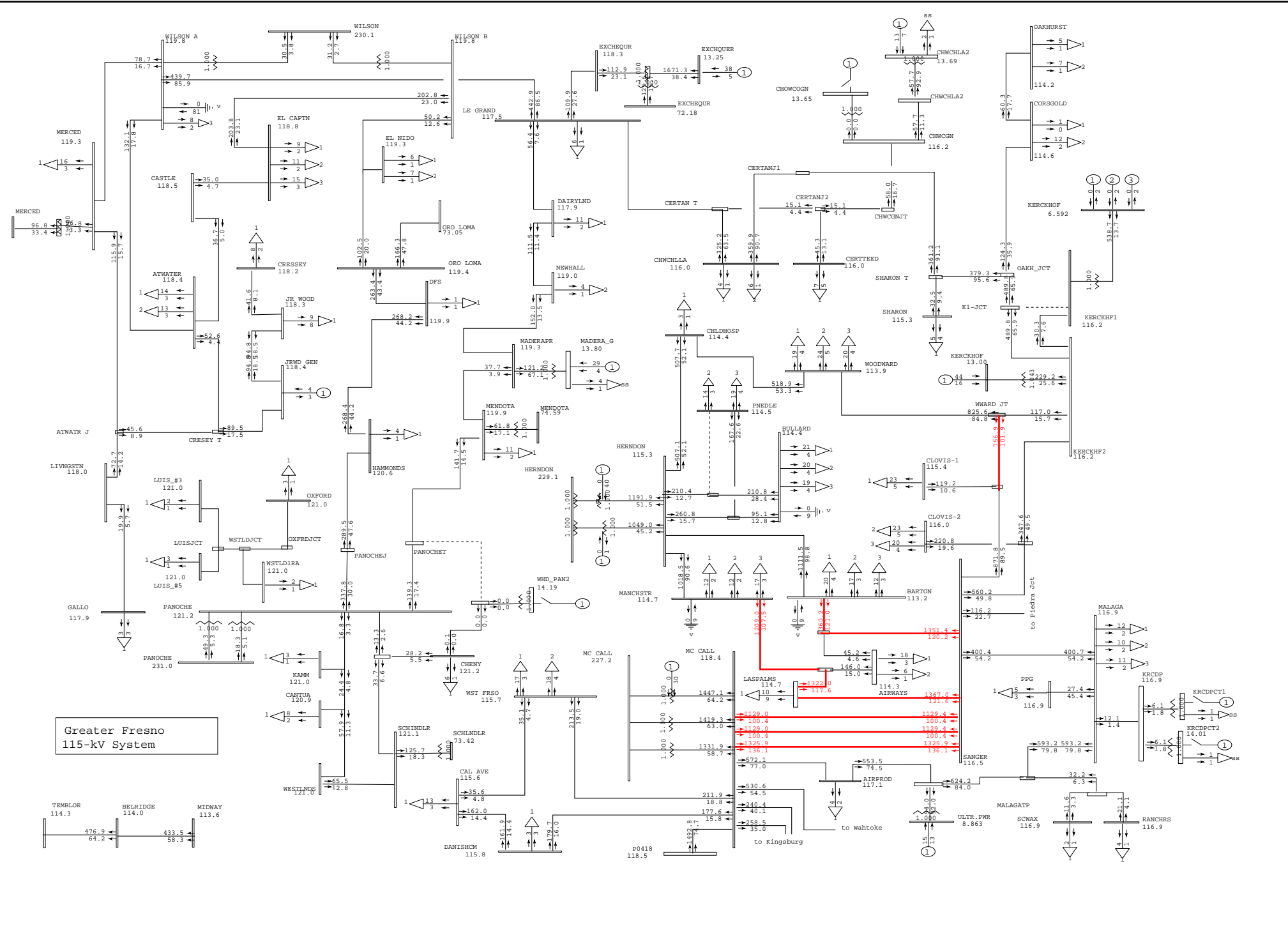




PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Post-Project

Plot 75-Outage: Helm-McCall&Gates-McCall 230-kV

MW/MVAR  
 gfred15.drw  
 Rating = 1

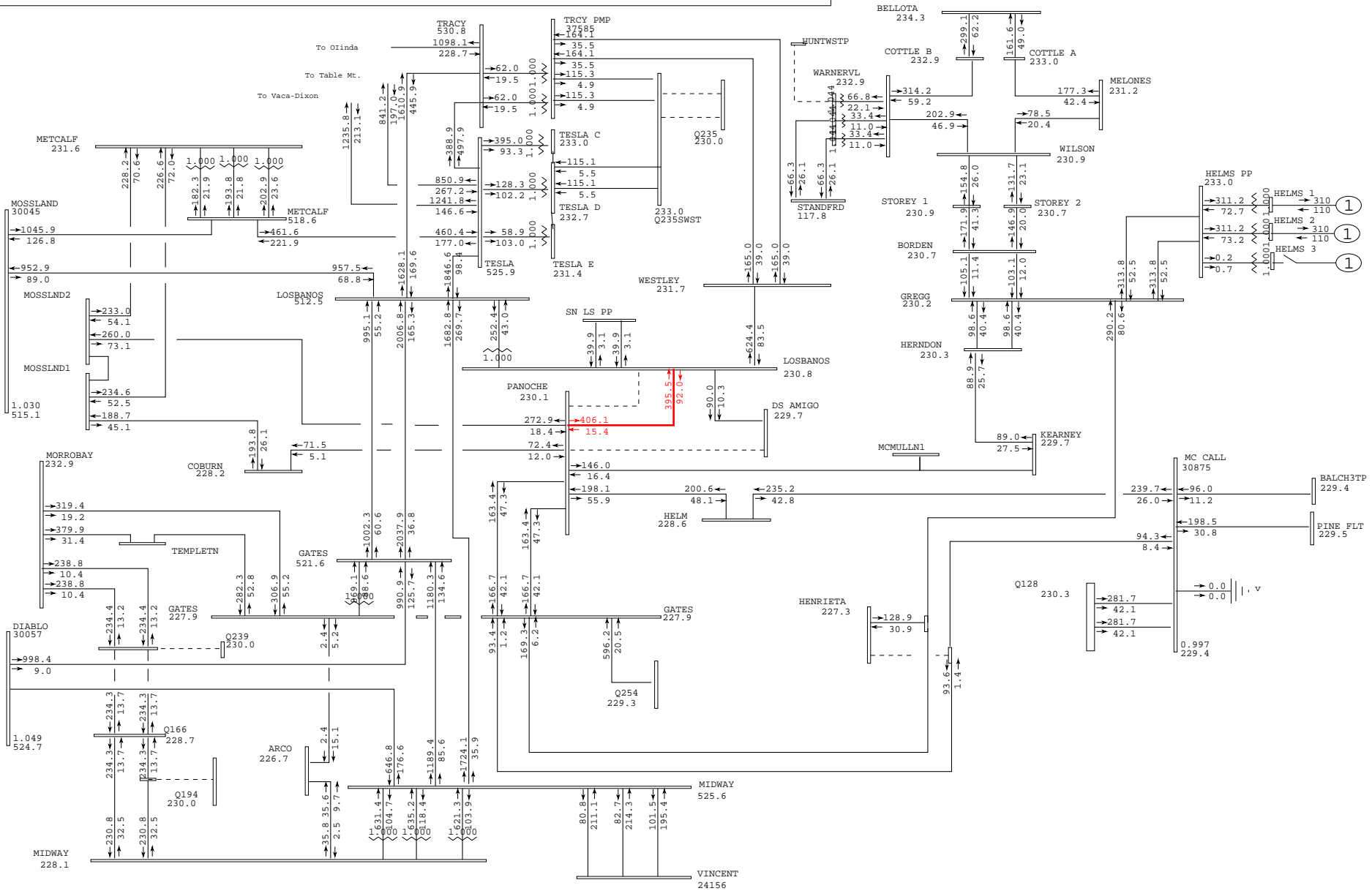


PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Post-Project

Plot 76-Outage: Helm-McCall&Gates-McCall 230-kV  
 Rating = 2

amps/rate  
 gfred15.drw

# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:42:59 2008 2013sumop\_q299\_pre.sav

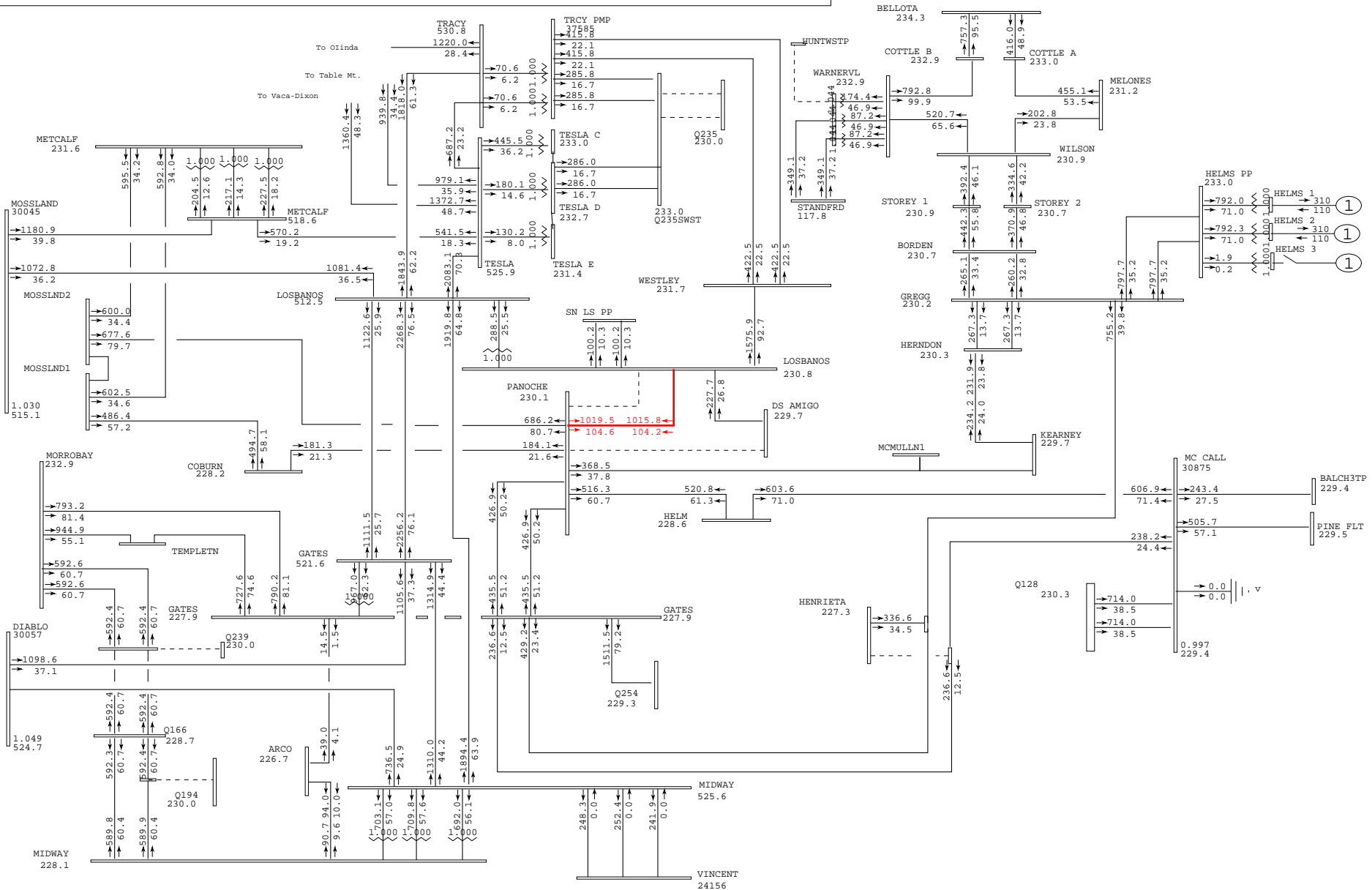


PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Pre-Project

Plot 77-Outlet: LosBanos-Panoche #2&DosAmigo-Panoche 230-kV

MW/MVAR  
 gfred2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:43:00 2008 2013sumop\_q299\_pre.sav

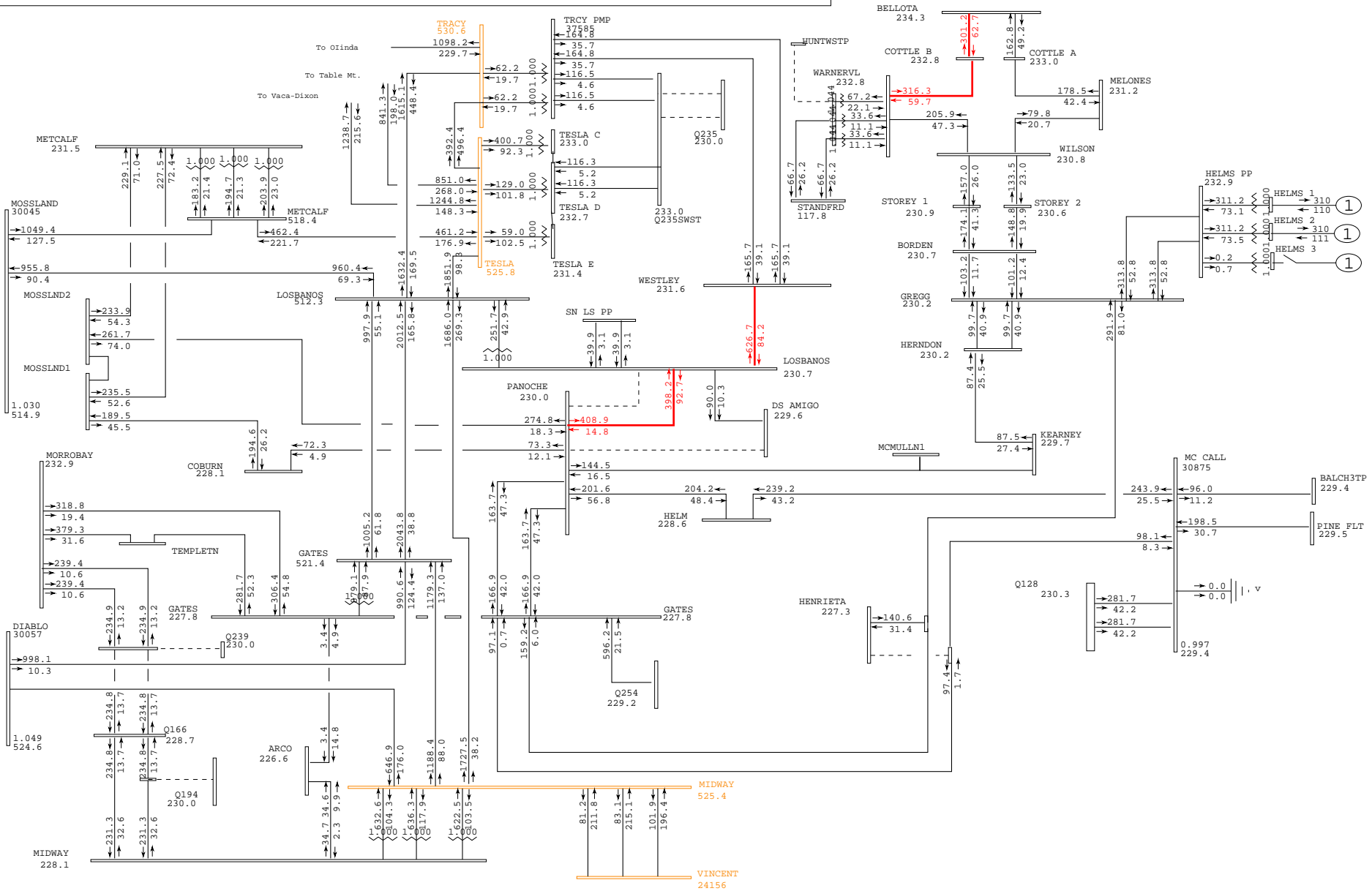


PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Pre-Project

Plot 78-Outlet: LosBanos-Panoche #2&DosAmigo-Panoche 230-kV

amps/rate  
 gfred2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:43:02 2008 2013sumop\_q299\_post.sav

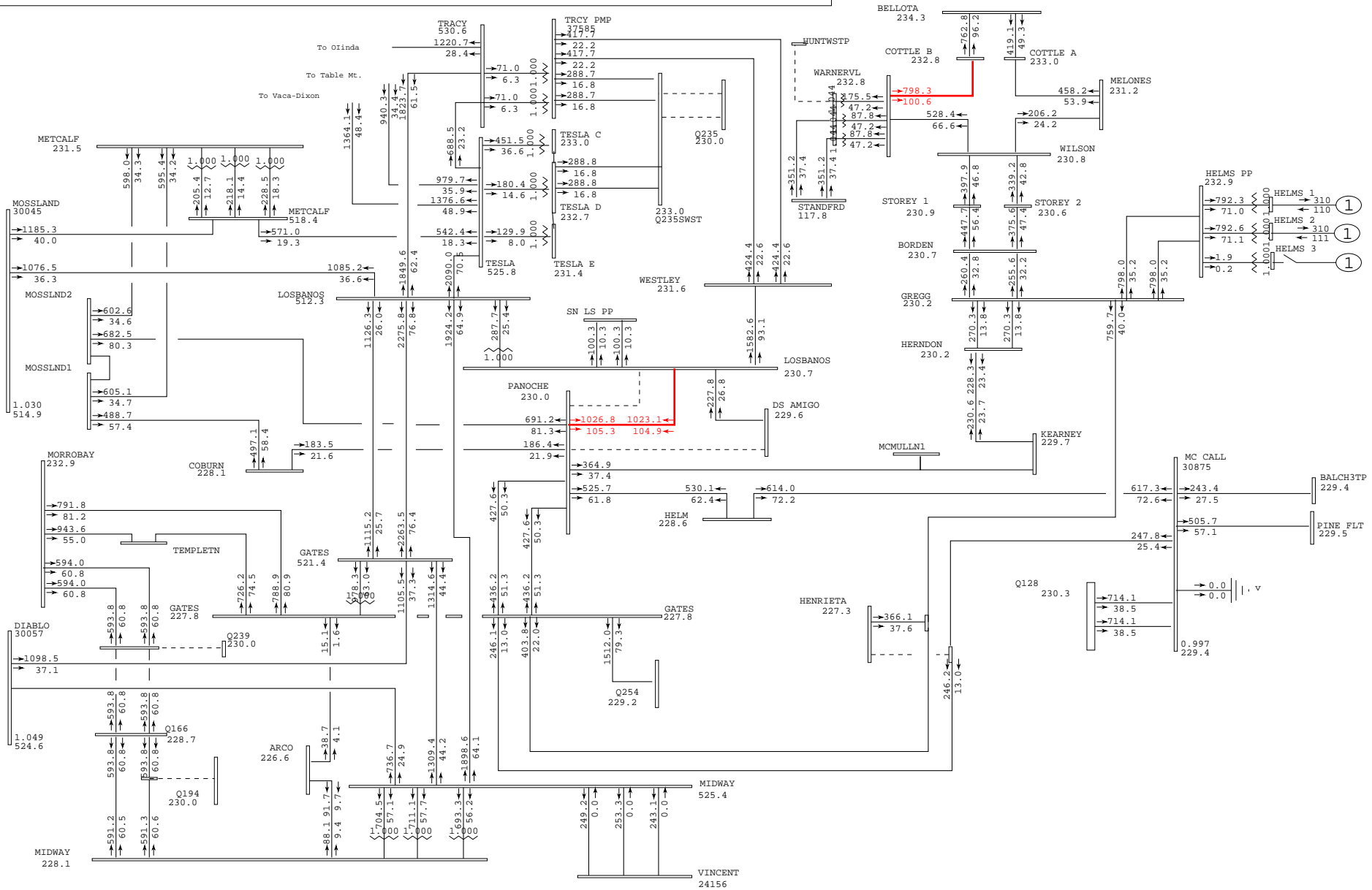


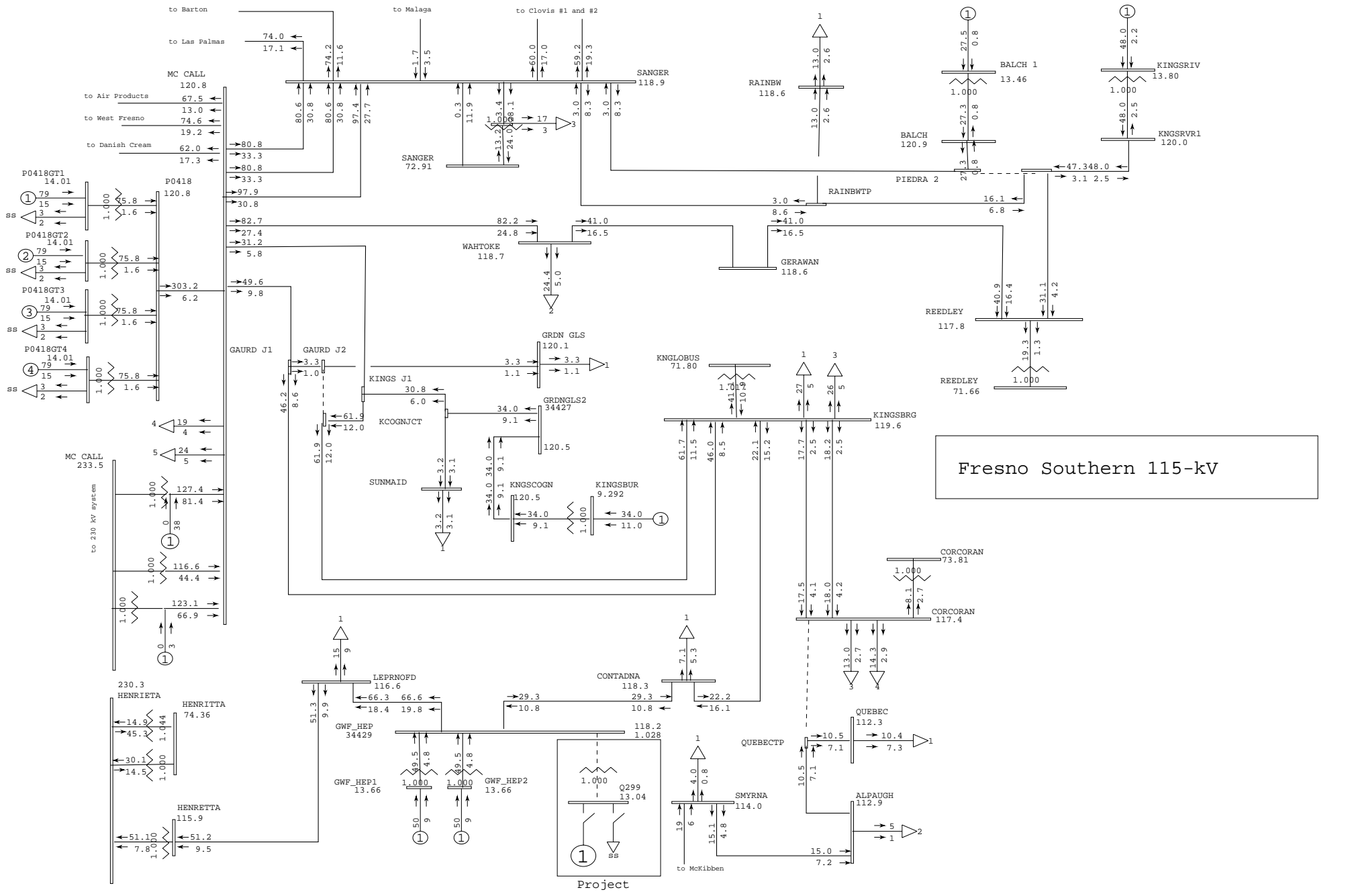
PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case  
 PATH15= 4999 MW(S-N) PATH26= 254 MW(N-S) PDCI=-1846 MW(N-S) COI=-3646 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Summer Off Peak Post-Project

Plot 79-Outlet: LosBanos-Panoche #2&DosAmigo-Panoche 230-kV

MW/MVAR  
 gfred2.drw  
 Rating = 1

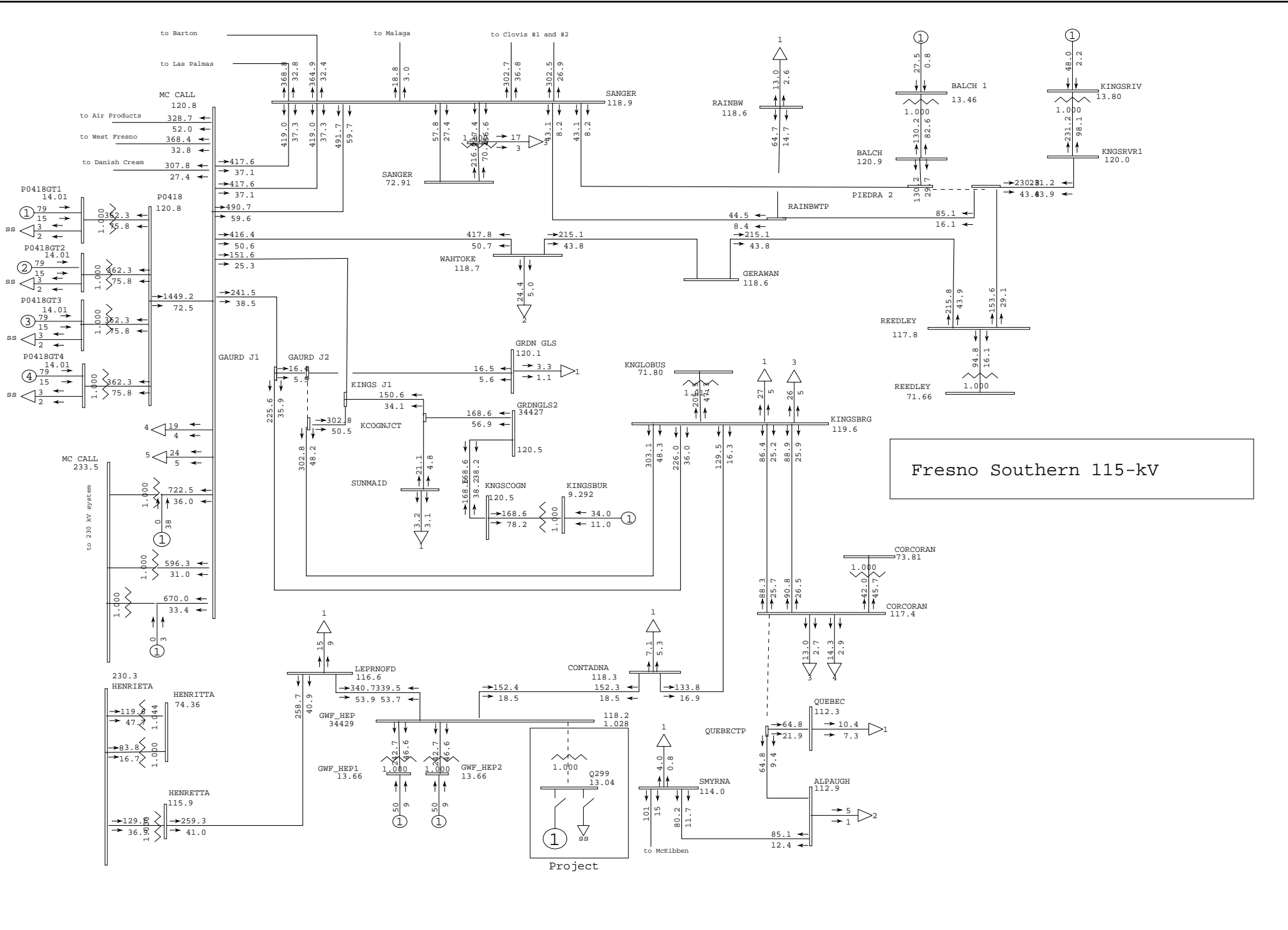
# Greater Fresno 500-kV & 230-kV System



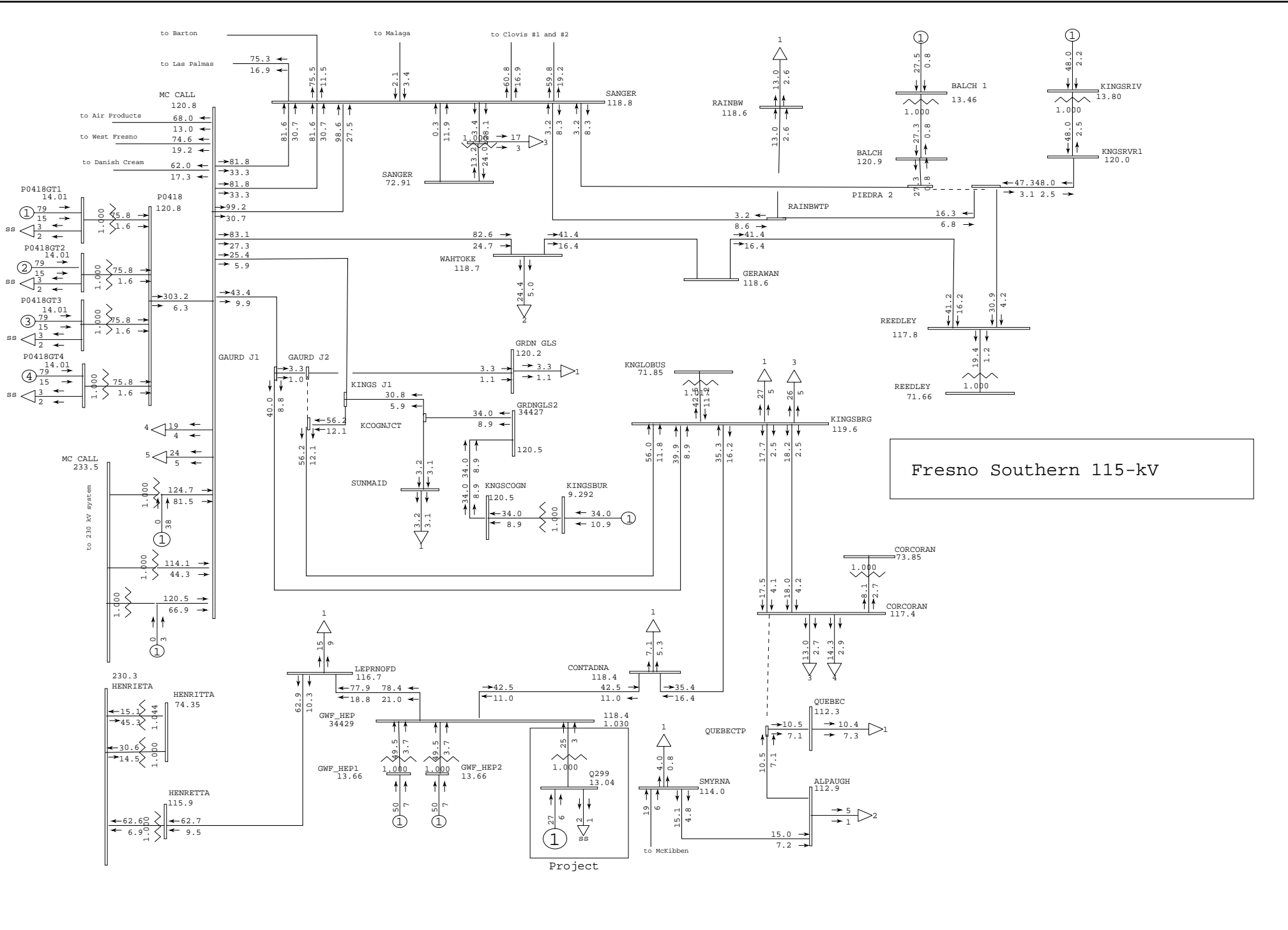


Fresno Southern 115-kV

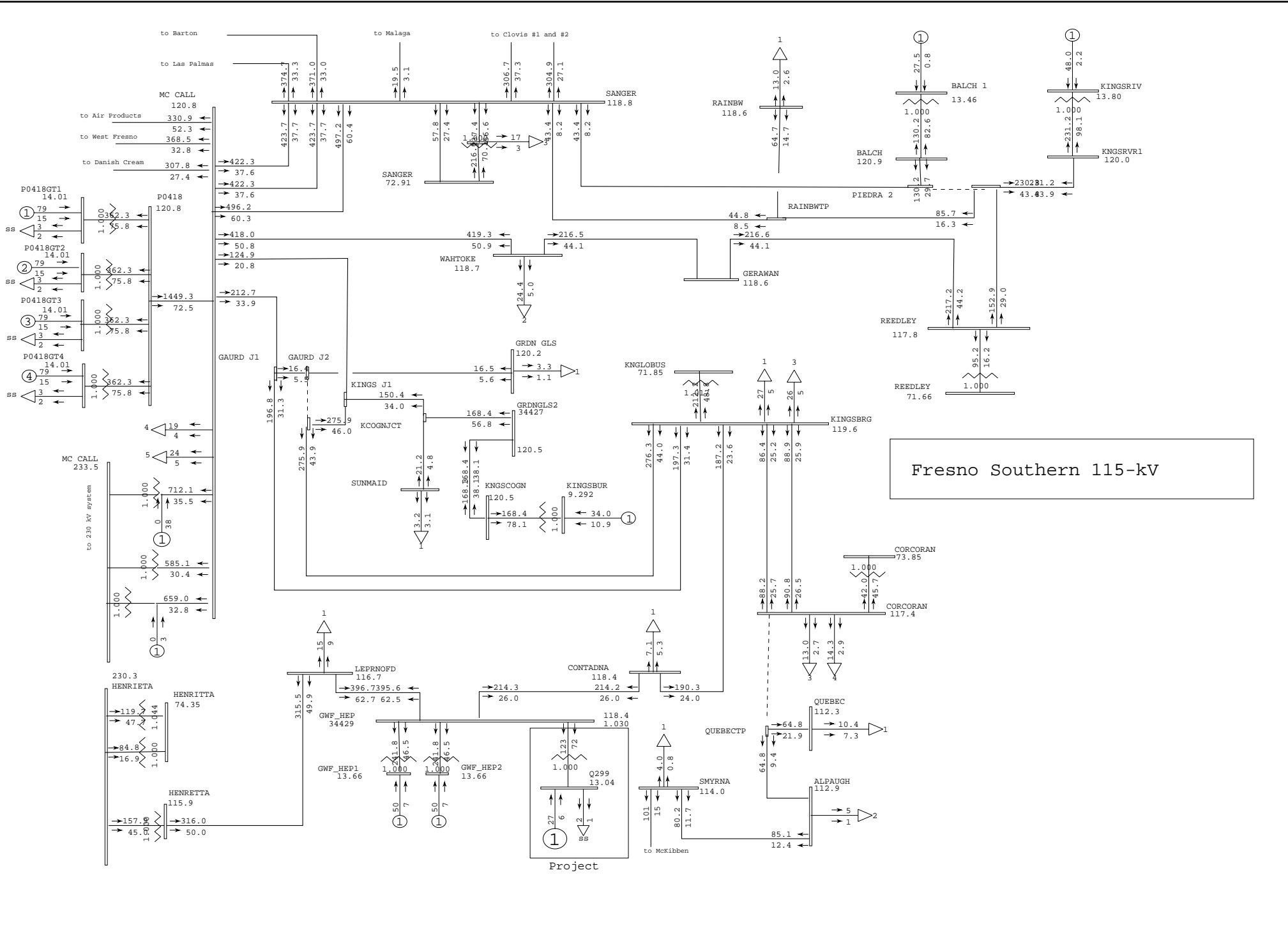








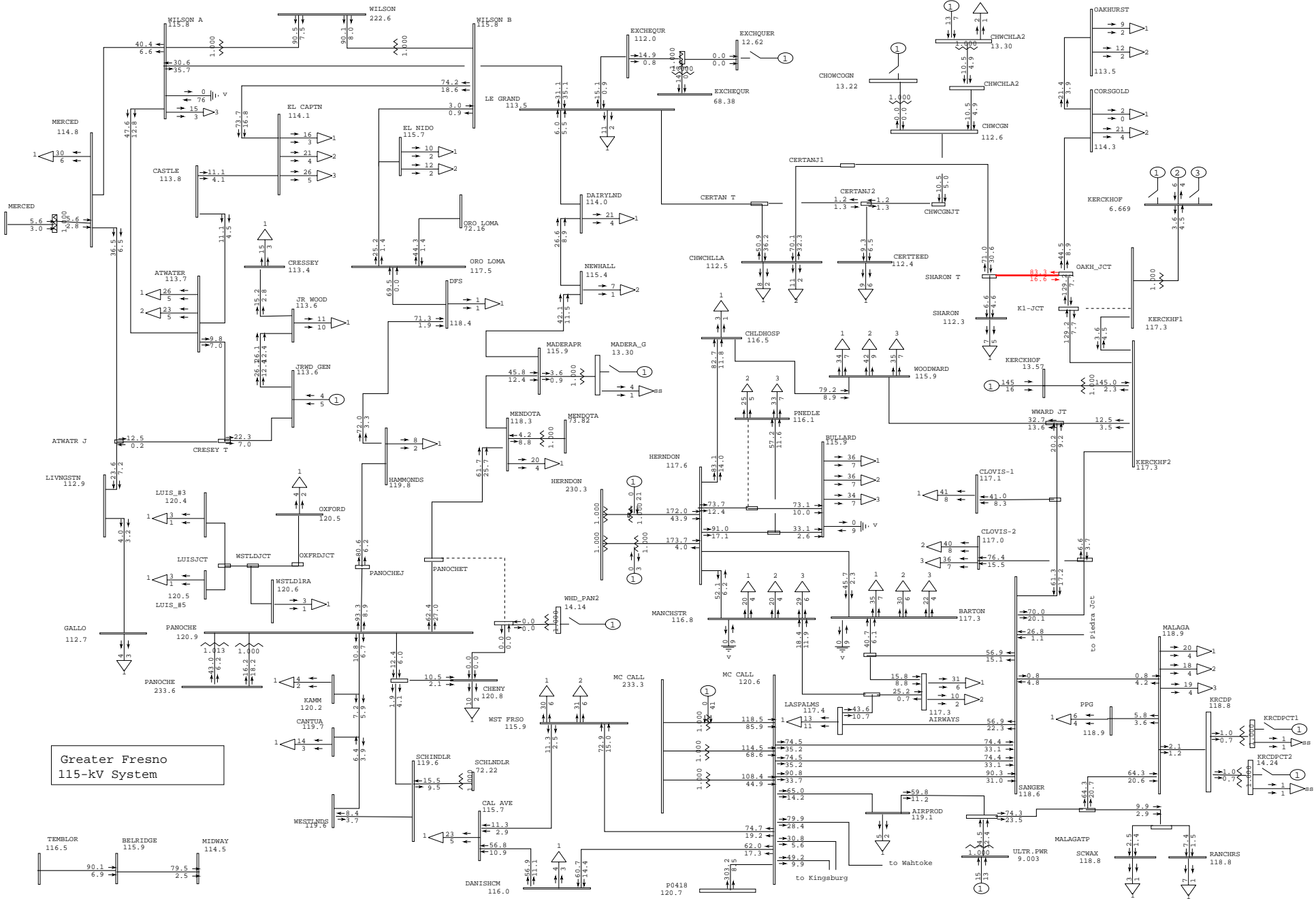
Fresno Southern 115-kV



Fresno Southern 115-kV

PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Spring Peak Post-Project FY

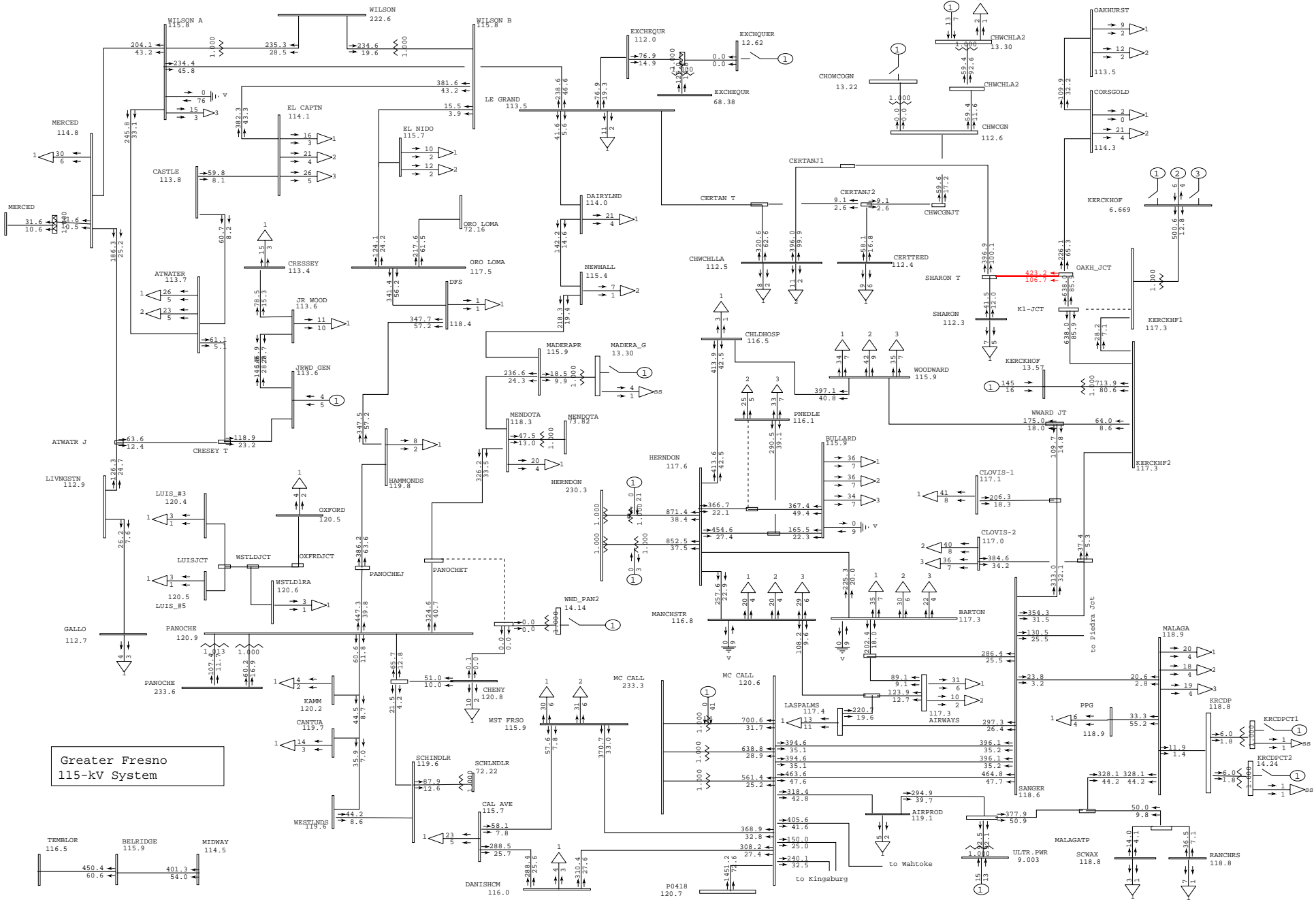
Plot 84 - No Outage  
 amps/rate  
 fres\_so\_115.drw  
 Rating = 1



PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford - 2013 Spring Peak Pre-Project

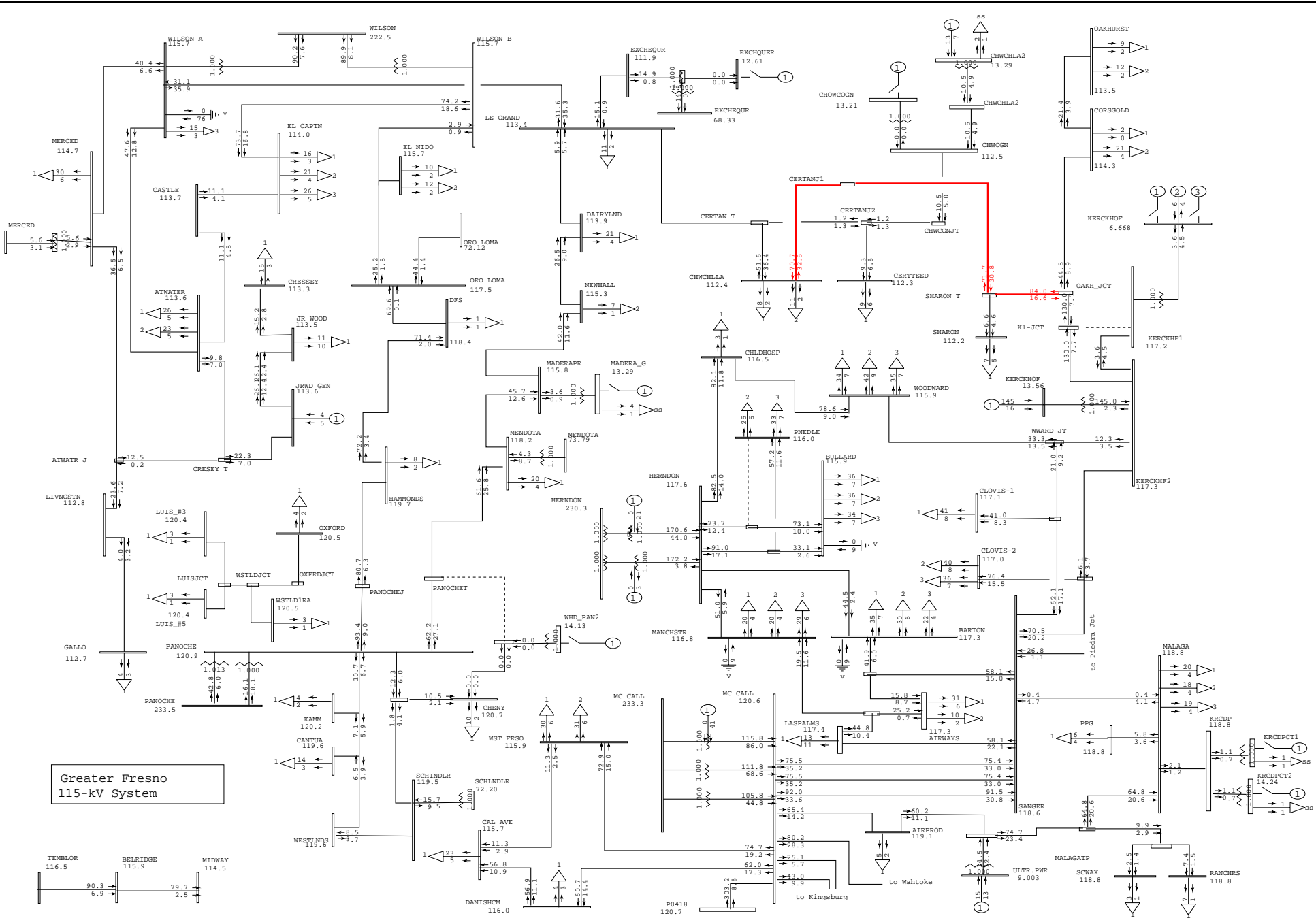
Plot 85-Outage: Wilson-Borden 230-kV & Exchequer

MW/MVAR  
 gfred15.drw  
 Rating = 2



PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford - 2013 Spring Peak Pre-Project

Plot 86-Outage: Wilson-Borden 230-kV & Exchequer  
 amps/rate  
 gfred15.drw  
 Rating = 2

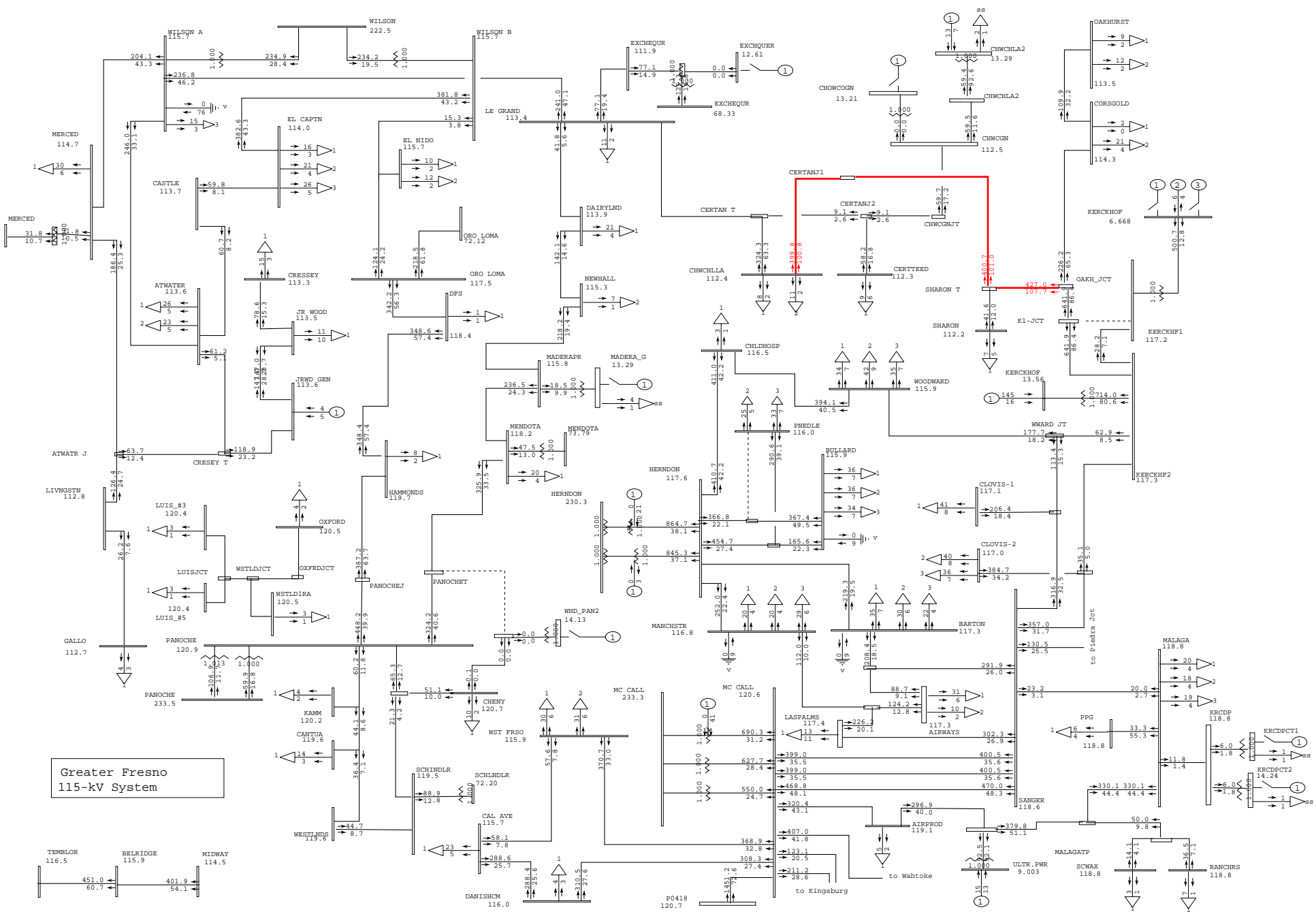


Greater Fresno  
115-kV System



PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Spring Peak Post-Project FY

