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CH2MHILL TRANSMITTAL

To: California Energy Commission
1516 Ninth Street
Sacramento, CA 95814
USA

From: CH2M HILL

Attn: Ms. Melissa Jones, Executive Director **Date:** July 18, 2008

Re: Application for Certification Tracy Peaker Plant - GWF Energy LLC

We Are Sending You:

Method of shipment:

Attached

Under separate cover via

Shop Drawings

Documents

Tracings

Prints

Specifications

Catalogs

Copy of letter

Other:

Quantity	Description
75	Original AFC with Cover Letter and 74 copies Hard Copies of the AFC - Application for Certification Tracy Peaker Plant - GWF Energy LLC
1	Filing Fee Check in the amount of \$170,386.00
50	Compact Diskette's of the AFC - Application for Certification Tracy Peaker Plant - GWF Energy LLC
5	Paper Copies of Volume II Appendix 3A - Application for Certification Tracy Peaker Plant - GWF Energy LLC
5	Compact Diskette's of the Air Dispersion Modeling Files – Section 5.1 Air Quality AERMOD Dispersion Modeling Files
5	Compact Diskette's of the HARP Modeling Files – Section 5.9 Public Health HARP Modeling Files
5	Hard Copies of Volume II Appendix 5.14A - Application for Certification Tracy Peaker Plant - GWF Energy LLC

If the material received is not as listed, please notify us at once.

Remarks:

Copy To:

Application for Certification

Appendix 3A - System Impact Study

**GWF Tracy Combined Cycle
Power Plant Project**

Submitted by



With Technical Assistance by

CH2MHILL

July 2008

May 19, 2008

Mr. Robert H. Moore
GWF Energy, LLC
4300 Railroad Avenue
Pittsburg, CA 94565

Subject: GWF Tracy Interconnection System Impact Study Report

Dear Mr. Moore:

Attached is the Interconnection System Impact Study (ISIS) Report for the interconnection of the proposed 145 MW GWF Tracy project (Project) to the Pacific Gas & Electric Company's (PG&E) Schulte 115 kV Switching Station in San Joaquin County, California. The ISIS was performed by PG&E under the direction of the California ISO (CAISO) in accordance with the CAISO's LGIP tariff. The Project's proposed Commercial Operation Date is April 1, 2013.

The results of this ISIS indicated that the Project will cause overloading of some transmission circuits in the CAISO Controlled Grid under Category B and Category C contingency conditions. The results further indicated that the Project causes no adverse voltage or transient stability impacts on the CAISO Controlled Grid. The Short Circuit analysis concluded that the Project would result in no overstressed equipment at the Schulte Switching Station or at nearby substations.

The non-binding cost estimate of the Interconnection Facilities to interconnect the Project would be approximately **\$650,000**, exclusive of ITCC¹. The non-binding cost estimate for the Network Upgrades to interconnect the Project would be approximately **\$6,700,000**, also exclusive of ITCC.

Upon completion of the remaining Interconnection Studies, this project may interconnect to the CAISO Controlled Grid after making the required system upgrades and be eligible to deliver the project's output using available transmission. However, the interconnection studies do not establish the generation project's level of deliverability for purposes of determining its Net Qualifying Capacity under the CAISO Tariff and in accordance with CPUC-adopted Resource Adequacy Rules. Therefore, this letter makes no representation, and GWF Tracy, LLC cannot rely on any statements herein, regarding the ability, or amount, of the output of the project to be eligible to sell Resource Adequacy Capacity. Separate studies entitled "Deliverability Assessments" are being done by the CAISO which will determine whether or not the project is 100% deliverable to the Grid. If the project is found less than 100% deliverable, the study will recommend mitigation measures to make it 100% deliverable.

The ISIS results meeting will be coordinated and scheduled by the ISO Project Manager Ed Fishback (916) 608-5836 (EFishback@caiso.com) within 10 business days following receipt of this Interconnection System Impact Study Report.

¹ Income Tax Component of Contribution

Should you have questions regarding the Study, please contact Nisar Shah at (916) 608-7376 (nshah@caiso.com) or myself at (916) 608-5880 (GDeShazo@caiso.com).