Plot 87-Outage: Wilson-Borden 230-kV & Exchequer  
 MW/MVAR  
 gfres115.drw  
 Rating = 2

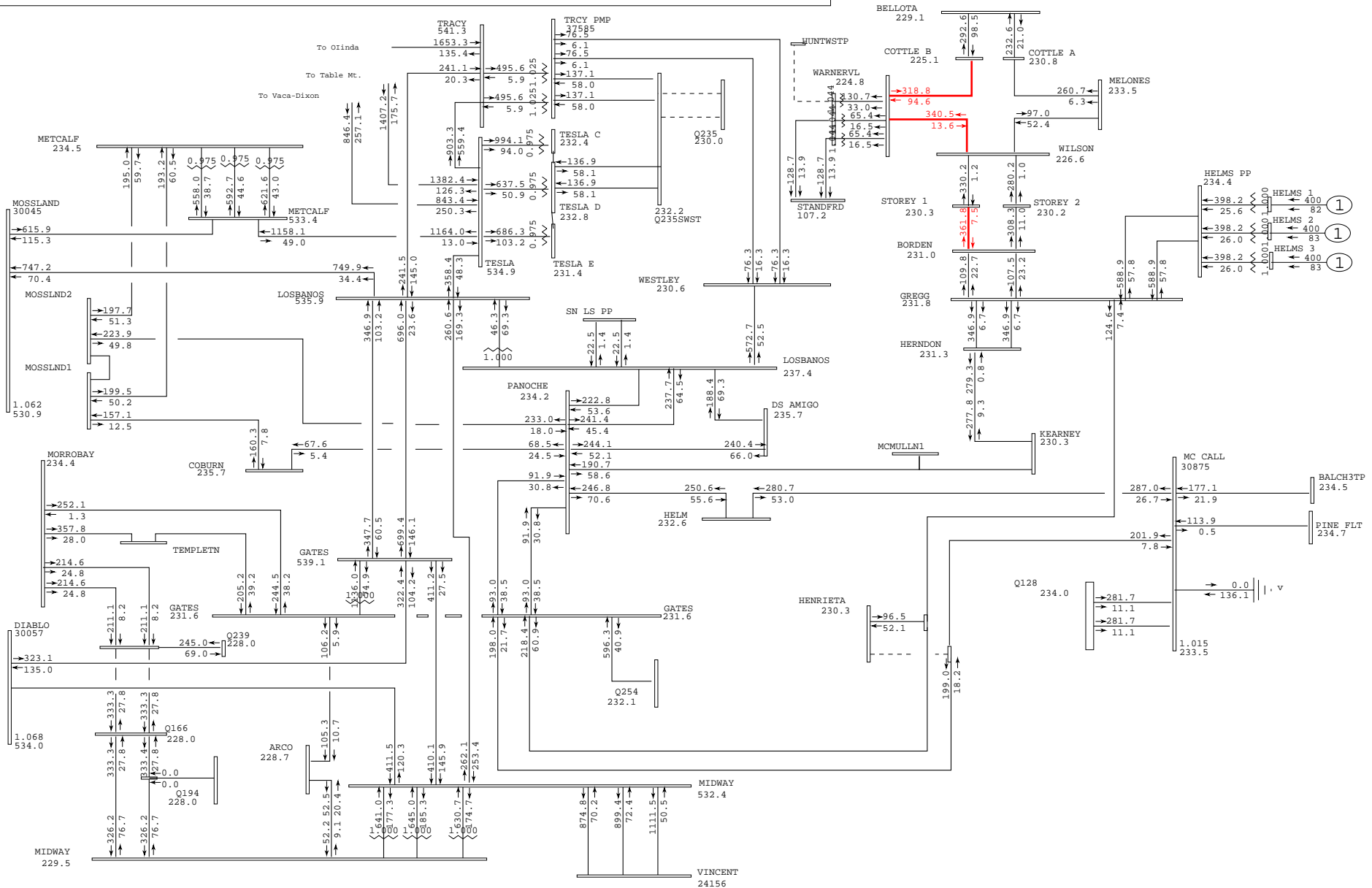


PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Spring Peak Post-Project FY

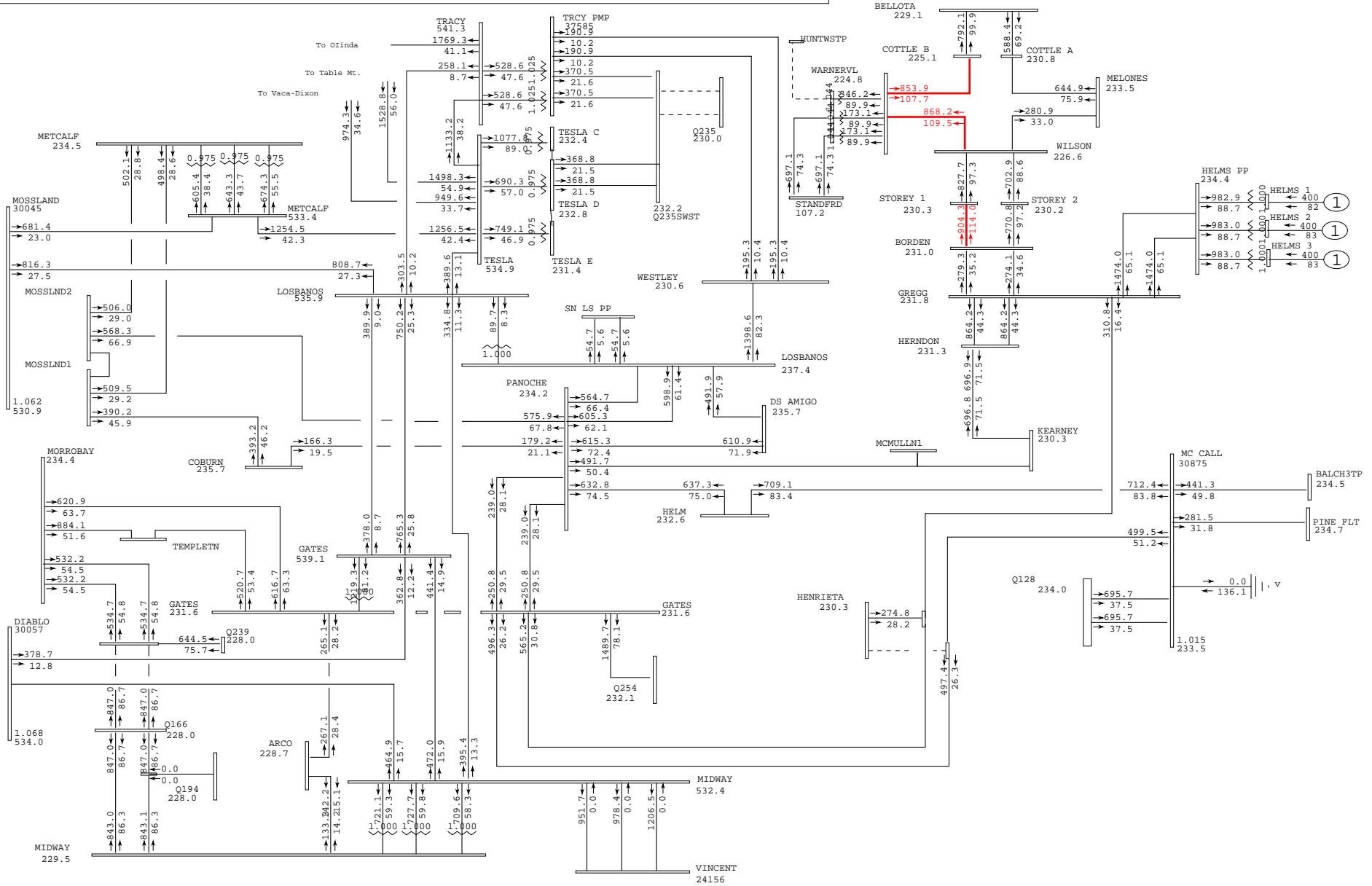
Plot 88-Outage: Wilson-Borden 230-kV & Exchequer  
 Rating = 2

amps/rate  
 gfred15.drw

# Greater Fresno 500-kV & 230-kV System

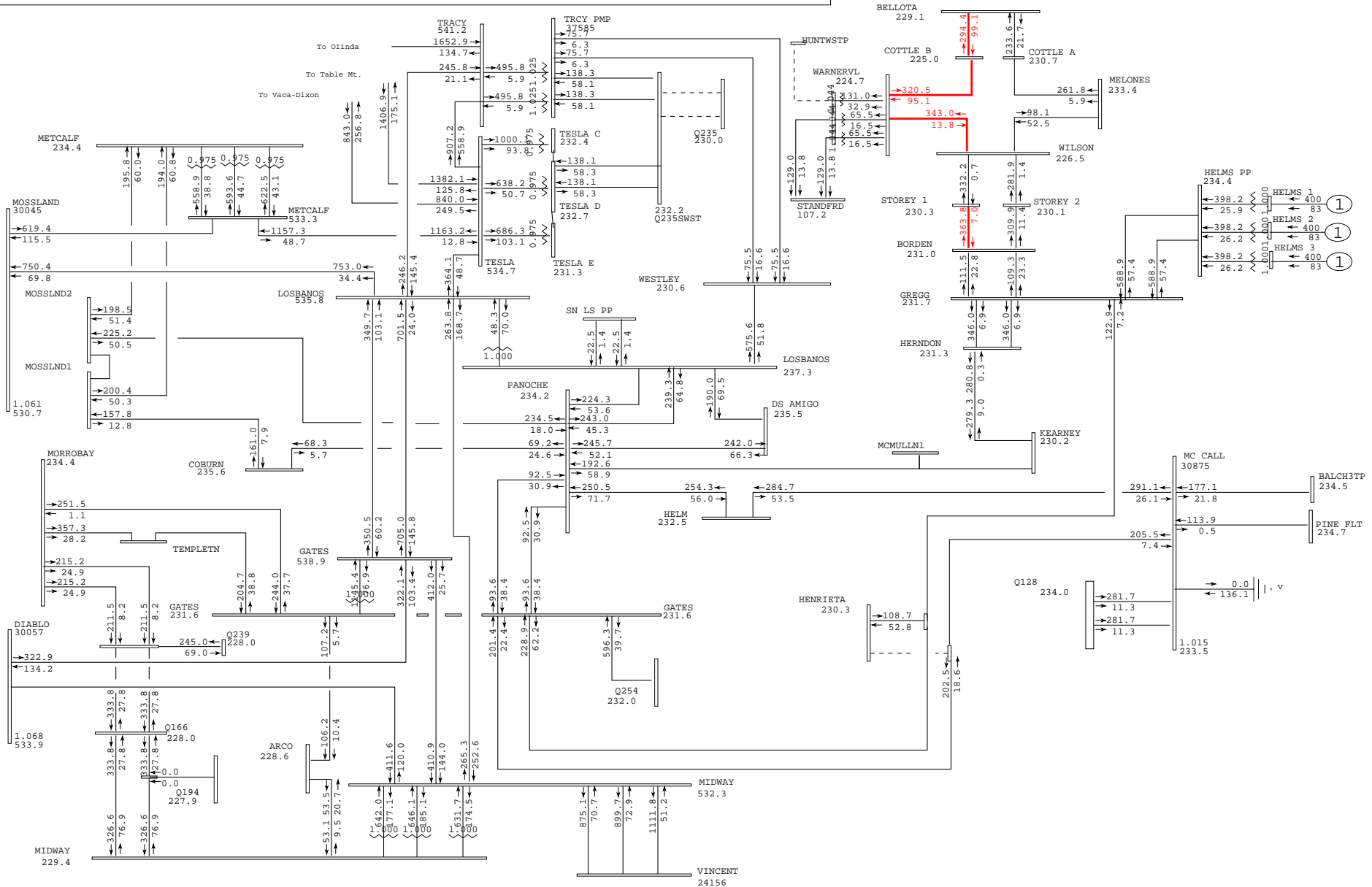


# Greater Fresno 500-kV & 230-kV System

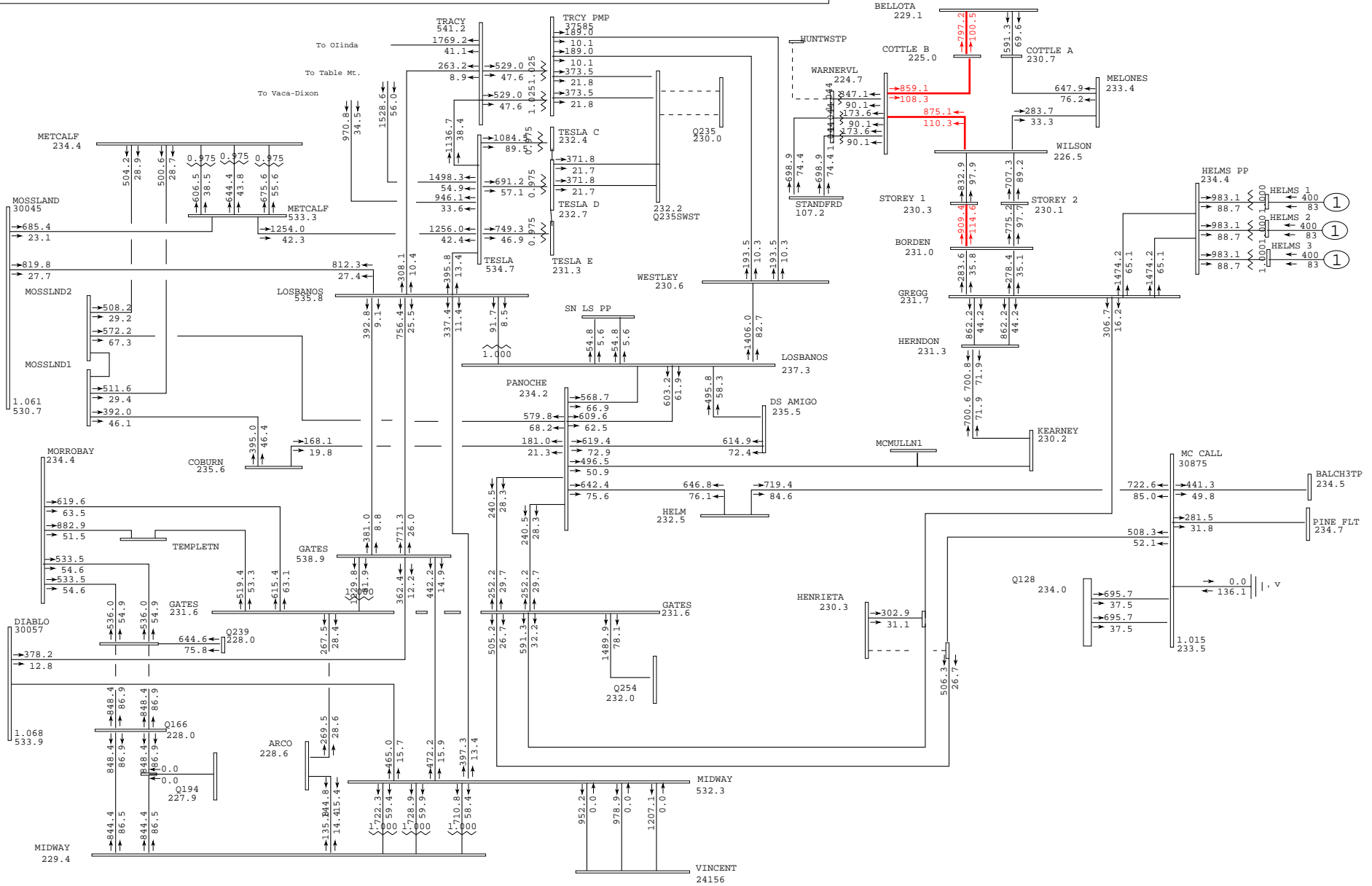




# Greater Fresno 500-kV & 230-kV System



# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:43:21 2008 2013sprpk\_q299\_post.sav

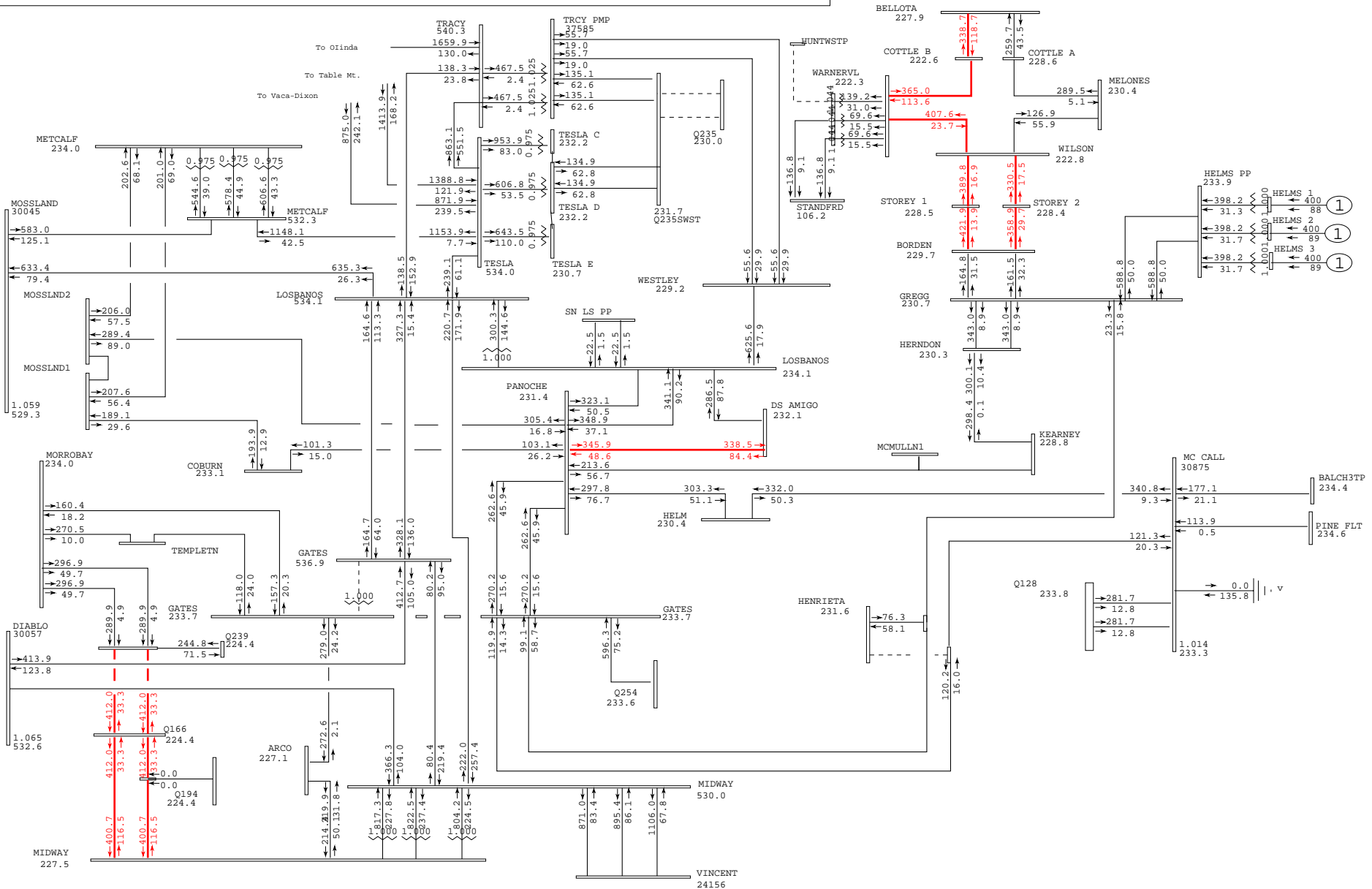


PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Spring Peak Post-Project FY

Plot 92-Outage: Cressey 115-kV Tap

amps/rate  
 gfred2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:43:22 2008 2013sprpk\_q299\_pre.sav

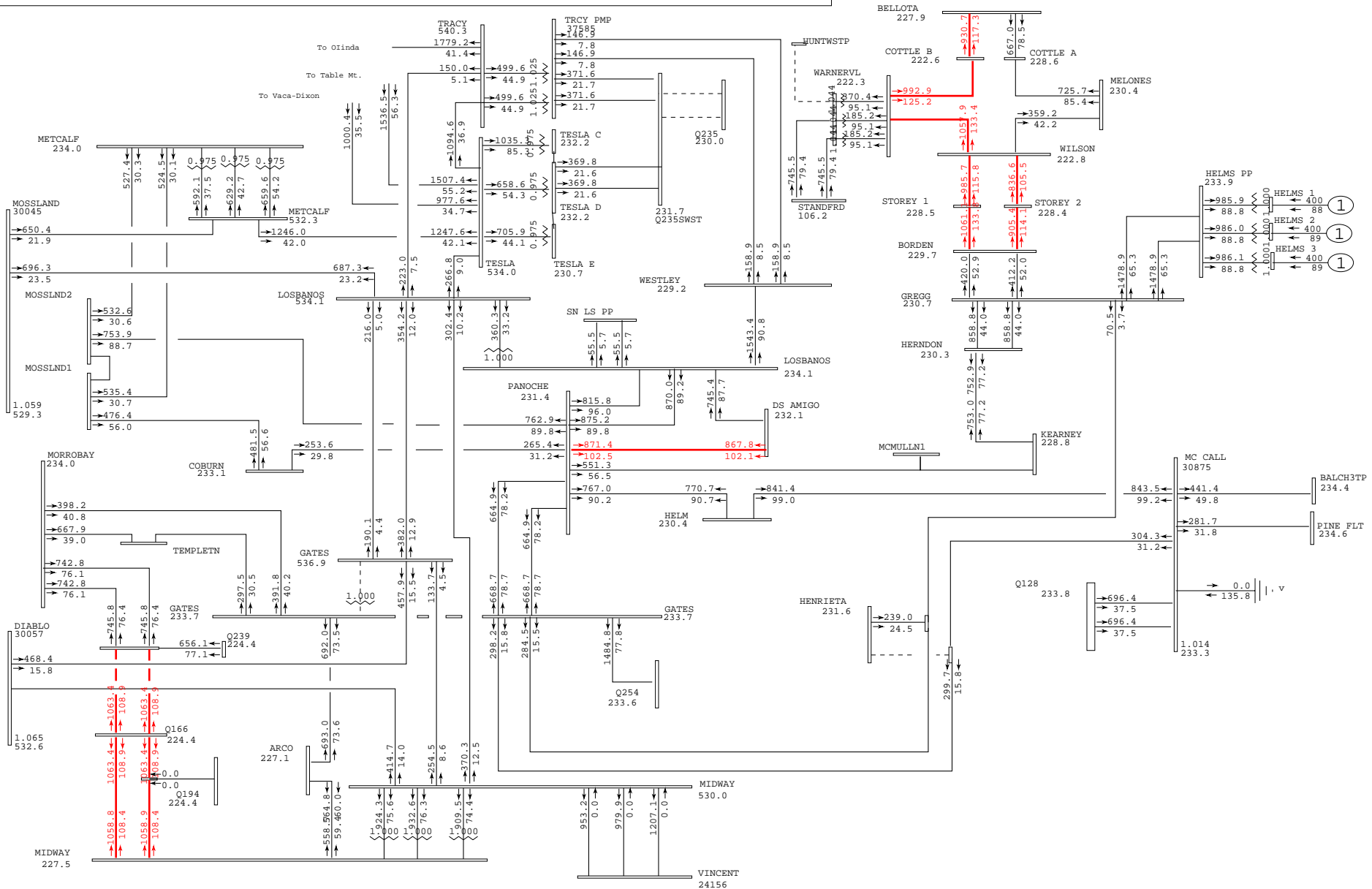


PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford - 2013 Spring Peak Pre-Project

Plot 93-Outage: Gates 500/230-kV Bk #11

MW/MVAR  
 gfred2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System

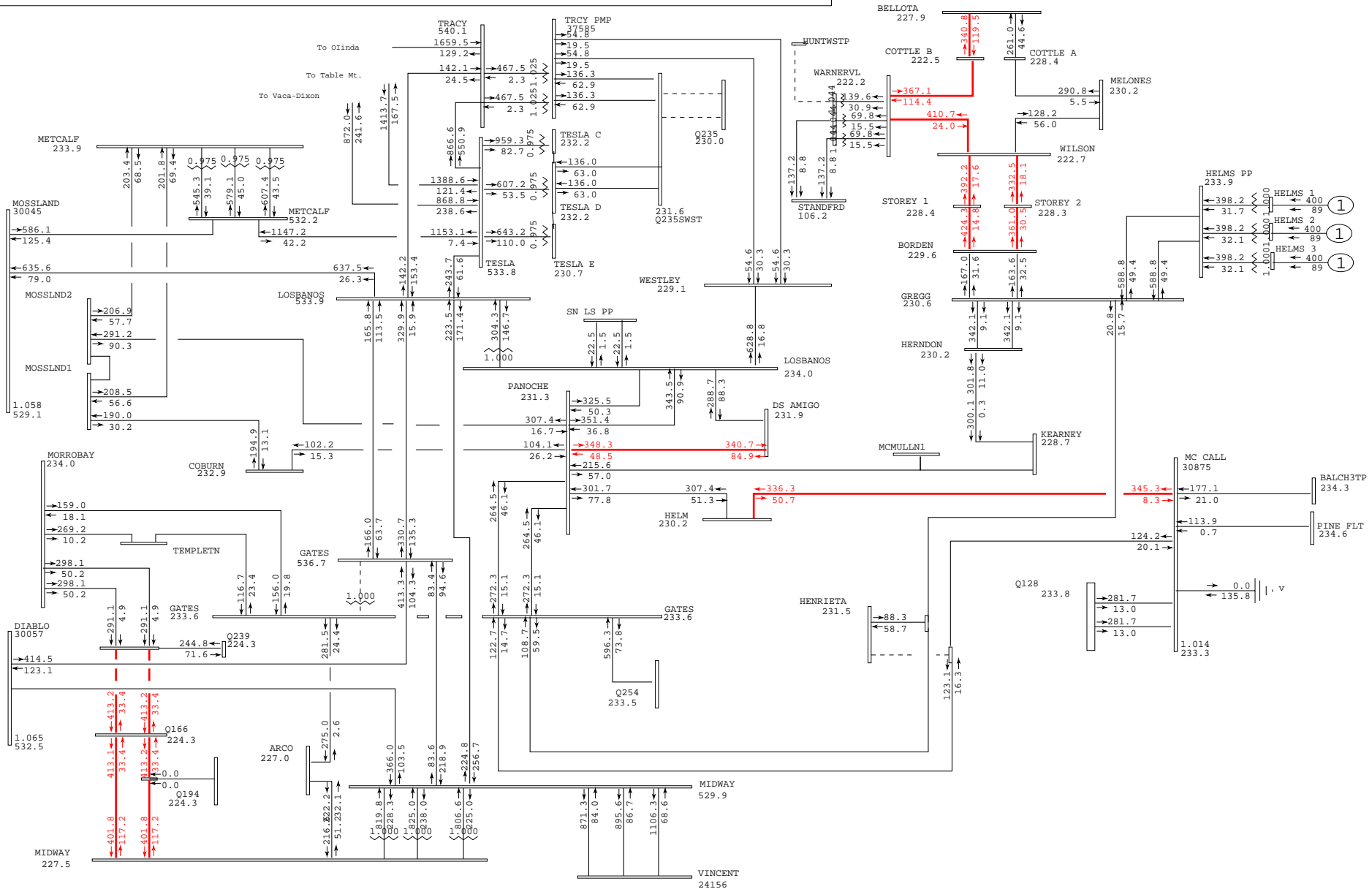


PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford - 2013 Spring Peak Pre-Project

Plot 94-Outage: Gates 500/230-kV Bk #11

amps/rate  
 gfred2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:43:25 2008 2013sprpk\_q299\_post.sav

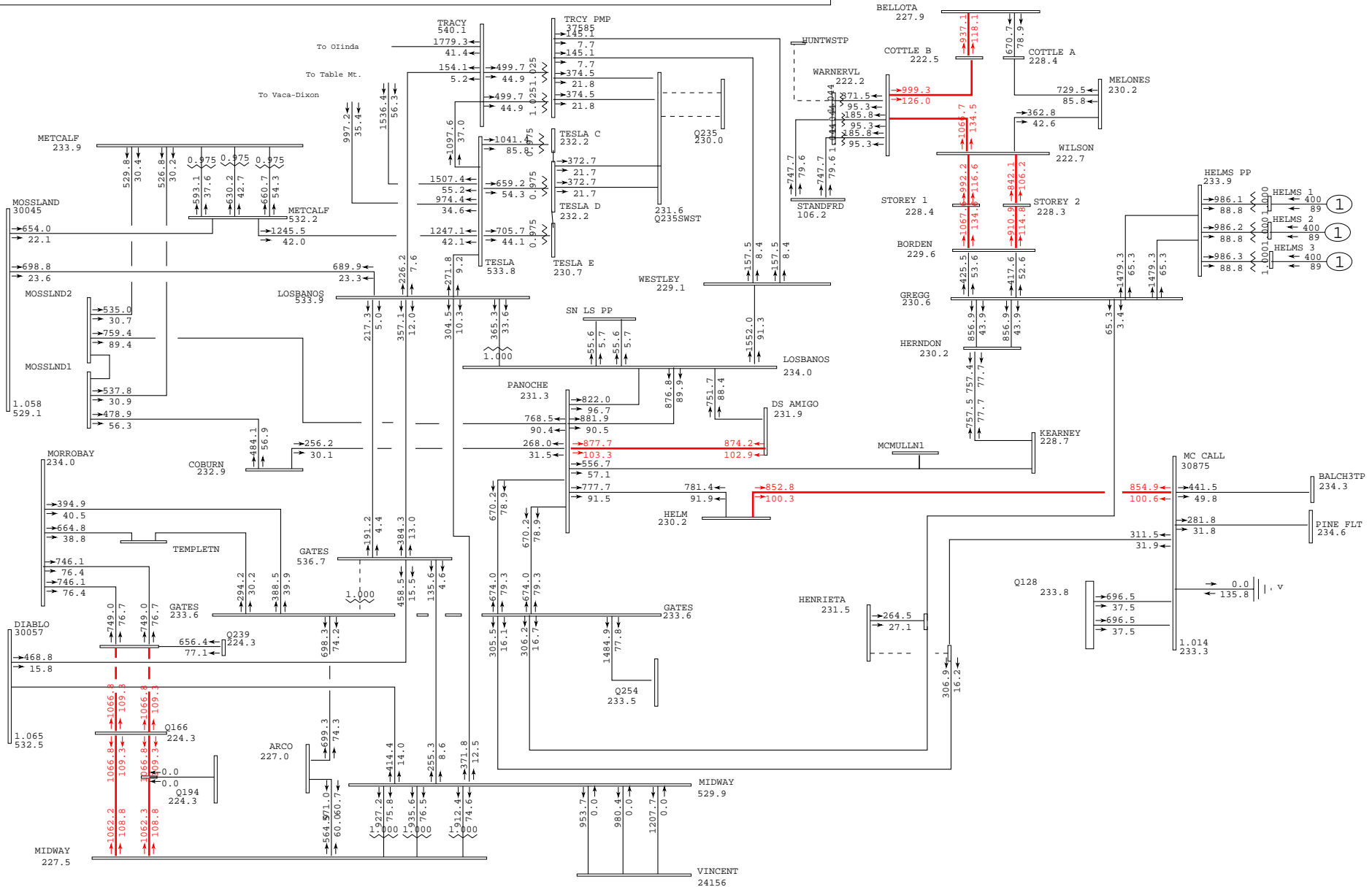


PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Spring Peak Post-Project FY

Plot 95-Outage: Gates 500/230-kV Bk #11

MW/MVAR  
 gfred2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:43:27 2008 2013sprpk\_q299\_post.sav

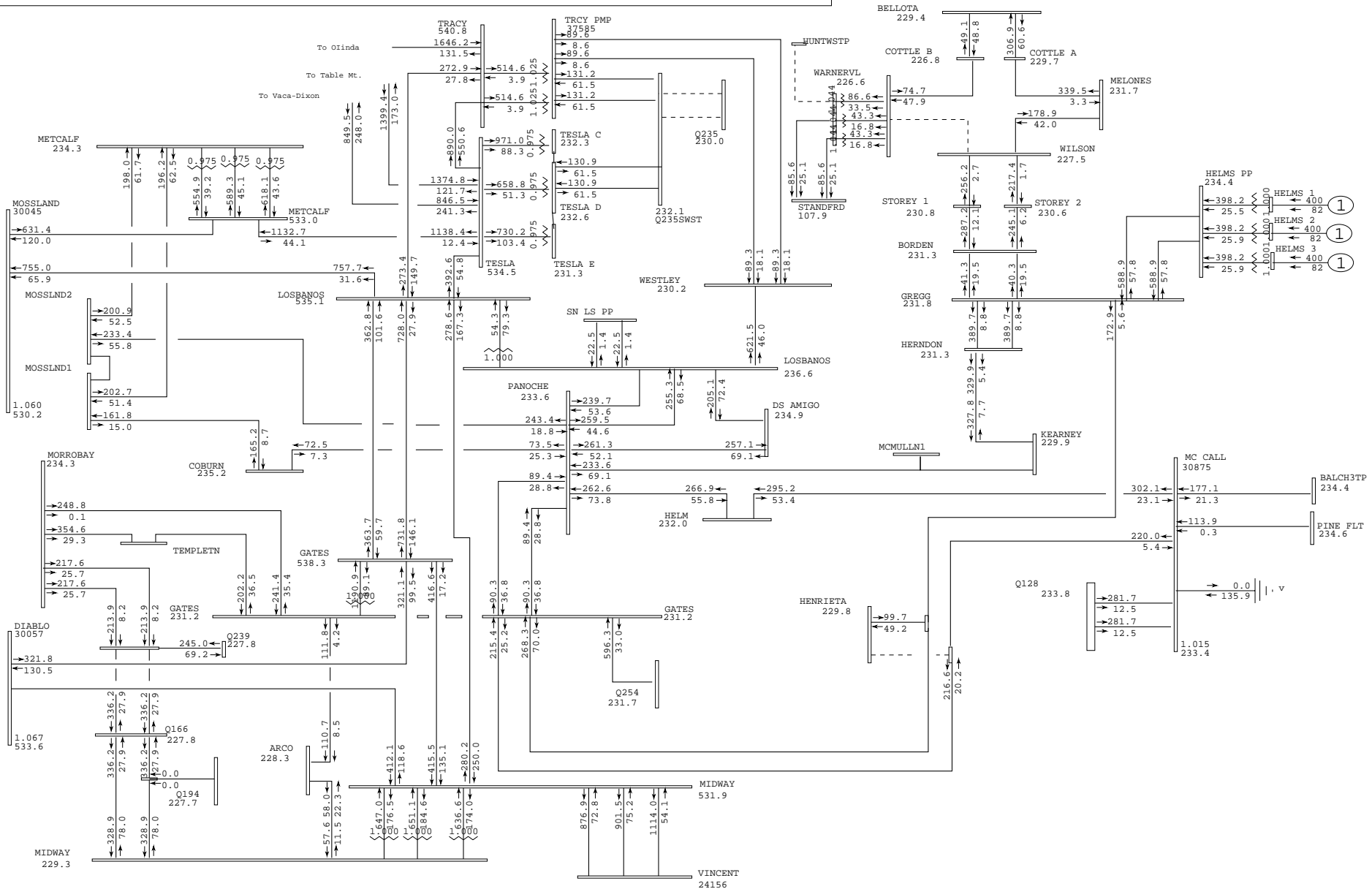


PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Spring Peak Post-Project FY

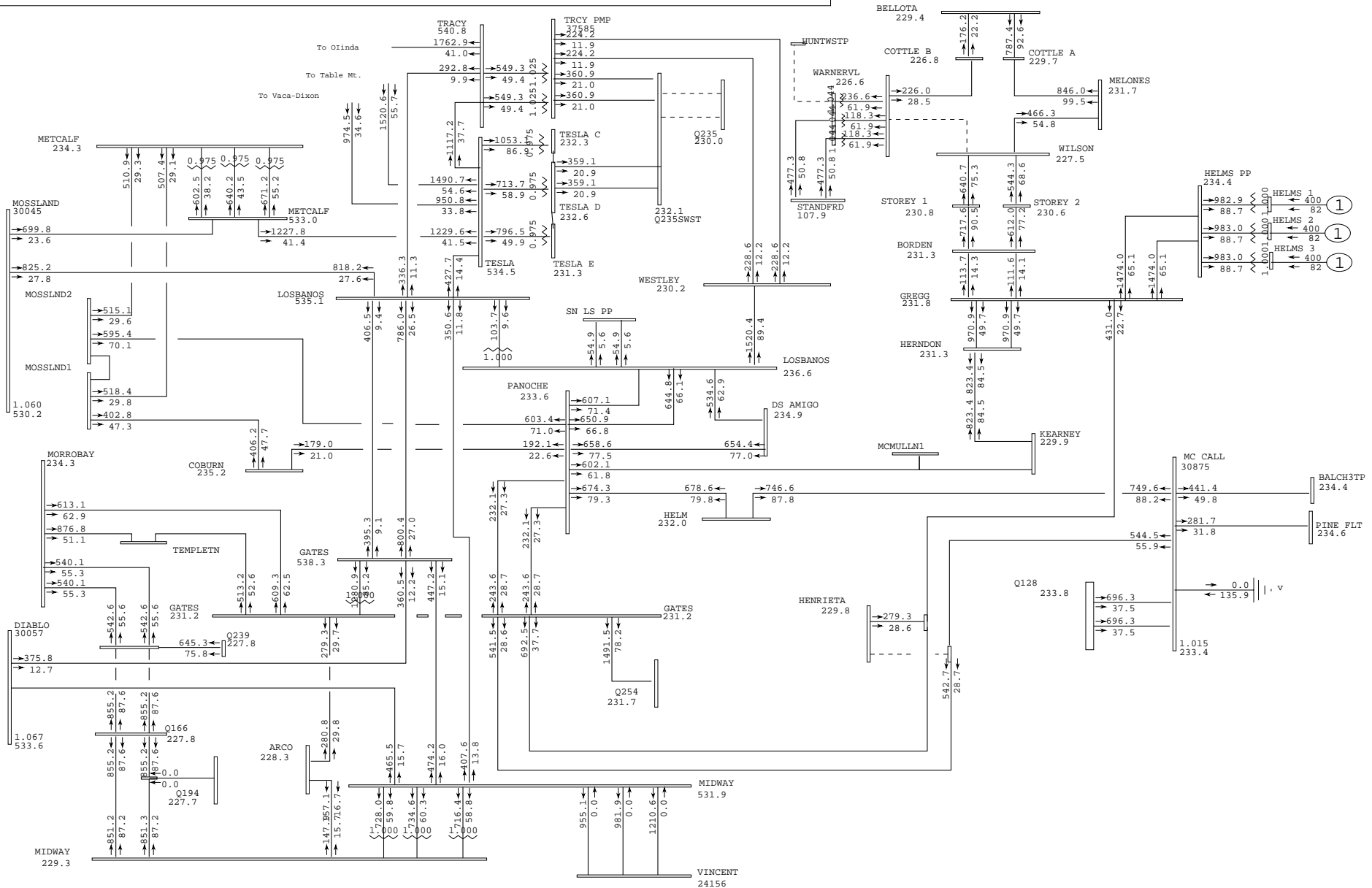
Plot 96-Outage: Gates 500/230-kV Bk #11

amps/rate  
 gfred2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System

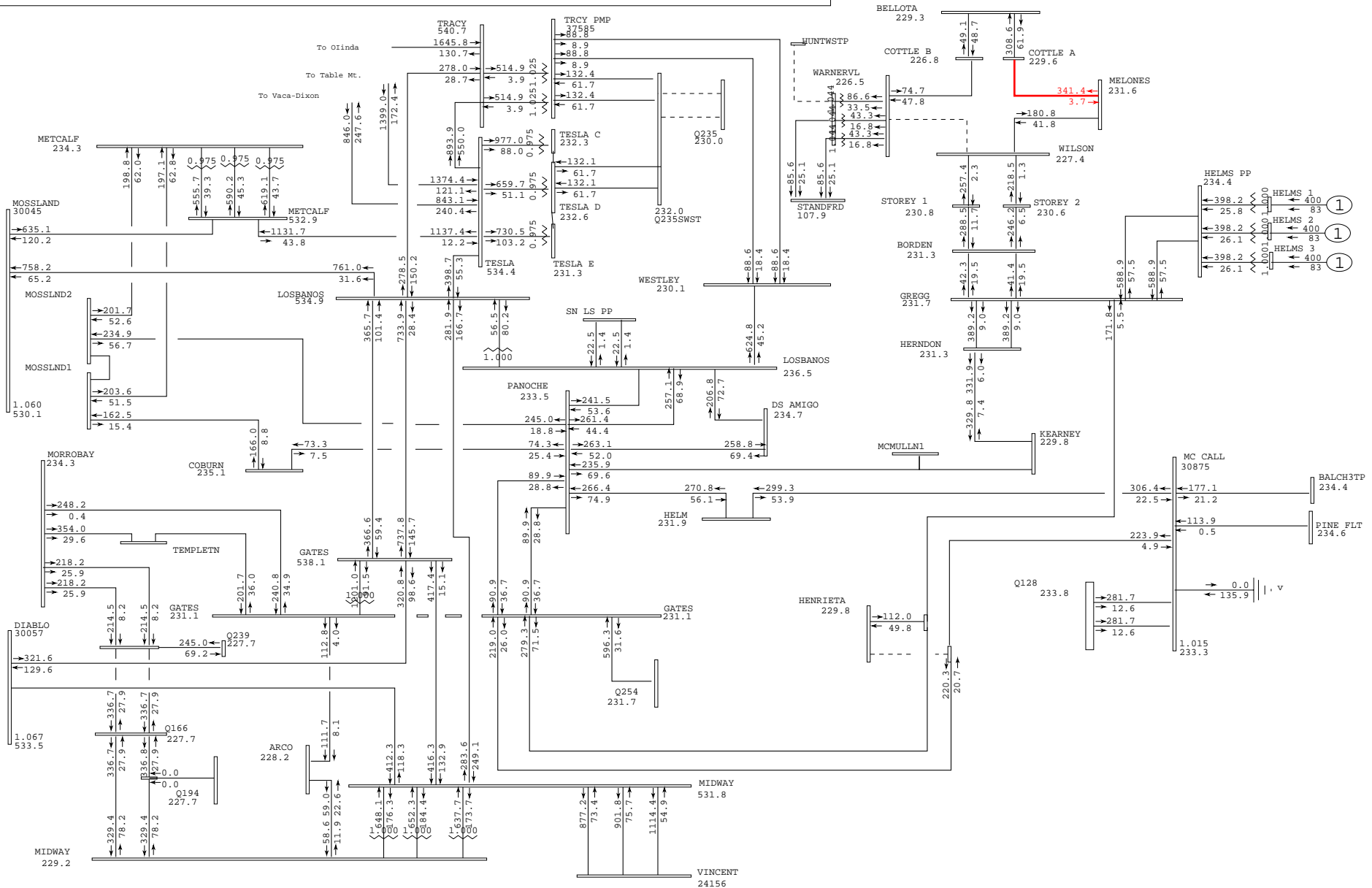


# Greater Fresno 500-kV & 230-kV System





# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:43:31 2008 2013sprpk\_q299\_post.sav

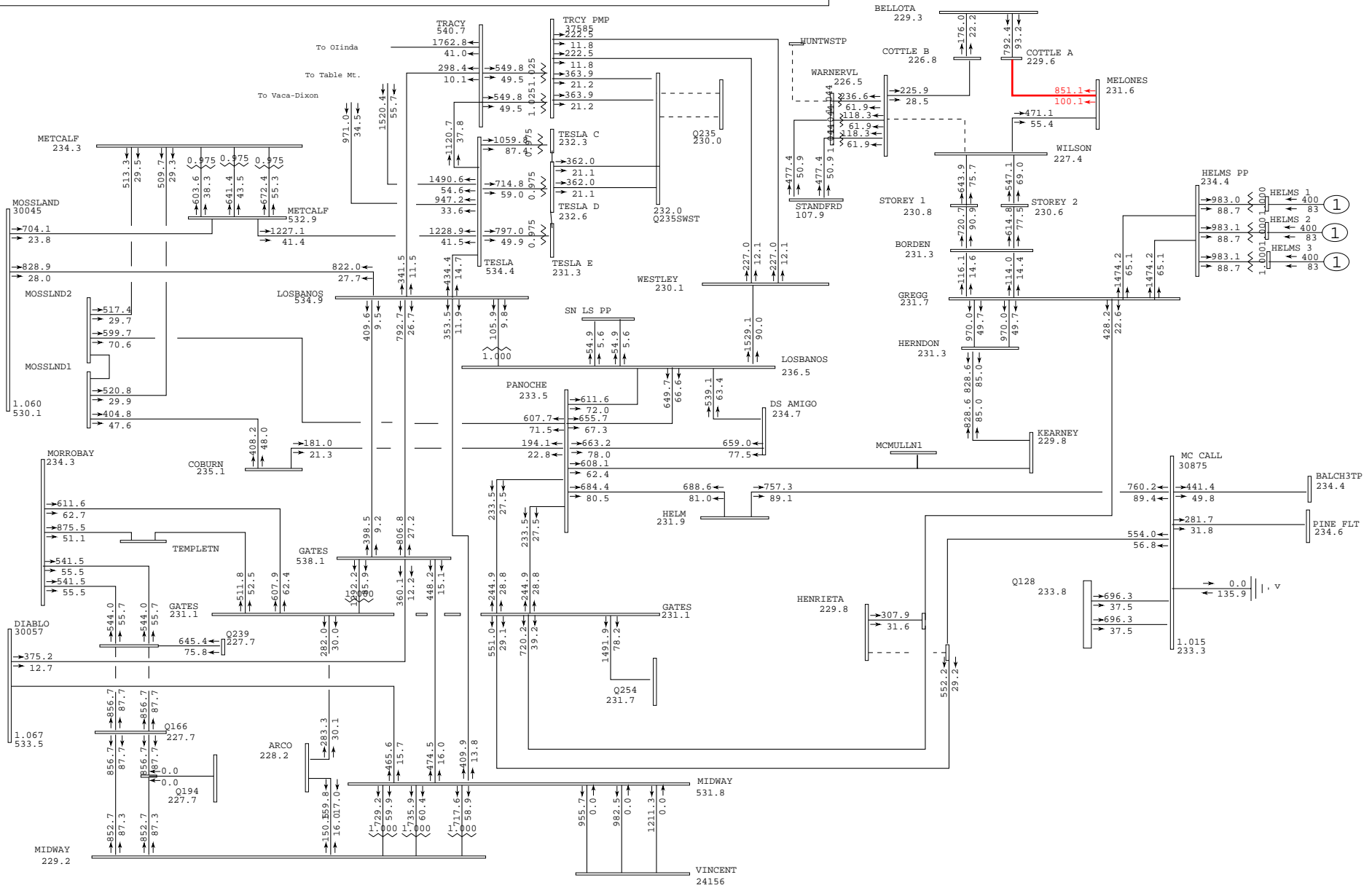


PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Spring Peak Post-Project FY

Plot 99-Outage: Warnerville-Wilson & Exchequer

MW/MVAR  
 gfred2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:43:32 2008 2013sprpk\_q299\_post.sav

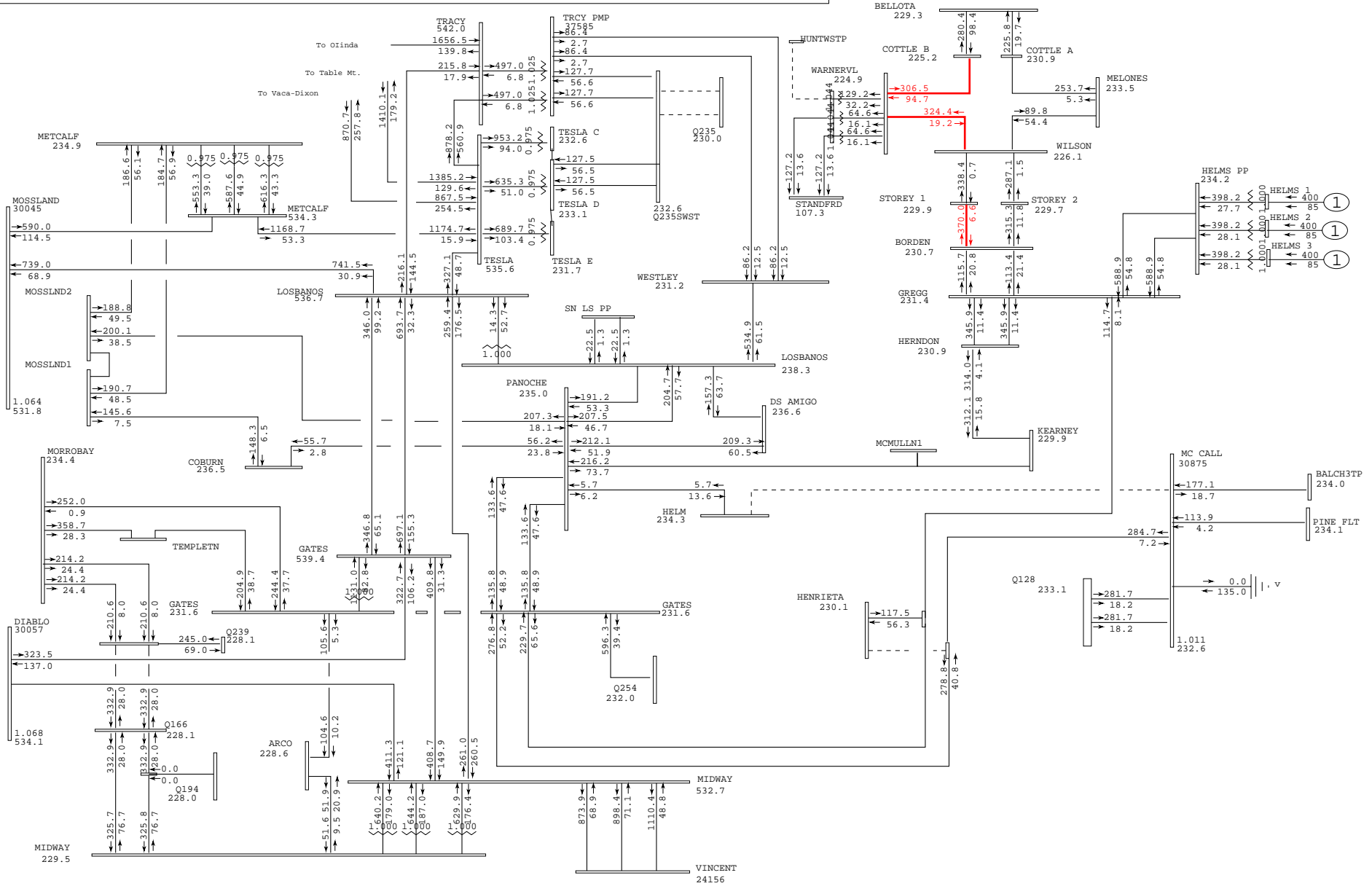


PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Spring Peak Post-Project FY

Plot 100-Outage: Warnerville-Wilson & Exchequer

amps/rate  
 gfred2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:43:33 2008 2013sprpk\_q299\_pre.sav

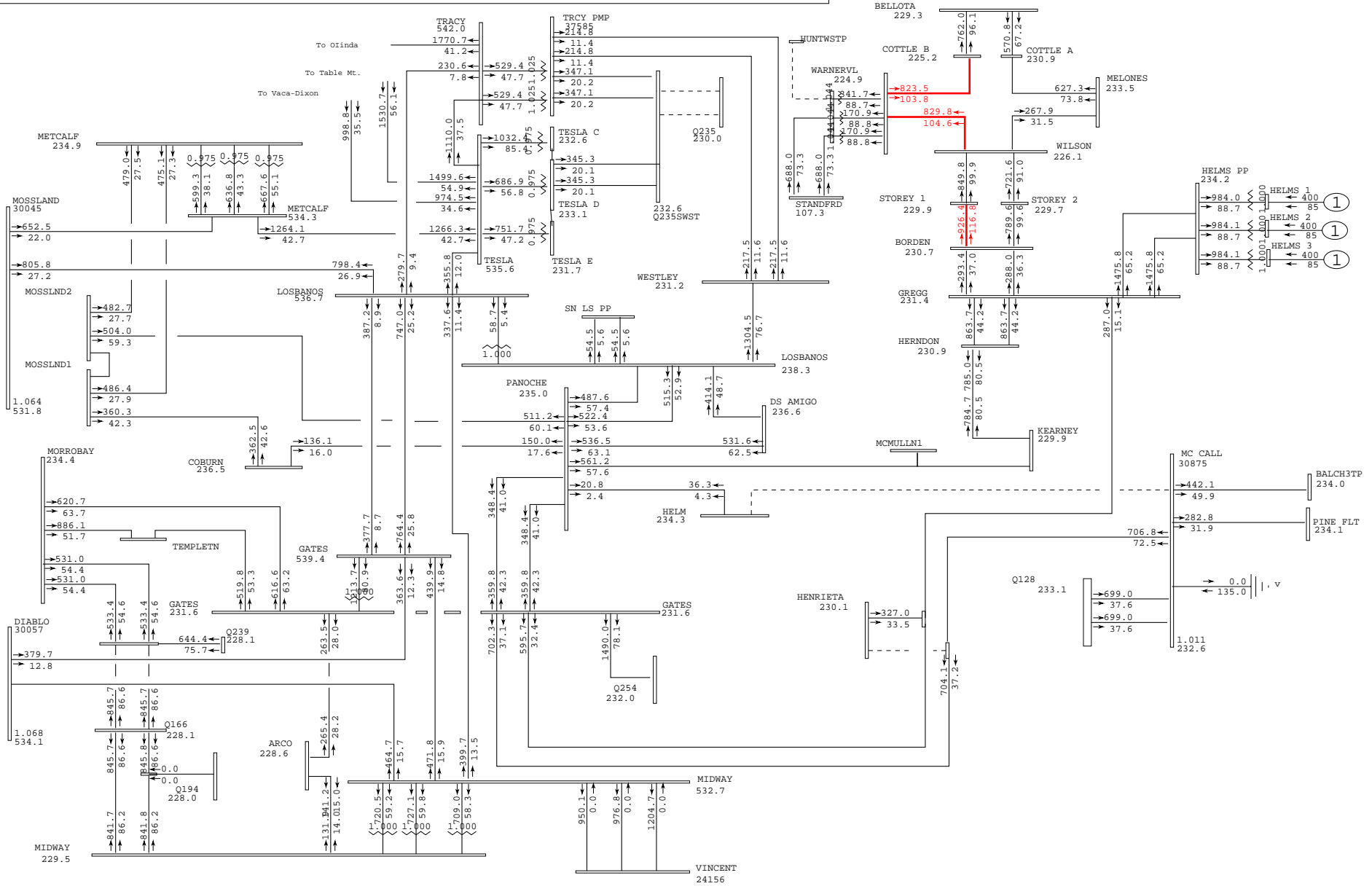


PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford - 2013 Spring Peak Pre-Project

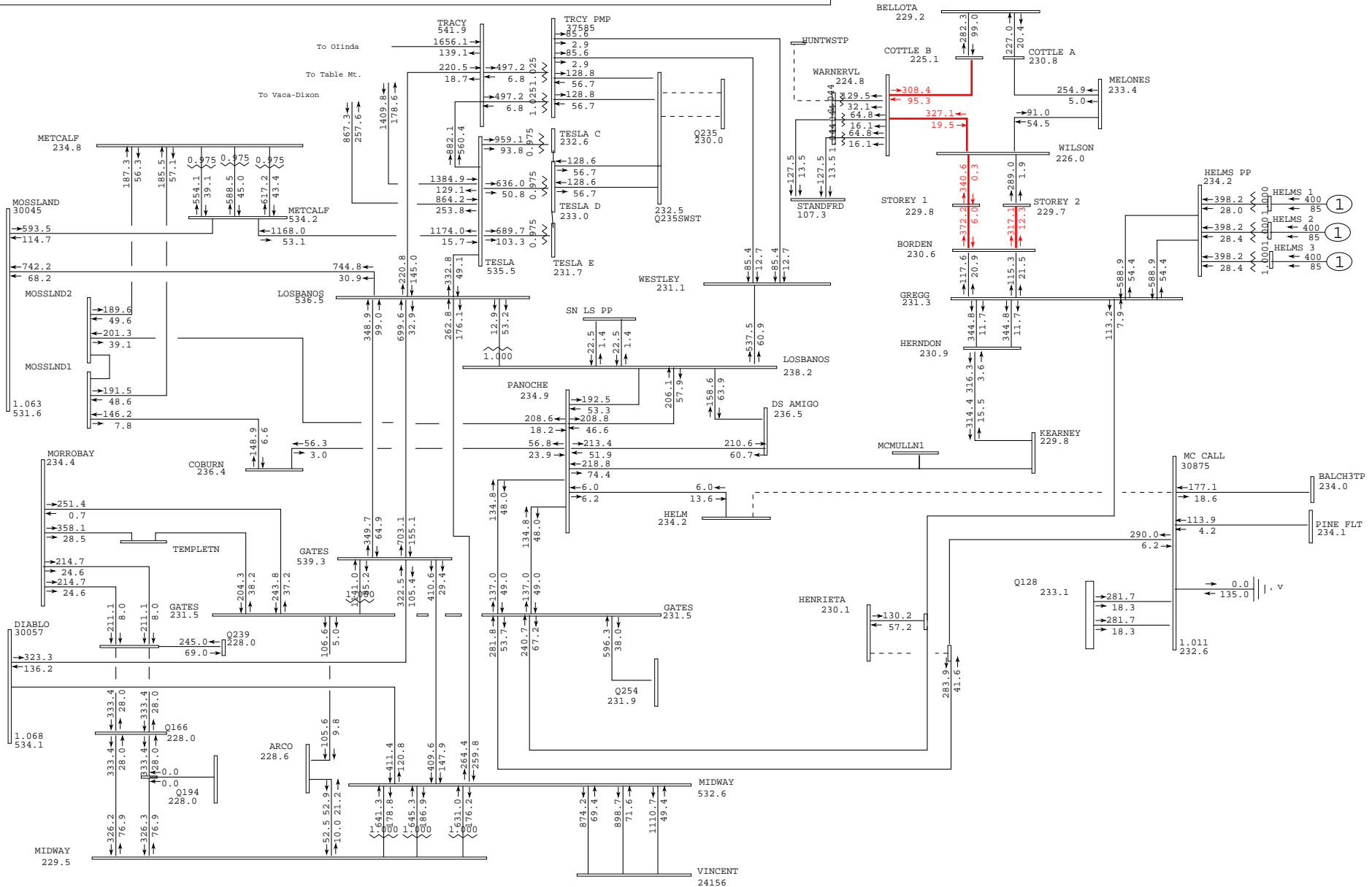
Plot 101-Outage: HelM-McCall & Kerckhoff

MW/MVAR  
 gfred2.drw  
 Rating = 2

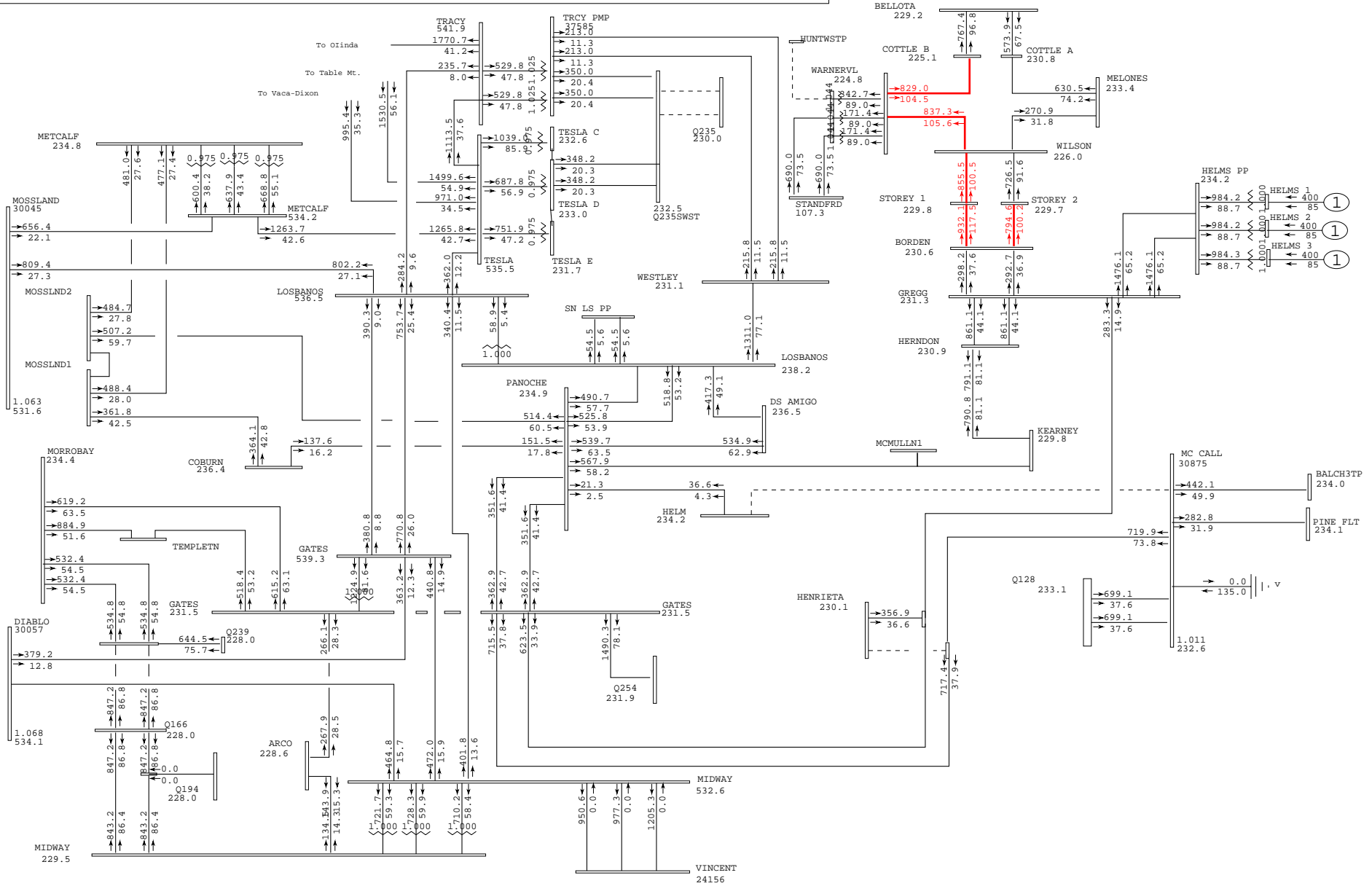
# Greater Fresno 500-kV & 230-kV System



# Greater Fresno 500-kV & 230-kV System



# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:43:38 2008 2013sprpk\_q299\_post.sav

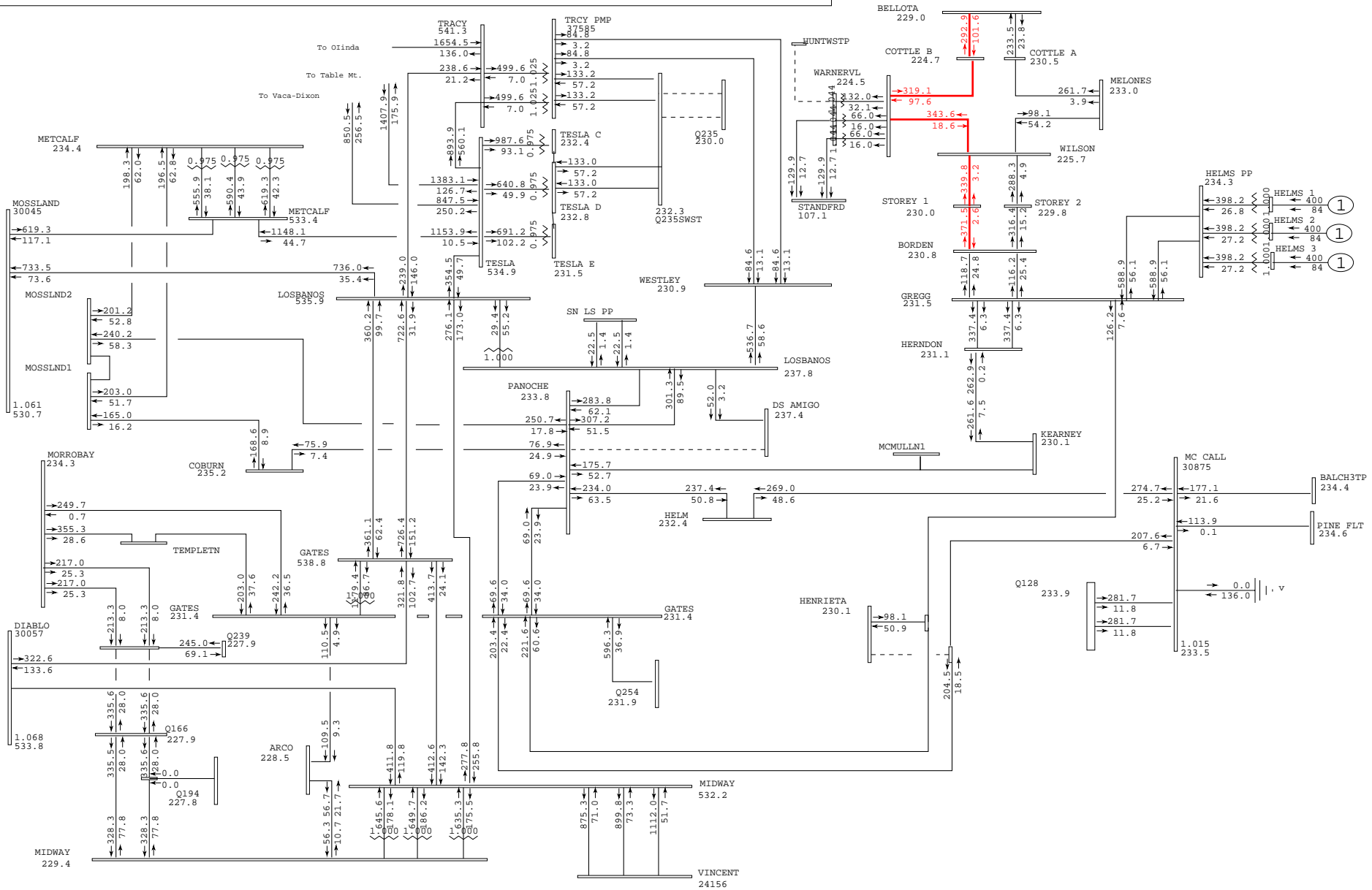


PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Spring Peak Post-Project FY

Plot 104-Outage: HelM-McCall & Kerckhoff

amps/rate  
 gfred2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:43:39 2008 2013sprpk\_q299\_pre.sav

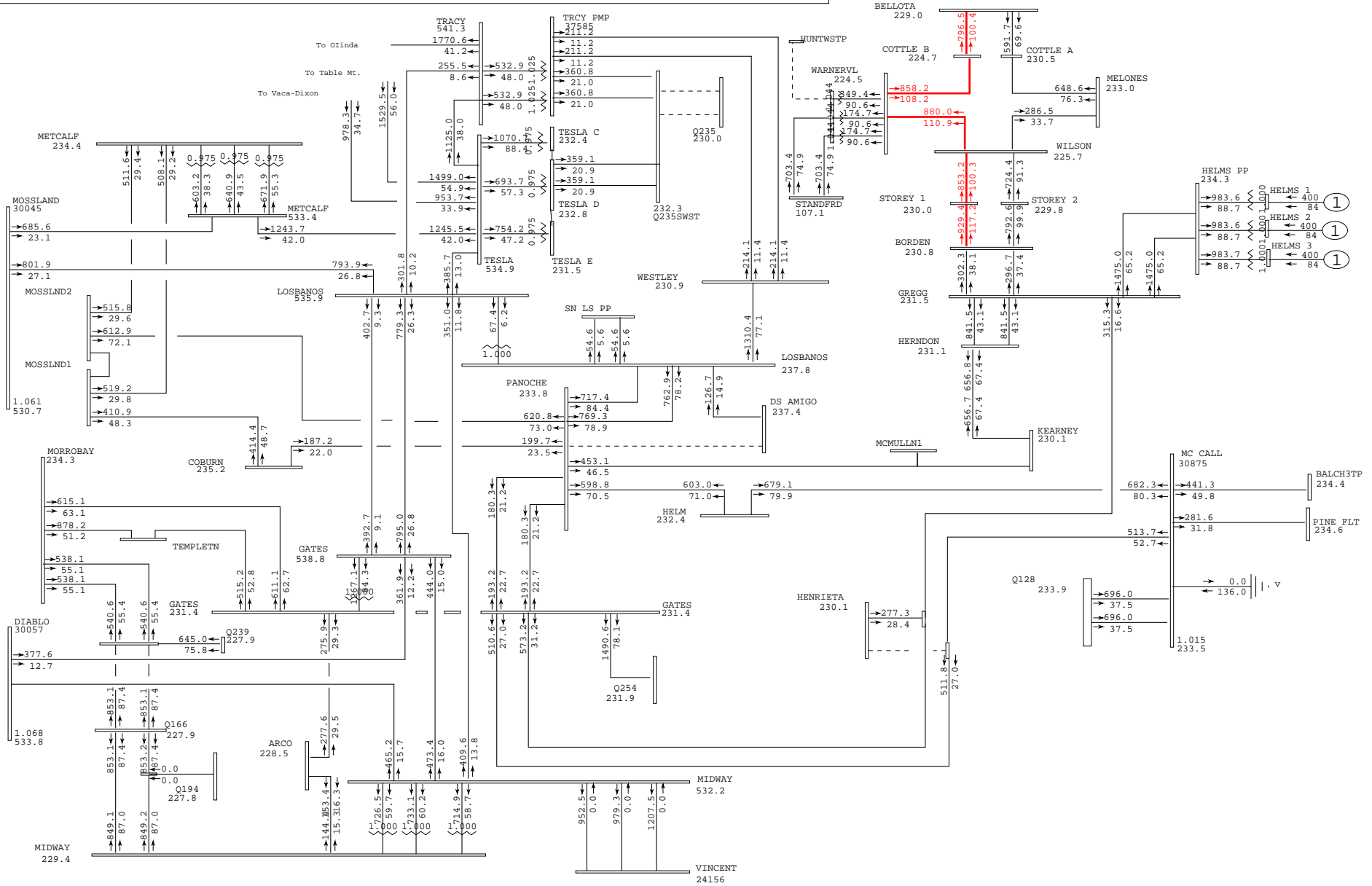


PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford - 2013 Spring Peak Pre-Project

Plot 105-Outage: Panoche-Dos Amigos 230-kV

MW/MVAR  
 gfres2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:43:40 2008 2013sprpk\_q299\_pre.sav



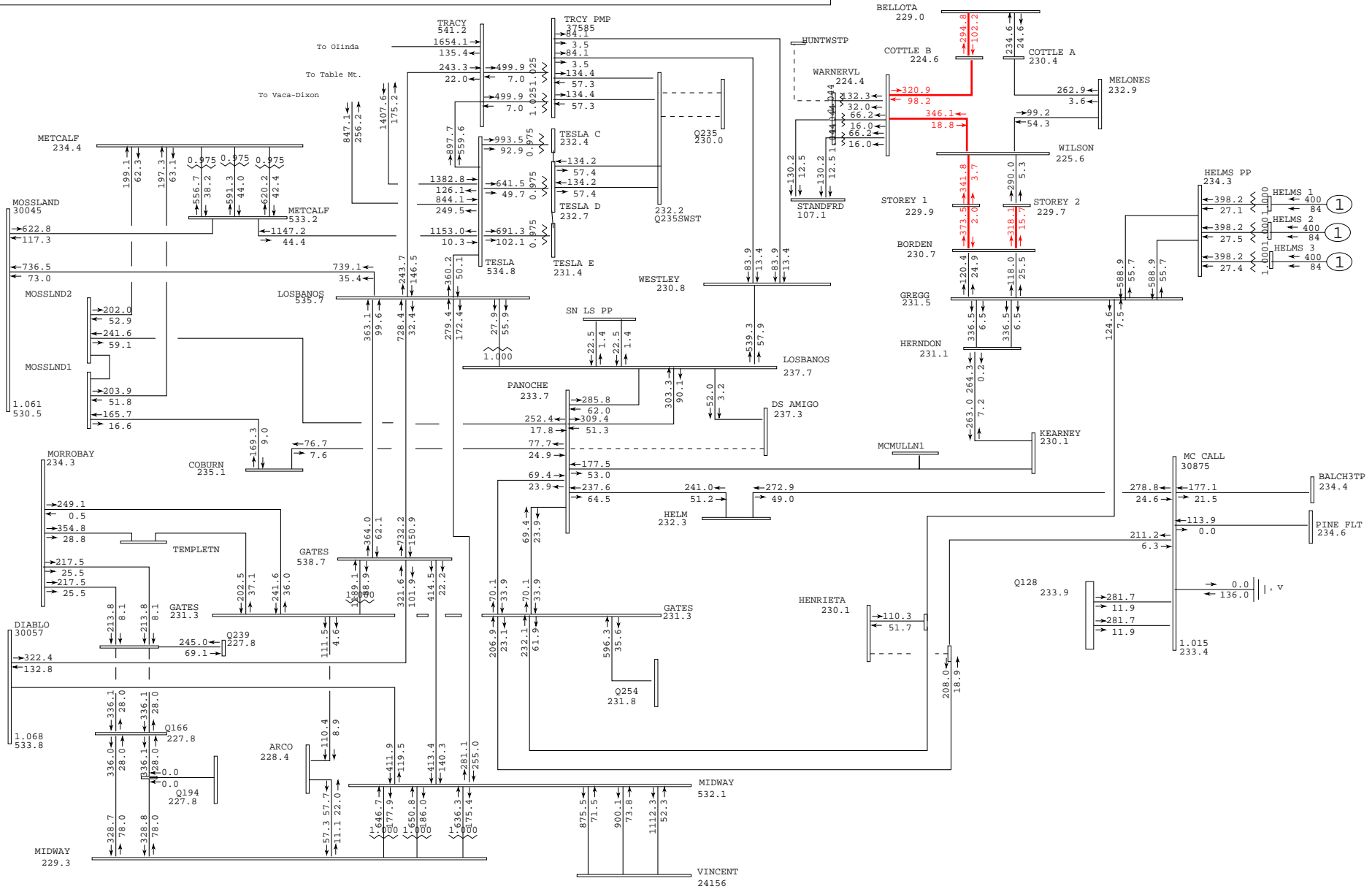
PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford - 2013 Spring Peak Pre-Project

Plot 106-Outage: Panoche-Dos Amigos 230-kV

amps/rate  
 gfred2.drw  
 Rating = 2



# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:43:42 2008 2013sprpk\_q299\_post.sav

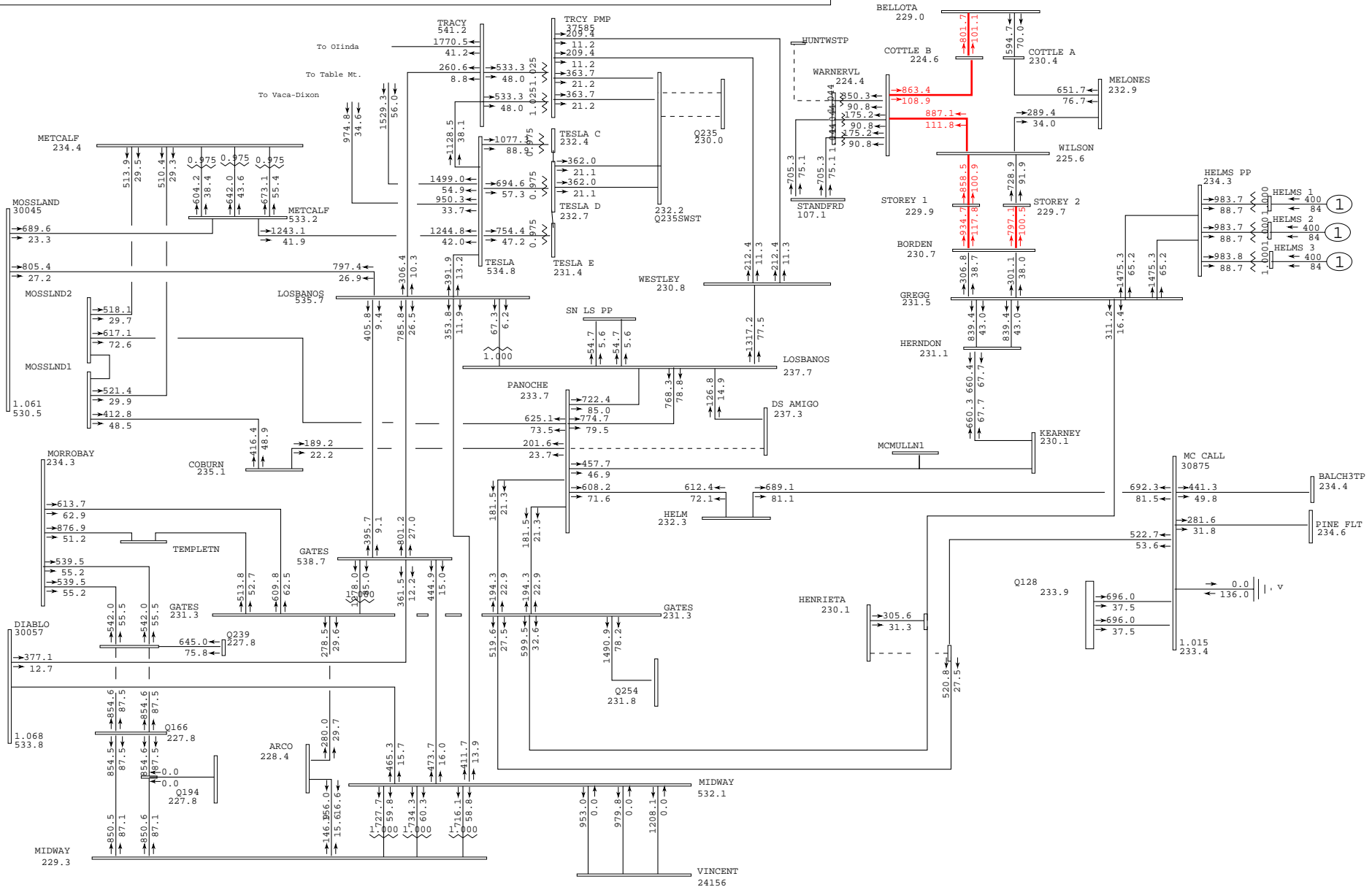


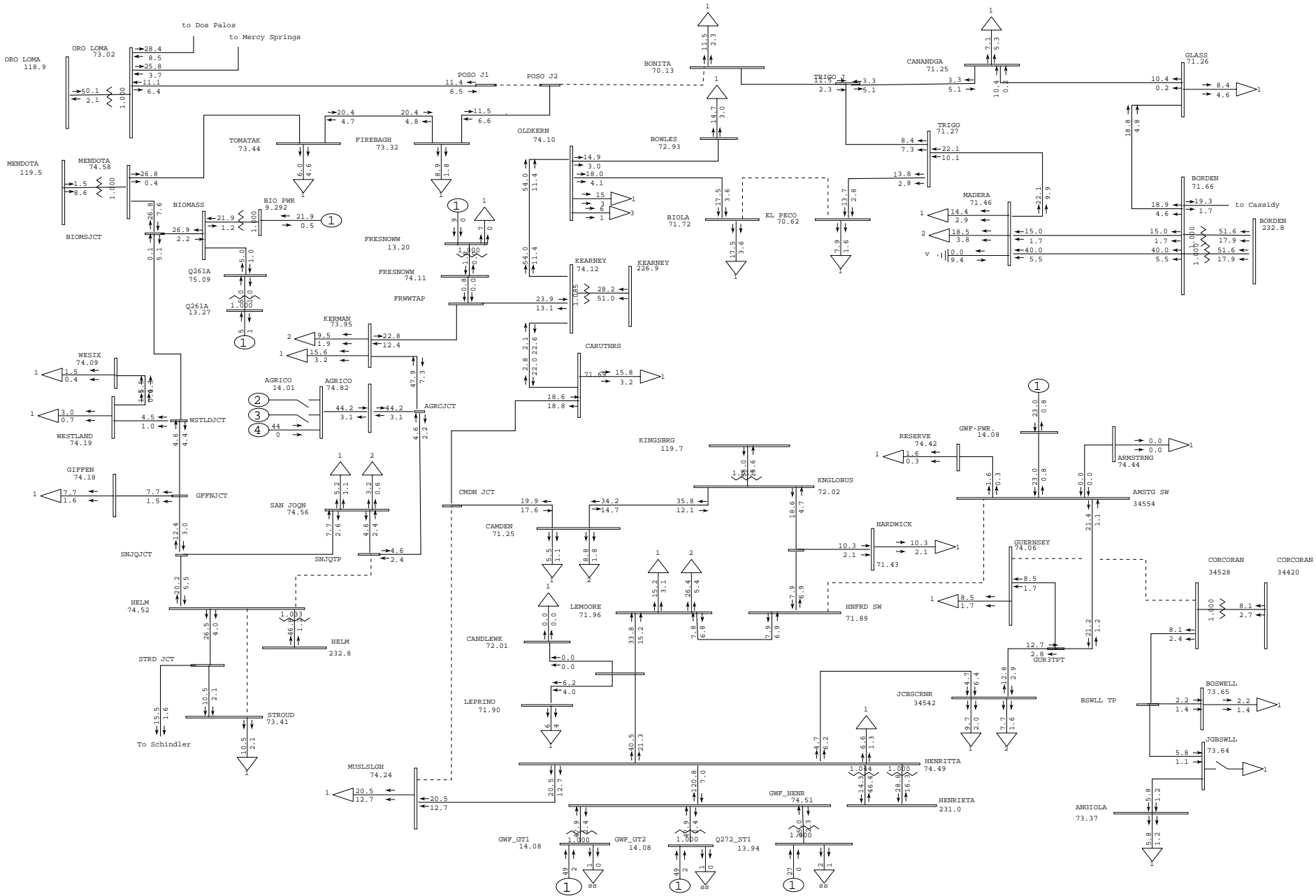
PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Spring Peak Post-Project FY

Plot 107-Outage: Panoche-Dos Amigos 230-kV

MW/MVAR  
 gfred2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System

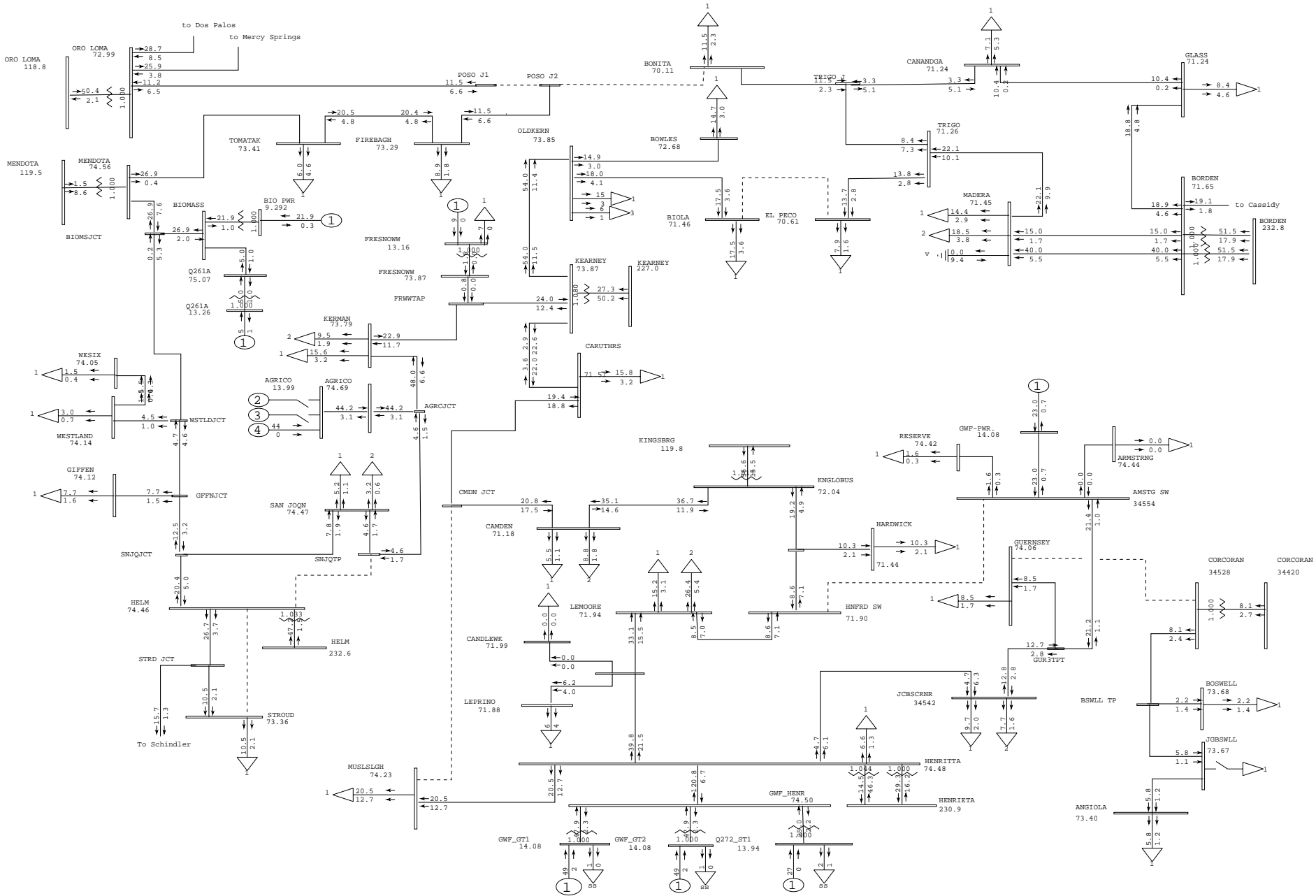




Fresno 70 kV system  
(Central Portion)

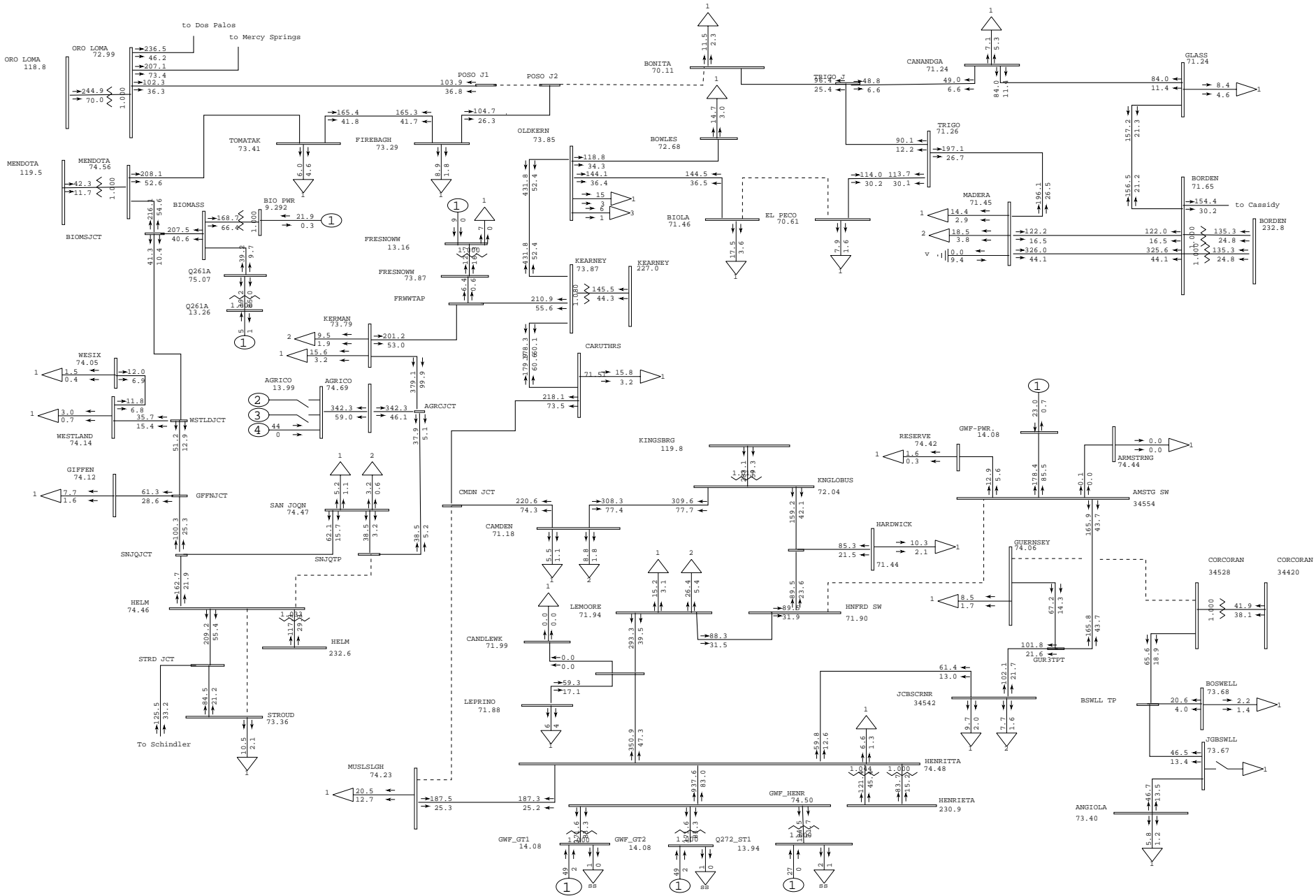







Fresno 70 kV system  
(Central Portion)



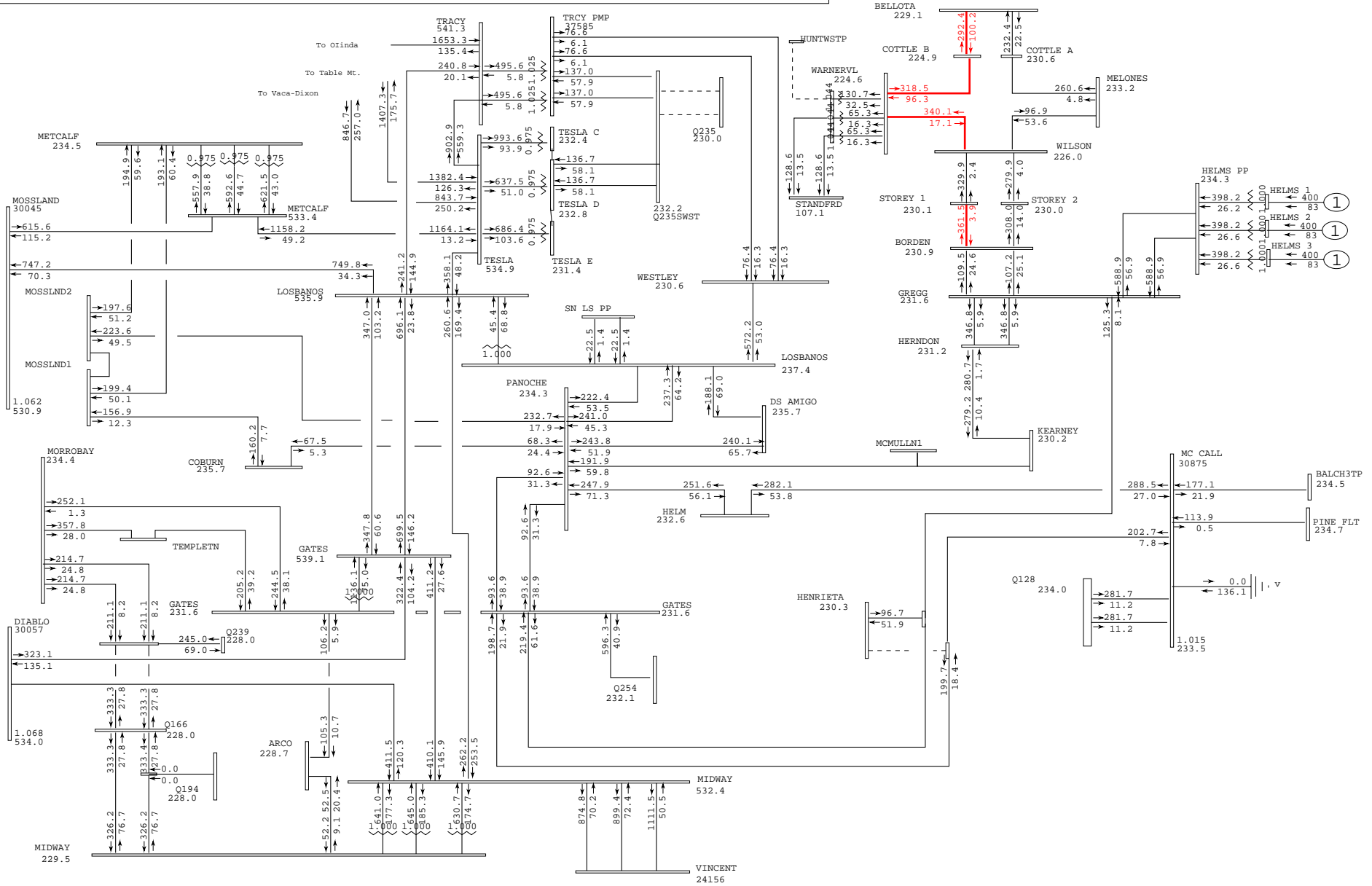


Fresno 70 kV system  
(Central Portion)

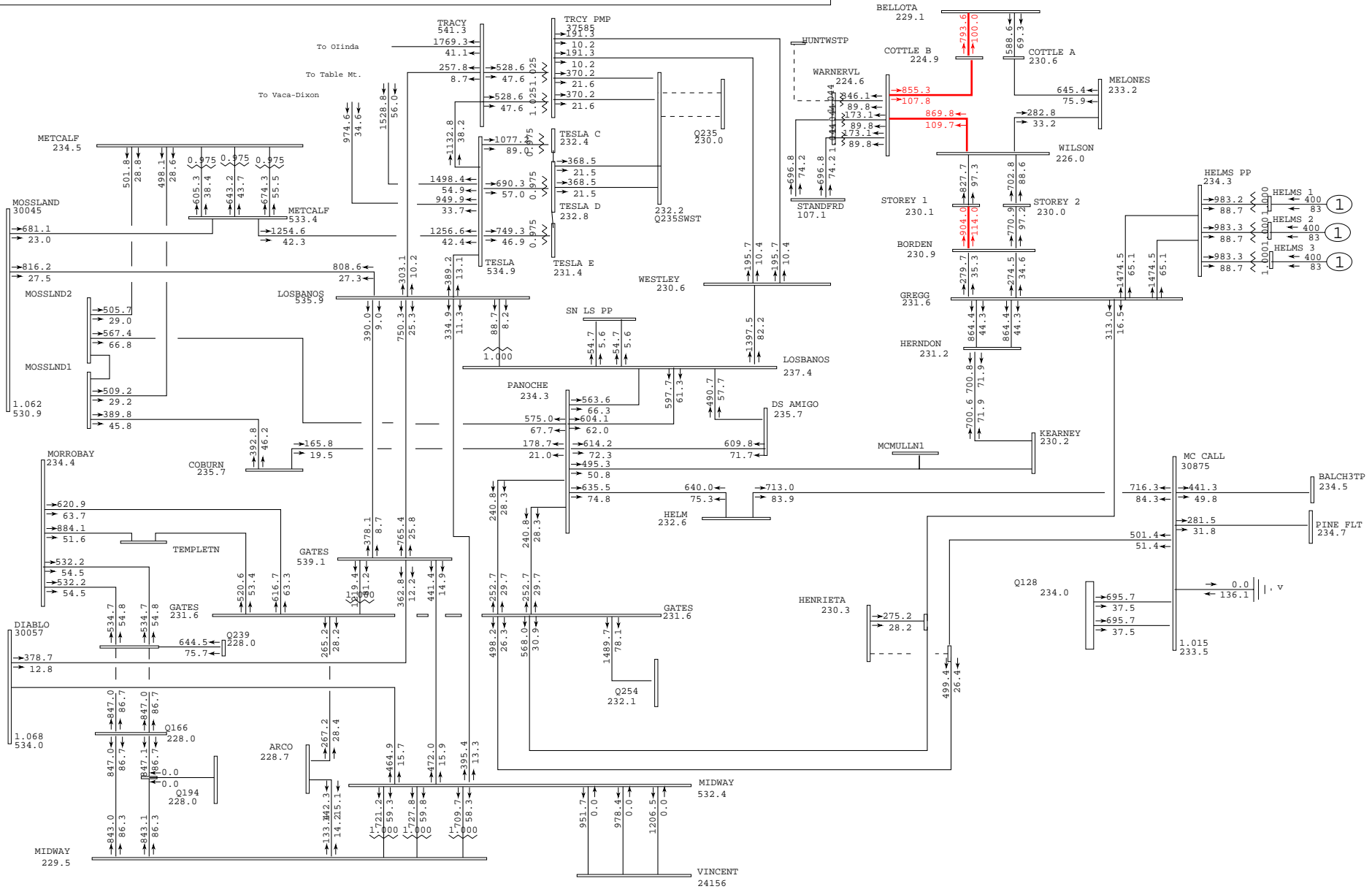
	PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case
	PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)
	Q299 27 MW at GWF Hanford 115 kV - 2013 Spring Peak Post-Project FY

Plot 112-Outage: Herndon-Kearny&Gates-Gregg 230-kV
amps/rate
fres_central_70.drw
Rating = 2

# Greater Fresno 500-kV & 230-kV System



# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:43:53 2008 2013sprpk\_q299\_pre.sav