Sincerely,

Original signed by Gary DeShazo

Gary DeShazo
Director of Regional Transmission - North

Attachment

Cc: Peter Lai
GWF Energy, LLC
4300 Railroad Avenue
Pittsburg, CA 94565

via e-mail:

Albert Wong (AYW1@pge.com)
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Kaicheng Chen (Kxcj@pge.com)

CAISO via email:

Ed Fishback (EFishback1@caiso.com)
ISO Regional Transmission North

Interconnection System Impact Study Report

Generation Interconnection

GWF Energy LLC

GWF Tracy Project

Final Report



California ISO
Your Link to Power

May 19, 2008

**This study has been completed in coordination with Pacific Gas & Electric
per the Large Generator Interconnection Procedures.**

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- B. [Contingency Lists for Outages](#)
- C. [Steady State Power Flow Results](#)
- D. [Steady State Power Flow Plots](#)
- E. [Generator Machine Dynamic Data](#)
- F. [Dynamic Stability Plots](#)
- G. [Protection Requirements](#)

1. Executive Summary

GWF Energy LLC, an Interconnection Customer (IC), proposes to interconnect their GWF Tracy Project (Project) to the California Independent System Operator Corporation (CAISO) Controlled Grid. The Project adds one steam turbine generator to the existing two gas turbine generators to form a combined cycle (2X1) plant. The steam turbine generator is rated for a gross output of 154.7 MW. With 9.7 MW plant auxiliary load, the maximum output to the CAISO Controlled Grid is 145 MW. The proposed Commercial Operation Date of the Project is April 1, 2013. The Point of Interconnection (POI) is at Pacific Gas & Electric Company's (PG&E) Schulte Switching Station 115 kV bus in San Joaquin County, California. In addition, the Tesla – Manteca 115 kV Line will be looped into Schulte Switching Station. The IC has requested, and the CAISO and PG&E have concurred to waive the Interconnection Feasibility Study (IFS) and allow the IC to move into the Interconnection System Impact Study (ISIS) phase.

In accordance with the Federal Energy Regulatory Commission's (FERC) Large Generation Interconnection Procedures (LGIP), the IC elected, and the CAISO and PG&E performed an Interconnection System Impact Study (ISIS). The ISIS:

- Identified transmission system impacts caused solely by the addition of the Project,
- Identified system reinforcements necessary to mitigate the adverse impacts of the Project under various system conditions,
- Provided facilities required for system reinforcements with a non-binding good faith estimate of cost responsibility and a non-binding good faith estimate of time to construct, and
- Provided the level of deliverability of the Project by means of a Deliverability Assessment, conducted by CAISO per section 3.3.3 of the LGIP.

To determine the system impacts caused by the Project, studies were performed using the following full-loop base cases:

- 2013 Summer Peak
- 2013 Summer Off-Peak
- 2013 Spring Peak

The studies performed included:

- Steady State Power Flow Analyses
- System Fault Duty Analyses
- Dynamic Stability Analyses

- Reactive Power Deficiency Analyses
- Deliverability Assessment
- System Protection Requirements
- Substation Evaluation
- Transmission Line Evaluation
- Land/Environment Evaluation

Steady State Power Flow Analyses concluded that the interconnection of the Project to the CAISO Controlled Grid causes the following new transmission facilities to become overloaded:

- Vierra - Tracy - Kasson 115 kV Line section between Cross Rd Jct and Kasson Jct 2 (Category “B” emergency overload)
- Schulte - Lammers 115 kV Line section between Lammers Substation and Owens Tap 1 (Category “B” emergency overload)
- Kasson 115/60 kV Bank 1 (Category “C” emergency overload)
- Vierra - Tracy - Kasson 115 kV Line section between Kasson Jct 2 and Tracy Substation (Category “C” emergency overload)

The Project also exacerbates the following pre-project overloads:

- Tesla - Westley 230 kV Line (Normal and Category “B” emergency overload)
- Warnerville - Wilson 230 kV Line (Normal and Category “B” and “C” emergency overload)
- Schulte - Lammers 115 kV Line section between Schulte Switching Station and Owens Tap 1 (Category “B” emergency overload)
- Bellota - Warnerville 230 kV Line section between Bellota Substation and Cottle B (Category “B” and “C” emergency overload)

The analyses also determined that the Project causes no reactive power deficiencies and hence no adverse voltage impacts.

Dynamic Stability Study results indicate that the transmission system’s transient performance would not be significantly impacted by the Project following selected disturbances.

The substation evaluation found no overstressed breakers requiring mitigation by the Project.

The non-binding construction schedule to engineer and construct the facilities is approximately 18-24 months from the signing of the Large Generator Interconnection Agreement (LGIA).

The non-binding cost estimate of Interconnection Facilities¹ to interconnect the project would be approximately **\$650,000** exclusive of ITCC².

The non-binding cost estimate for the Network Upgrades³ to interconnect the project would be approximately **\$6.7 million**.

¹ The transmission facilities necessary to physically and electrically interconnect the Project to the CAISO Controlled Grid at the point of interconnection.