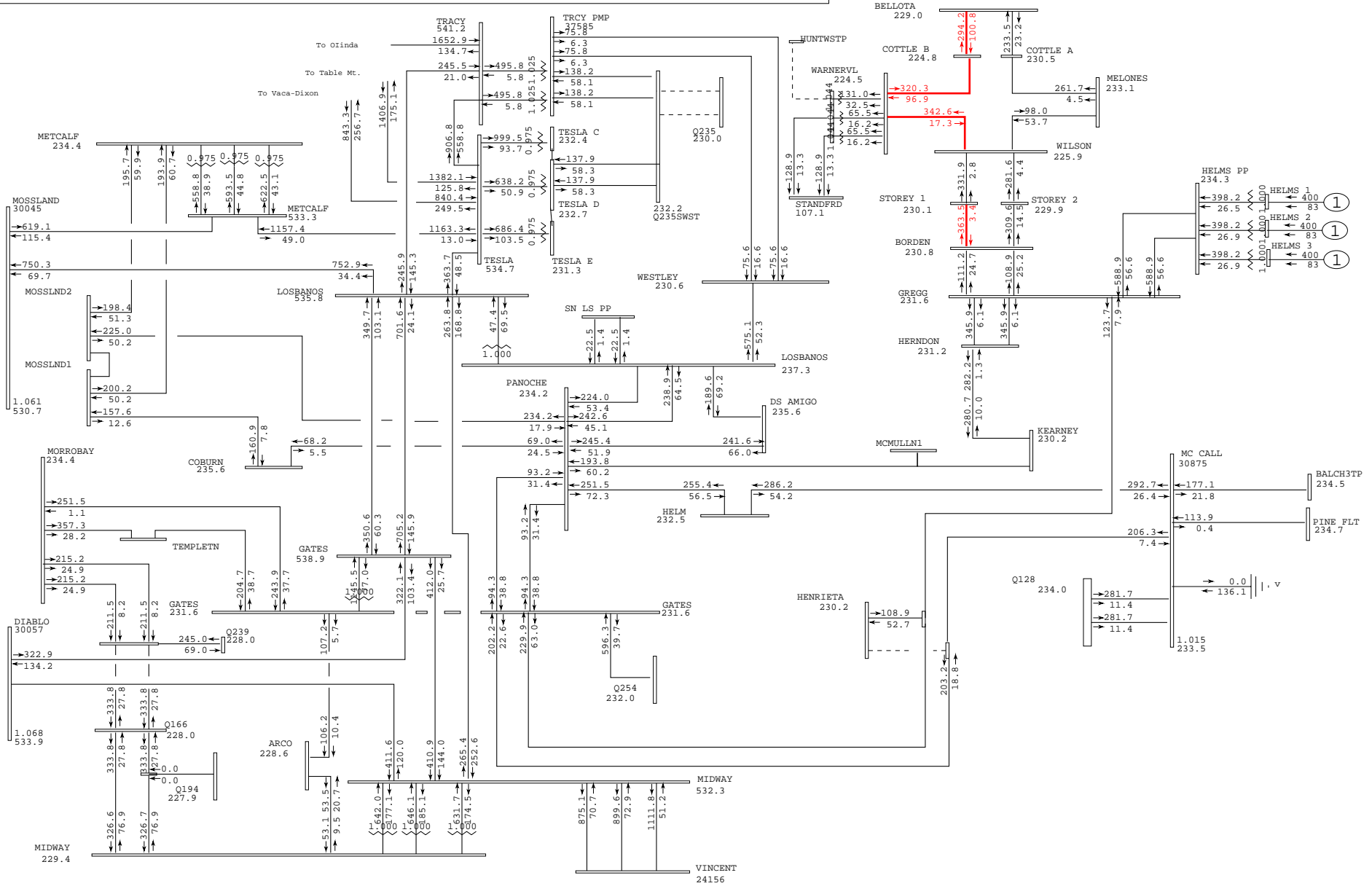
PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford - 2013 Spring Peak Pre-Project

Plot 114-Outage: Dairyland Bus

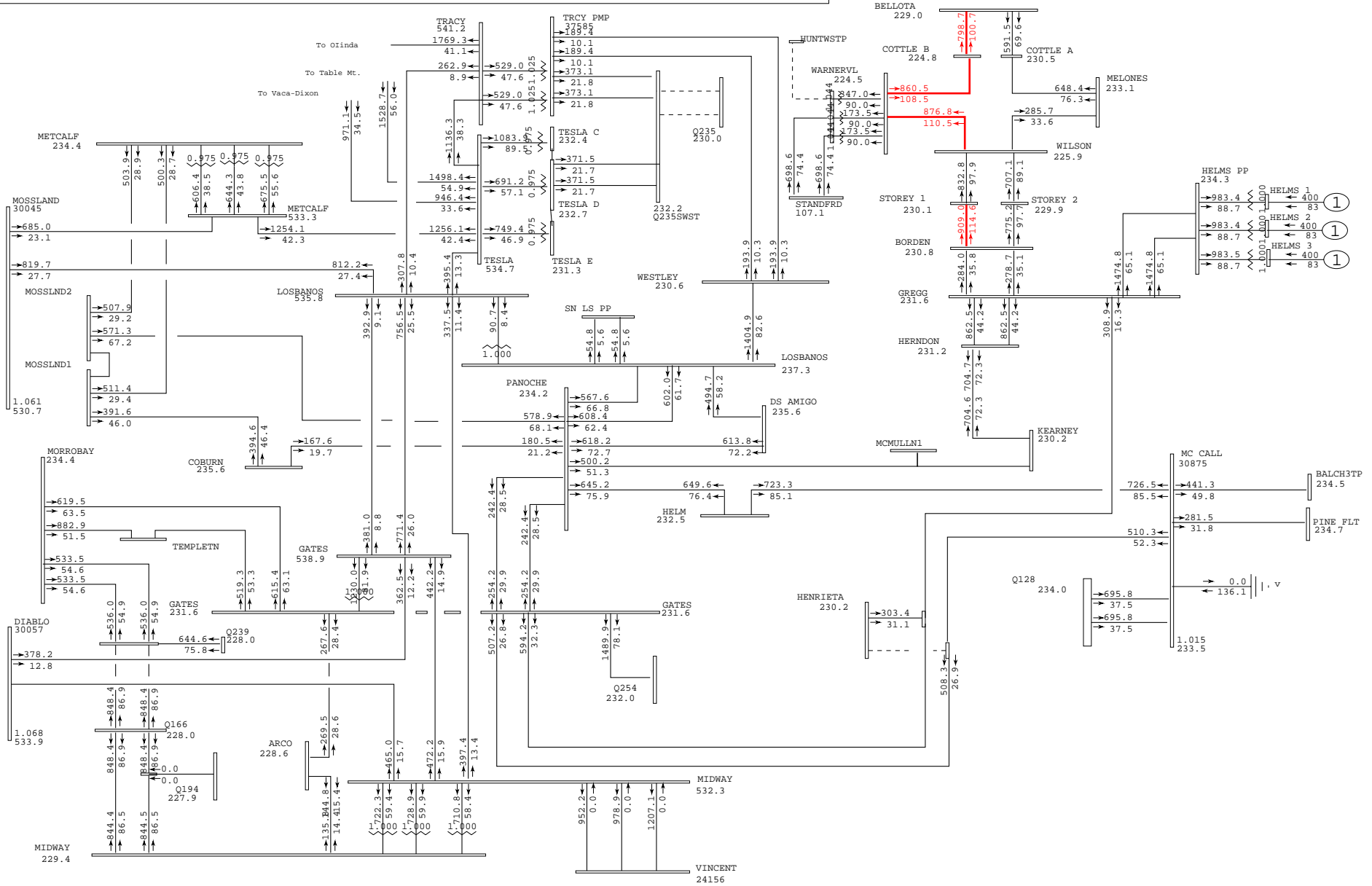
amps/rate  
 gfred2.drw  
 Rating = 2



# Greater Fresno 500-kV & 230-kV System



# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:43:55 2008 2013sprpk\_q299\_post.sav

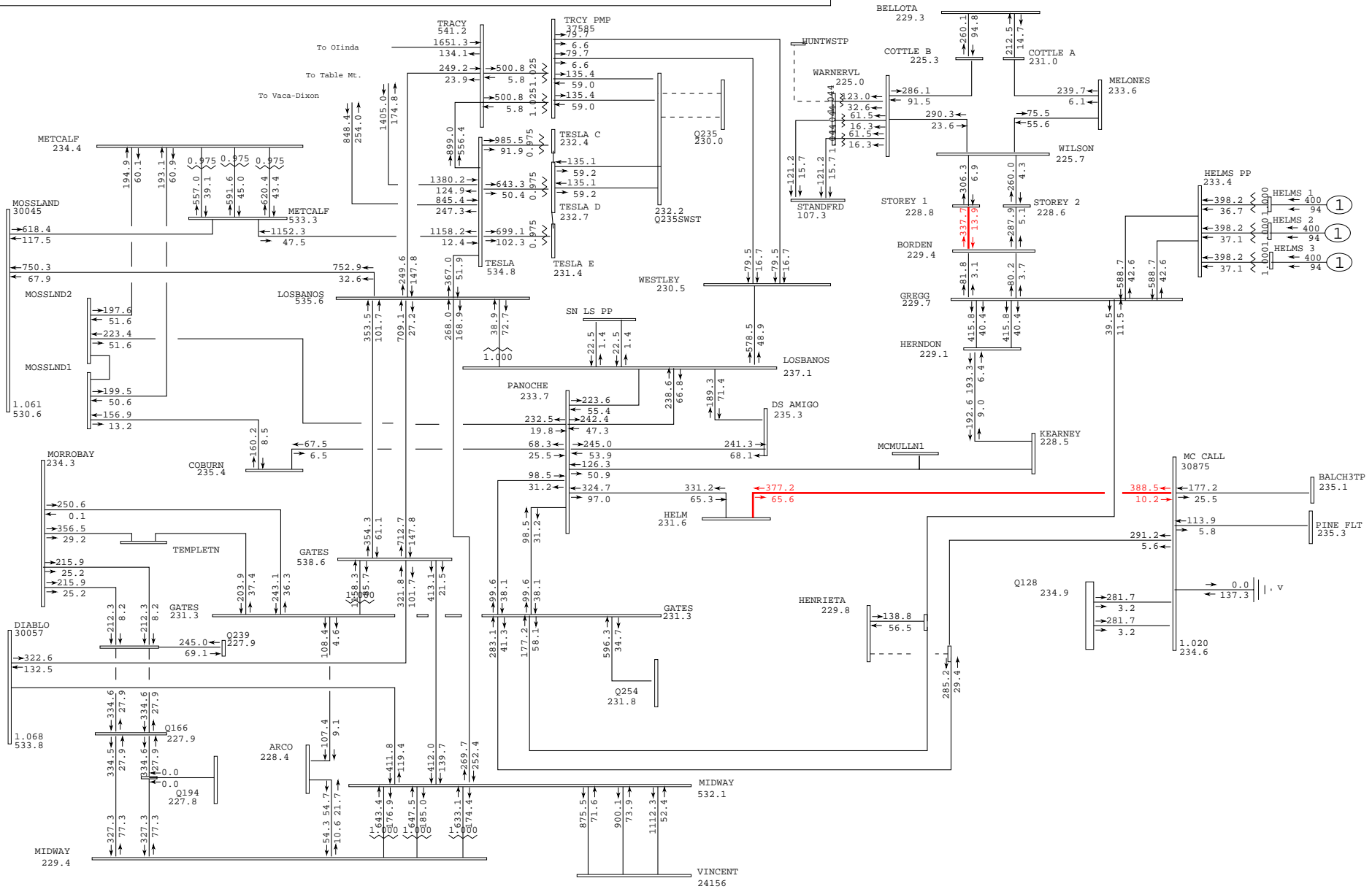


PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Spring Peak Post-Project FY

Plot 116-Outage: Dairyland Bus

amps/rate  
 gfred2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:43:57 2008 2013sprpk\_q299\_pre.sav

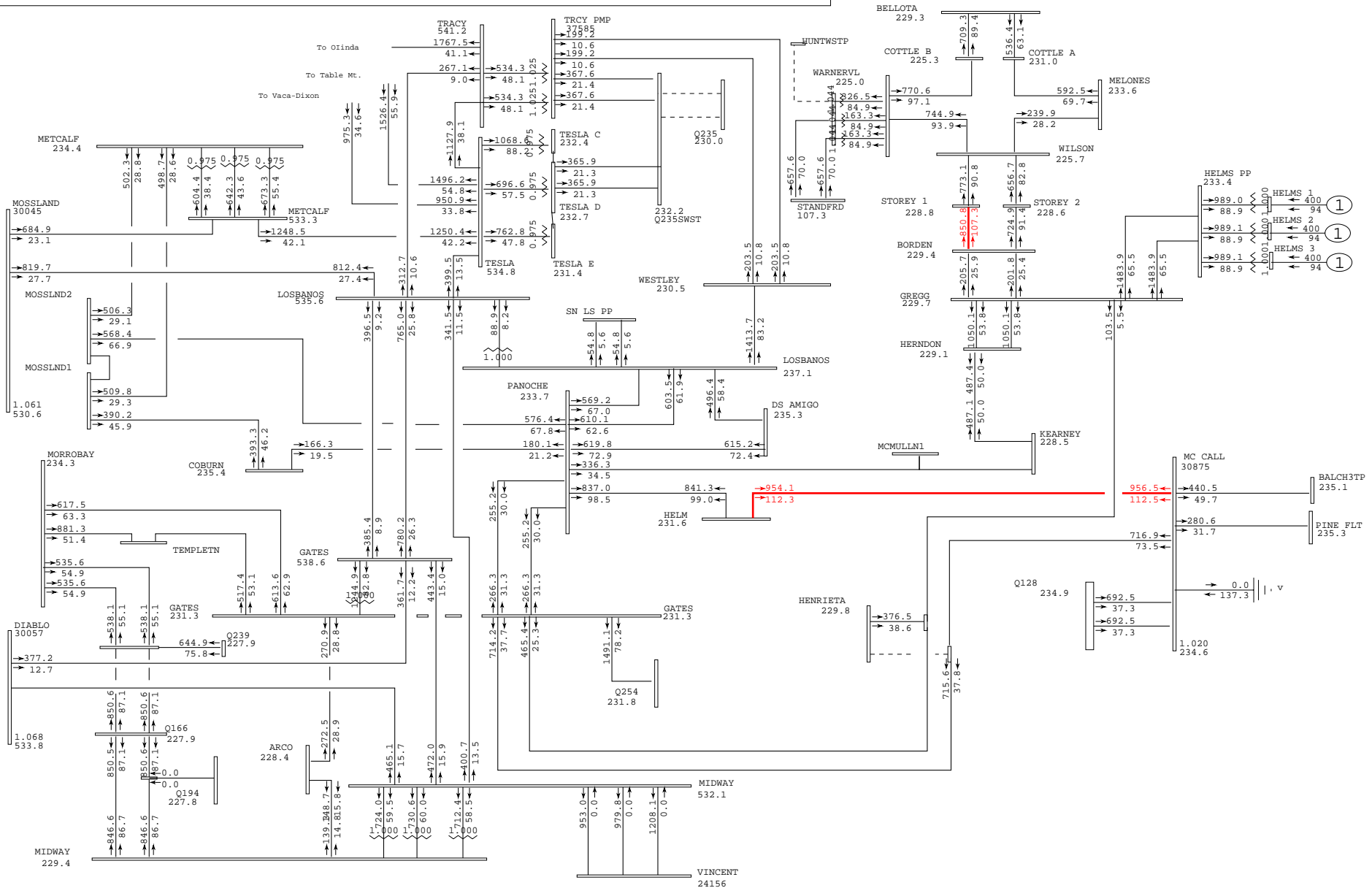


PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford - 2013 Spring Peak Pre-Project

Plot 117-Outage: Sanger 115-kV Bus

MW/MVAR  
 gfred2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:43:59 2008 2013sprpk\_q299\_pre.sav

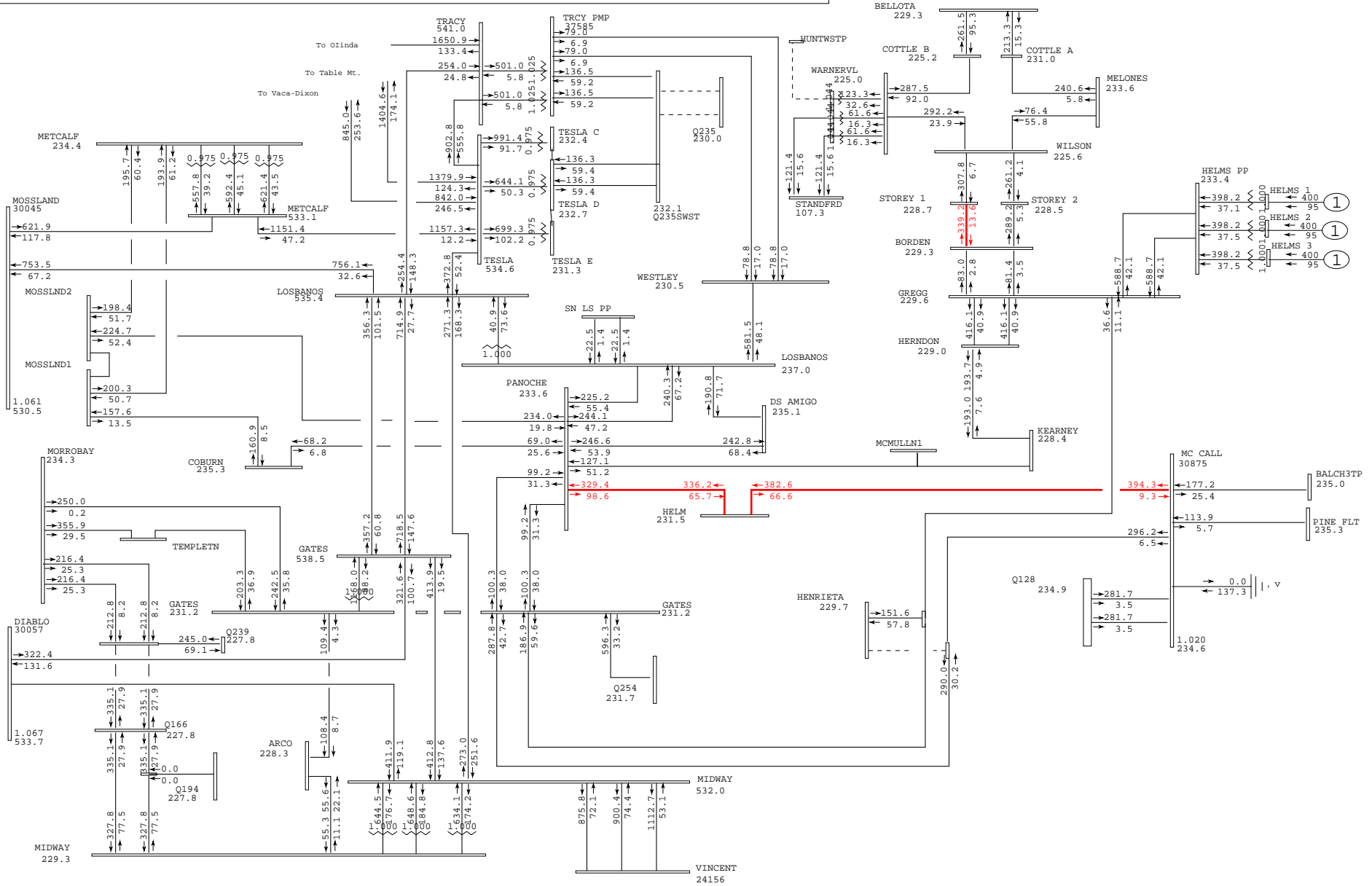


PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford - 2013 Spring Peak Pre-Project

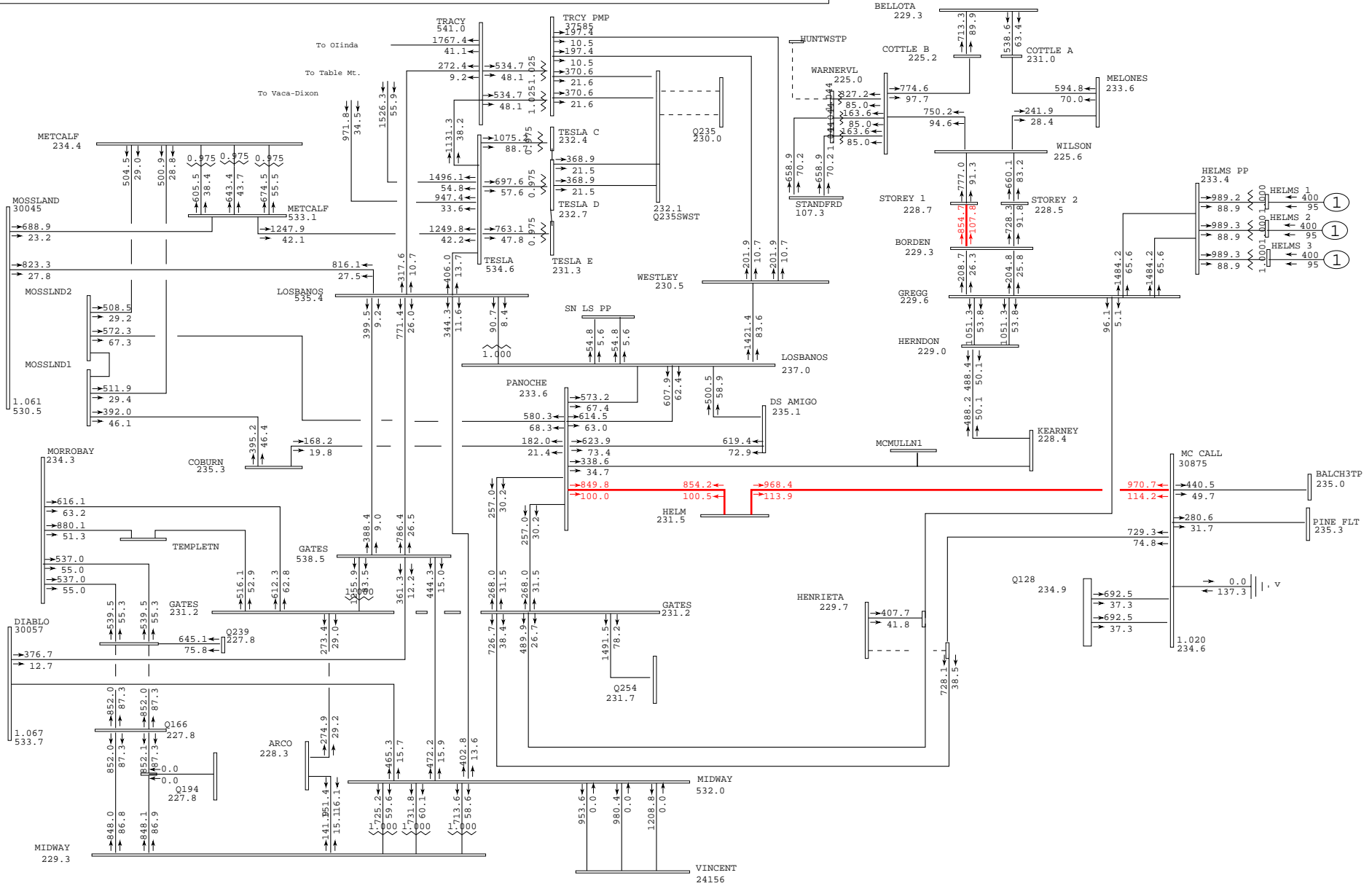
Plot 118-Outage: Sanger 115-kV Bus

amps/rate  
 gfred2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System



# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:44:02 2008 2013sprpk\_q299\_post.sav

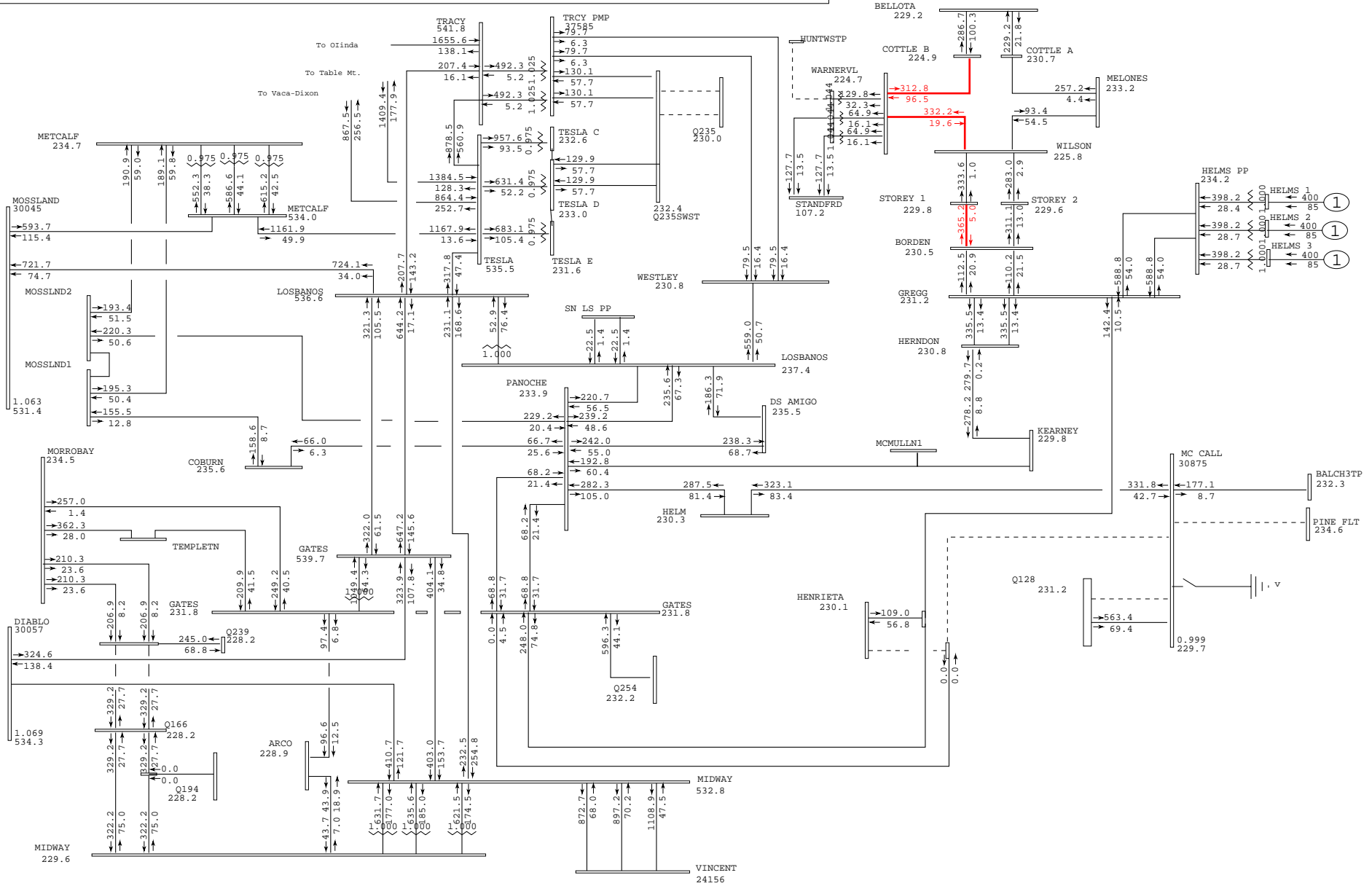


PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Spring Peak Post-Project FY

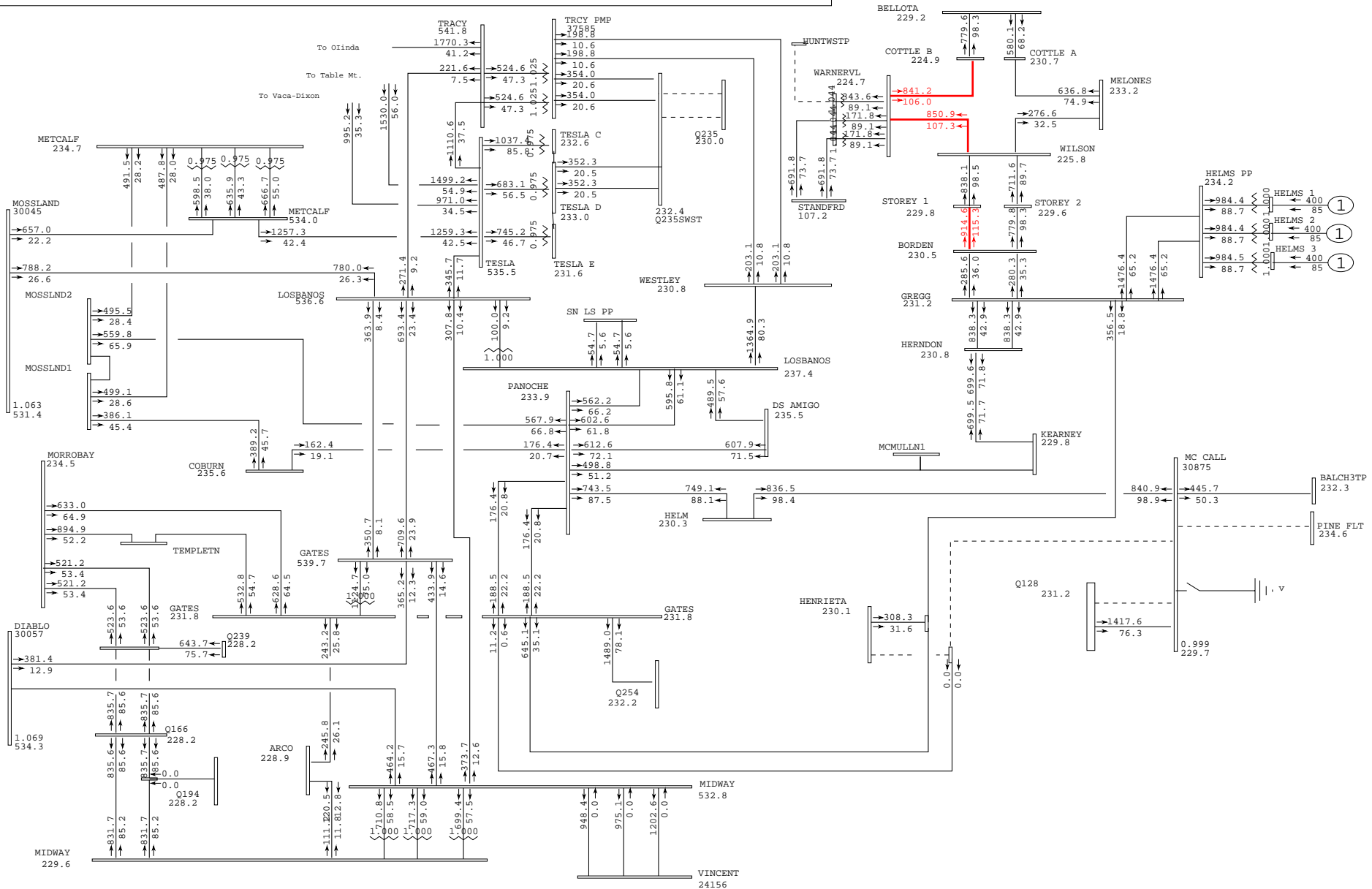
Plot 120-Outage: Sanger 115-kV Bus

amps/rate  
 gfred2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System



# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:44:04 2008 2013sprpk\_q299\_pre.sav



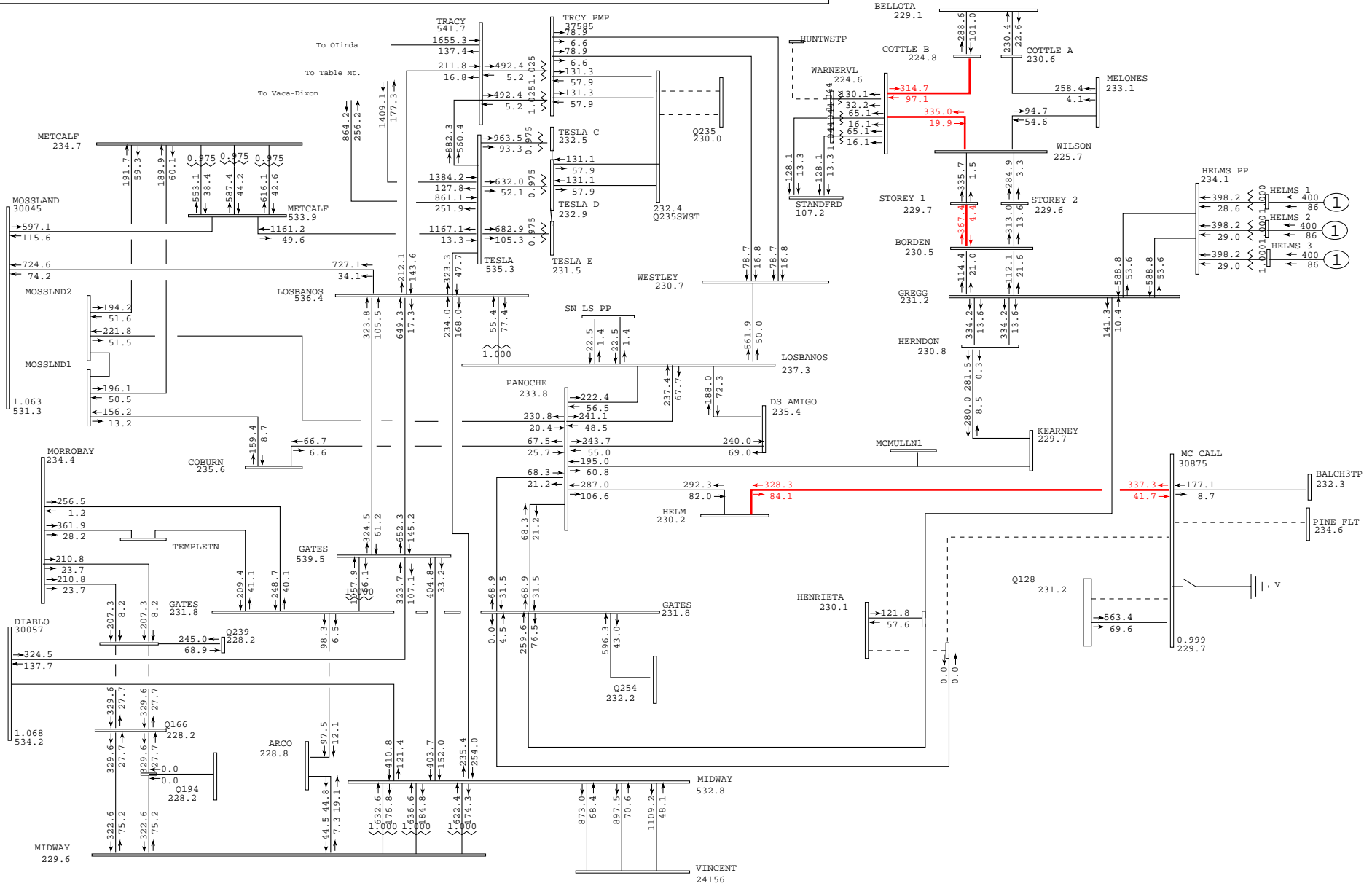
PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford - 2013 Spring Peak Pre-Project