² Income Tax Component of Contribution

³ The transmission facilities, other than Interconnection Facilities, beyond the point of interconnection necessary to physically and electrically interconnect the Project safely and reliably to the CAISO Controlled Grid

2. Project and Interconnection Information

The Project adds one steam turbine generator to the existing two gas turbine generators to form a combined cycle (2X1) plant. The steam turbine generator is rated for a gross output of 154.7 MW. With 9.7 MW plant auxiliary load, the maximum output to the CAISO Controlled Grid is 145 MW.

The Point of Interconnection (POI) is at Pacific Gas & Electric Company's (PG&E) Schulte Switching Station 115 kV bus in San Joaquin County. In addition, The Tesla – Manteca 115 kV Line will be looped into Schulte Switching Station.

Figure 2-1 provides the map for the Project and the transmission facilities in the vicinity. A conceptual single line diagram of the Project is shown in Figure 2-2.

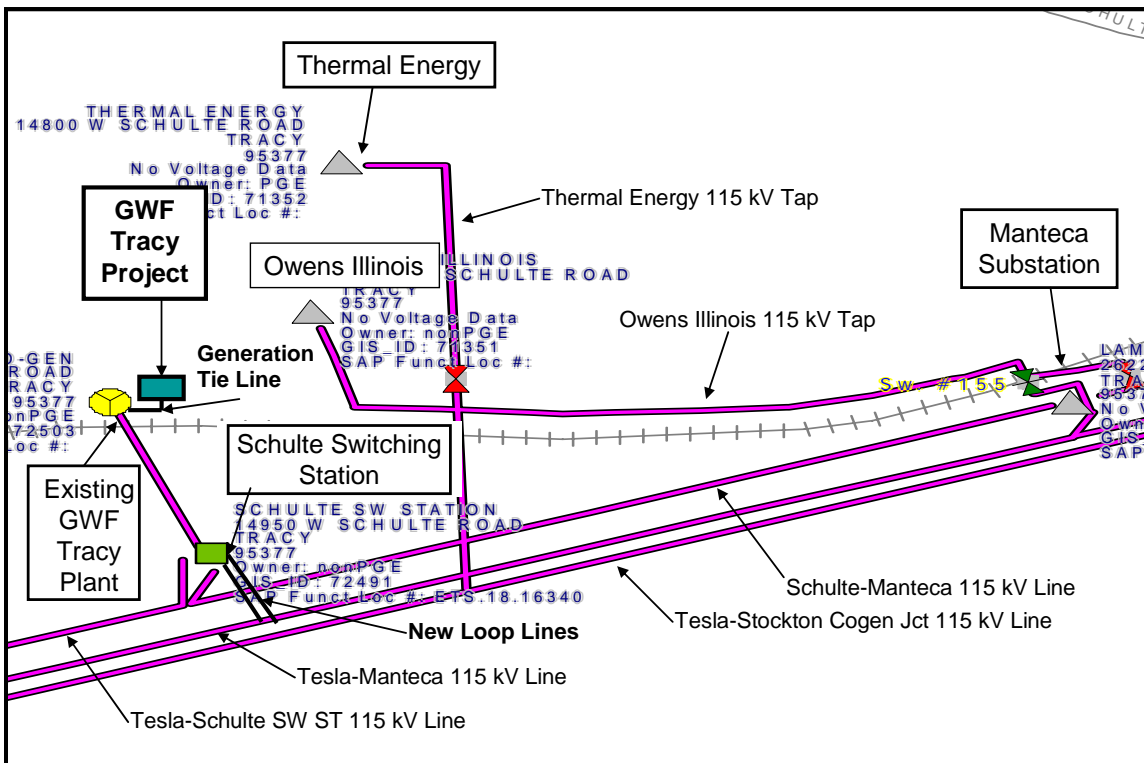


Figure 2-1: Map of the Project

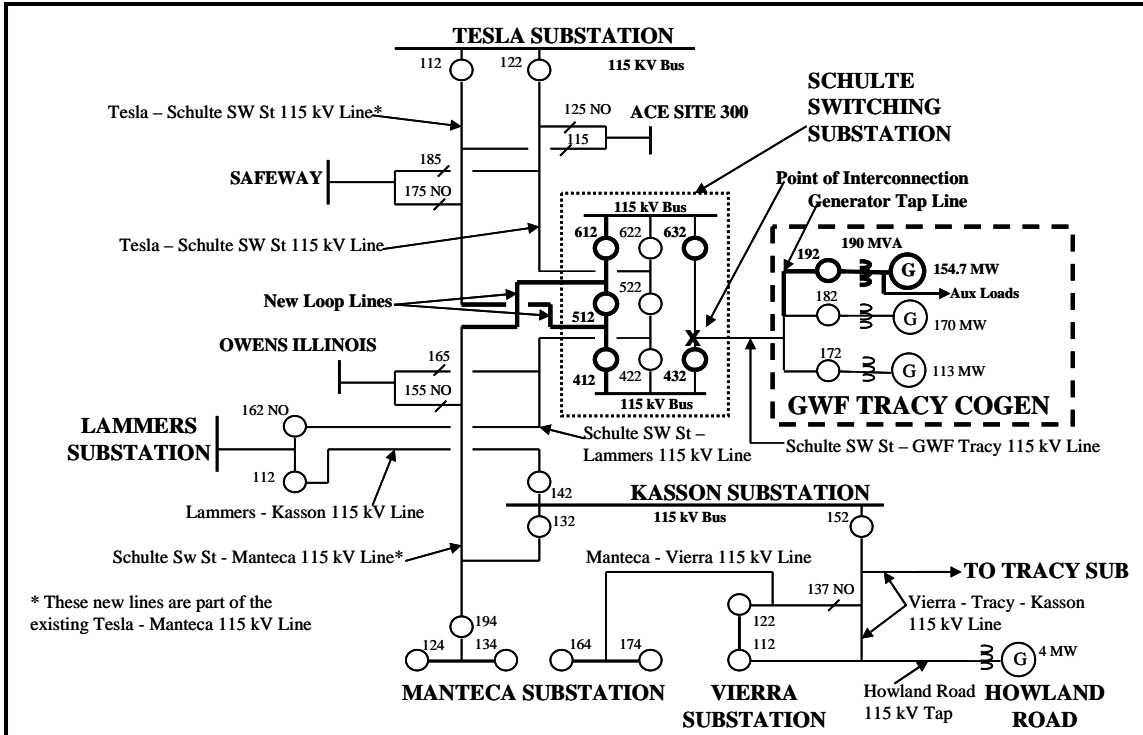


Figure 2-2: Conceptual One-Line Diagram

3. Study Assumptions

Under the direction of the CAISO, PG&E conducted the ISIS using the following assumptions:

1. The Project consists of one steam turbine generator rated for 154.7 MW with a total plant auxiliary load of 9.7 MW. The net output to the CAISO Controlled Grid is 145 MW.
2. The expected Commercial Operation Date is April 1, 2013.
3. The Project uses one step-up transformer. It is a three-phase 13.8/115 kV transformer rated for 190 MVA @ 65 degree C temperature rise with an impedance of 8.7% at 190 MVA base.
4. The IC will engineer, procure, construct, own, and maintain its project facility including the generator tap line. The generator tap line from the Project to the existing GWF Tracy Peaker Switchyard is about 0.14 miles long with 1431 kcmil "Bobolink" ACSS conductors.