Plot 122-Outage: McCall 230-kV Bus 1

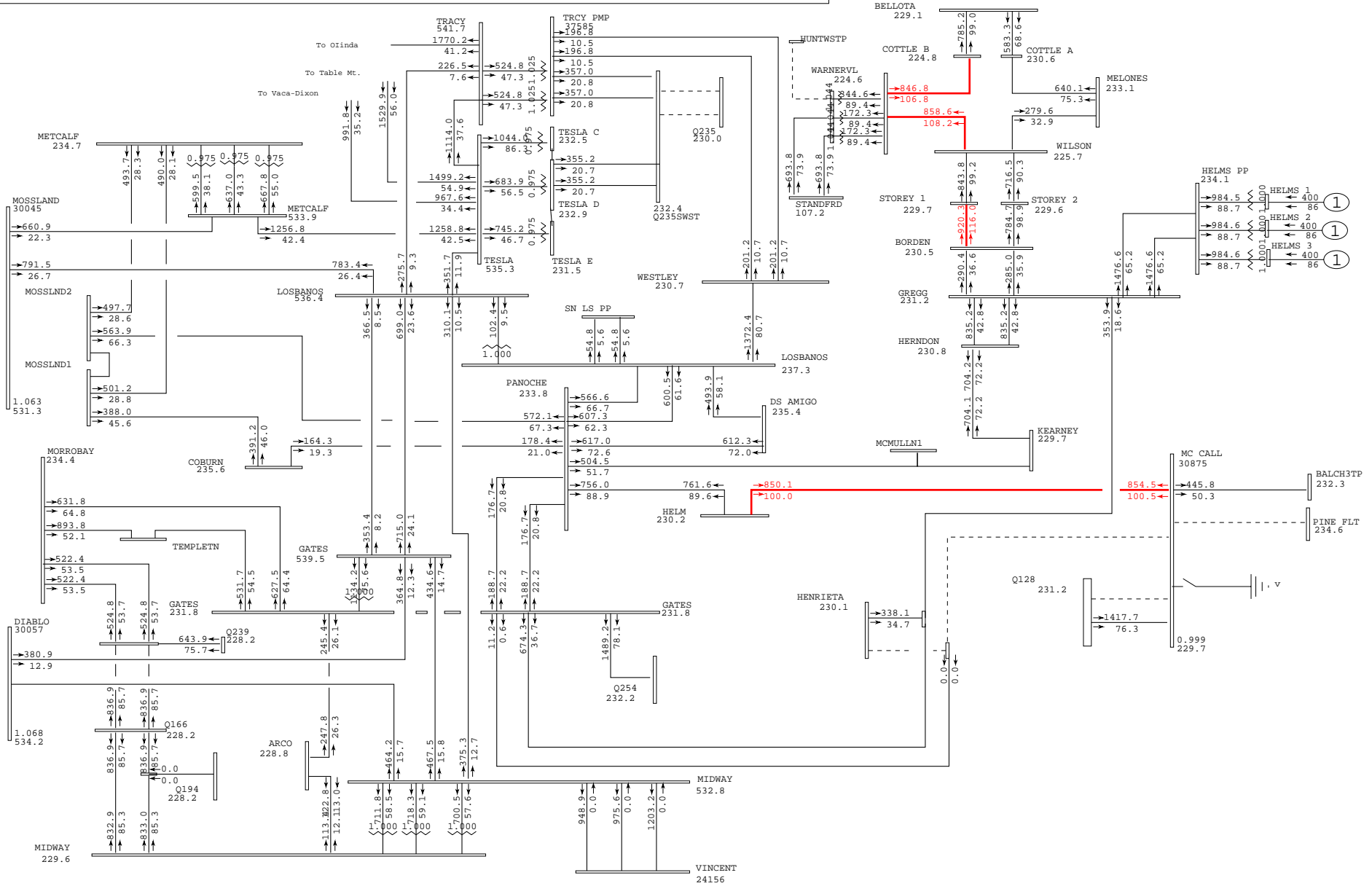
amps/rate  
 gfred2.drw  
 Rating = 2



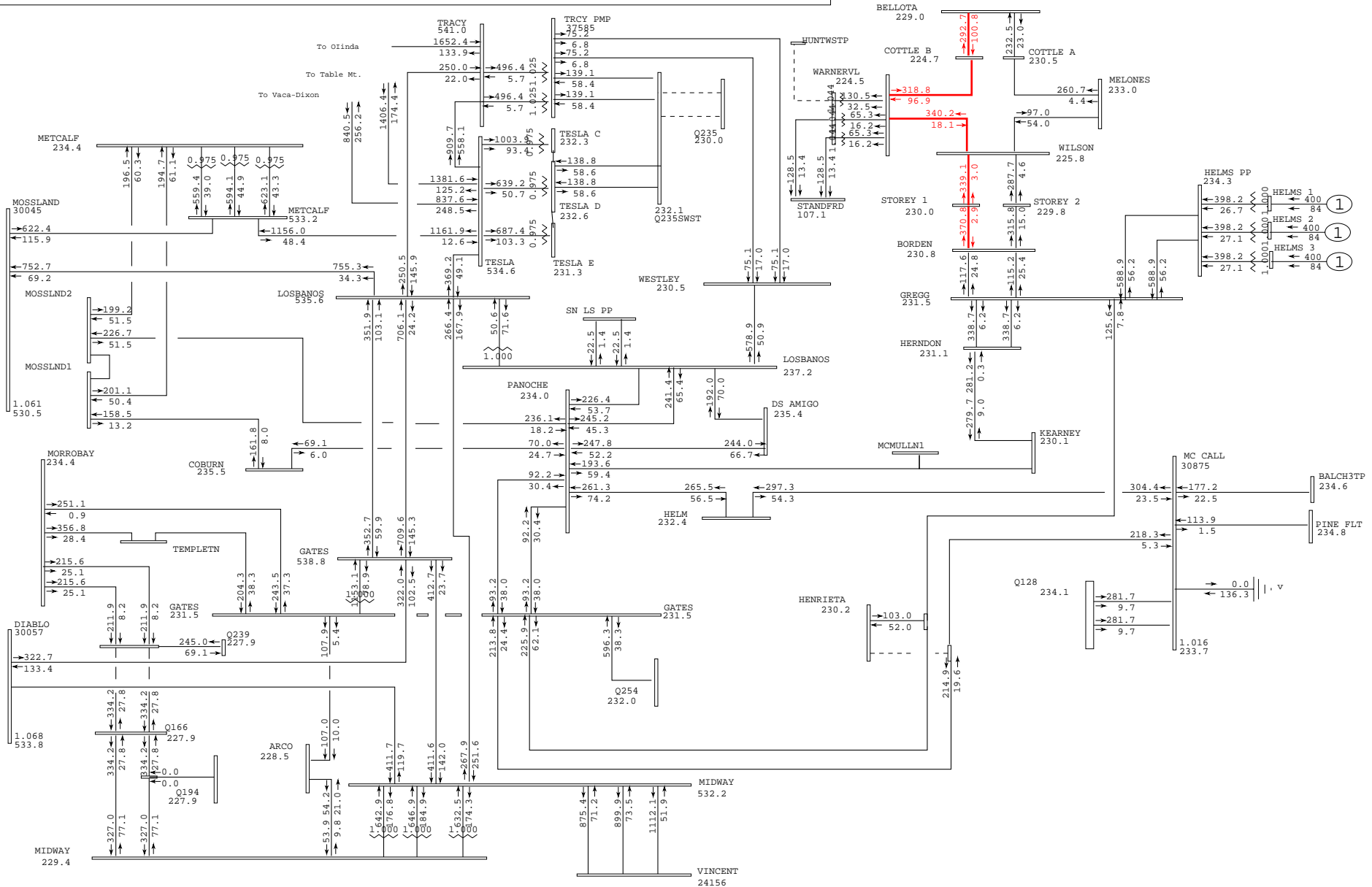
# Greater Fresno 500-kV & 230-kV System



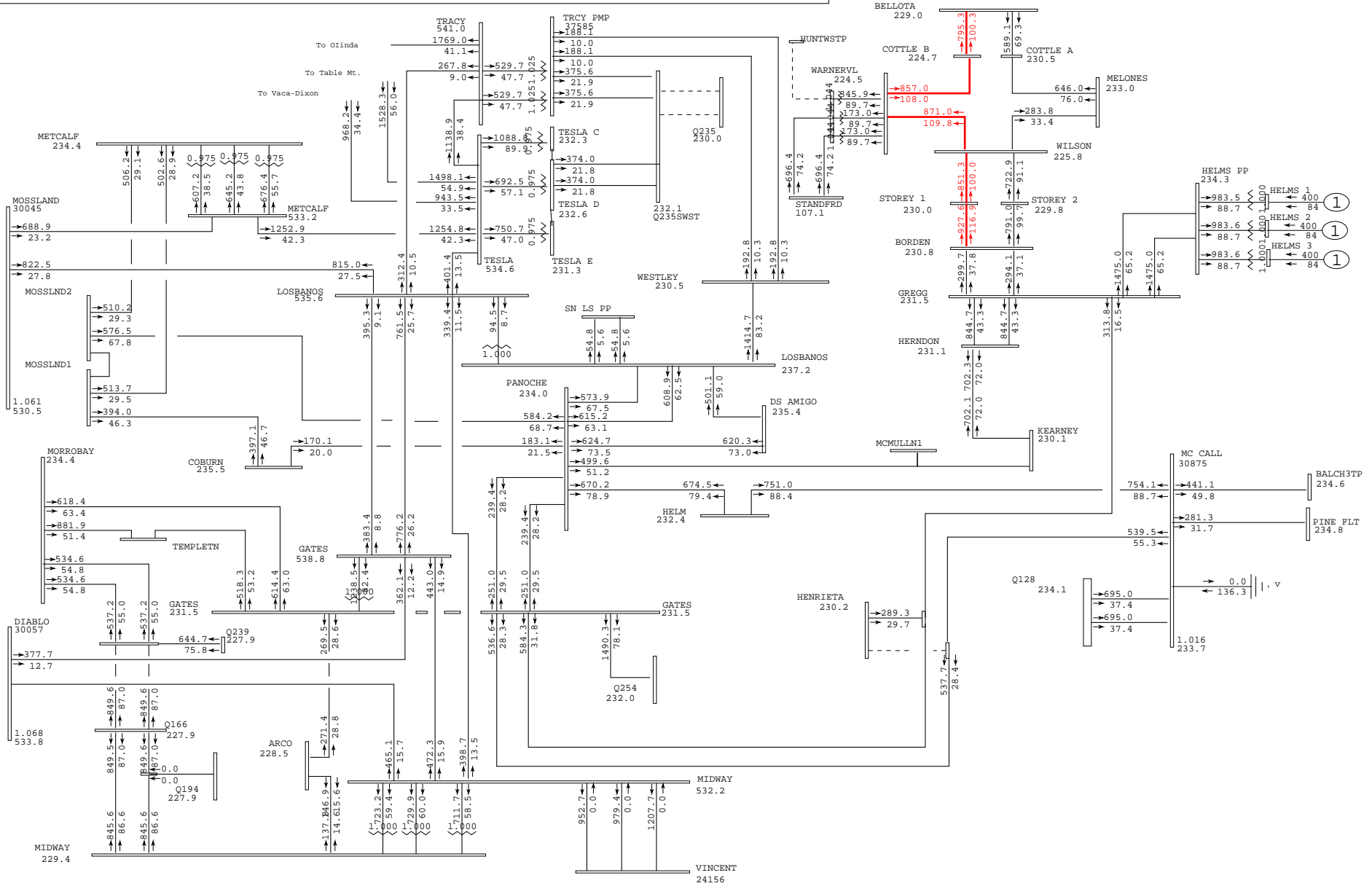
# Greater Fresno 500-kV & 230-kV System



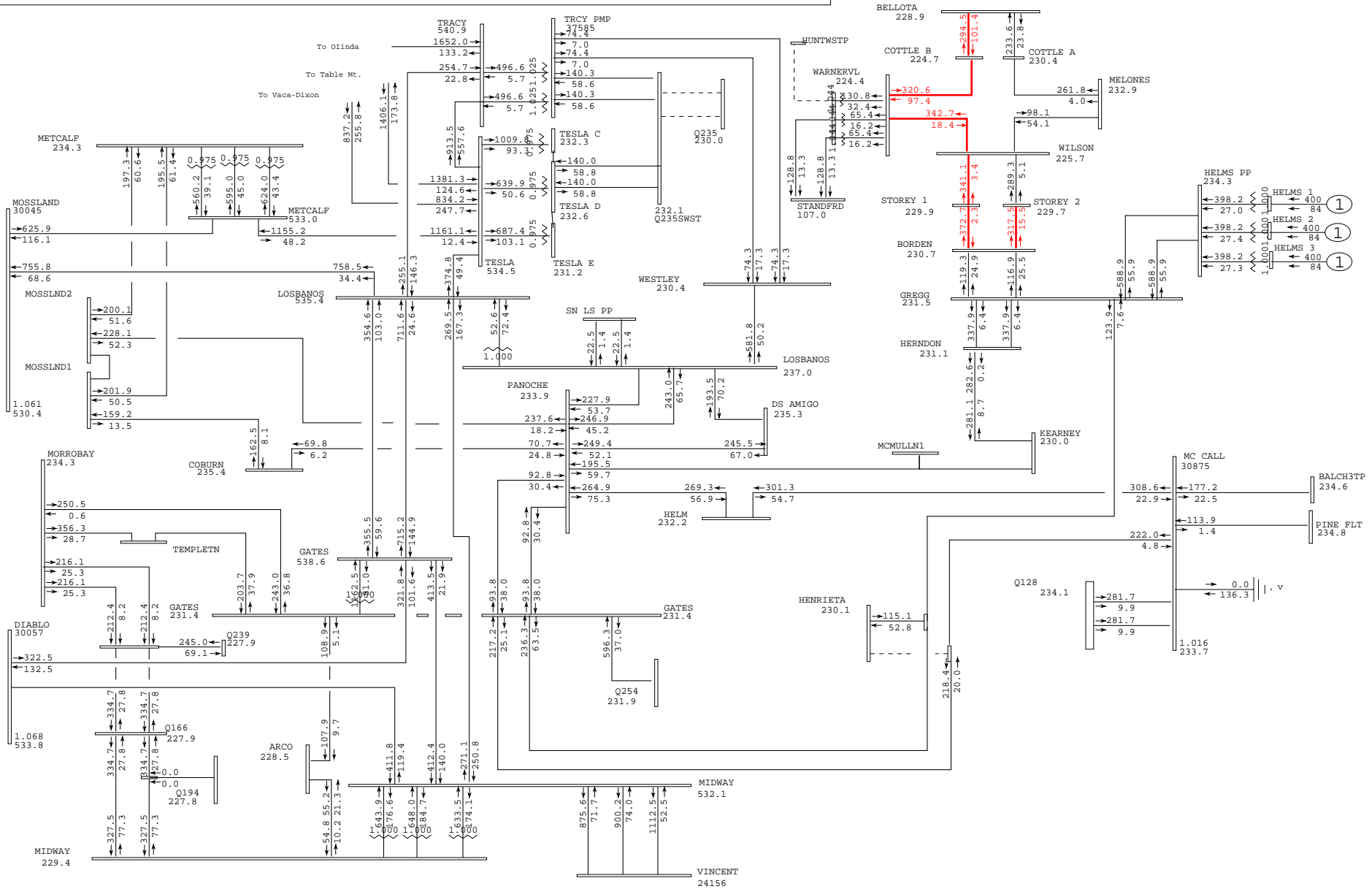
# Greater Fresno 500-kV & 230-kV System



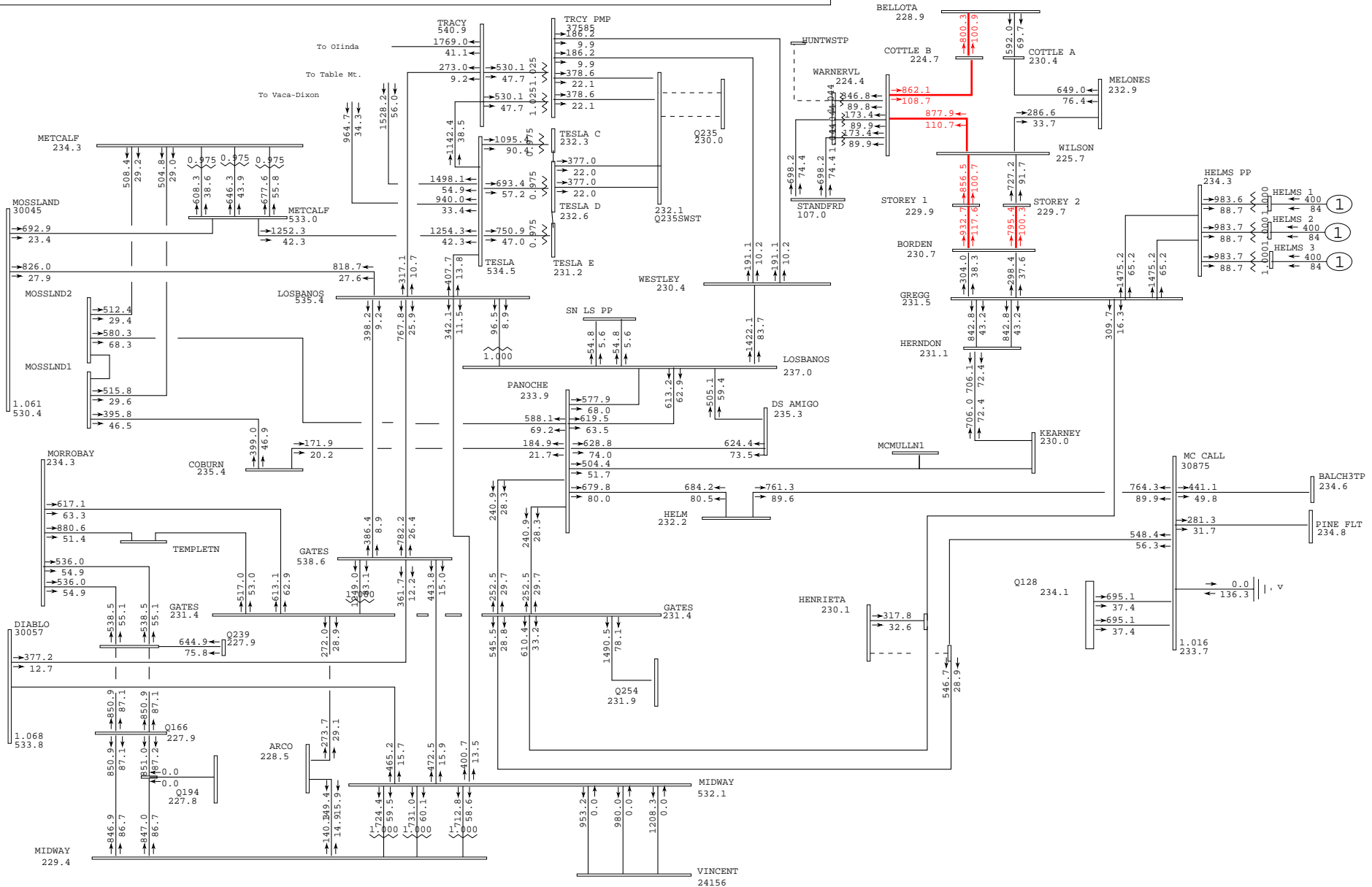
# Greater Fresno 500-kV & 230-kV System



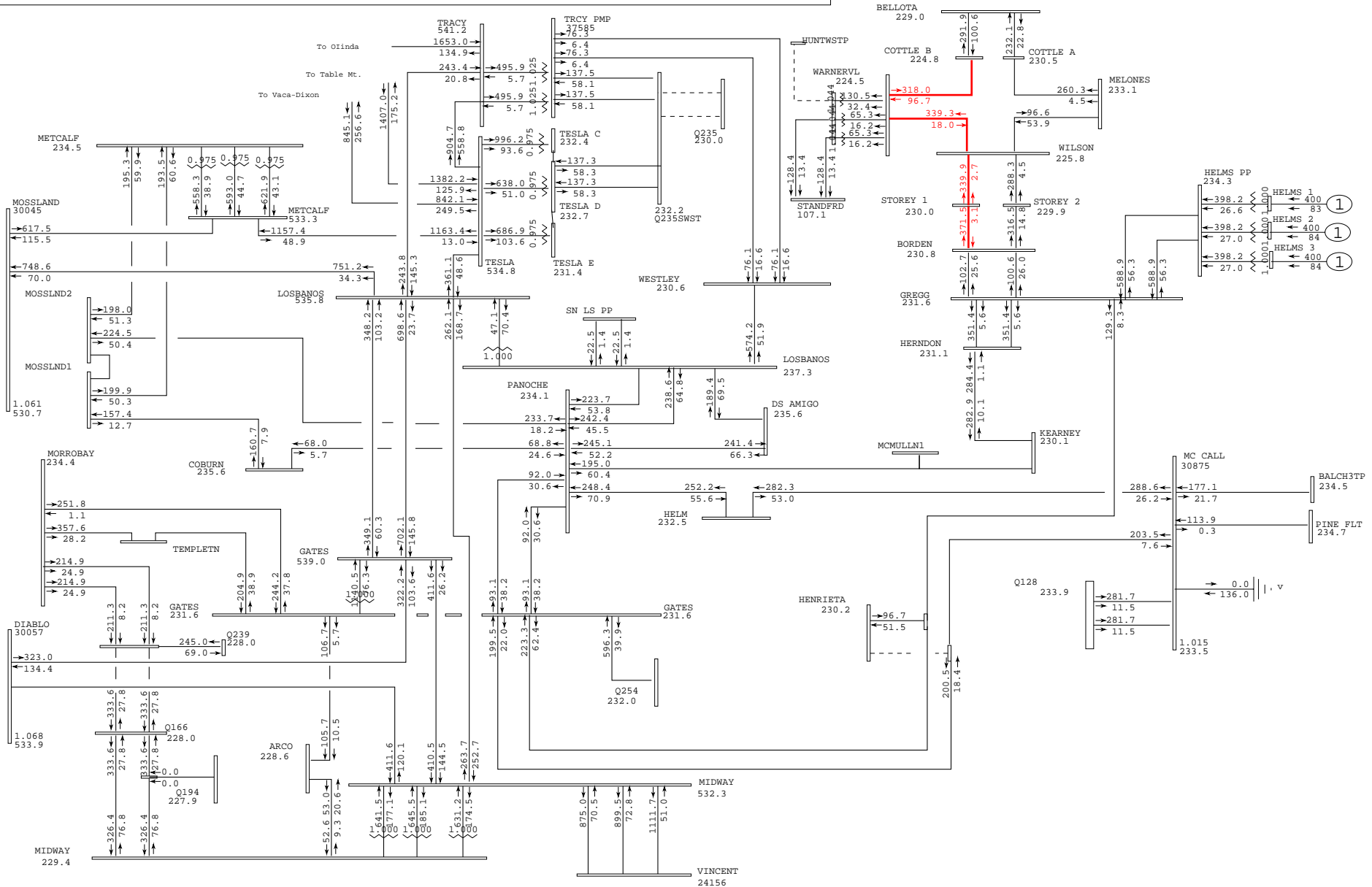
# Greater Fresno 500-kV & 230-kV System



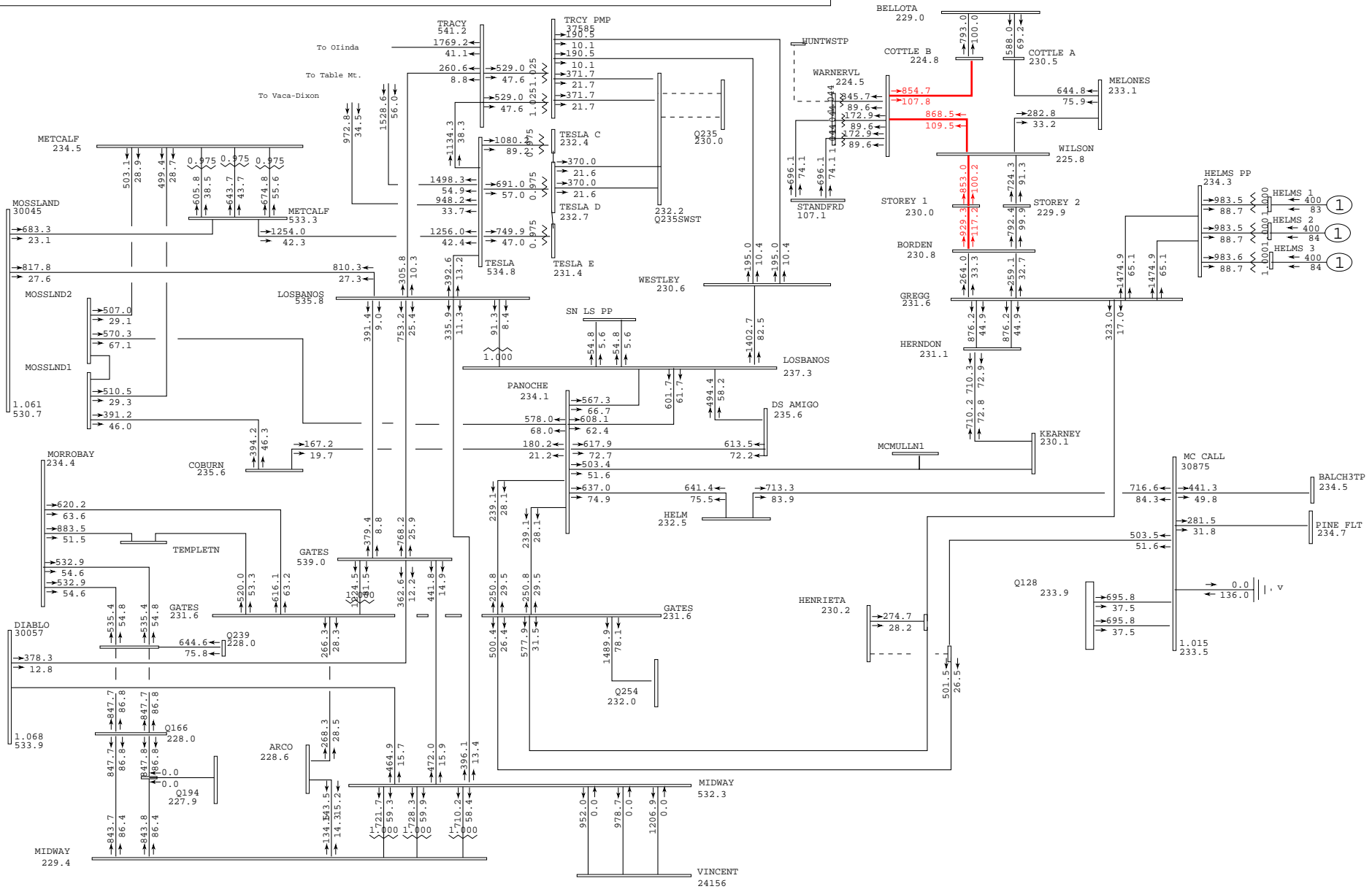
# Greater Fresno 500-kV & 230-kV System



# Greater Fresno 500-kV & 230-kV System



# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:44:15 2008 2013sprpk\_q299\_pre.sav



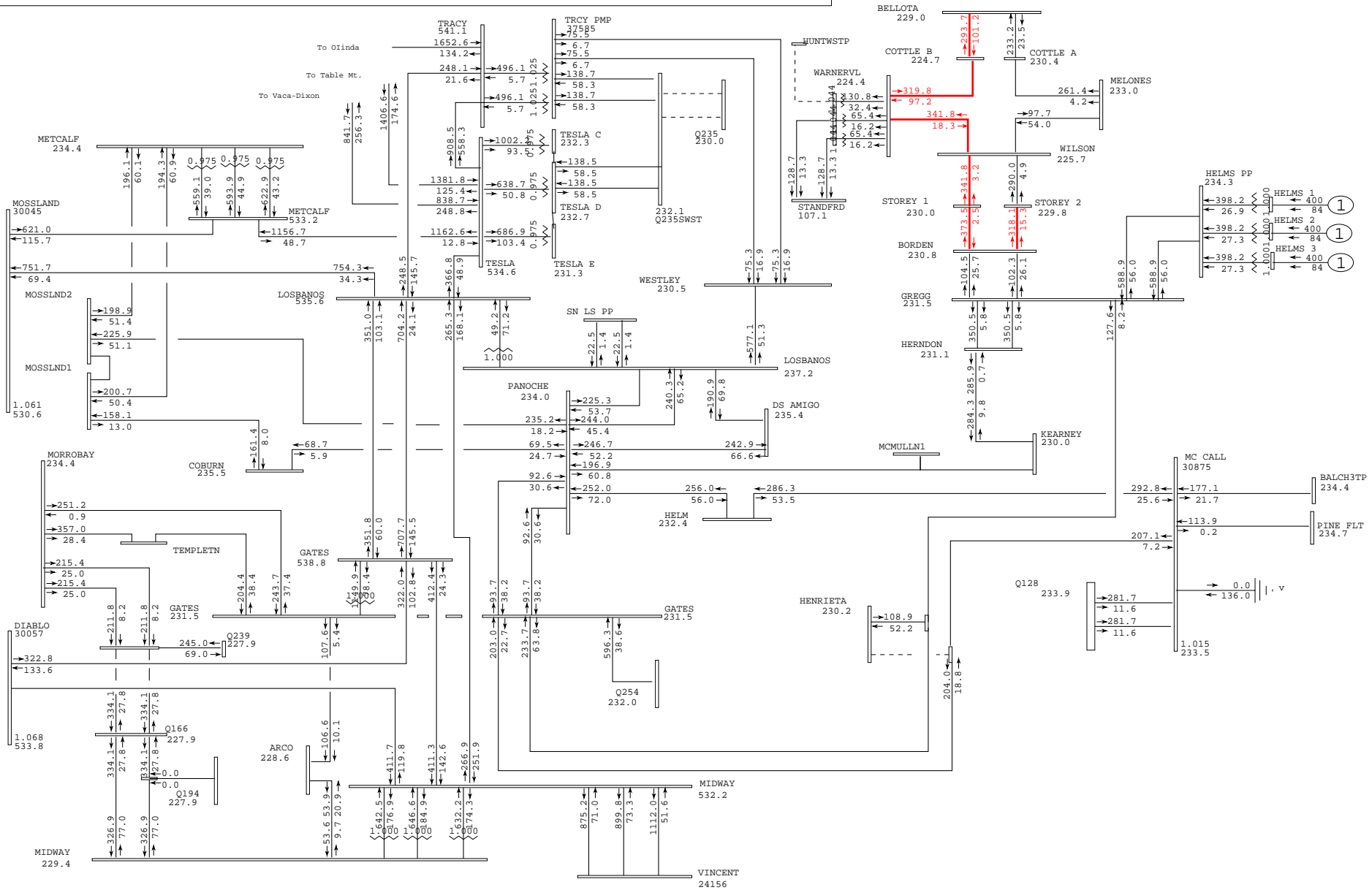
PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford - 2013 Spring Peak Pre-Project

Plot 130-Outage: Madera Bus

amps/rate  
 gfred2.drw  
 Rating = 2



# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:44:17 2008 2013sprpk\_q299\_post.sav

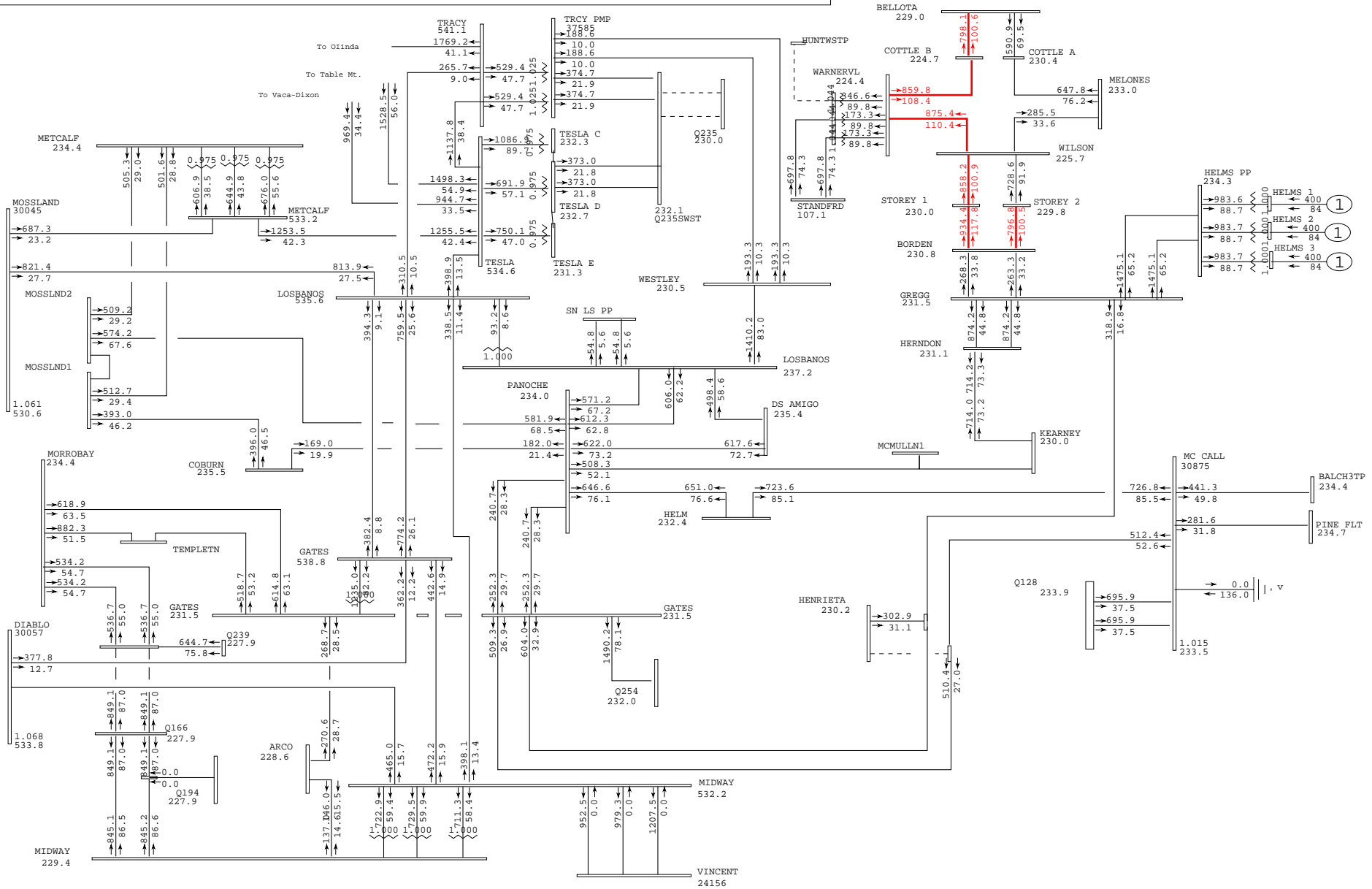


PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Spring Peak Post-Project FY

Plot 131-Outage: Madera Bus

MW/MVAR  
 gfred2.drw  
 Rating = 2

# Greater Fresno 500-kV & 230-kV System



General Electric International, Inc. PSLF Program Thu Oct 09 10:44:18 2008 2013sprpk\_q299\_post.sav



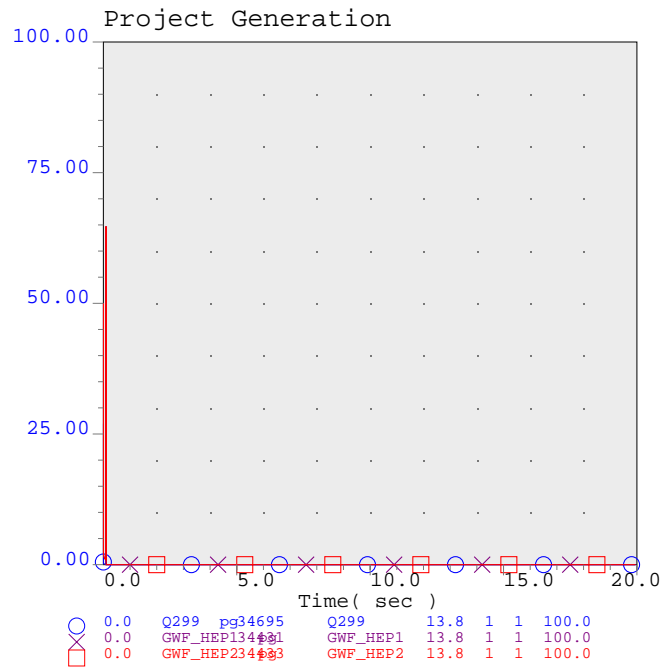
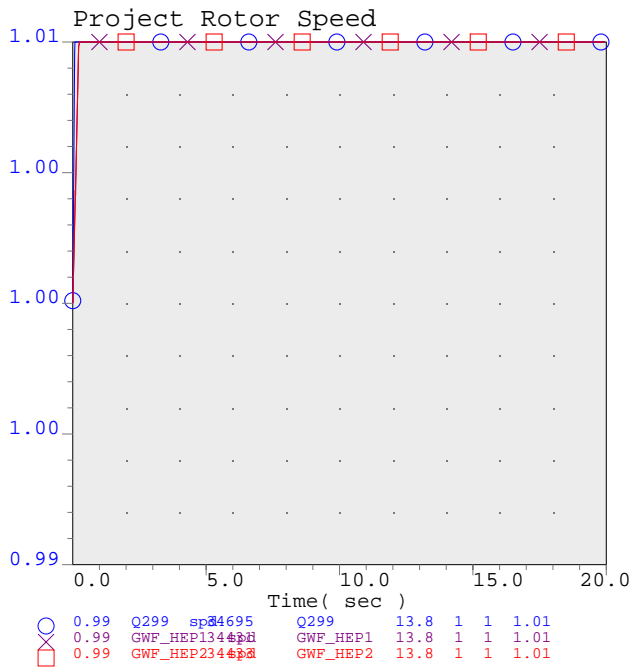
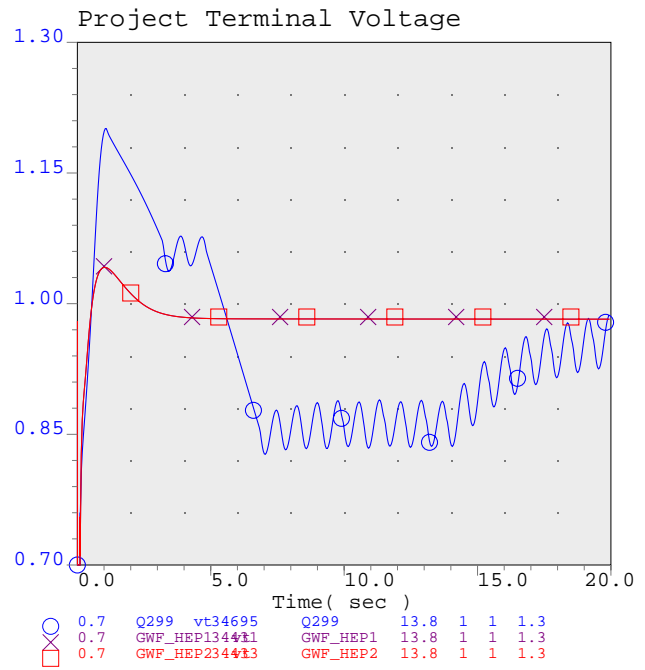
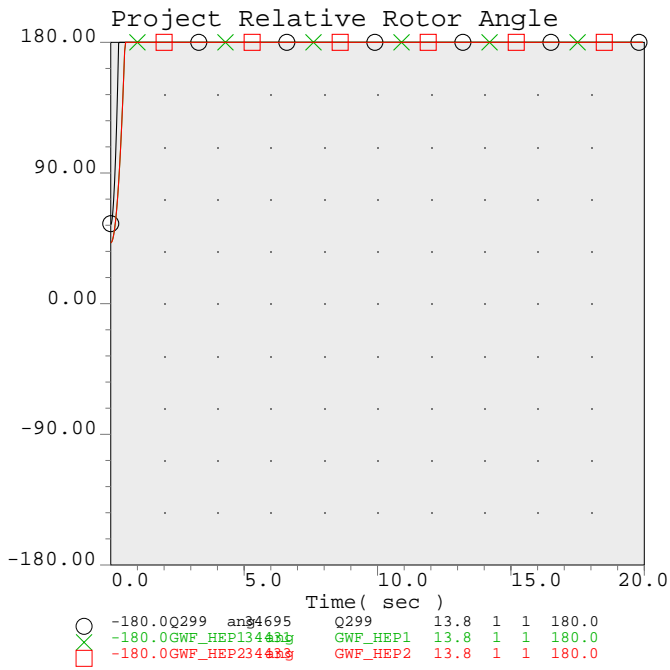
PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case  
 PATH15= 958 MW(S-N) PATH26= 2895 MW(N-S) PDCI= 3091 MW(N-S) COI= 4507 MW(N-S)  
 Q299 27 MW at GWF Hanford 115 kV - 2013 Spring Peak Post-Project FY

Plot 132-Outage: Madera Bus

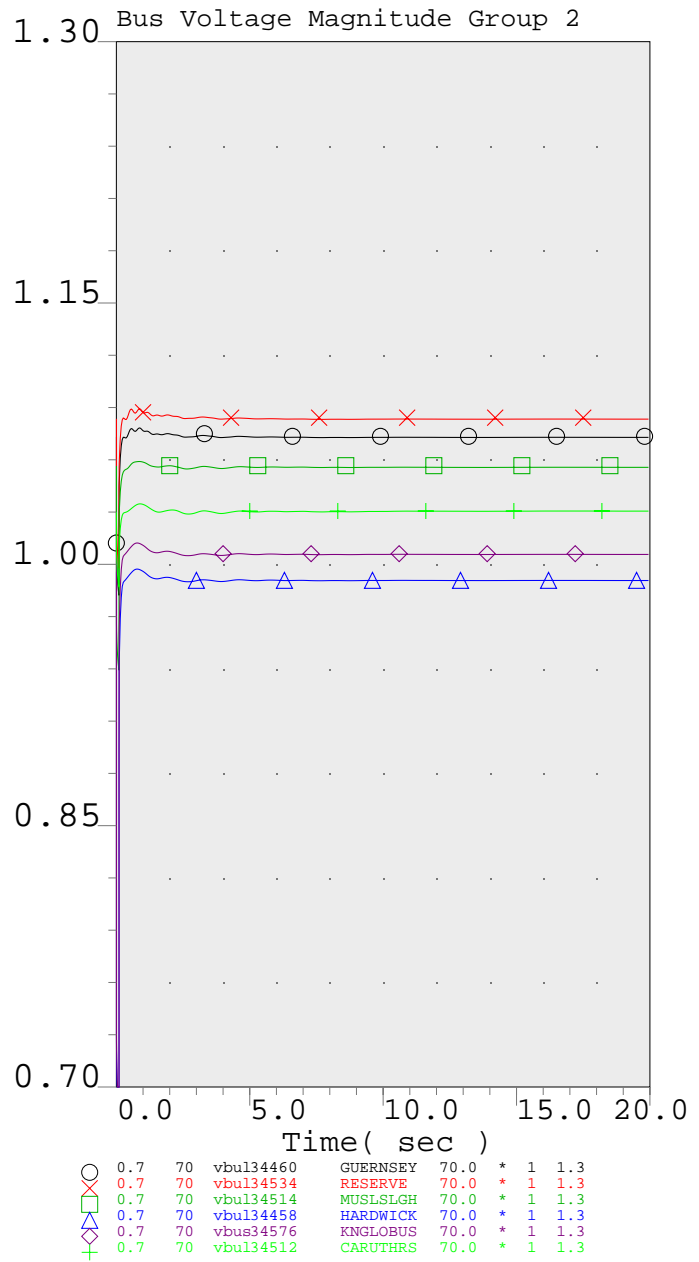
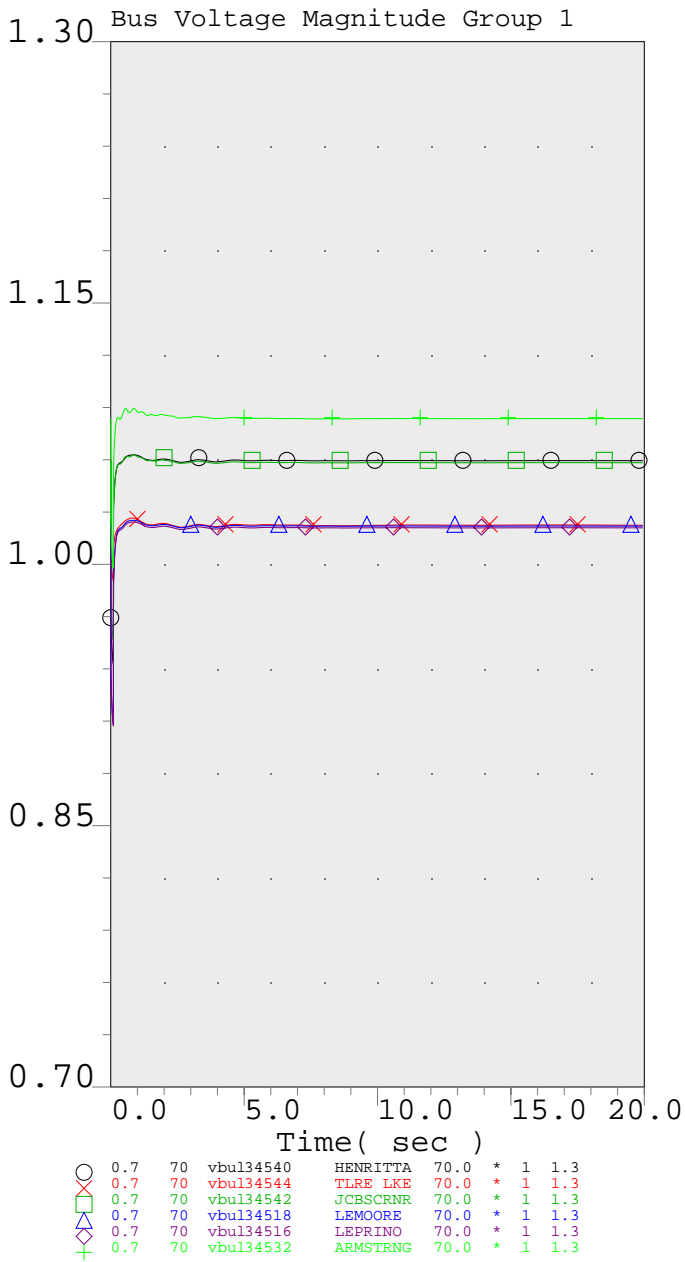
amps/rate  
 gfred2.drw  
 Rating = 2

**Appendix E**  
**Transient Stability Plots**

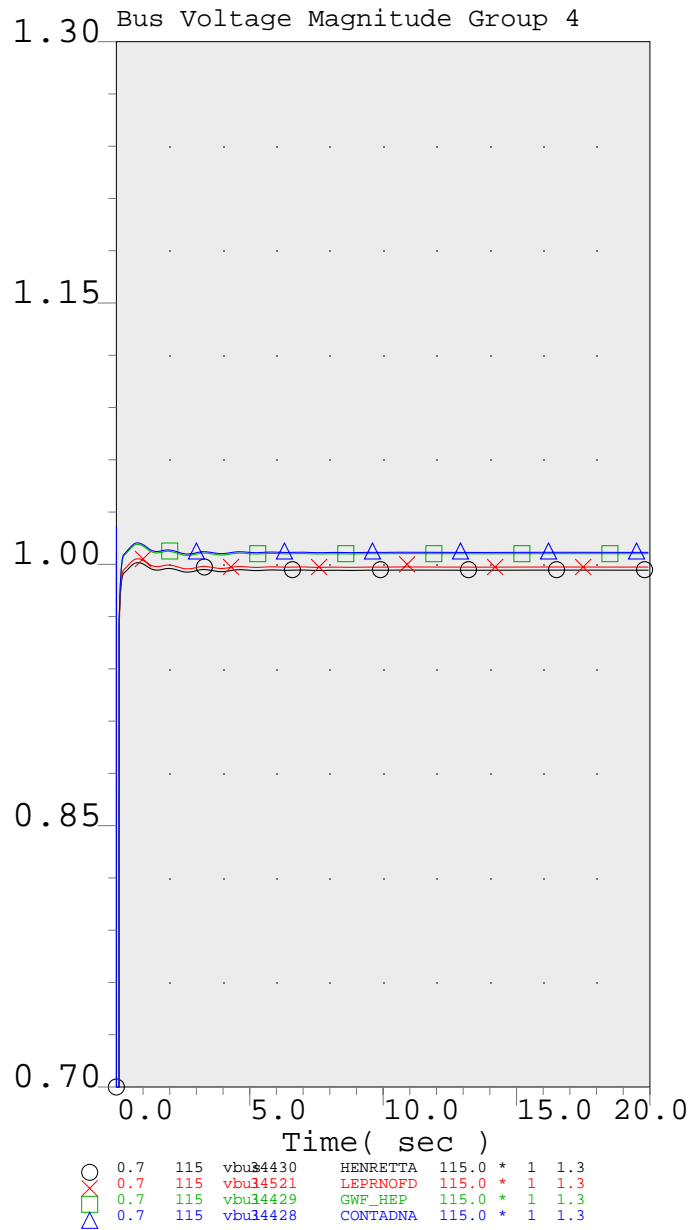
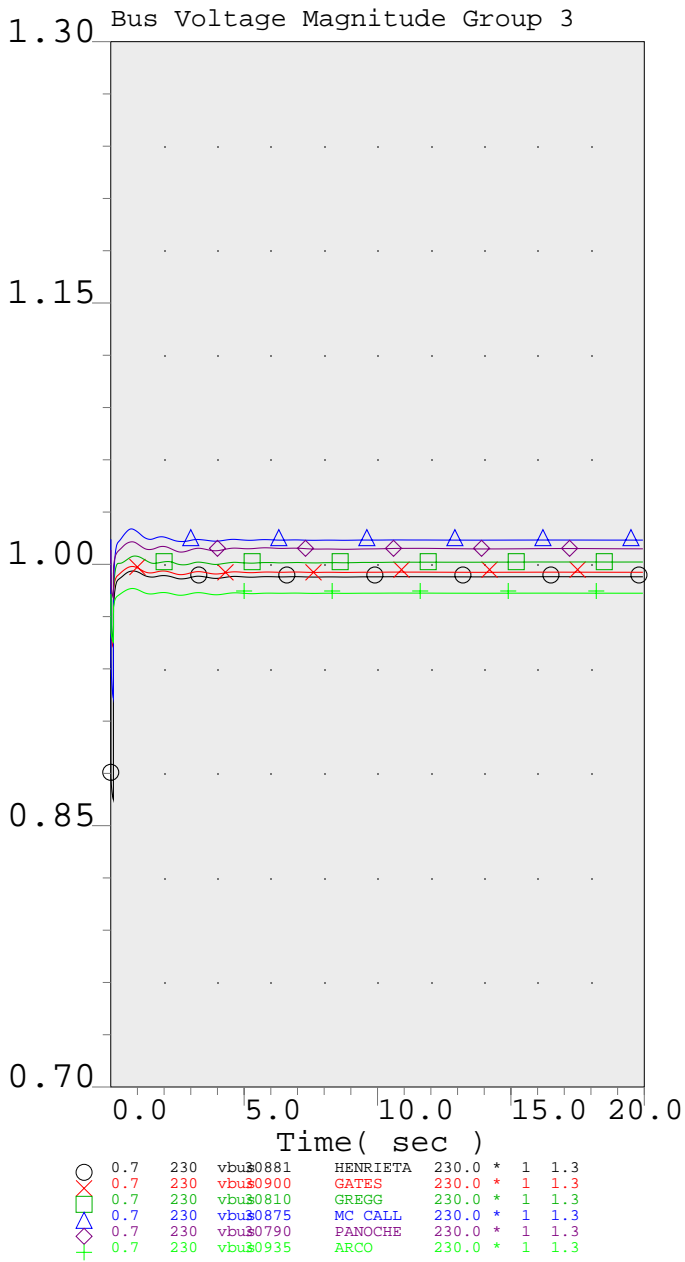
Full load rejection (127 MW) of the proposed Project.



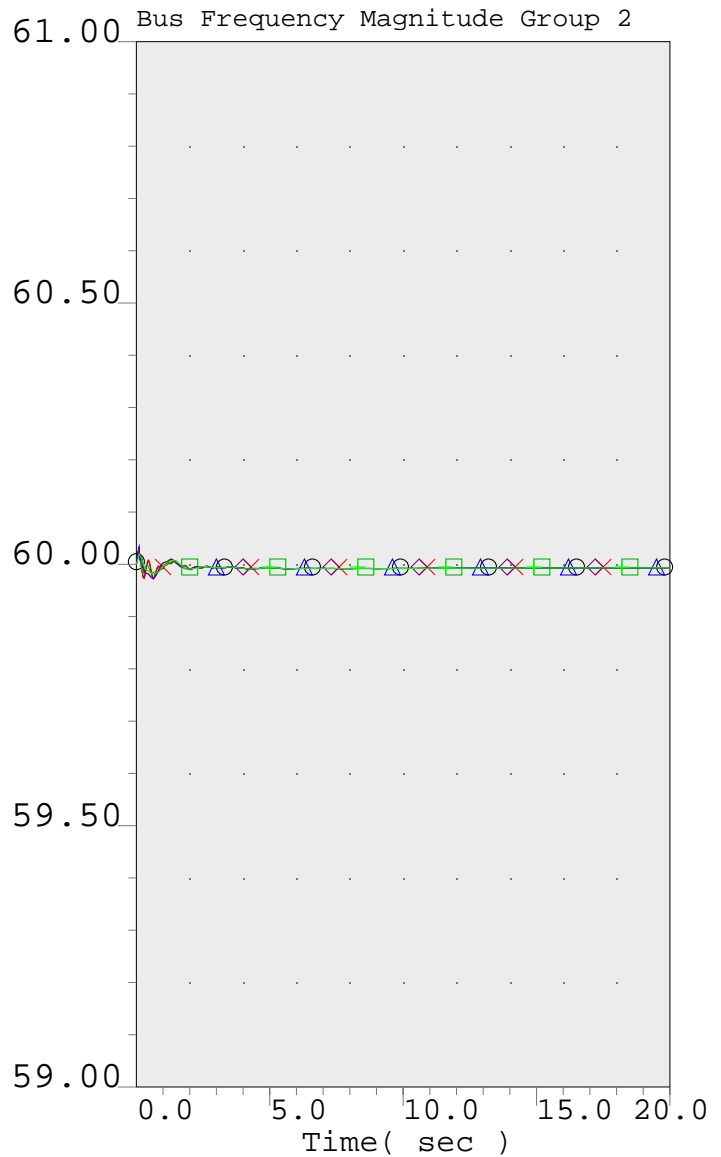
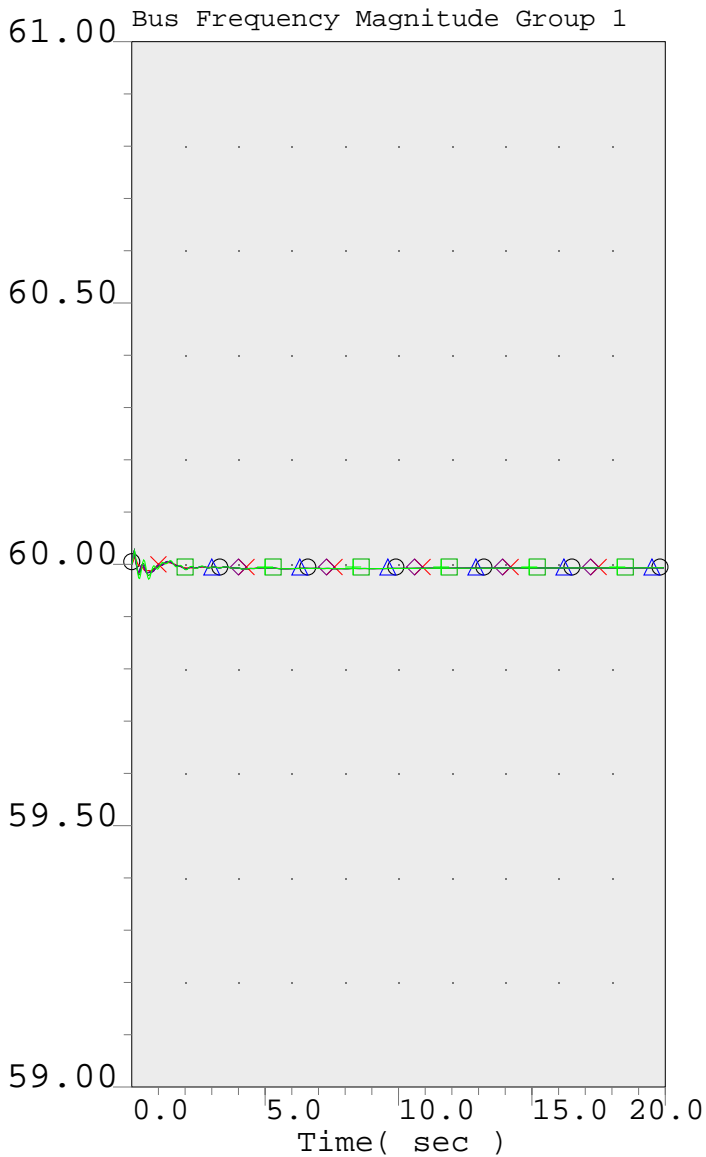
PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 Project Q299 and GWF HEP Full Load Rejection



PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 Project Q299 and GWF HEP Full Load Rejection



PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 Project Q299 and GWF HEP Full Load Rejection

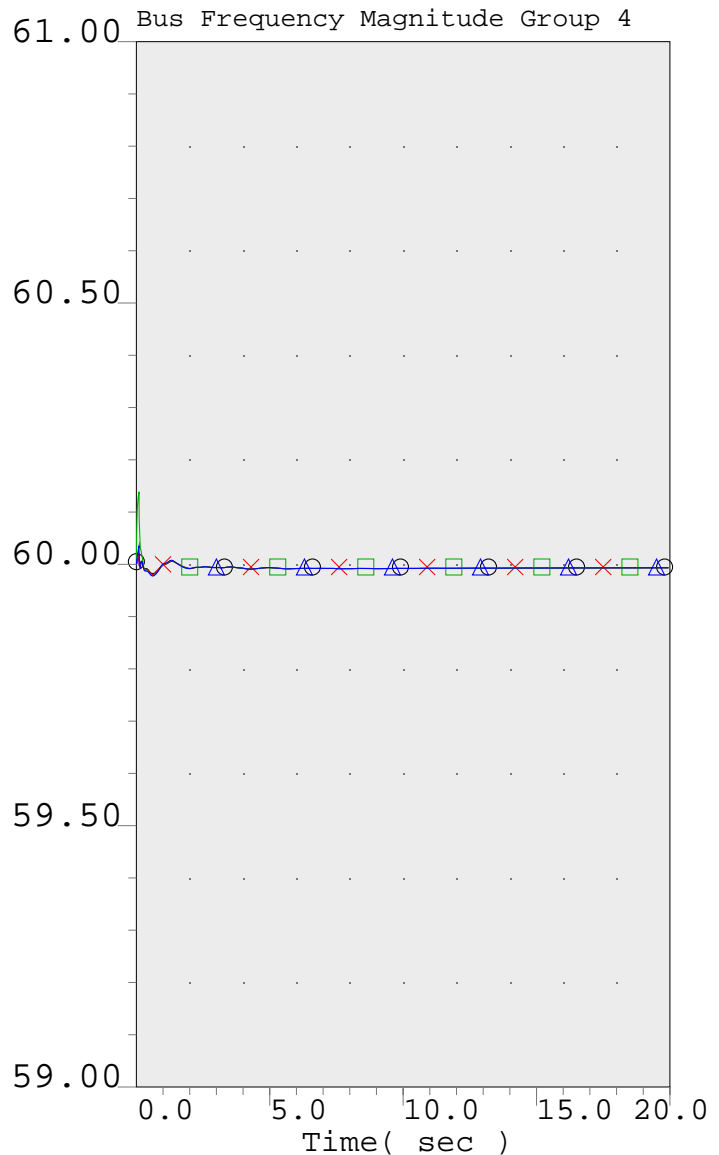
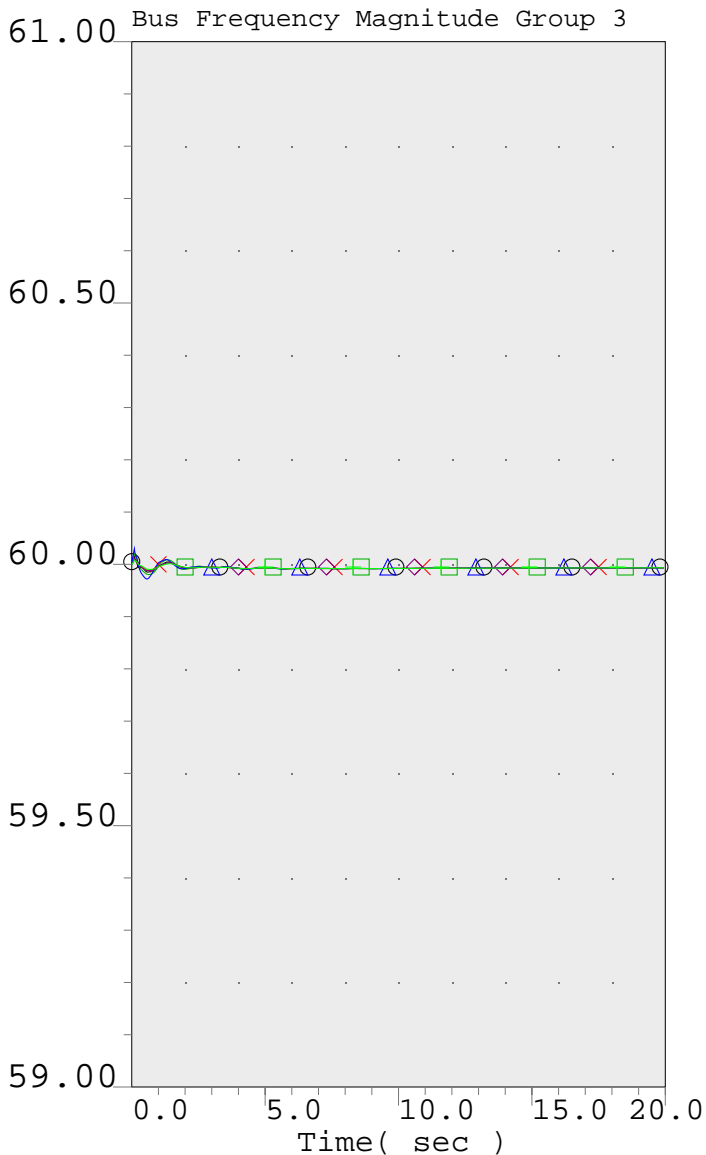


○	59.0	70	fbul34540	HENRITTA	70.0	*	1	61.0
×	59.0	70	fbul34544	TLRE LKE	70.0	*	1	61.0
□	59.0	70	fbul34542	JCBSCRNR	70.0	*	1	61.0
△	59.0	70	fbul34518	LEMOORE	70.0	*	1	61.0
◇	59.0	70	fbul34516	LEPRINO	70.0	*	1	61.0
+	59.0	70	fbul34532	ARMSTRNG	70.0	*	1	61.0

○	59.0	70	fbul34460	GUERNSEY	70.0	*	1	61.0
×	59.0	70	fbul34534	RESERVE	70.0	*	1	61.0
□	59.0	70	fbul34514	MUSLSLGH	70.0	*	1	61.0
△	59.0	70	fbul34458	HARDWICK	70.0	*	1	61.0
◇	59.0	70	fbus34576	KNGLOBUS	70.0	*	1	61.0
+	59.0	70	fbul34512	CARUTHRS	70.0	*	1	61.0

PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 Project Q299 and GWF HEP Full Load Rejection



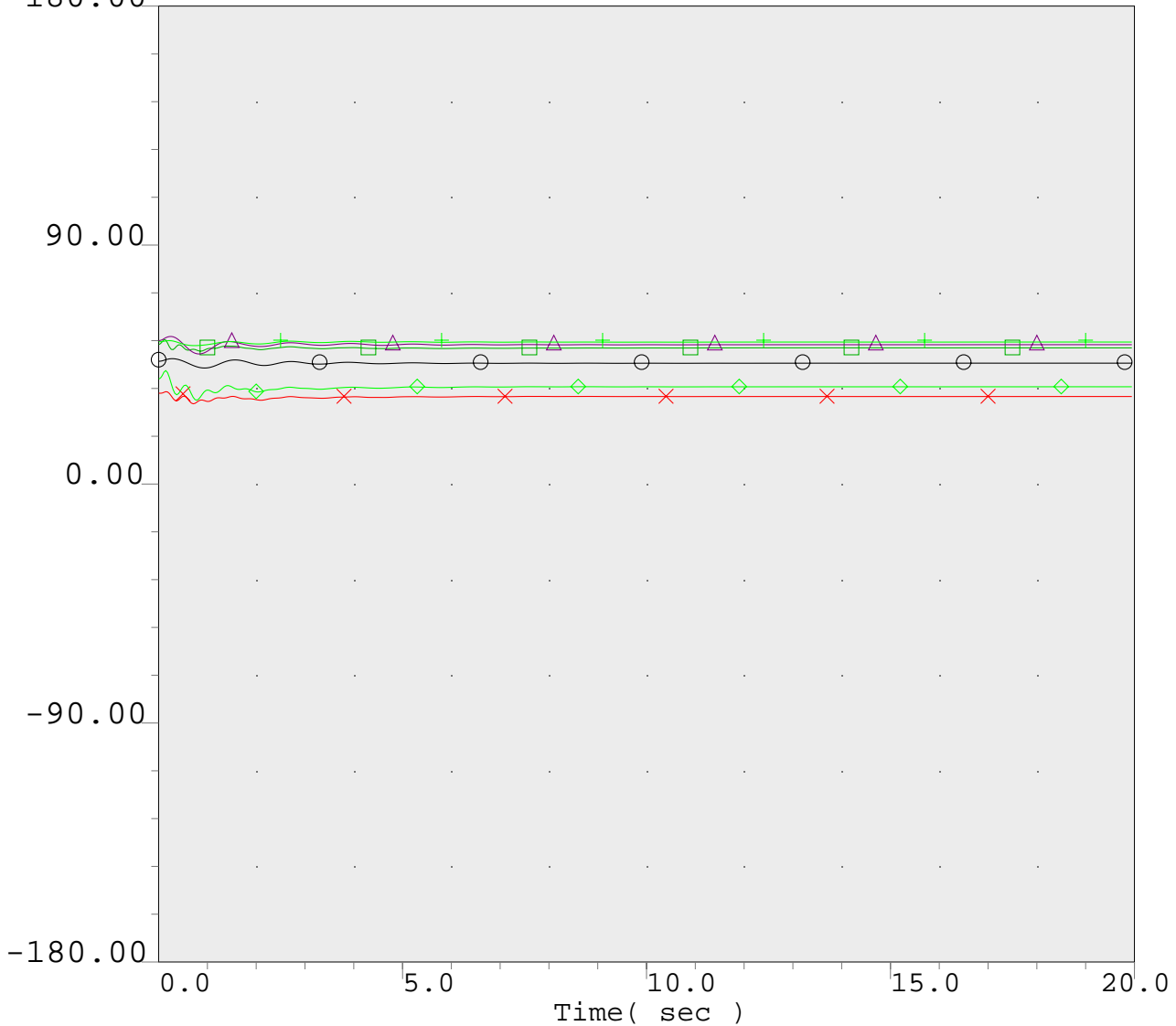


○	59.0	230	fbus0881	HENRIETA	230.0	*	1	61.0
○	59.0	230	fbus0900	GATES	230.0	*	1	61.0
○	59.0	230	fbus0810	GREGG	230.0	*	1	61.0
△	59.0	230	fbus0875	MC CALL	230.0	*	1	61.0
△	59.0	230	fbus0790	PANOCHÉ	230.0	*	1	61.0
+	59.0	230	fbus0935	ARCO	230.0	*	1	61.0