5. PG&E will engineer, procure, construct, own, and maintain the loop lines (from the Tesla - Manteca 115 kV Line to Schulte Switching Substation about 1000' in length). The conductor size of loop line is the same as the Tesla - Manteca 115 kV Line or equivalent. PG&E will modify the 115 kV bus at Schulte Switching Substation with a breaker and a half (BAAH) configuration in order to accommodate the new loop lines. PG&E will also

evaluate the size adequacy of the existing generator tie line (from the GWF Tracy Peaker to the Schulte Switching Substation) with the interconnection of the Project.

4. Power Flow Study Base Cases

Three power flow base cases were used to evaluate the transmission system impacts of the Project. While it is impractical to study all combinations of system load and generation levels during all seasons and at all times of the day, these three base cases represent extreme loading and generation conditions for the study area.

The CAISO and PG&E cannot guarantee that the Project can operate at maximum rated output 24 hours a day, year round, without adverse system impacts, nor can the CAISO and PG&E guarantee that the Project will not have adverse system impacts during the times and seasons not studied in the ISIS. The following power flow base cases were used for the analysis in the ISIS:

- **2013 Summer Peak Full Loop Base Case:**

Power flow analyses were performed using PG&E's 2013 summer peak full loop base case (in General Electric Power Flow format). This base case was developed from PG&E's 2007 base case series. It has a 1-in-10 year heat wave load forecast for PG&E's Sacramento, Sierra, Stockton, and Stanislaus areas.

- **2013 Spring Peak Full Loop Base Case:**

Power flow analyses were performed using the 2013 spring peak full loop base case in order to evaluate the potential congestion on transmission facilities under reduced load and increased hydro generation levels during a typical spring season. Typical spring season loads were applied in this spring peak full loop base case. As an aggregate, the PG&E system load level in the spring case is about 70% of the summer peak. However, the spring 2013 loads in Sacramento, Stockton, Stanislaus, and Sierra are about 50% of the summer peak loads. Hydro generation was modeled at a very high level which is typical in the spring season.