○	59.0	115	fbus4430	HENRETTA	115.0	1	1	61.0
○	59.0	115	fbus4521	LEPRNOFD	115.0	1	1	61.0
○	59.0	115	fbus4429	GWF_HEP	115.0	1	1	61.0
△	59.0	115	fbus4428	CONTADNA	115.0	1	1	61.0

PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 Project Q299 and GWF HEP Full Load Rejection

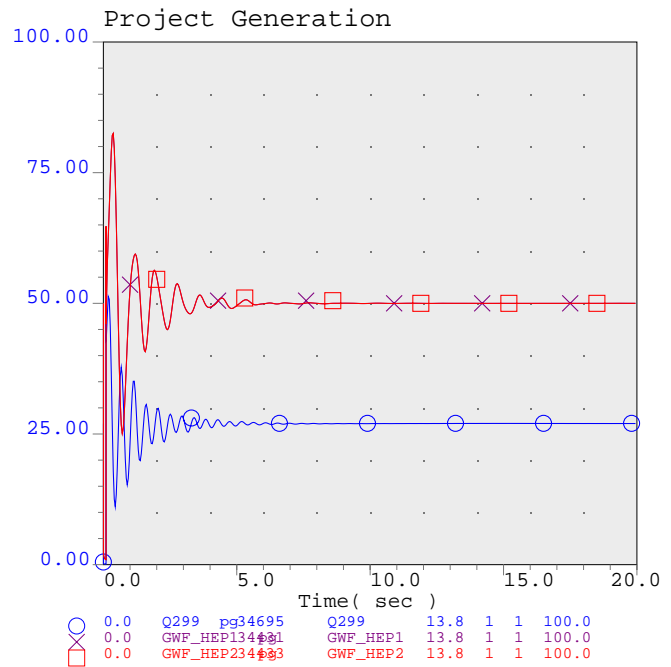
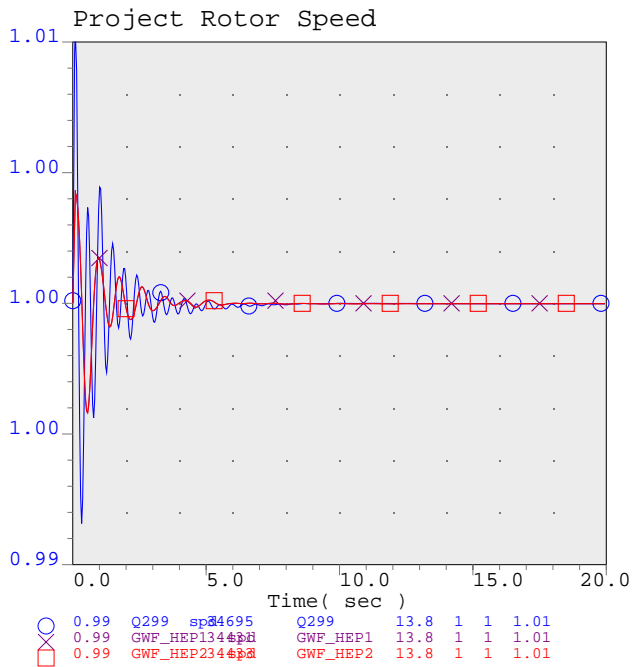
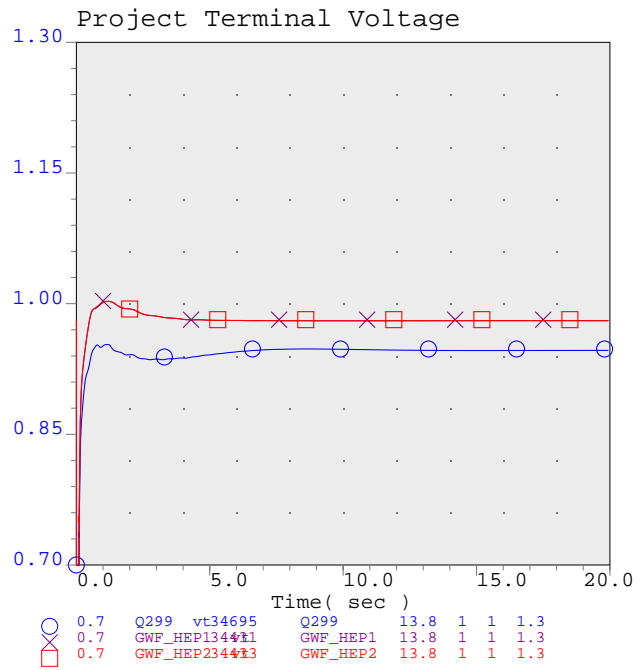
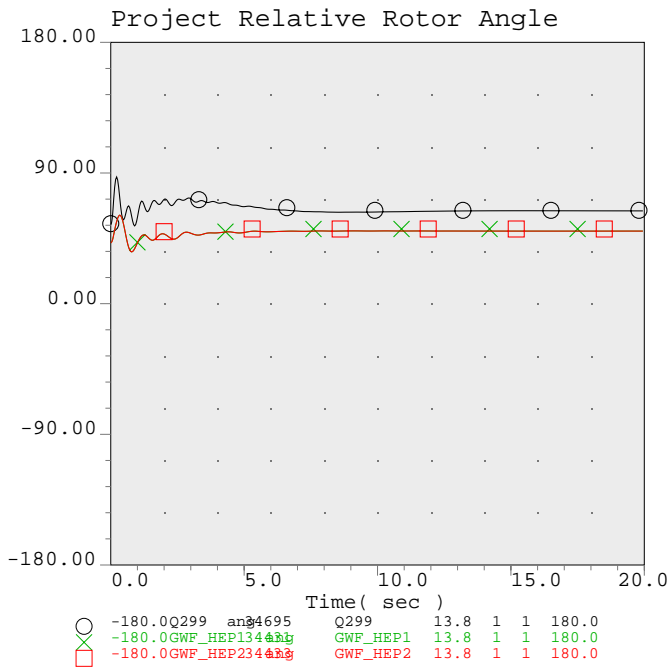
180.00 Generator Angles of Local Units



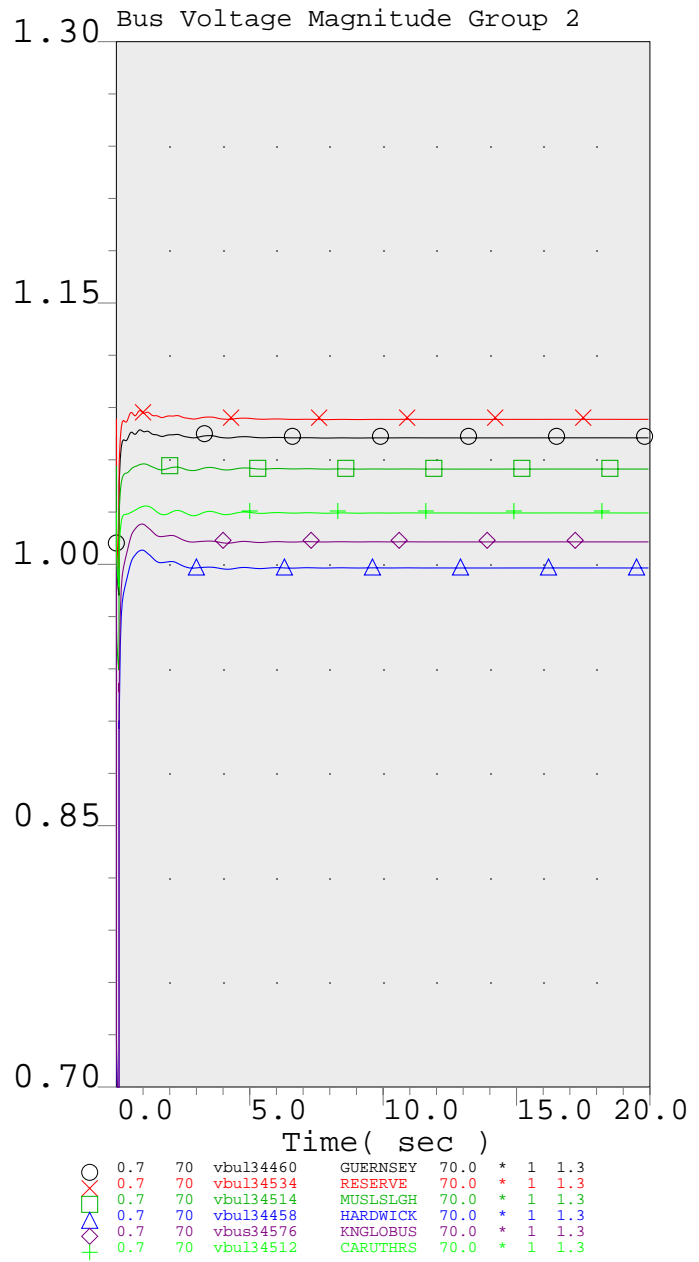
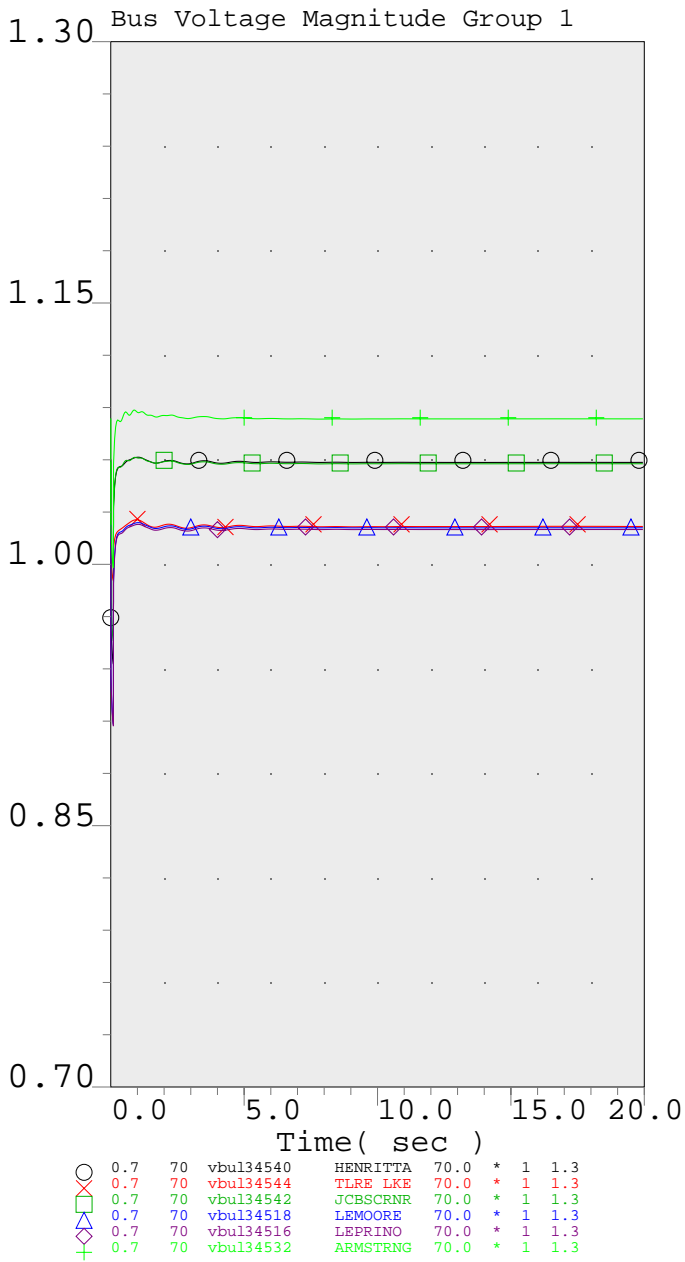
○	-180.0	#1	ang	34600	HELMS 1	18.0	*	1	180.0
×	-180.0	GWF-PWR	ang	34650	GWF-PWR.	13.8	*	1	180.0
□	-180.0	GWF_GT1	ang	34539	GWF_GT1	13.8	*	1	180.0
△	-180.0	GT1	ang	34661	P0418GT1	13.8	*	1	180.0
◇	-180.0	Cogen	ang	34642	KINGSBUR	9.1	*	1	180.0
+	-180.0	Q254	ang	34688	Q254CTG1	18.0	*	1	180.0

PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 Project Q299 and GWF HEP Full Load Rejection

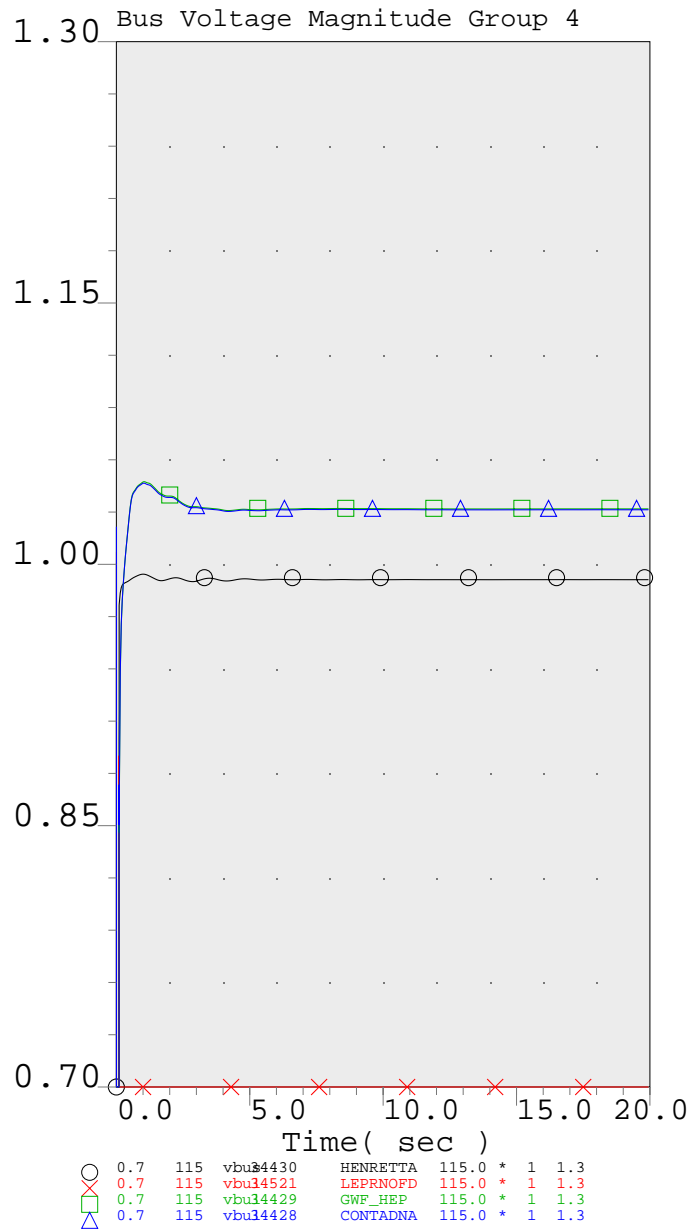
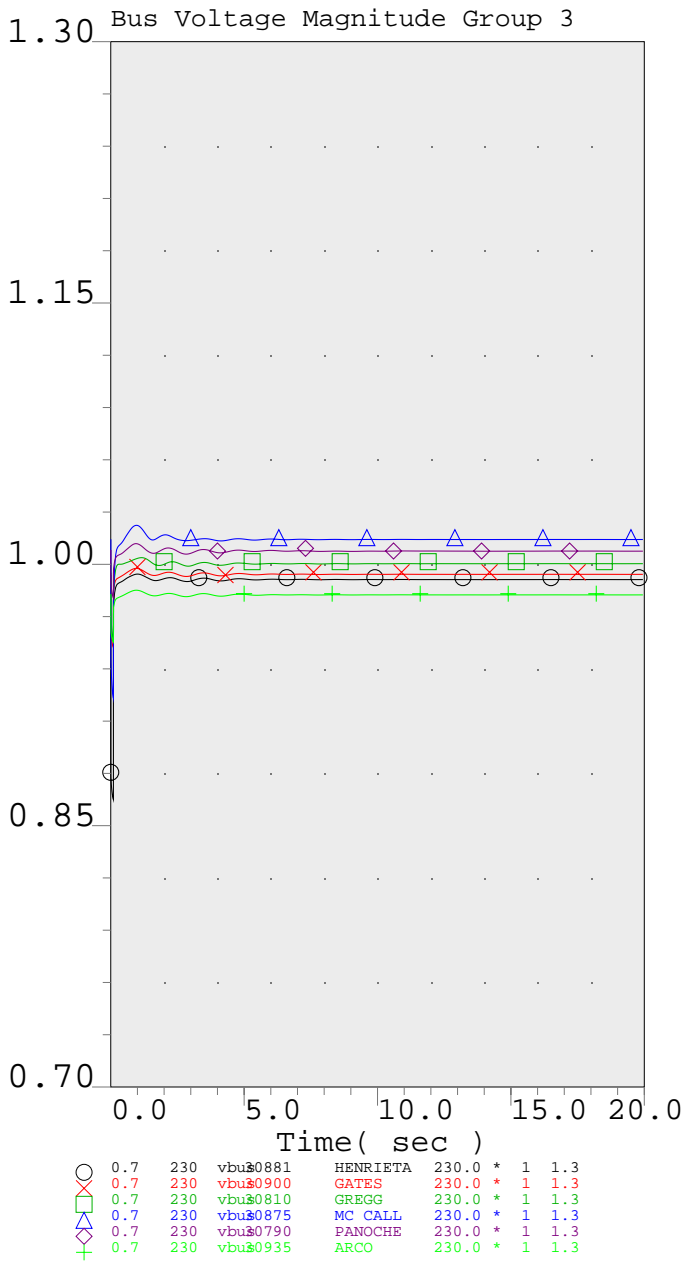
Three-phase close-in fault on the GWF Hanford Switchyard-Henrietta 115-kV line at the GWF Hanford Switchyard 115-kV bus with normal clearing time followed by the loss of the GWF Hanford Switchyard-Henrietta 115-kV line.



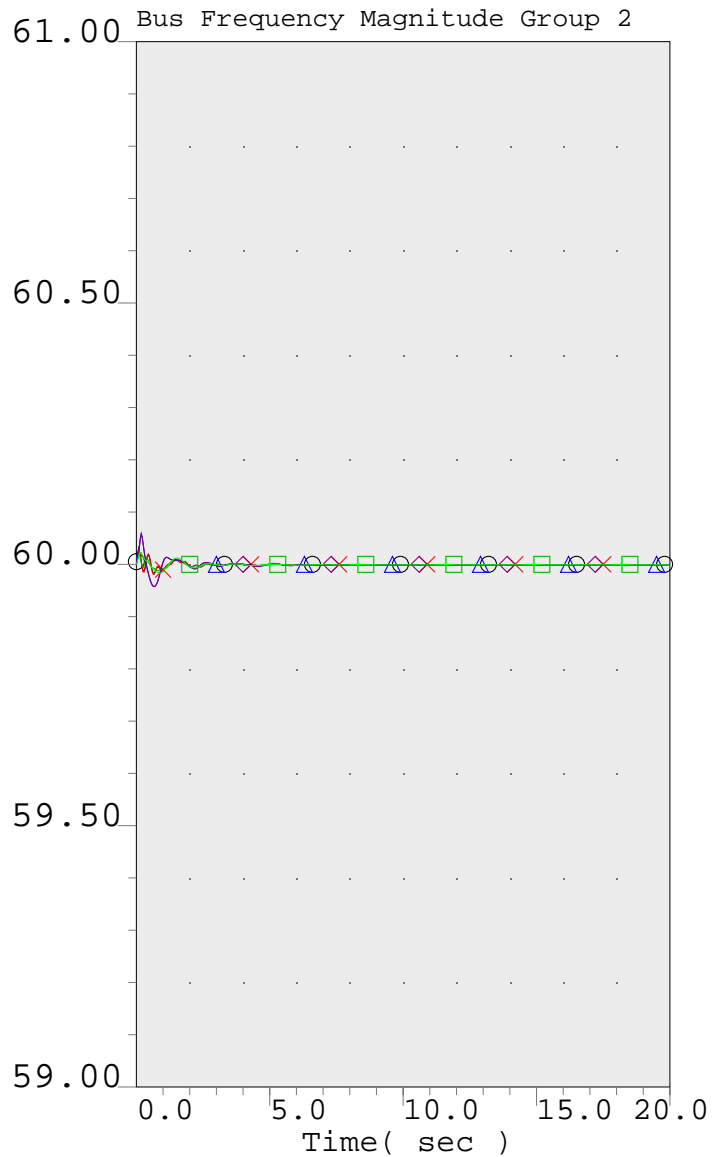
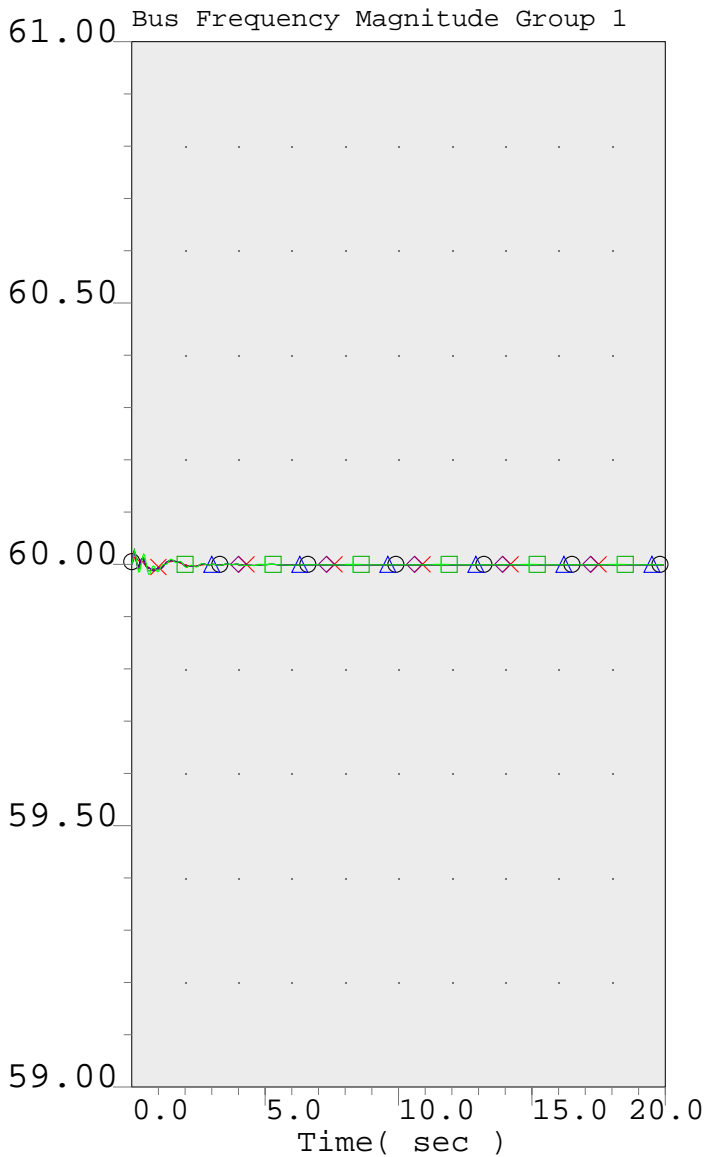
PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 GWF HEP - Henrietta 115-kV



PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 GWF HEP - Henrietta 115-kV



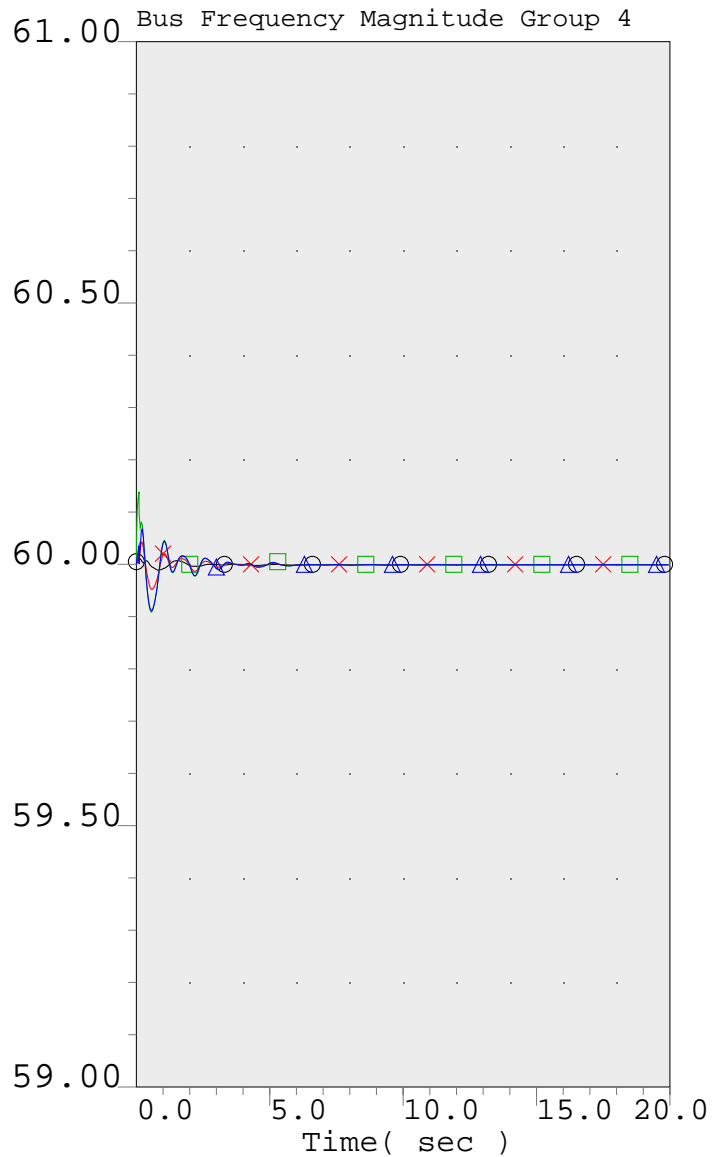
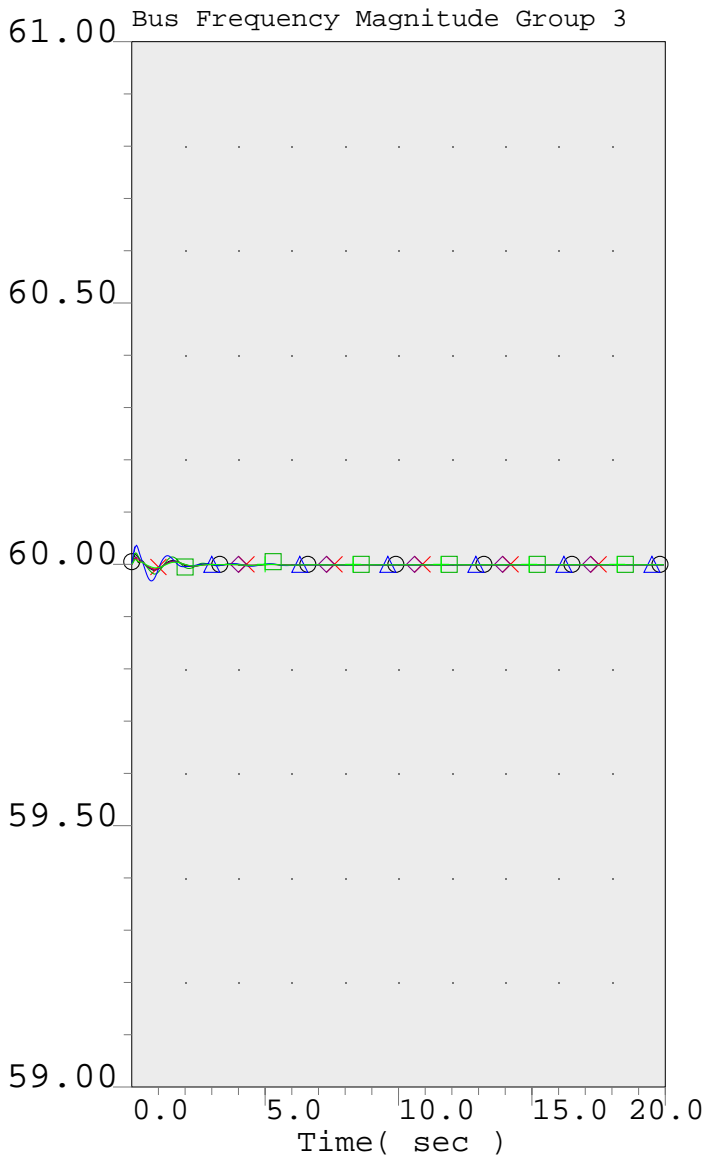
PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 GWF HEP - Henrietta 115-kV



○	59.0	70	fbul34540	HENRITTA	70.0	*	1	61.0
×	59.0	70	fbul34544	TLRE LKE	70.0	*	1	61.0
□	59.0	70	fbul34542	JCBSCRNR	70.0	*	1	61.0
△	59.0	70	fbul34518	LEMOORE	70.0	*	1	61.0
◇	59.0	70	fbul34516	LEPRINO	70.0	*	1	61.0
+	59.0	70	fbul34532	ARMSTRNG	70.0	*	1	61.0

○	59.0	70	fbul34460	GUERNSEY	70.0	*	1	61.0
×	59.0	70	fbul34534	RESERVE	70.0	*	1	61.0
□	59.0	70	fbul34514	MUSLSLGH	70.0	*	1	61.0
△	59.0	70	fbul34458	HARDWICK	70.0	*	1	61.0
◇	59.0	70	fbus34576	KNGLOBUS	70.0	*	1	61.0
+	59.0	70	fbul34512	CARUTHR5	70.0	*	1	61.0

PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 GWF HEP - Henrietta 115-kV



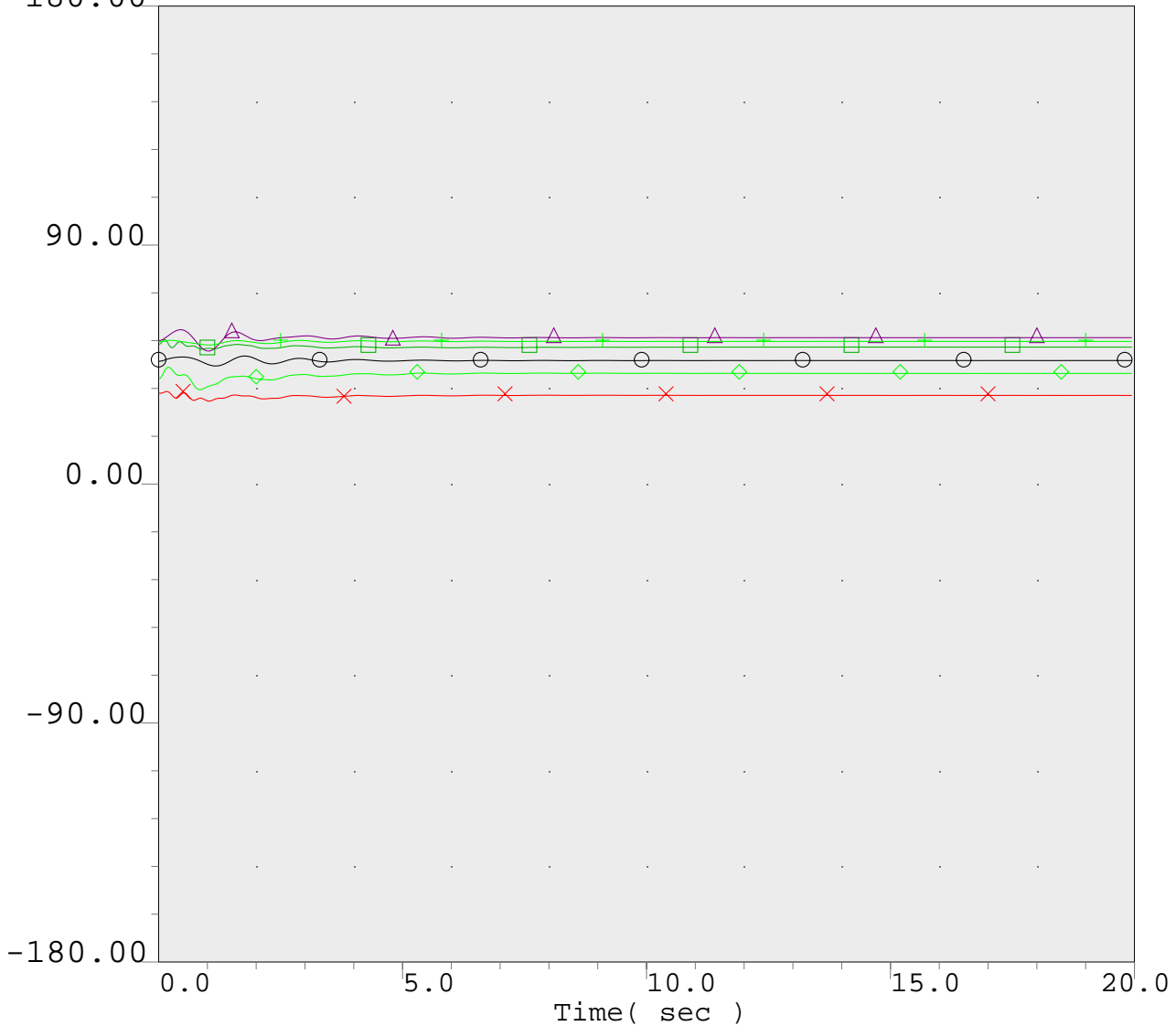
○	59.0	230	fbus0881	HENRIETA	230.0	*	1	61.0
○	59.0	230	fbus0900	GATES	230.0	*	1	61.0
○	59.0	230	fbus0810	GREGG	230.0	*	1	61.0
□	59.0	230	fbus0875	MC CALL	230.0	*	1	61.0
△	59.0	230	fbus0790	PANOCHÉ	230.0	*	1	61.0
+	59.0	230	fbus0935	ARCO	230.0	*	1	61.0

○	59.0	115	fbus4430	HENRETTA	115.0	1	1	61.0
○	59.0	115	fbus4521	LEPRNOFD	115.0	1	1	61.0
○	59.0	115	fbus4429	GWF_HEP	115.0	1	1	61.0
△	59.0	115	fbus4428	CONTADNA	115.0	1	1	61.0

PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 GWF HEP - Henrietta 115-kV



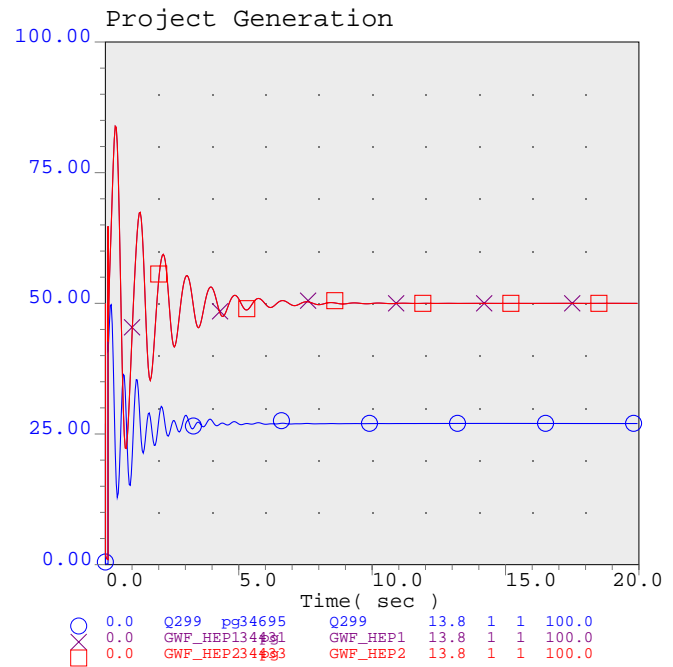
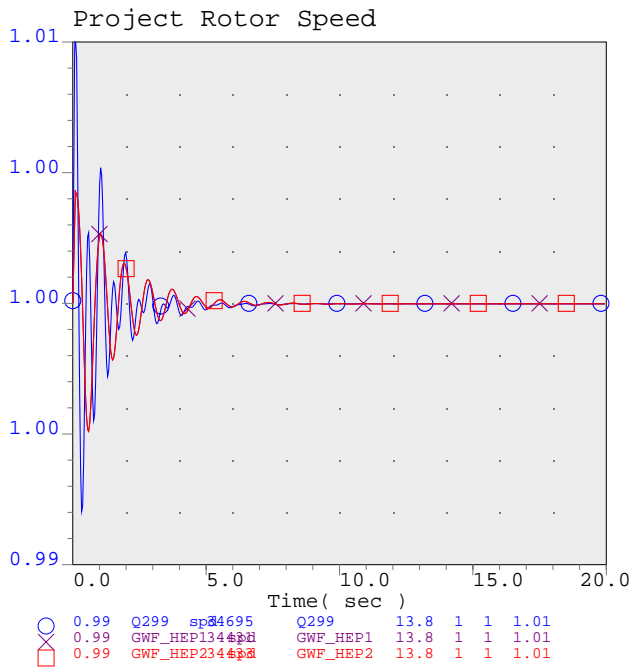
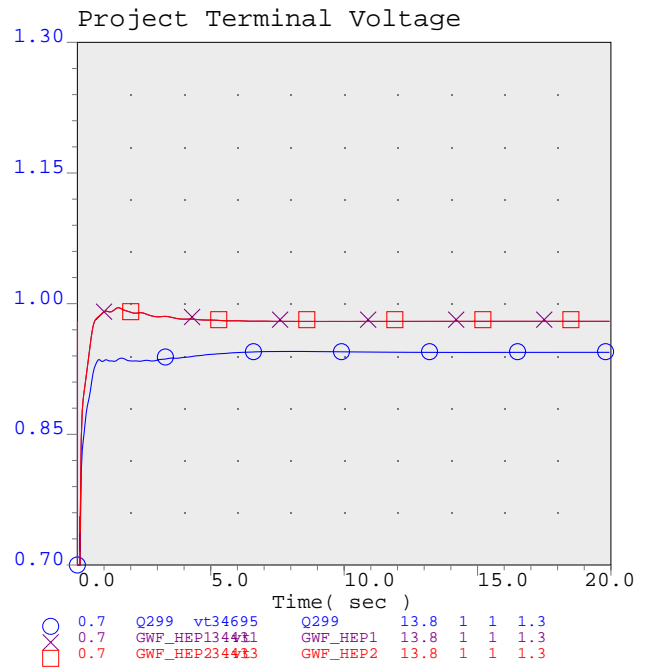
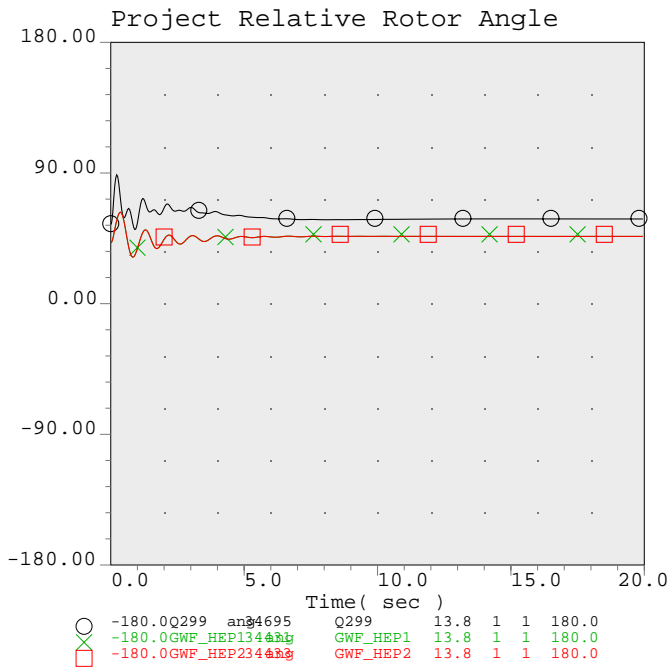
180.00 Generator Angles of Local Units



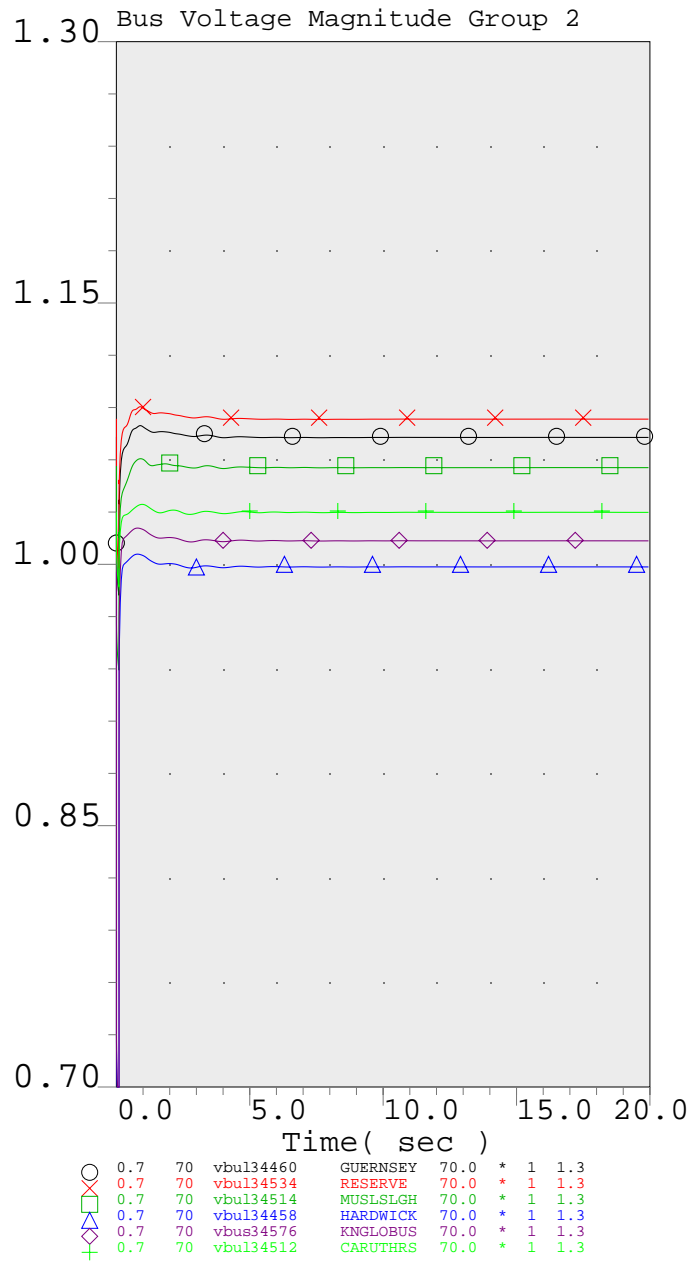
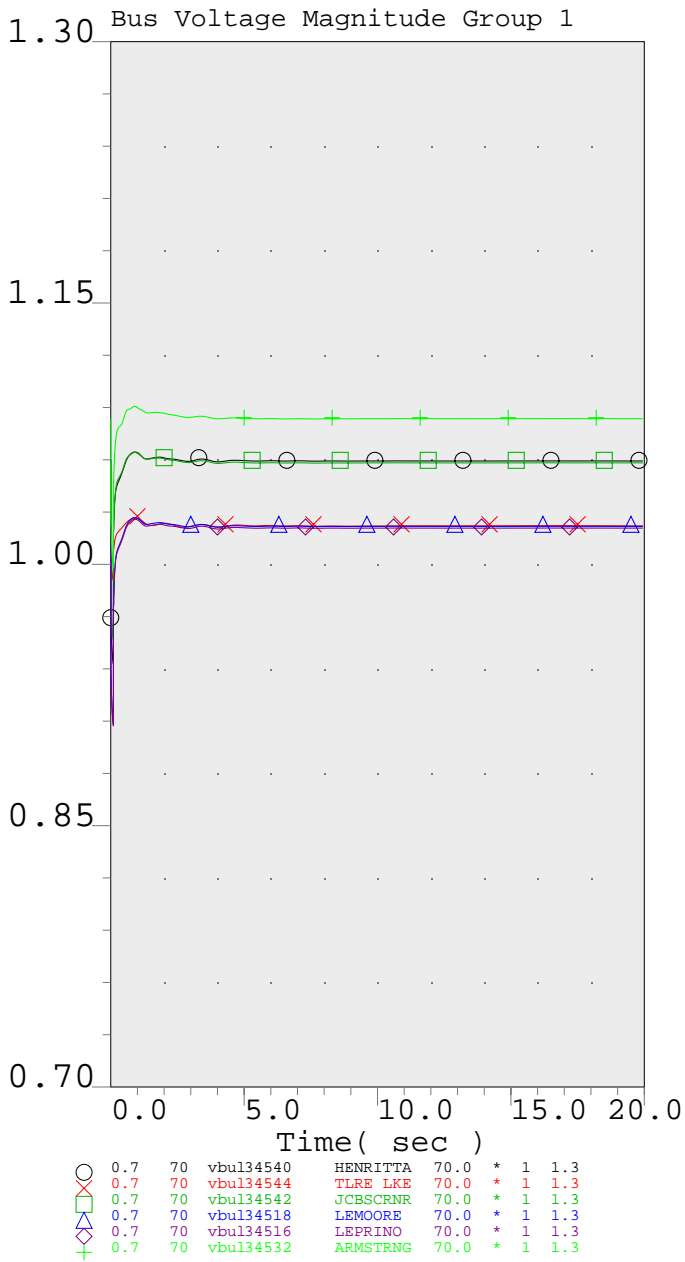
○	-180.0	#1	ang	34600	HELMS 1	18.0	*	1	180.0
×	-180.0	GWF-PWR	ang	34650	GWF-PWR.	13.8	*	1	180.0
□	-180.0	GWF_GT1	ang	34539	GWF_GT1	13.8	*	1	180.0
△	-180.0	GT1	ang	34661	P0418GT1	13.8	*	1	180.0
◇	-180.0	Cogen	ang	34642	KINGSBUR	9.1	*	1	180.0
+	-180.0	Q254	ang	34688	Q254CTG1	18.0	*	1	180.0

PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 GWF HEP - Henrietta 115-kV

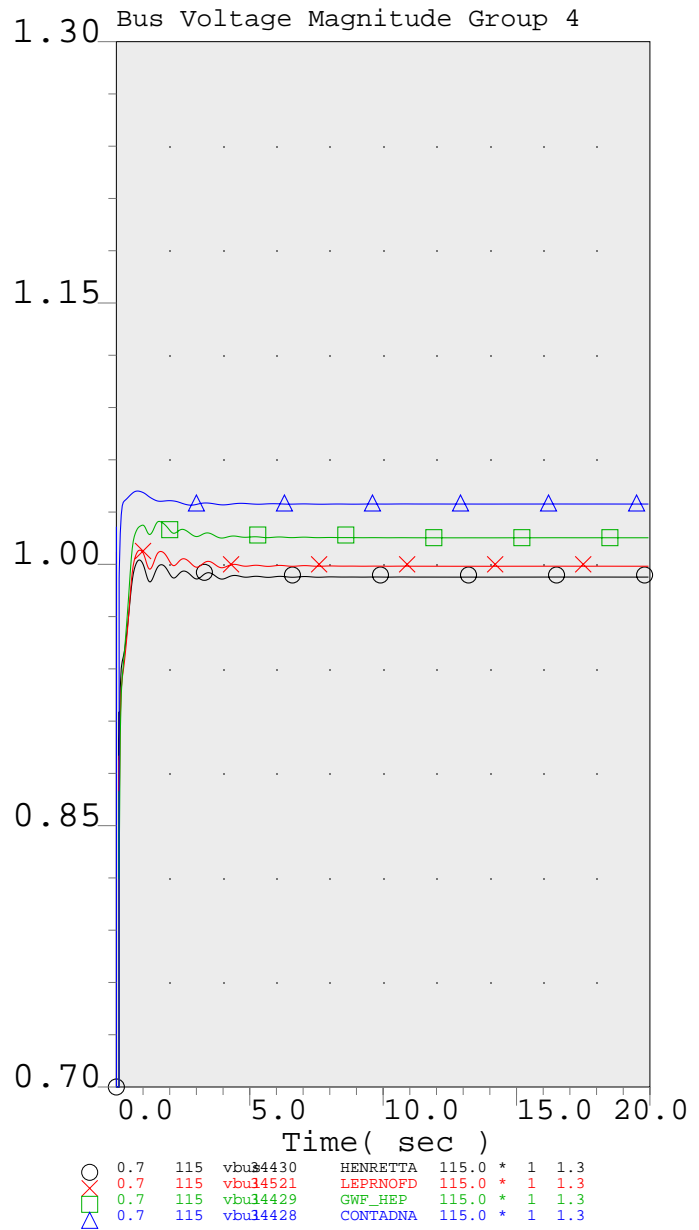
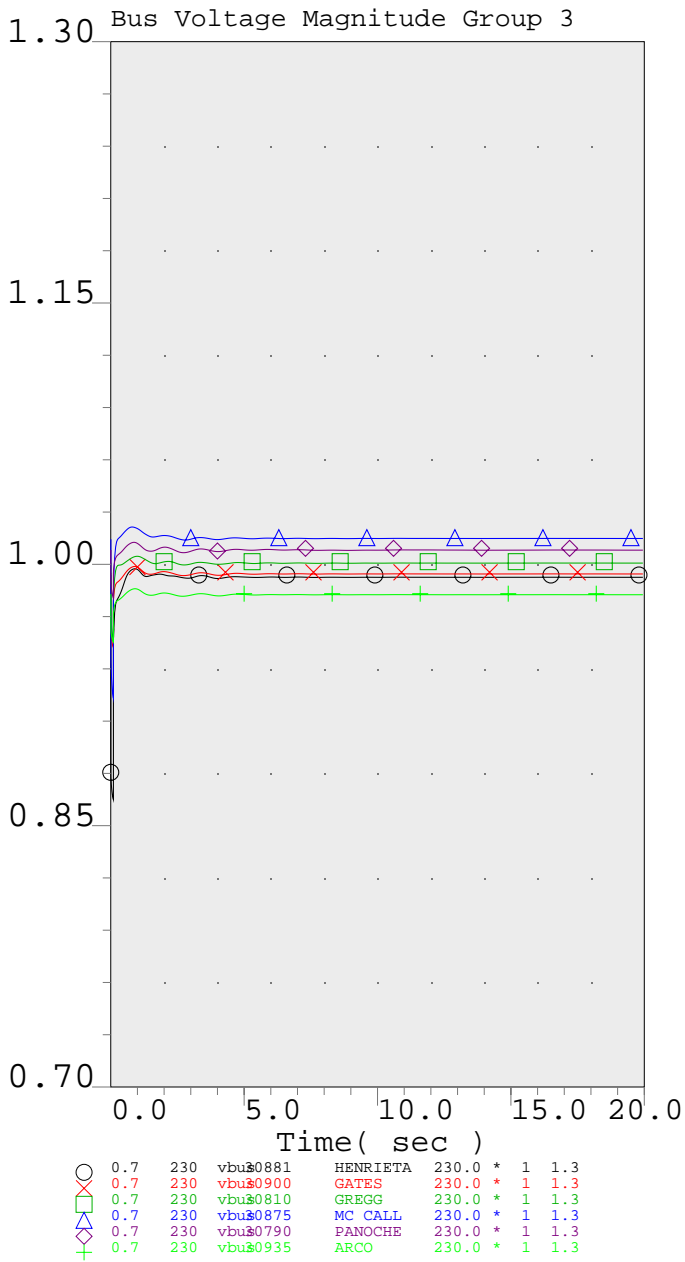
Three-phase close-in fault on the GWF Hanford Switchyard-Kingsburg 115-kV line at the GWF Hanford Switchyard 115-kV bus with normal clearing time followed by the loss of the GWF Hanford Switchyard- Kingsburg 115-kV line.