- **2013 Summer Off-Peak Full Loop Base Case:**

Power flow analyses were performed using the 2013 summer off peak full loop base case in order to evaluate the potential congestion on transmission facilities during the lightest loading conditions of the year. The summer 2013 off peak loads in Sacramento, Stockton, Stanislaus, and Sierra are about 30% - 35% of the summer peak loads. The rest of the PG&E system loads were modeled as 2013 Spring Peak loads. This base case was used to evaluate single element contingencies only on PG&E's 60 kV through 230 kV systems.

These base cases modeled all approved PG&E transmission reliability projects that would be operational by 2013. These base cases also modeled all proposed generation projects that would be operational by 2013. However, some generation projects that are electrically far from the proposed project were either turned off or modeled with reduced generation to balance the loads and resources in the power flow model. The major generation projects included are shown in Attachment 1 of [Appendix A](#).

5. Study Criteria Summary

The CAISO Controlled Grid Reliability Criteria, which incorporate the Western Electricity Coordinating Council (WECC) and the North American Electric Reliability Council (NERC) planning criteria, were used to evaluate the impact of the Project on the CAISO Controlled Grid.

5.1 Steady State Study Criteria – Normal Overloads

Normal overloads are those that exceed 100 percent of normal ratings. The CAISO Controlled Grid Reliability Criteria requires the loading of all transmission system facilities be within their normal ratings.

5.2 Steady State Study Criteria – Emergency Overloads

Emergency overloads are those that exceed 100 percent of emergency ratings. The emergency overloads refer to overloads that occur during single element contingencies (Category “B”) and multiple element contingencies (Category “C”).

6. Steady State Power Flow Study and Results

6.1 Contingencies

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

6.1.1 Category “B”

- All single generator outages within the study area
- All single (60 - 230 kV) transmission circuit outages within the study area
- All single (60 - 230 kV) transformer outages within the study area
- Selected overlapping of single generator and transmission circuit outages for the transmission lines and generators within the study area

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 (60-230 kV) within the study area

6.2 Study Results

The overloads caused by the Project are detailed in [Appendix C](#), and overload plots are shown in [Appendix D](#).

6.2.1 Normal Overloads (Category “A”)

Under projected 2013 summer peak, summer off peak and spring peak loading conditions, the Project causes no new normal overloads. However, the Project exacerbates pre-project overloads in each of these seasons. These pre-project overloads (shown shaded) are summarized in Table 6-1.

Table 6-1: Normal Overloads

Over Loaded Component	Rating (Amps)	Pre- Project Loading (Amps %Rating)		Post-Project Loading (Amps %Rating)		% Change from Pre-Project Loading
2013 Summer Peak						
Tesla - Westley 230 kV Line	1484	1501	101%	1523	103%	2%
Warnerville - Wilson 230 kV Line	675	888	132%	910	135%	3%
2013 Summer Off Peak						
Warnerville - Wilson 230 kV Line	675	827	122%	847	125%	3%
2013 Spring Peak						
Tesla - Westley 230 kV Line	1484	1610	108%	1631	110%	2%
Warnerville - Wilson 230 kV Line	675	700	104%	721	107%	3%

6.2.2 Emergency Overloads (Category “B”)

Under projected 2013 summer peak loading conditions the Project causes three (3) new and exacerbates three (3) pre-project Category “B” emergency overloads. Under projected 2013 summer off peak loading conditions the Project exacerbates one (1) pre-project Category “B” emergency overload. Under projected 2013 spring peak loading conditions the Project exacerbates three (3)

pre-project Category “B” emergency overloads. The Category “B” emergency overloads are summarized in Table 6-2. The pre-project overloads are shown as shaded in the table.

Table 6-2: Category “B” Emergency Overloads

Over Loaded Component	Contingency	Rating (Amps)	Pre- Project Loading (Amps %Rating)		Post-Project Loading (Amps %Rating)		% Change from Pre-Project Loading
2013 Summer Peak							
Bellota - Warnerville 230 kV Line (Bellota - Cottle B)	Bellota - Melones 230 kV Line and Melones 1	793	778	98%	800	101%	3%
Vierra - Tracy - Kasson 115 kV Line (Cross Rd Jct - Kasson Jct 2)	Schulte - Manteca 115 kV Line and Stanislaus Powerhouse	884	831	94%	889	101%	7%
Schulte - Lammers 115 kV Line (Lammers - Owens Tap 1)	Schulte - Manteca 115 kV Line and Stanislaus Powerhouse	1125	1117	99%	1264	112%	13%
	Schulte - Manteca 115 kV Line	1125	1033	92%	1172	104%	12%
Schulte - Lammers 115 kV Line (Owens Tap 1 - Schulte)	Schulte - Manteca 115 kV Line and Stanislaus Powerhouse	1125	1179	105%	1325	118%	13%
	Schulte - Manteca 115 kV Line	1125	1094	97%	1232	110%	13%
	Schulte - Manteca 115 kV Line and GWF Tracy 1	1125	992	88%	1170	104%	16%
Tesla - Westley 230 kV Line	Tesla - Newark #1 230 kV Line	1600	1702	106%	1726	108%	2%
	Bellota - Warnerville 230 kV Line	1600	1637	102%	1664	103%	1%
	Bellota - Warnerville 230 kV Line and Melones 1	1600	1626	102%	1652	103%	1%
	Weber - Q172 230 kV Line	1600	1600	100%	1622	103%	3%
Warnerville - Wilson 230 kV Line	Bellota - Melones 230 kV Line and Melones 1	793	1108	140%	1134	143%	3%
	Bellota - Melones 230 kV Line	793	997	126%	1024	129%	3%
	Westley - Los Banos 230 kV Line	793	948	119%	974	123%	4%
2013 Summer Off Peak							
Warnerville - Wilson 230 kV Line	Bellota - Melones 230 kV Line and Melones 1	793	1007	127%	1031	130%	3%
	Bellota - Melones 230 kV Line	793	911	115%	935	118%	3%
2013 Spring Peak							
Bellota - Warnerville 230 kV Line (Bellota - Cottle B)	Bellota - Melones 230 kV Line and Melones 1	793	799	101%	822	104%	3%
	Tesla - Westley 230 kV Line	793	772	97%	792	100%	4%
Tesla - Westley 230 kV Line	Tesla - Newark #1 230 kV Line	1600	1855	116%	1878	117%	1%
	Bellota - Warnerville 230 kV Line	1600	1754	110%	1780	111%	1%
	Bellota - Warnerville 230 kV Line and Melones 1	1600	1737	109%	1763	110%	1%
Warnerville - Wilson 230 kV Line	Bellota - Melones 230 kV Line and Melones 1	793	897	113%	923	116%	3%

Over Loaded Component	Contingency	Rating (Amps)	Pre- Project Loading (Amps %Rating)		Post-Project Loading (Amps %Rating)		% Change from Pre-Project Loading
	Westley - Los Banos 230 kV Line	793	764	96%	790	100%	4%

6.2.3 Emergency Overloads (Category "C")

Under 2013 summer peak condition the Project causes two (2) new and exacerbates eleven (11) pre-project Category "C" emergency overloads. Under 2013 summer off peak conditions, the Project causes one (1) new and exacerbates one (1) pre-project Category "C" emergency overloads. Under 2013 spring peak condition the Project causes one (1) new and exacerbates four (4) pre-project Category "C" emergency overloads. The Category "C" emergency overloads are summarized in Table 6-3. The pre-project overloads are shown as shaded in the table.

Table 6-3: Category "C" Emergency Overloads

Over Loaded Component	Contingency	Rating (Amps)	Pre- Project Loading (Amps %Rating)		Post-Project Loading (Amps %Rating)		% Change from Pre-Project Loading
2013 Summer Peak							
Bellota - Warnerville 230 kV Line (Bellota - Cottle B)	Bellota - Rancho Seco PP #1 and #2 230 kV Lines	793	790	100%	809	102%	2%
Kasson 115/60 kV Bank 1	Schulte - Manteca and Manteca - Vierra 115 kV Lines	91 MVA	90 MVA	98%	95 MVA	104%	6%
Kasson - Louise 60 kV Line (Kasson - Calvo - Mossdale)	Schulte - Manteca and Manteca - Vierra 115 kV Lines	385	422	110%	467	121%	11%
Manteca - Louise 60 kV Line (Louise Jct - Manteca)	Schulte - Manteca and Manteca - Vierra 115 kV Lines	327	357	109%	402	123%	14%
Schulte - Lammers 115 kV Line (Lammers - Owens Tap 1)	Schulte - Manteca and Tesla - Salado - Manteca 115 kV Lines	1125	1166	104%	1310	117%	13%
Schulte - Lammers 115 kV Line (Owens Tap 1 - Schulte)	Schulte - Manteca and Tesla - Salado - Manteca 115 kV Lines	1125	1227	109%	1371	122%	13%
Tesla - Salado - Manteca 115 kV Line (Manteca - Ingraham Creek)	Schulte - Lammers and Schulte - Manteca 115 kV Lines	326	563	172%	576	176%	4%
	Schulte - Manteca and Manteca - Vierra 115 kV Lines	326	527	161%	535	164%	3%
	Kasson - Lammers and Schulte - Manteca 115 kV Lines	326	499	153%	511	157%	4%
Tesla - Tracy 115 kV Line (Tesla - Tracy Jct)	Kasson - Lammers and Schulte - Manteca 115 kV Lines	1125	1508	134%	1529	136%	2%
	Schulte - Lammers and Schulte - Manteca 115 kV Lines	1125	1303	116%	1324	118%	2%
Tesla - Tracy 115 kV Line (Tracy Jct - Tracy)	Kasson - Lammers and Schulte - Manteca 115 kV Lines	974	1564	161%	1586	163%	2%
	Schulte - Lammers and Schulte - Manteca 115 kV Lines	974	1489	153%	1511	155%	2%
Tesla - Westley 230 kV Line	Bellota - Q172 and Weber - Q172 230 kV Lines	1600	1875	117%	1898	119%	2%
	Q235 Sw Station - Tracy #1 and #2 230 kV Lines	1600	1790	112%	1828	114%	2%