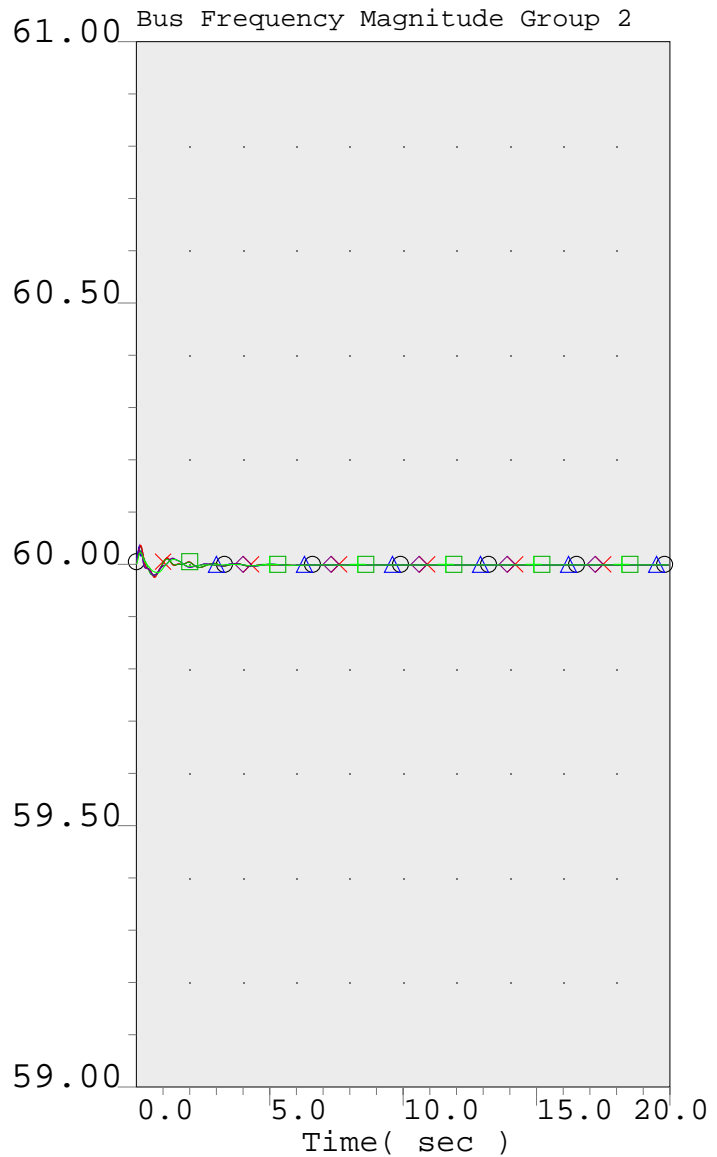
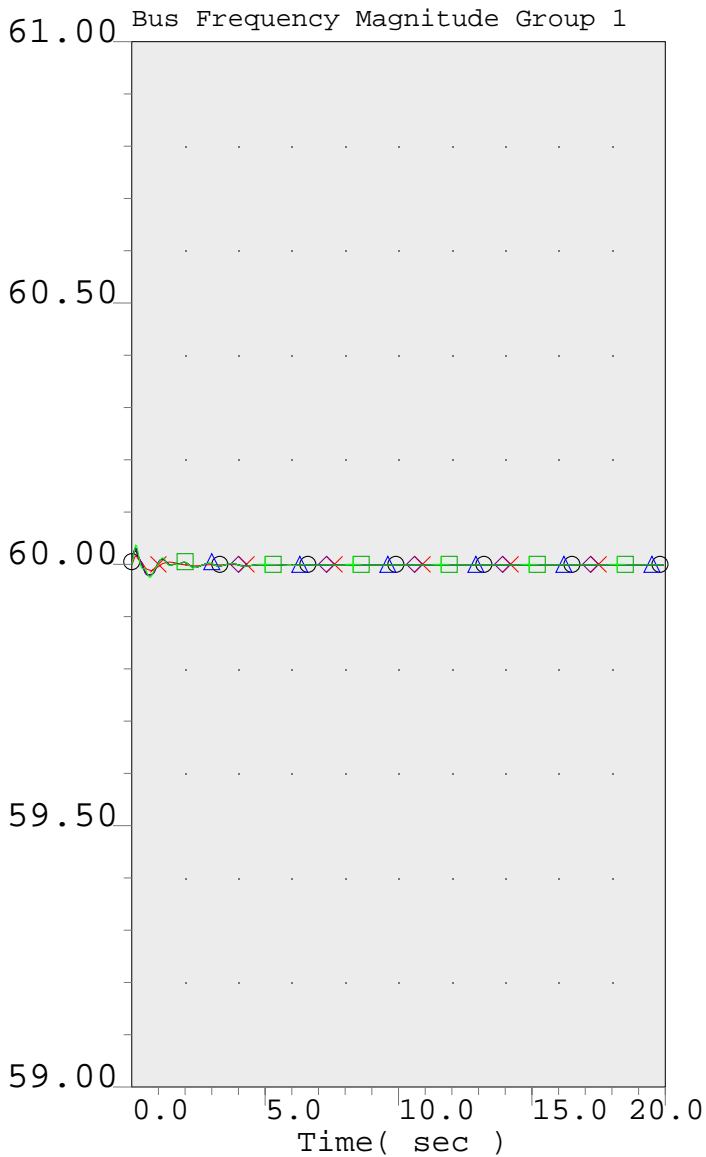
PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 GWF HEP - Kingsburg 115-kV



PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 GWF HEP - Kingsburg 115-kV



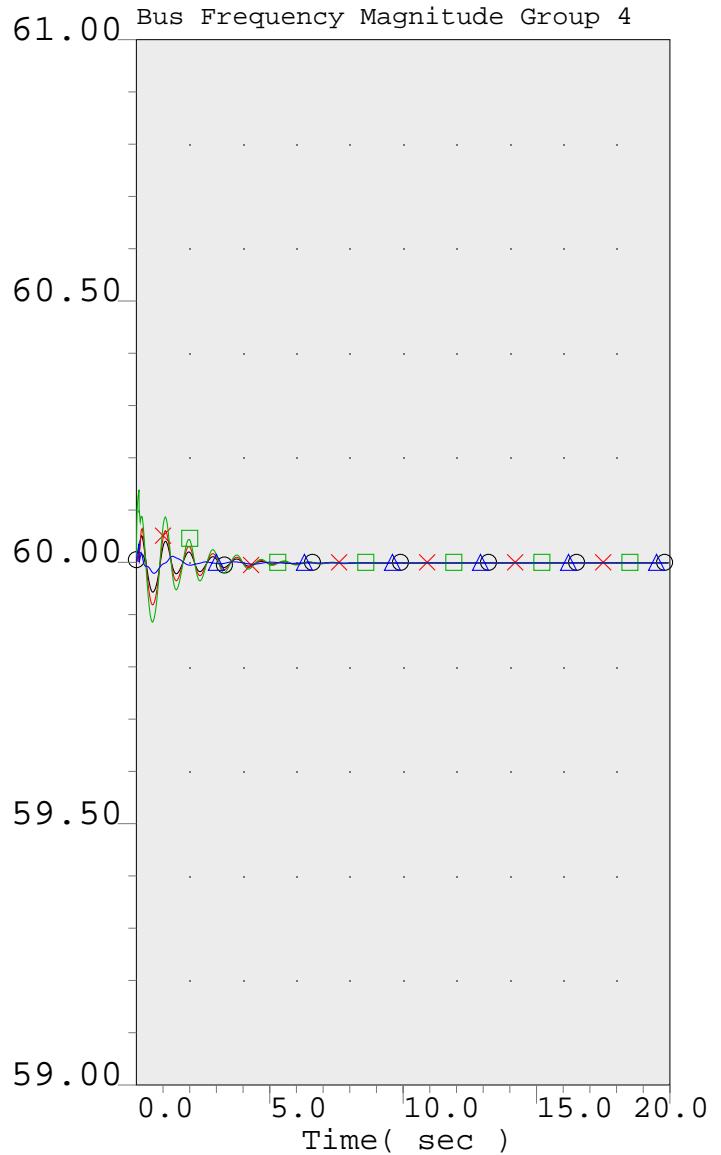
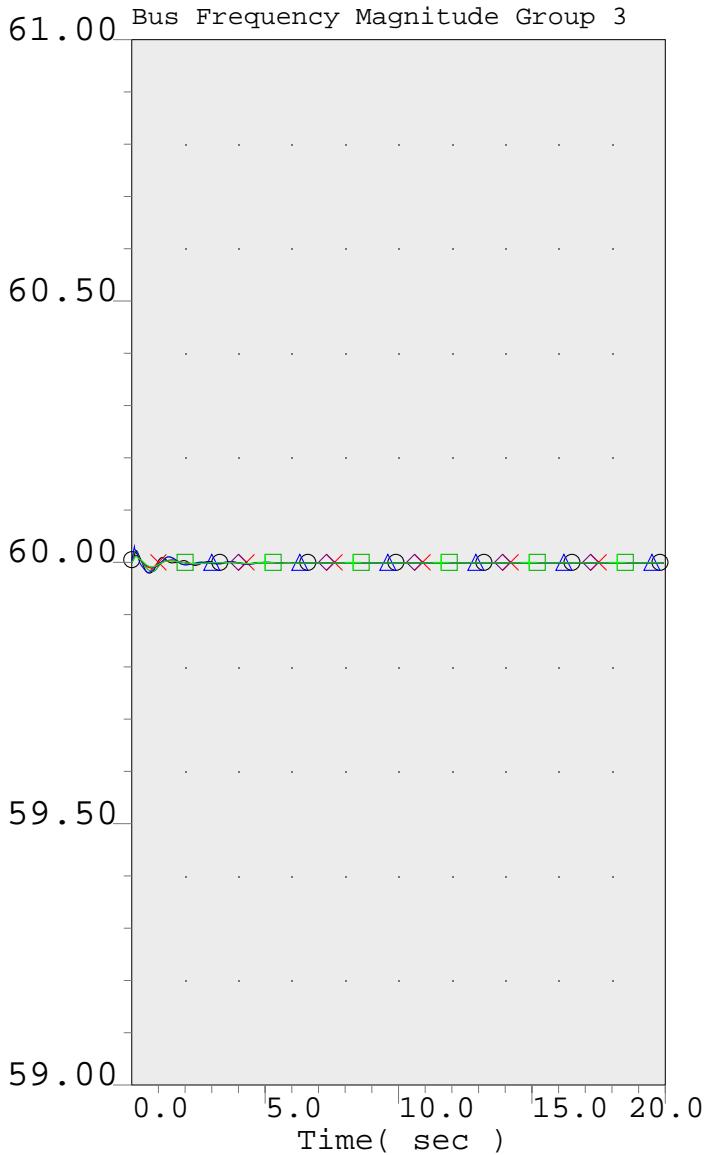
PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 GWF HEP - Kingsburg 115-kV



○	59.0	70	fbul34540	HENRITTA	70.0	*	1	61.0
×	59.0	70	fbul34544	TLRE LKE	70.0	*	1	61.0
□	59.0	70	fbul34542	JCBSCRNR	70.0	*	1	61.0
△	59.0	70	fbul34518	LEMOORE	70.0	*	1	61.0
◇	59.0	70	fbul34516	LEPRINO	70.0	*	1	61.0
+	59.0	70	fbul34532	ARMSTRNG	70.0	*	1	61.0

○	59.0	70	fbul34460	GUERNSEY	70.0	*	1	61.0
×	59.0	70	fbul34534	RESERVE	70.0	*	1	61.0
□	59.0	70	fbul34514	MUSLSLGH	70.0	*	1	61.0
△	59.0	70	fbul34458	HARDWICK	70.0	*	1	61.0
◇	59.0	70	fbus34576	KNGLOBUS	70.0	*	1	61.0
+	59.0	70	fbul34512	CARUTHRS	70.0	*	1	61.0

PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 GWF HEP - Kingsburg 115-kV

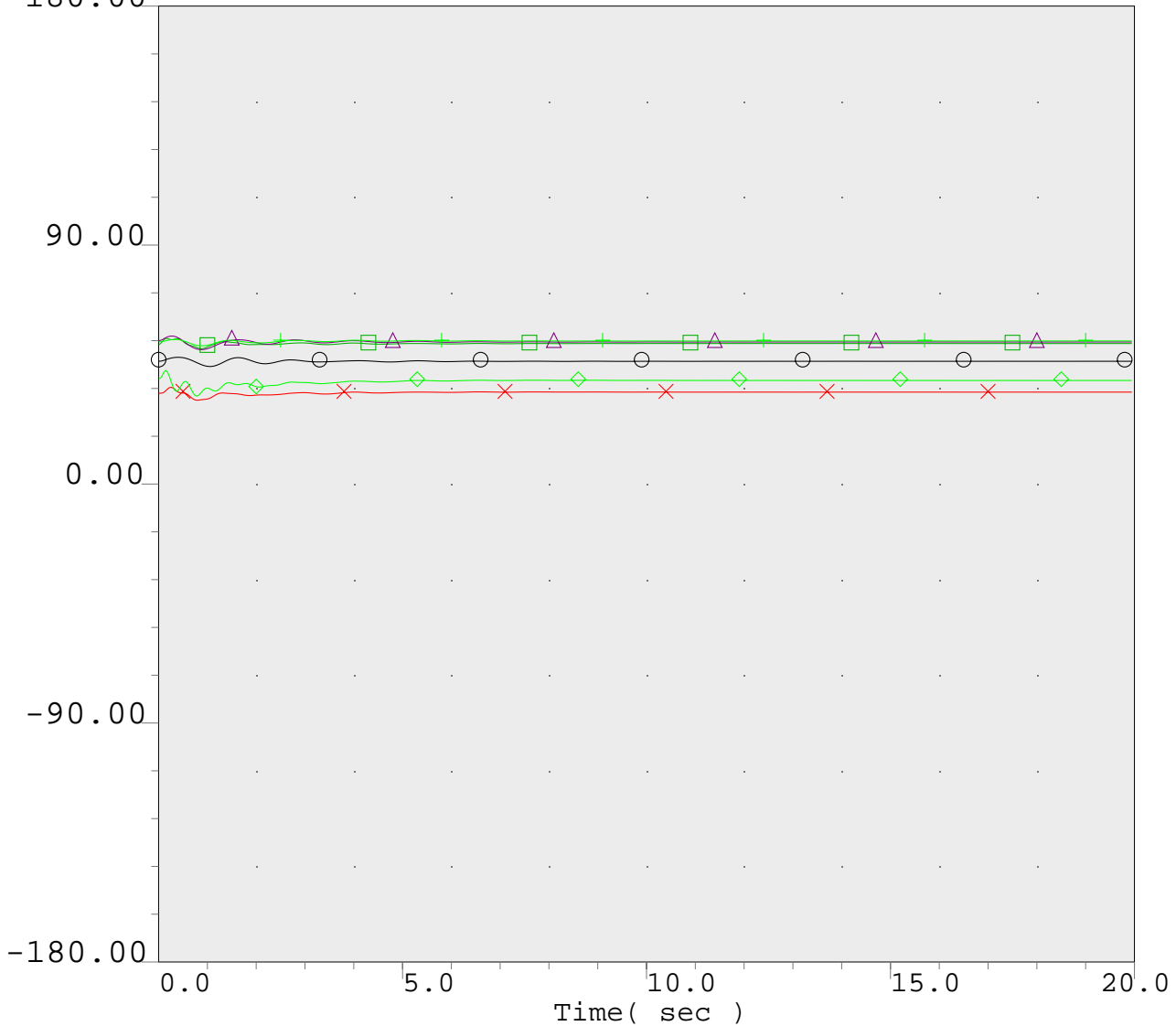


○	59.0	230	fbu0881	HENRIETA	230.0	*	1	61.0
○	59.0	230	fbu0900	GATES	230.0	*	1	61.0
○	59.0	230	fbu0810	GREGG	230.0	*	1	61.0
□	59.0	230	fbu0875	MC CALL	230.0	*	1	61.0
△	59.0	230	fbu0790	PANOCHÉ	230.0	*	1	61.0
+	59.0	230	fbu0935	ARCO	230.0	*	1	61.0

○	59.0	115	fbu4430	HENRETTA	115.0	1	1	61.0
○	59.0	115	fbu4421	LEPRNOFD	115.0	1	1	61.0
○	59.0	115	fbu4429	GWF_HEP	115.0	1	1	61.0
△	59.0	115	fbu4428	CONTADNA	115.0	1	1	61.0

PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 GWF HEP - Kingsburg 115-kV

180.00 Generator Angles of Local Units

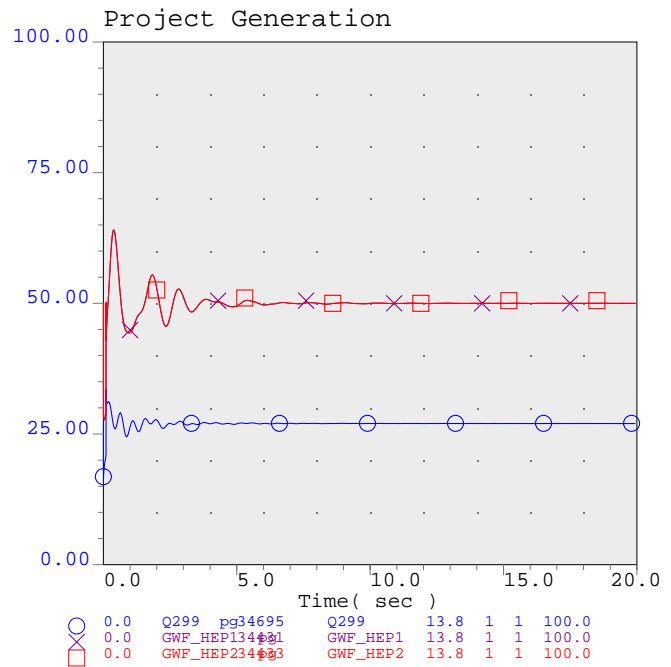
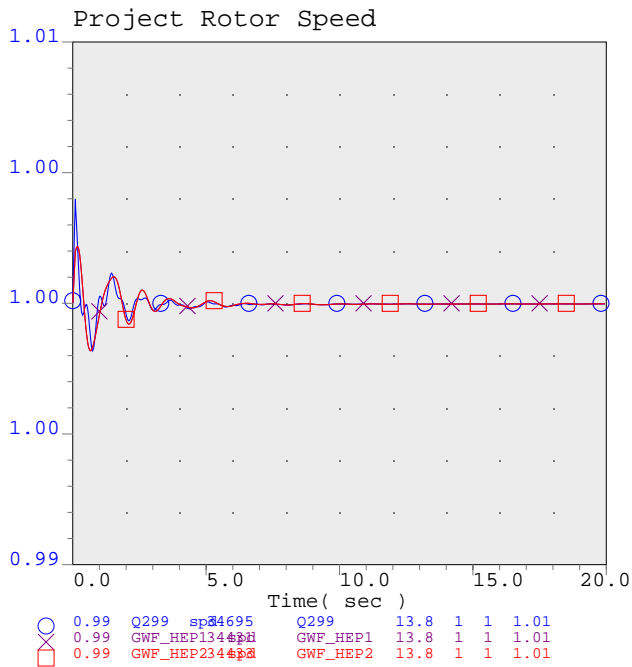
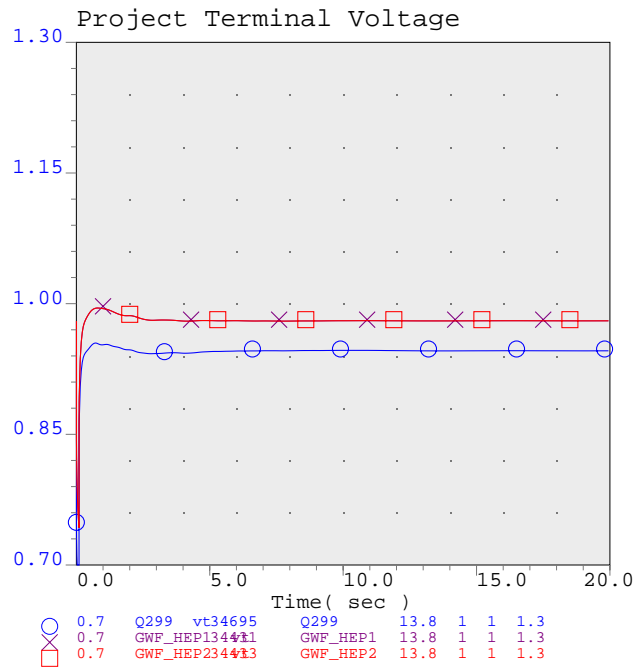
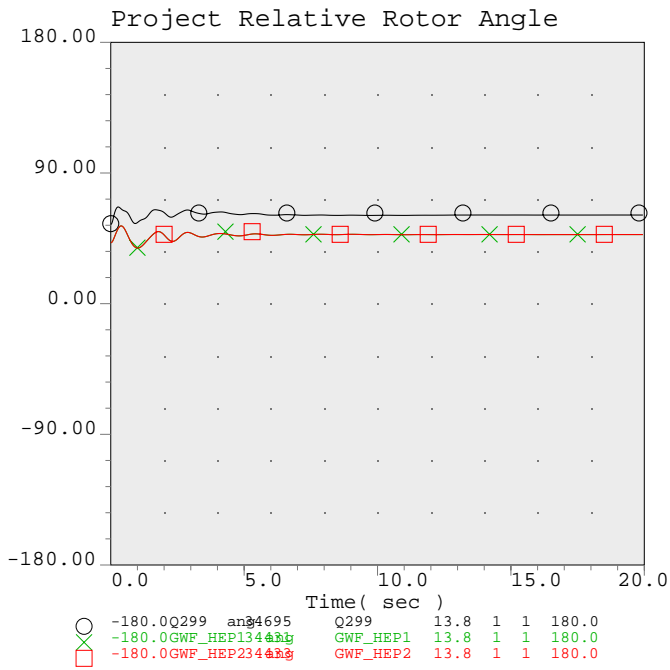


○	-180.0	#1	ang	34600	HELMS 1	18.0	*	1	180.0
×	-180.0	GWF-PWR	ang	34650	GWF-PWR.	13.8	*	1	180.0
□	-180.0	GWF_GT1	ang	34539	GWF_GT1	13.8	*	1	180.0
△	-180.0	GT1	ang	34661	P0418GT1	13.8	*	1	180.0
◇	-180.0	Cogen	ang	34642	KINGSBUR	9.1	*	1	180.0
+	-180.0	Q254	ang	34688	Q254CTG1	18.0	*	1	180.0

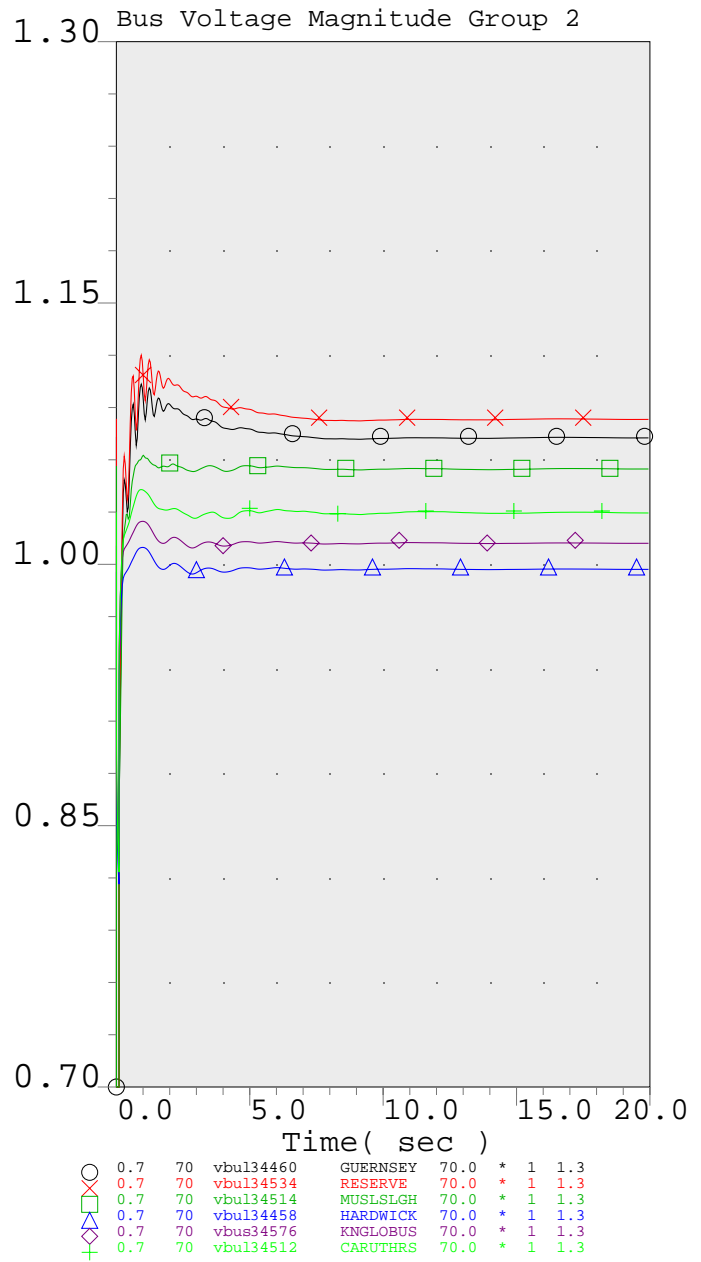
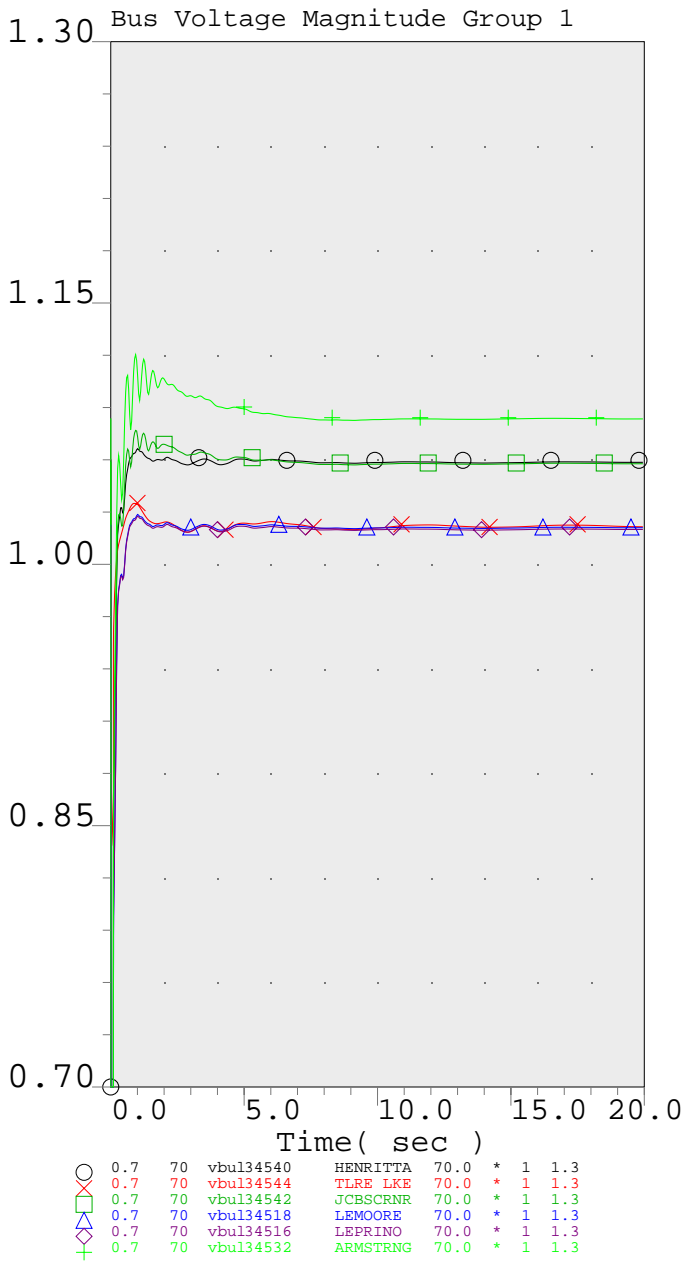
PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 GWF HEP - Kingsburg 115-kV



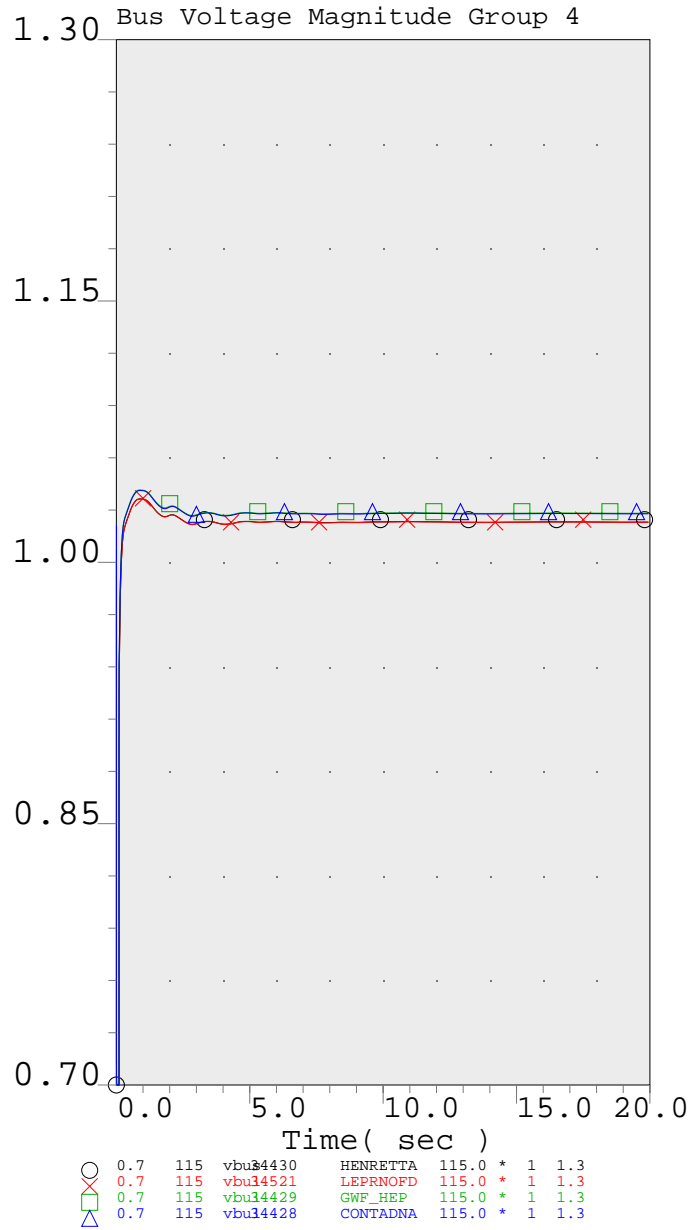
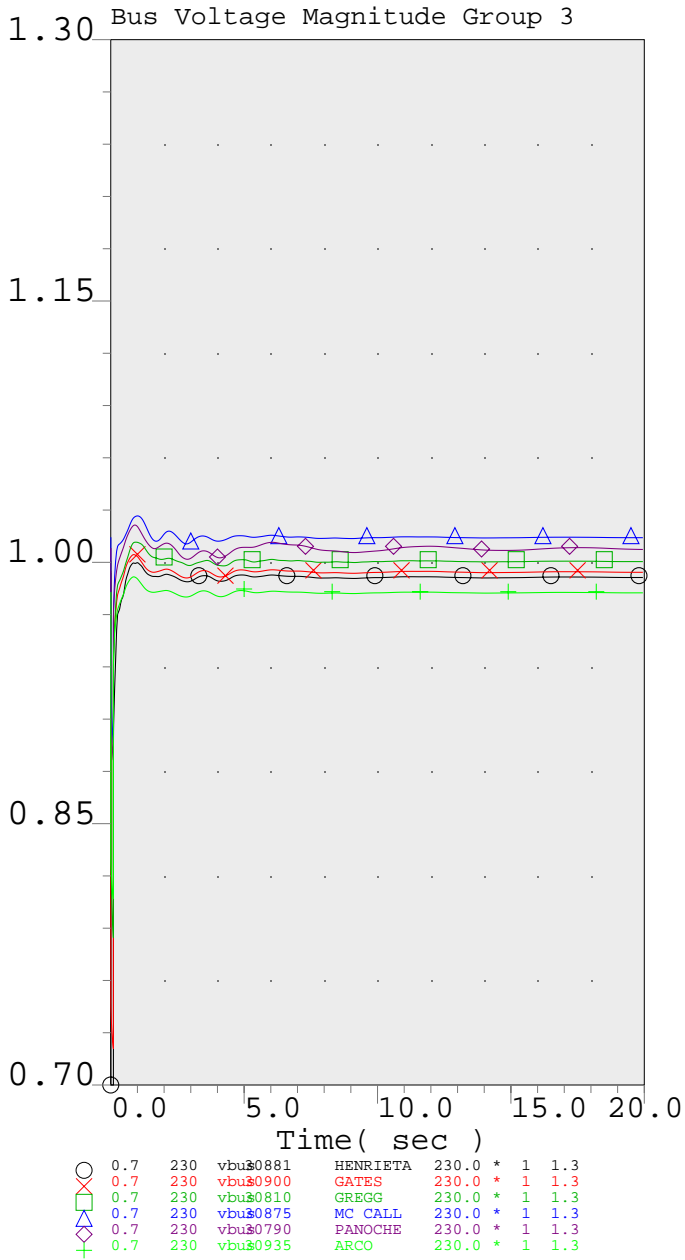
Three-phase close-in fault on the Henrietta 230/115-kV Transformer #3 at the Henrietta 115-kV bus with normal clearing time followed by the loss of the Henrietta 230/115-kV Transformer #3.



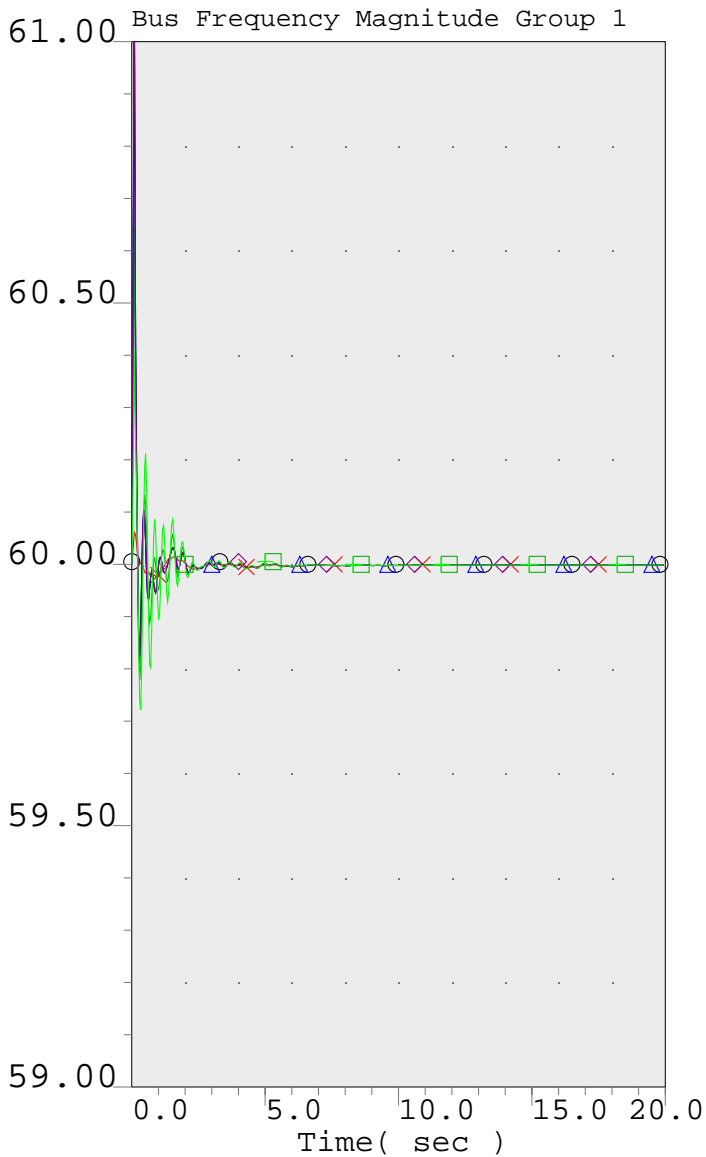
PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 Henrietta 230/70-kV Bk#4



PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 Henrietta 230/70-kV Bk#4



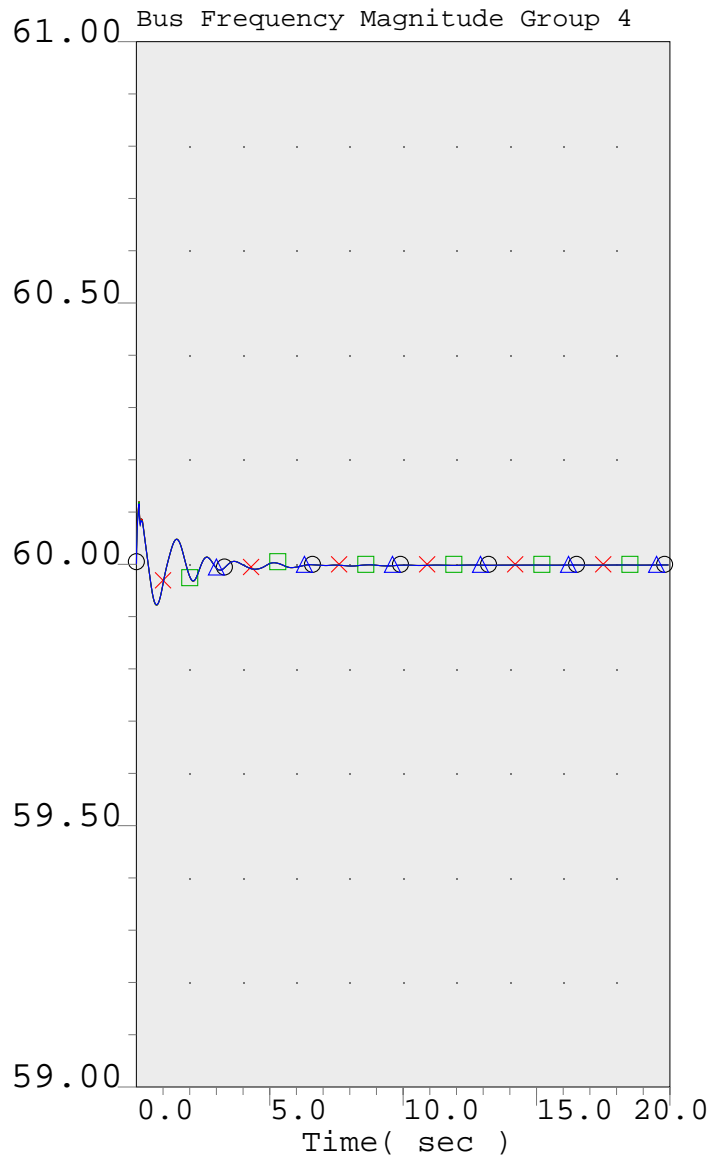
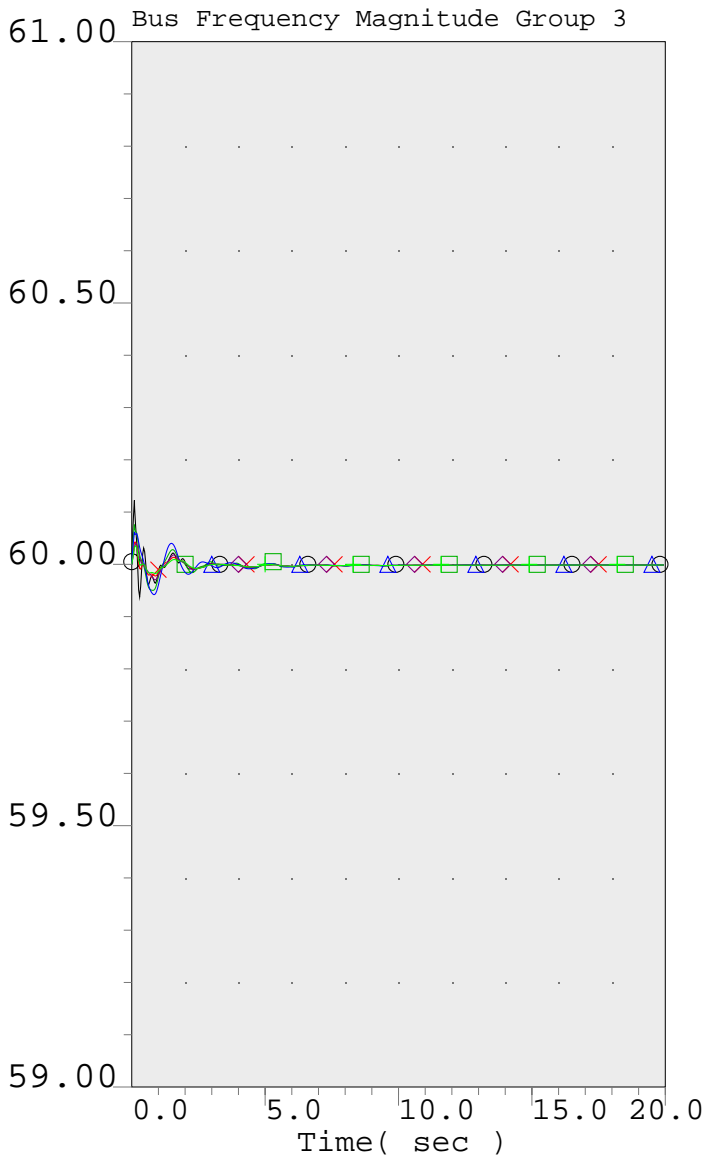
PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 Henrietta 230/70-kV Bk#4



○	59.0	70	fbul34540	HENRITTA	70.0	*	1	61.0
⊗	59.0	70	fbul34544	TLRE LKE	70.0	*	1	61.0
○	59.0	70	fbul34542	JCBSCRNR	70.0	*	1	61.0
△	59.0	70	fbul34518	LEMOORE	70.0	*	1	61.0
◇	59.0	70	fbul34516	LEPRINO	70.0	*	1	61.0
+	59.0	70	fbul34532	ARMSTRNG	70.0	*	1	61.0

○	59.0	70	fbul34460	GUERNSEY	70.0	*	1	61.0
⊗	59.0	70	fbul34534	RESERVE	70.0	*	1	61.0
○	59.0	70	fbul34514	MUSLSLGH	70.0	*	1	61.0
△	59.0	70	fbul34458	HARDWICK	70.0	*	1	61.0
◇	59.0	70	fbus34576	KNGLOBUS	70.0	*	1	61.0
+	59.0	70	fbul34512	CARUTHR5	70.0	*	1	61.0

PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 Henrietta 230/70-kV Bk#4

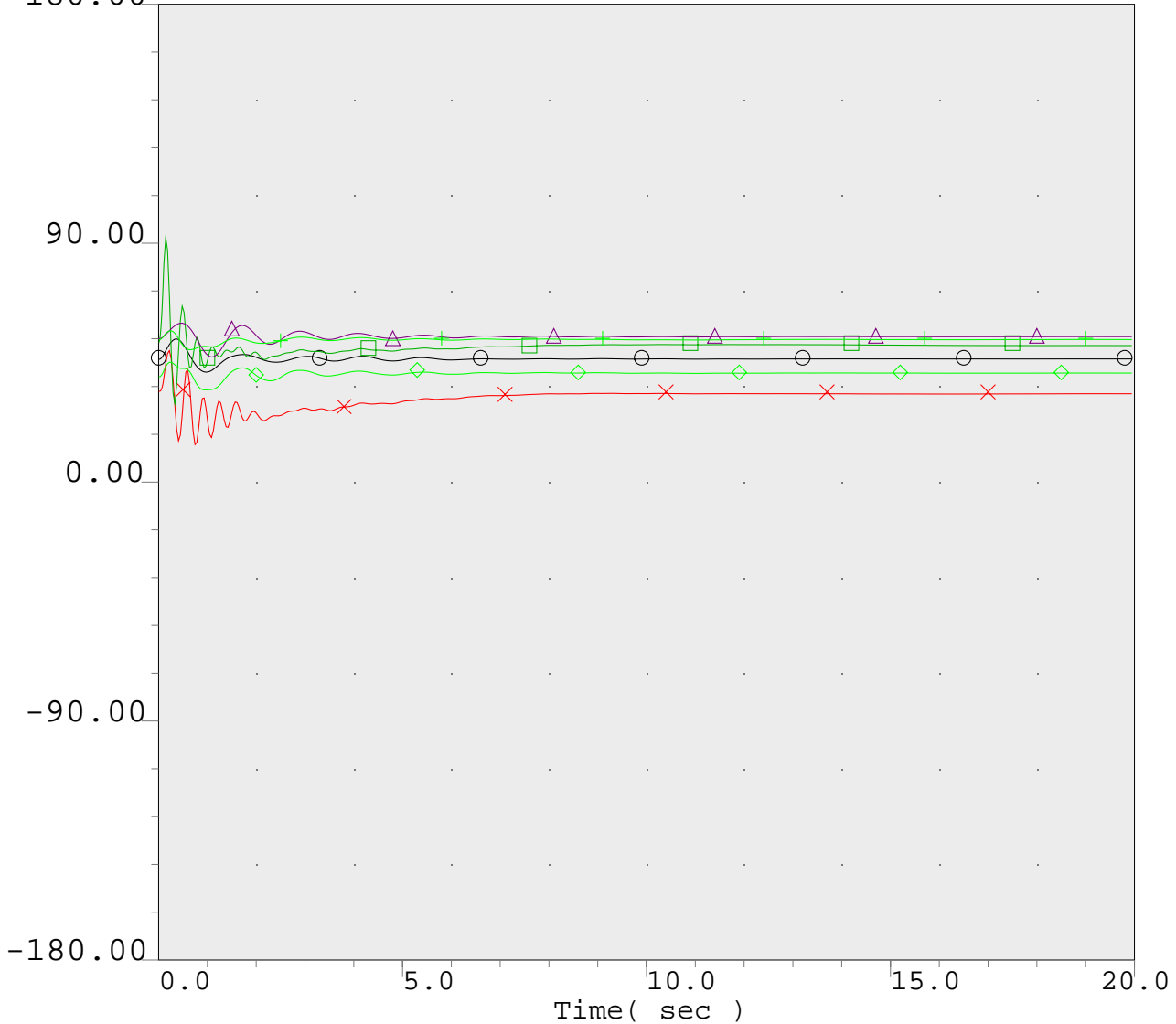


○	59.0	230	fbus0881	HENRIETA	230.0	*	1	61.0
○	59.0	230	fbus0900	GATES	230.0	*	1	61.0
○	59.0	230	fbus0810	GREGG	230.0	*	1	61.0
□	59.0	230	fbus0875	MC CALL	230.0	*	1	61.0
△	59.0	230	fbus0790	PANOCHÉ	230.0	*	1	61.0
+	59.0	230	fbus0935	ARCO	230.0	*	1	61.0