INTERCONNECTION SYSTEM IMPACT STUDY REPORT
GWF TRACY PROJECT

Over Loaded Component	Contingency	Rating (Amps)	Pre- Project Loading (Amps %Rating)		Post-Project Loading (Amps %Rating)		% Change from Pre-Project Loading
	Bellota - Q172 and Bellota - Weber 230 kV Lines	1600	1768	110%	1790	112%	2%
	Tesla - Newark #1 and Tesla - Ravenswood 230 kV Lines	1600	1716	107%	1740	109%	2%
	Tesla 230 kV Bus Section 1E	1600	1717	107%	1740	109%	2%
	Bellota 230 kV Bus Section 2	1600	1702	106%	1728	108%	2%
	Q172 - Tesla #1 and #2 230 kV Lines	1600	1605	100%	1627	102%	2%
	Bellota 230 kV Bus Section 1	1600	1591	99%	1614	101%	2%
	Stagg 60 kV Bus	1600	1590	99%	1612	101%	2%
Vierra - Tracy - Kasson 115 kV Line (Cross Rd Jct - Kasson Jct 2)	Schulte - Manteca and Tesla - Salado - Manteca 115 kV Lines	884	918	104%	963	109%	5%
Vierra - Tracy - Kasson 115 kV Line (Kasson Jct - Heinz - Tracy)	Schulte - Lammers and Schulte - Manteca 115 kV Lines	603	956	156%	977	159%	3%
	Kasson - Lammers and Schulte - Manteca 115 kV Lines	603	760	124%	781	127%	3%
Warnerville - Wilson 230 kV Line	Bellota 230 kV Bus Section 1	793	978	123%	1004	127%	4%
	Bellota - Rancho Seco PP #1 and #2 230 kV Lines	793	974	123%	996	126%	3%
	Lockeford 60 kV Bus	793	941	119%	964	121%	2%
2013 Summer Off Peak							
Vierra - Tracy - Kasson 115 kV Line (Kasson Jct 2 - Heinz - Tracy)	Tesla - Schulte #1 and #2 115 kV Lines	613	312	51%	700	114%	63%
Warnerville - Wilson 230 kV Line	Bellota 230 kV Bus Section 1	793	916	115%	940	118%	3%
	Q172 - Tesla #1 and #2 230 kV Lines	793	918	116%	938	118%	2%
2013 Spring Peak							
Warnerville - Wilson 230 kV Line	Q172 - Tesla #1 and #2 230 kV Lines	793	776	98%	796	100%	2%
Tesla - Tracy 115 kV Line (Tracy Jct – Tracy)	Schulte - Lammers and Schulte - Manteca 115 kV Lines	974	984	101%	1001	103%	2%
Bellota - Warnerville 230 kV Line (Bellota - Cottle B)	Q172 - Tesla #1 and #2 230 kV Lines	793	815	103%	833	105%	2%
	Tesla 230 kV Bus Section 2E	793	799	101%	819	103%	2%
Tesla - Salado - Manteca 115 kV Line (Manteca - Ingraham Creek)	Schulte - Lammers and Schulte - Manteca 115 kV Lines	326	336	103%	348	107%	4%
Tesla - Westley 230 kV Line	Tesla - Newark #1 and Tesla - Ravenswood 230 kV Lines	1600	1868	117%	1892	118%	1%
	Tesla 230 kV Bus Section 1E	1600	1800	112%	1823	114%	2%
	Bellota 230 kV Bus Section 2	1600	1774	111%	1800	112%	1%
	Bellota - Q172 and Weber - Q172 230 kV Lines	1600	1737	109%	1759	110%	1%
	Tesla - Q235 Sw Station #1 and #2 230 kV Lines	1600	1705	107%	1742	109%	2%