○	59.0	115	fbus4430	HENRETTA	115.0	1	1	61.0
○	59.0	115	fbus4521	LEPRNOFD	115.0	1	1	61.0
○	59.0	115	fbus4429	GWF_HEP	115.0	1	1	61.0
△	59.0	115	fbus4428	CONTADNA	115.0	1	1	61.0

PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 Henrietta 230/70-kV Bk#4

180.00 Generator Angles of Local Units

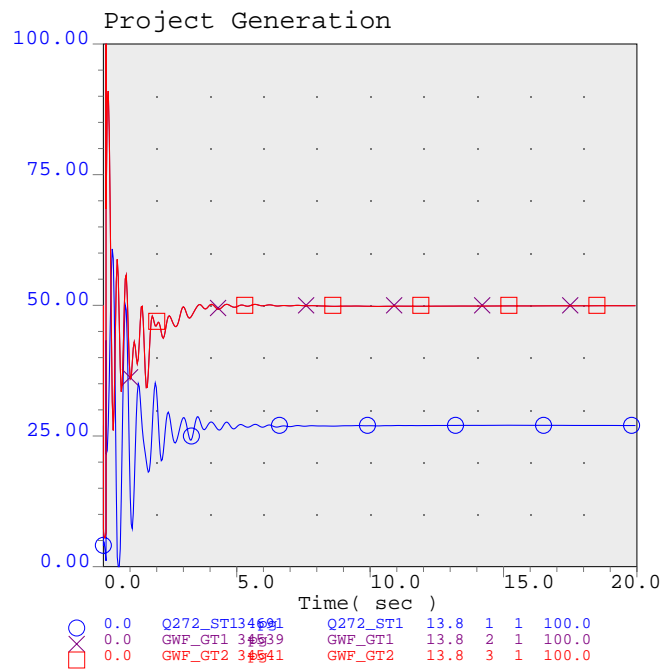
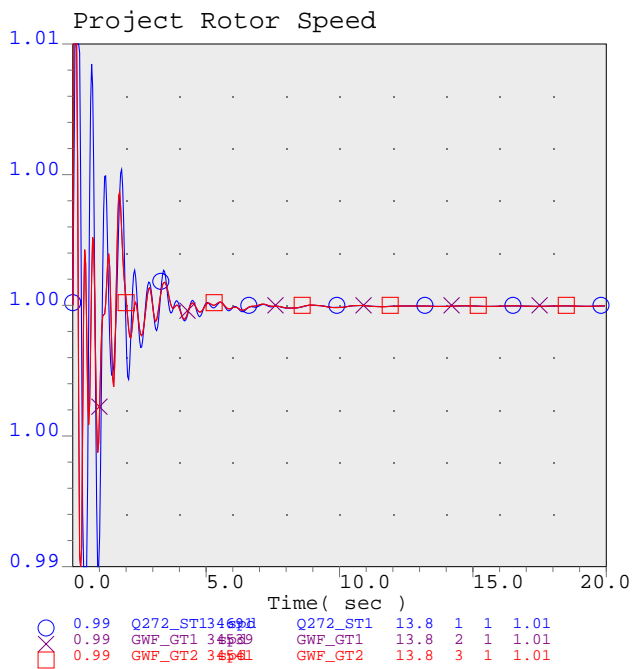
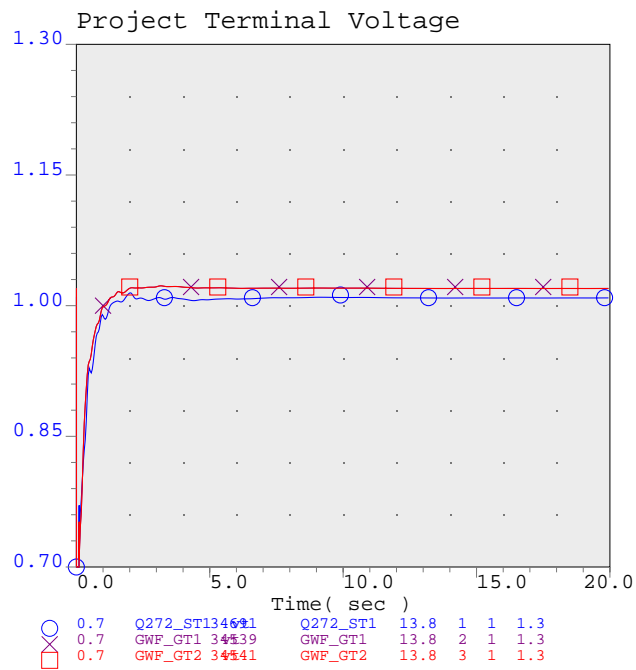
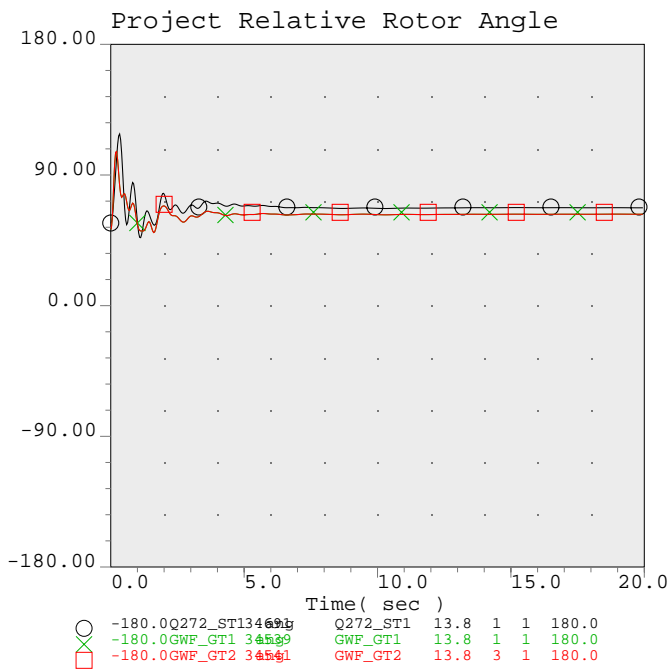


Symbol	Angle (deg)	Unit Name	Value	Unit	Value	Unit	Value
○	-180.0	#1 ang	34600	HELMS 1	18.0	*	1 180.0
×	-180.0	GWF-PWR ang	4650	GWF-PWR.	13.8	*	1 180.0
□	-180.0	GWF_GT1 ang	539	GWF_GT1	13.8	*	1 180.0
△	-180.0	GT1 ang	34661	P0418GT1	13.8	*	1 180.0
◇	-180.0	Cogen ang	34642	KINGSBUR	9.1	*	1 180.0
+	-180.0	Q254 ang	34688	Q254CTG1	18.0	*	1 180.0

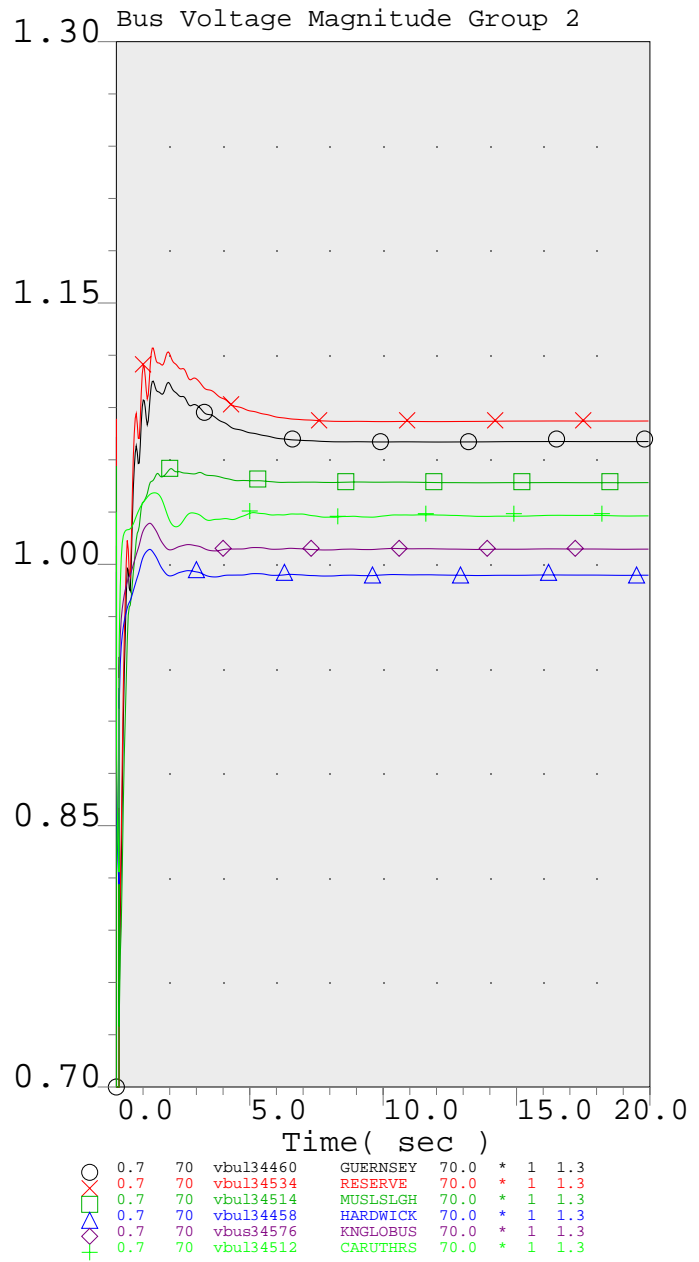
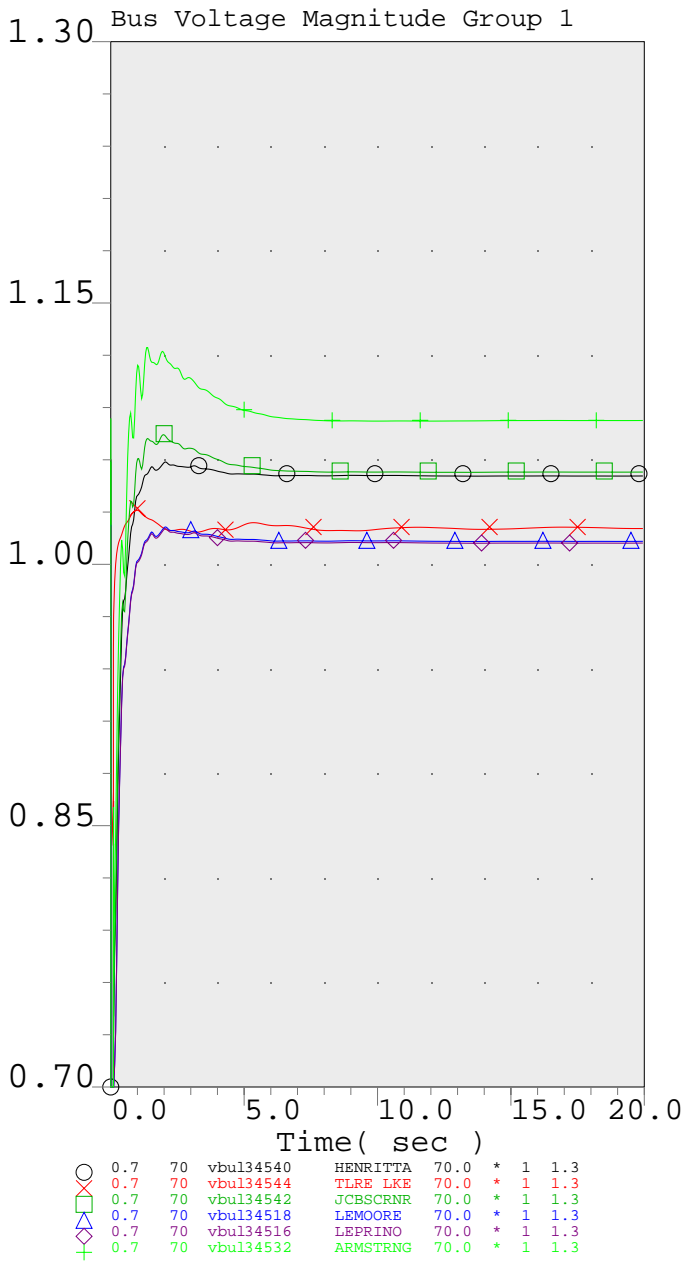
PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 Henrietta 230/70-kV Bk#4

Three-phase fault on the Gates-Gregg and Gates-McCall 230-kV lines at the Henrietta 230-kV bus with normal clearing time followed by the loss of the Gates-Gregg and Gates-McCall 230-kV lines.

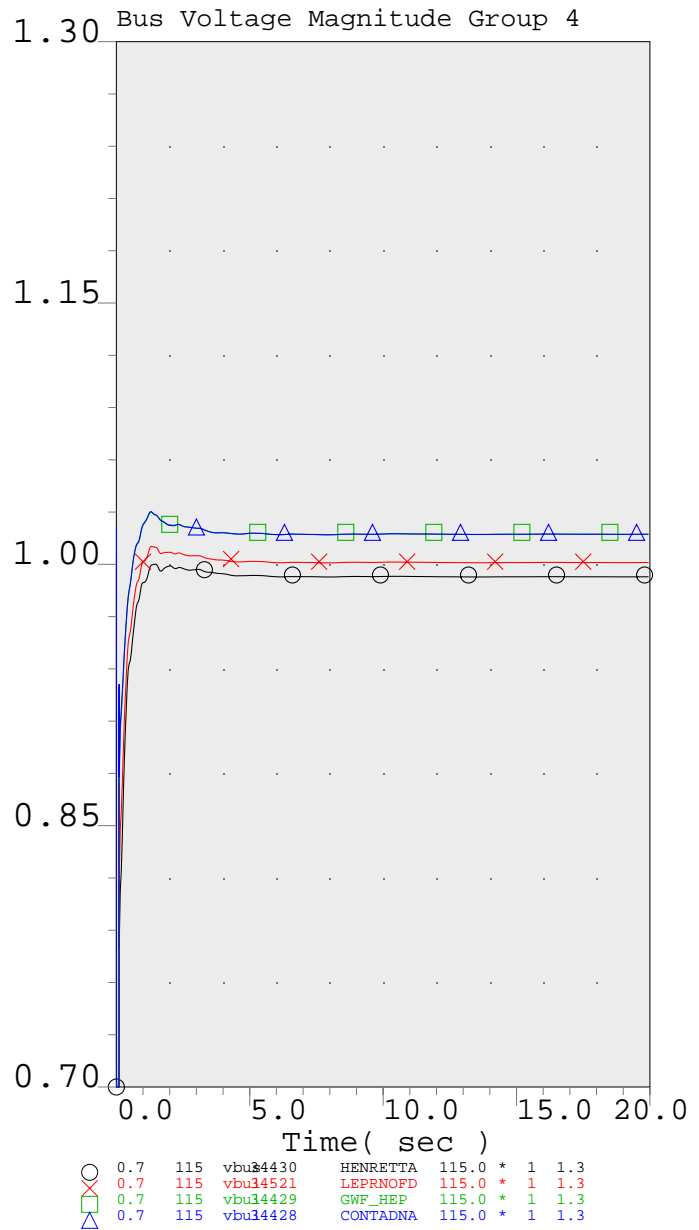
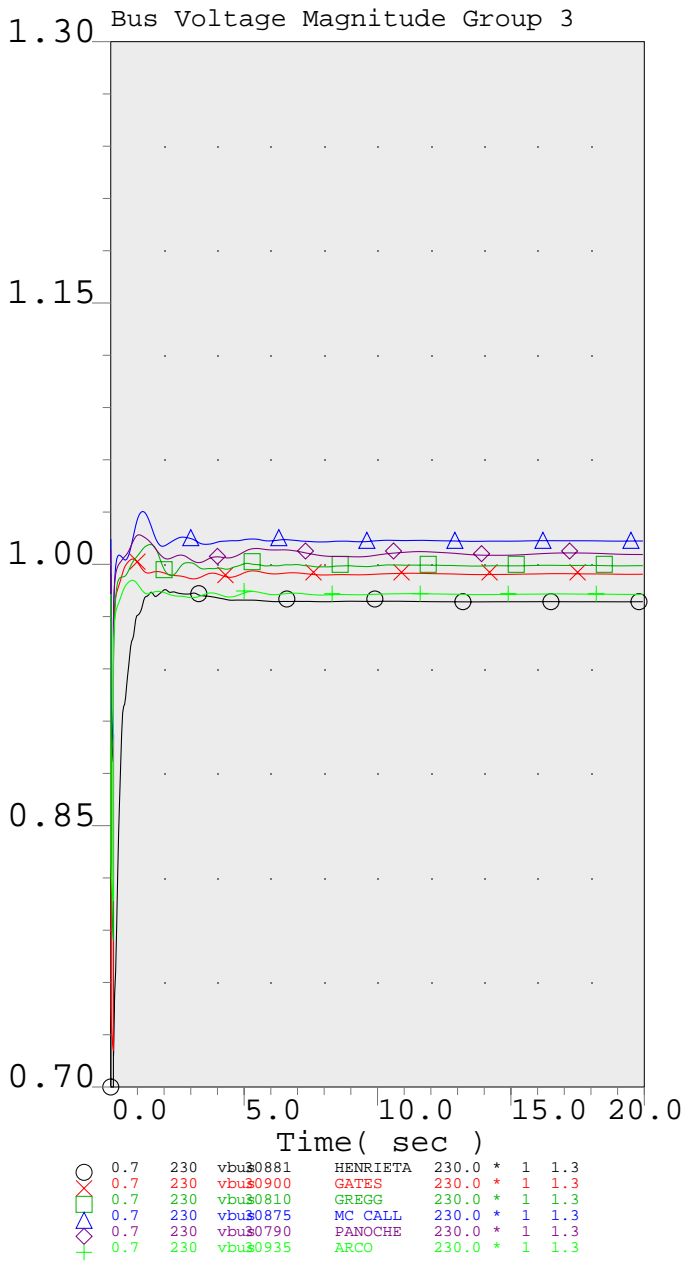




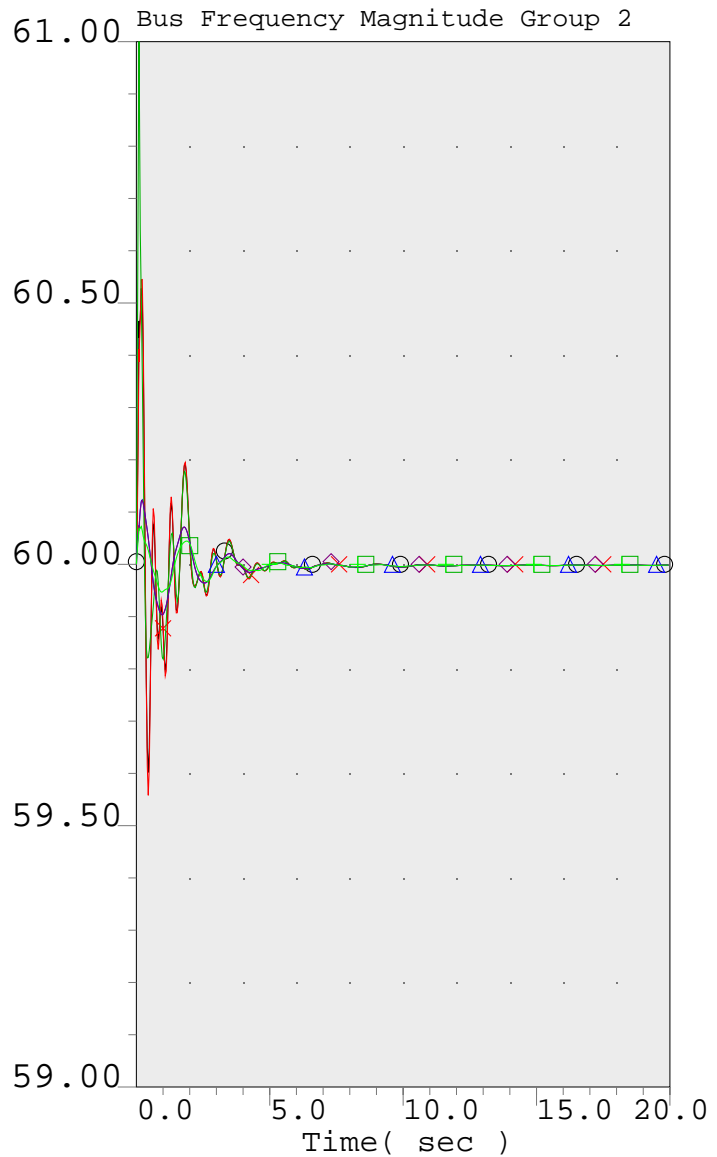
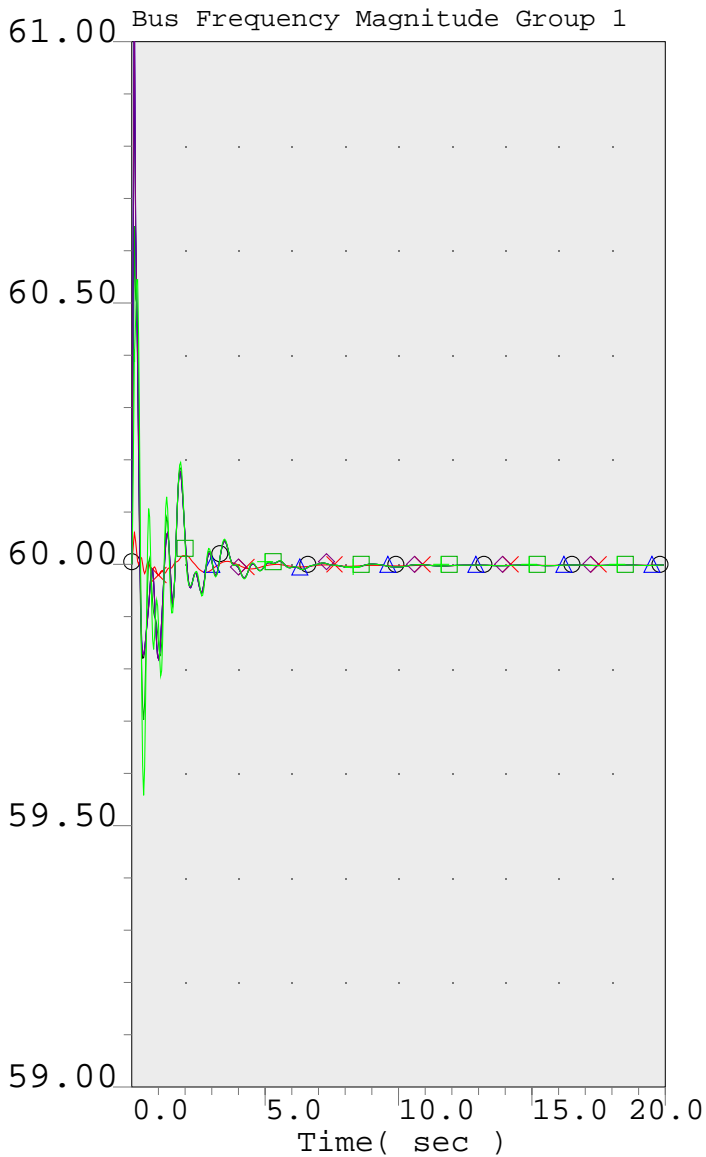
PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 Henrietta 230-kV Bus Outage



PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 Henrietta 230-kV Bus Outage



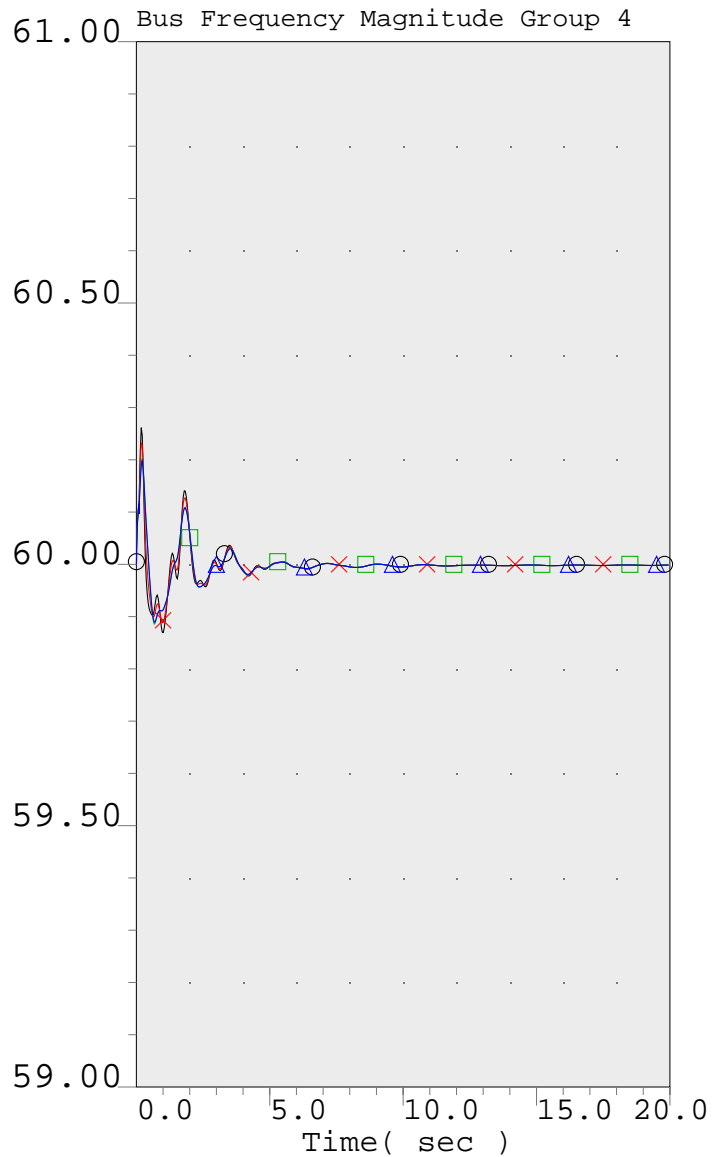
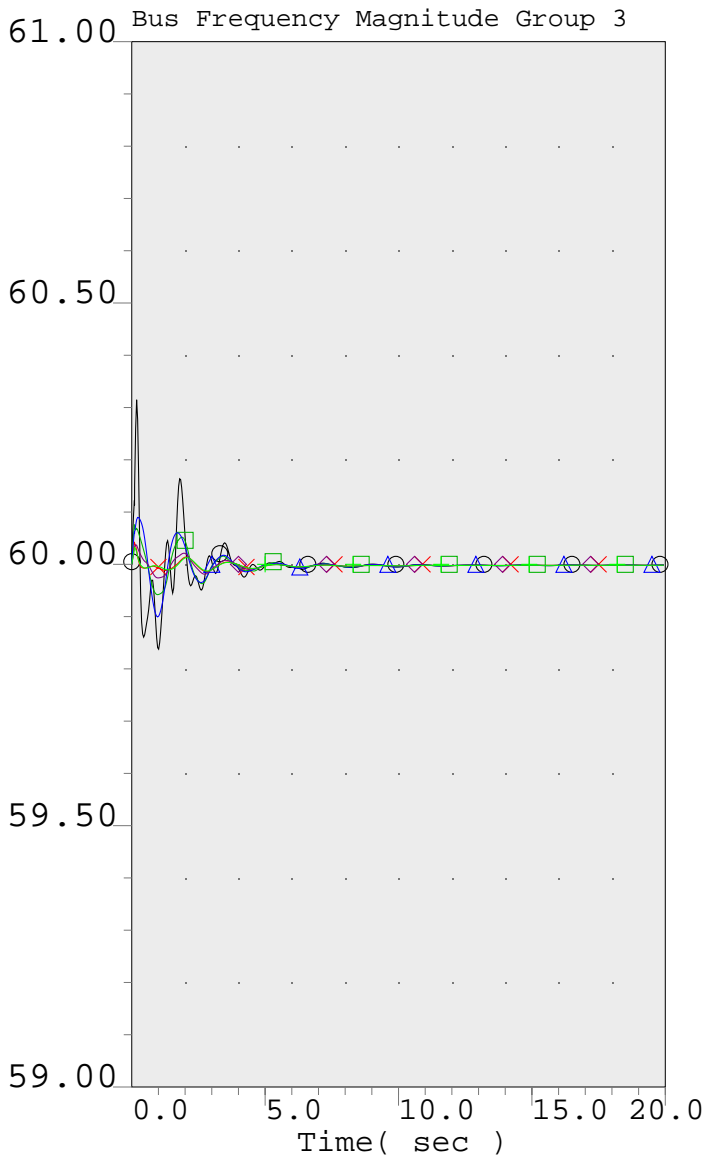
PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 Henrietta 230-kV Bus Outage



○	59.0	70	fbul34540	HENRITTA	70.0	*	1	61.0
⊗	59.0	70	fbul34544	TLRE LKE	70.0	*	1	61.0
○	59.0	70	fbul34542	JCBSCRNR	70.0	*	1	61.0
□	59.0	70	fbul34518	LEMOORE	70.0	*	1	61.0
◇	59.0	70	fbul34516	LEPRINO	70.0	*	1	61.0
+	59.0	70	fbul34532	ARMSTRNG	70.0	*	1	61.0

○	59.0	70	fbul34460	GUERNSEY	70.0	*	1	61.0
⊗	59.0	70	fbul34534	RESERVE	70.0	*	1	61.0
○	59.0	70	fbul34514	MUSLSLGH	70.0	*	1	61.0
□	59.0	70	fbul34458	HARDWICK	70.0	*	1	61.0
◇	59.0	70	fbus34576	KNGLOBUS	70.0	*	1	61.0
+	59.0	70	fbul34512	CARUTHR5	70.0	*	1	61.0

PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 Henrietta 230-kV Bus Outage

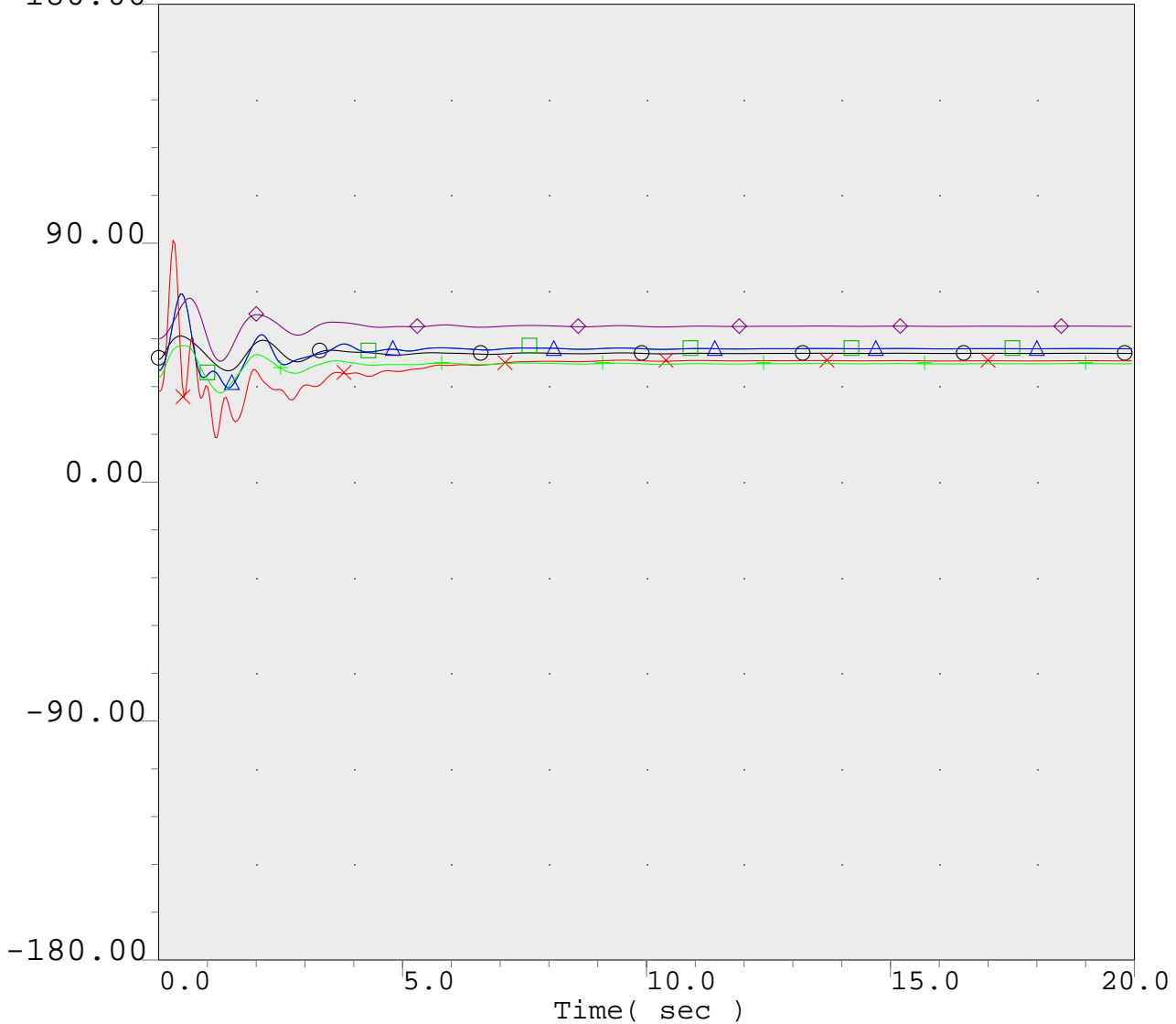


○	59.0	230	fbus0881	HENRIETA	230.0	*	1	61.0
⊗	59.0	230	fbus0900	GATES	230.0	*	1	61.0
□	59.0	230	fbus0810	GREGG	230.0	*	1	61.0
△	59.0	230	fbus0875	MC CALL	230.0	*	1	61.0
◇	59.0	230	fbus0790	PANOCHÉ	230.0	*	1	61.0
+	59.0	230	fbus0935	ARCO	230.0	*	1	61.0

○	59.0	115	fbus4430	HENRETTA	115.0	1	1	61.0
⊗	59.0	115	fbus4521	LEPRNOFD	115.0	1	1	61.0
□	59.0	115	fbus4429	GWF_HEP	115.0	1	1	61.0
△	59.0	115	fbus4428	CONTADNA	115.0	1	1	61.0

PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 Henrietta 230-kV Bus Outage

180.00 Generator Angles of Local Units



○	-180.0	#1 ang	34600	HELMS 1	18.0	*	1	180.0
×	-180.0	GWF-PWR ang	34650	GWF-PWR.	13.8	*	1	180.0
□	-180.0	1 ang	34431	GWF_HEP1	13.8	*	1	180.0
△	-180.0	2 ang	34433	GWF_HEP2	13.8	*	1	180.0
◇	-180.0	GT1 ang	34661	P0418GT1	13.8	*	1	180.0
+	-180.0	Cogen ang	34642	KINGSBUR	9.1	*	1	180.0

PG&E 2007 CASE SERIES: 2013 San Joaquin Valley Summer Peak Post-Project Case  
 PATH15= 1955 MW(S-N) PATH26= 4001 MW(N-S) PDCI= 2500 MW(N-S) COI= 4795 MW(N-S)  
 Q299 27W at GWF Henrietta 70 kV IFS - 2013 Summer Peak Post-Project FY  
 Henrietta 230-kV Bus Outage

# Appendix F

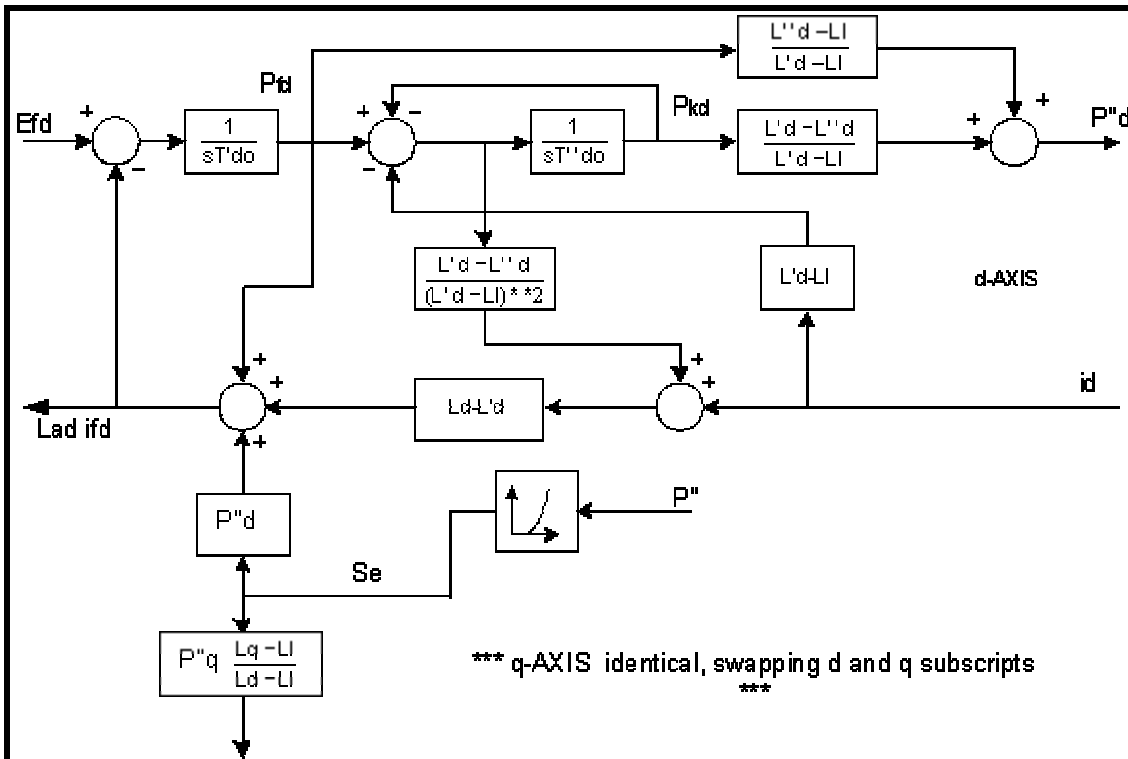
## Governor Machine Dynamic Data

### Table of Content

Machine Data for ST Unit.....	1
Excitation Data for ST Unit: .....	2
Governor Data for ST Unit .....	3
PSS Data for ST Unit.....	5

Machine Data for ST Unit:

Model: genrou

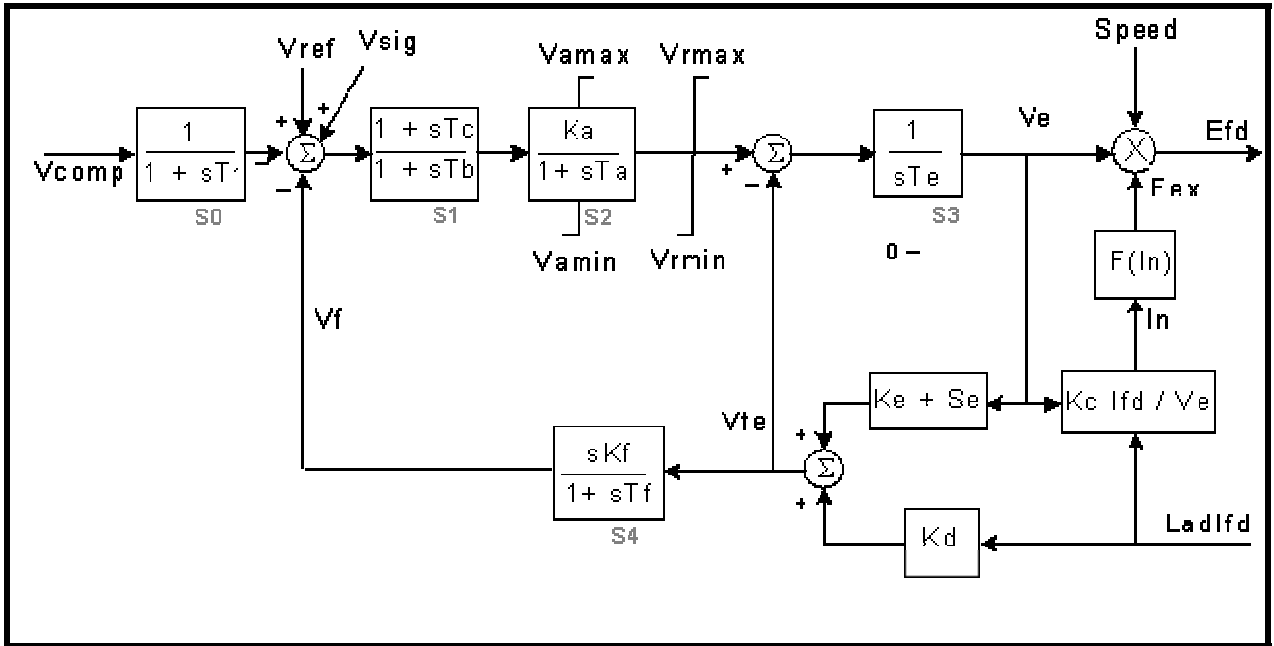


MVA	S Base	31.93
Tpdo	D-axis transient rotor time constant	7
Tppdo	D-axis sub-transient rotor time constant	0.03
Tpqo	Q-axis transient rotor time constant	0.75
Tppqo	Q-axis sub-transient rotor time constant	0.05
H	Inertia constant, sec	3
D	Damping factor, pu	0
Ld	D-axis synchronous reactance	2.1
Lq	Q-axis synchronous reactance	2
Lpd	D-axis transient reactance	0.2
Lpq	Q-axis transient reactance	0.5
Lppd	D-axis transient reactance	0.18
Ll	Stator leakage reactance, pu	0.15
S1	Saturation factor at 1 pu flux	0.05
S12	Saturation factor at 1.2 pu flux	0.3
Ra	Stator resistance, pu	0
Rcomp	Compounding resistance for voltage control, pu	0
Xcomp	Compounding reactance for voltage control, pu	0



Excitation Data for ST Unit:

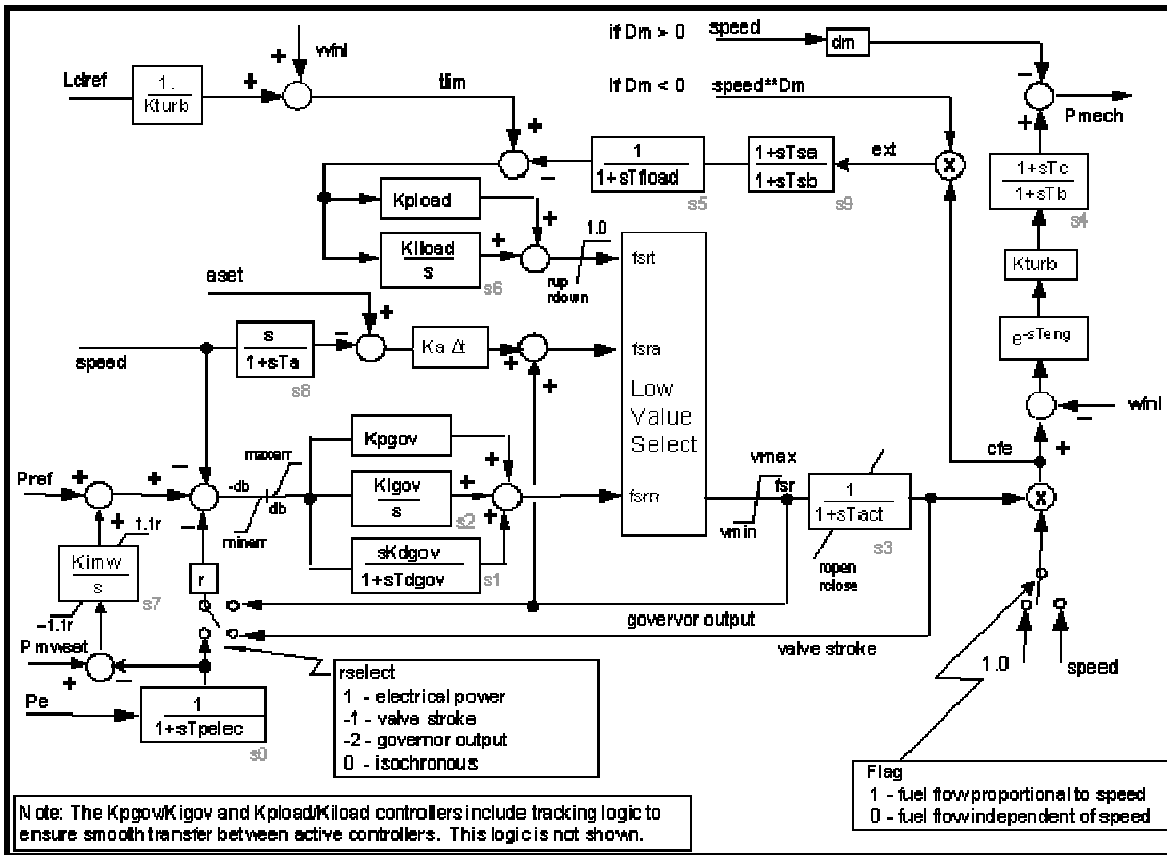
Model: exact



Tr	Filter time constant, sec.	0
Tb	Time constant, sec.	1
Tc	Time constant, sec.	1
Ka	Voltage regulator gain	200
Ta	Time constant, sec.	0.1
Vamax	Maximum control element output, p.u.	7.5
Vamin	Minimum control element output, p.u.	-7.5
Te	Exciter time constant, sec.	1
Kf	Rate feedback gain, p.u.	0.03
Tf	Rate feedback time constant, sec	1
Kc	Rectifier regulation factor, p.u.	0.5
Kd	Exciter internal reactance, p.u.	0.3
Ke	Exciter field resistance constant, p.u.	1
E1	Field voltage value, 1	3
S(E1)	Saturation factor at E1	0.03
E2	Field voltage value, 2	4
S(E2)	Saturation factor at E2	0.1
Vrmax	Voltage regulator maximum output, p.u.	7.5
Vrmin	Voltage regulator minimum output, p.u.	-7.5

Governor Data for ST Unit:

Model: ggov1

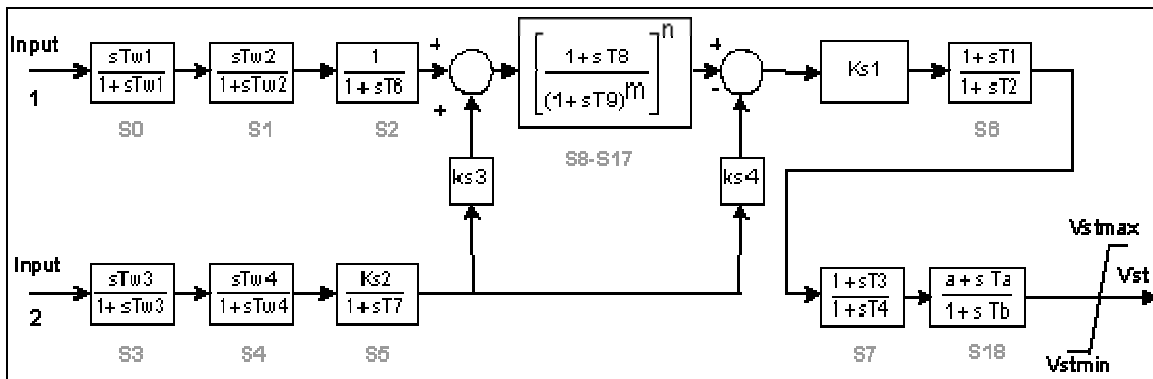


r	Permanent droop, p.u.	0.04
rselect	Feedback signal for droop	1
Tpelec	Electrical power transducer time constant, sec.	1.0
maxerr	Maximum value for speed error signal	0.05
minerr	Minimum value for speed error signal	-0.05
Kpgov	Governor proportional gain	10.0
Kigov	Governor integral gain	2.0
Kdgo	Governor derivative gain	0.0
Tdgo	Governor derivative controller time constant	1.0
vmax	Maximum valve position limit	1.0
vmin	Minimum valve position limit	0.15
Tact	Actuator time constant	0.5
Kturb	Turbine gain	1.5
wfnl	No load fuel flow, p.u	0.2
Tb	Turbine lag time constant	0.5

Tc	Turbine lead time constant	0.0
Flag	Switch for fuel source characteristic	1.0
Teng	Transport lag time constant for diesel engine	0.0
Tfload	Load Limiter time constant	3.0
Kpload	Load limiter proportional gain for PI controller	2.0
Kiload	Load limiter integral gain for PI controller	0.67
Ldref	Load limiter reference value p.u.	1.0
Dm	Speed sensitivity coefficient, p.u.	0.0
ropen	Maximum valve opening rate, p.u./sec.	.10
rclose	Minimum valve closing rate, p.u./sec.	-0.1
Kimw	Power controller (reset) gain	0.002
Pmwset	Power controller setpoint, MW	80.0
aset	Acceleration limiter setpoint, p.u./sec.	0.01
Ka	Acceleration limiter Gain	10.0
Ta	Acceleration limiter time constant, sec.	0.1
db	Speed governor dead band	0.0
Tsa	Temperature detection lead time constant, sec.	4.0
Tsb	Temperature detection lag time constant, sec.	5.0
rup	Maximum rate of load limit increase	99.0
rdown	Maximum rate of load limit decrease	-99.0

PSS Data for ST Unit:

Model: pss2a



J1	Input signal #1 code	1
K1	Input signal #1 remote bus number	0
J2	Input signal #2 code	3
K2	Input signal #2 remote bus number	0
Tw1	First washout on signal #1, sec.	2
Tw2	Second washout on signal #1, sec.	2
Tw3	First washout on signal #2, sec.	2
Tw4	Second washout on signal #2, sec.	0
T6	Time constant on signal #1, sec.	0
T7	Time constant on signal #2, sec.	2
Ks2	Gain on signal #2	0.2
Ks3	Gain on signal #2	1
Ks4	Gain on signal #2	1
T8	Lead of ramp tracking filter	0.5
T9	Lag of ramp tracking filter	0.1
n	Order of ramp tracking filter	1
m	Order of ramp tracking filter	5
Ks1	Stabilizer gain	10
T1	Lead/lag time constant, sec.	0.25
T2	Lead/lag time constant, sec.	0.04
T3	Lead/lag time constant, sec.	0.20
T4	Lead/lag time constant, sec.	0.03
Vstmax	Stabilizer output max limit, p.u.	0.1
Vstmin	Stabilizer output min limit, p.u.	-0.1