Over Loaded Component	Contingency	Rating (Amps)	Pre- Project Loading (Amps %Rating)		Post-Project Loading (Amps %Rating)		% Change from Pre-Project Loading
	Q235 Sw Station - Tracy #1 and #2 230 kV Lines	1600	1705	107%	1742	109%	2%

7. Short Circuit Analysis

Short circuit studies were performed to determine the impact of adding the Project to the transmission system. The fault duties were calculated before and after the Project.

7.1 System Protection Study Input Data

The following input data provided by the Applicant was used in this study:

Fuji Electric System Co., Ltd. New Type Generator

- Positive Sequence subtransient reactance (X''_1)= 0.14 p.u on 35 MVA base
- Negative Sequence subtransient reactance (X''_2)= 0.15 p.u. on 35 MVA base
- Zero Sequence subtransient reactance (X''_0)= 0.09 p.u. on 35 MVA base

Step-up Transformer

- The step-up transformer is a three phase 13.8/115 kV transformer rated for 190 MVA at 65 degree C temperature rise with 8.7% impedance at 190 MVA base

7.2 Results

Table 7-1 lists the available short circuit duty at the buses electrically adjacent to the Project. This data was used to determine if any equipment would be overstressed by the interconnection of the Project.

Table 7-1: Short circuit study results

Fault Location	Pre-Project		Post-Project			
	3Ø	L-G	3Ø	% Increase	L-G	% Increase
GWF Tracy 115 kV Bus	18401	13,686	18,758	2%	19,785	45%
Schulte SW 115 kV Bus	18,401	13,686	18,758	2%	19,785	45%
Tesla 115 kV Bus	32,413	34,330	32,698	1%	35,580	4%
Lammers 115 kV Bus	16,637	12,219	16,918	2%	16,527	35%
Kasson 115 kV Bus	15,132	12,306	15,273	1%	13,003	6%
Manteca 115 kV Bus	11,666	10,102	11,728	1%	10,311	2%

Fault Location	Pre-Project		Post-Project			
	3Ø	L-G	3Ø	% Increase	L-G	% Increase
Tracy 115 kV Bus	13,875	11,768	13,952	1%	12,017	2%

Schulte 115 kV Bus - All breakers are rated 40,000 amps Interrupting Capacity or higher

Tesla 115 kV Bus - All breakers are rated 40,000 amps Interrupting Capacity or higher

Lammers 115 kV Bus - All breakers are rated 40,000 amps Interrupting Capacity or higher

Kasson 115 kV Bus - All breakers are rated 25,000 amps Interrupting Capacity or higher

Manteca 115 kV Bus - All breakers are rated 25,000 amps Interrupting Capacity or higher

Tracy 115 kV Bus - All breakers are rated 23,857 amps Interrupting Capacity or higher

8. Preliminary Protection Requirements

Per Section G2.1 of the PG&E Interconnection Handbook, PG&E protection requirements are designed and intended to protect PG&E’s system only. The applicant is responsible for the protection of its own system and equipment and must meet the requirements in the PG&E Interconnection Handbook.

The Preliminary Protection Requirements are detailed in [Appendix G](#).

9. Reactive Power Deficiency Analyses

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.

10. Dynamic Stability Analyses

Dynamic stability studies were conducted using the 2013 summer peak full loop base cases to ensure that the transmission system remains in operating equilibrium through abnormal operating conditions after the new facility begins operation. The generator dynamic data used for the study is shown in [Appendix E](#).

10.1 Dynamic Stability Study Scenarios

Disturbance simulations were performed for a study period of up to 20 seconds to determine whether the Project will create any system instability during the following line and generator outages:

10.1.1 Category "B" Contingencies:

- Full load rejection of the 145 MW Project.
- A three-phase close-in fault on the new Tesla – Schulte SW ST 115 kV Line at the Tesla Substation 115 kV bus with normal clearing time followed by loss of the new Tesla – Schulte SW ST 115 kV Line
- A three-phase close-in fault on the new Tesla – Schulte SW ST 115 kV Line at the Schulte Substation 115 kV bus with normal clearing time followed by loss of the new Tesla – Schulte SW ST 115 kV Line
- A three-phase close-in fault on the Schulte SW ST - Manteca 115 kV Line at the Schulte Substation 115 kV bus with normal clearing time followed by loss of the Schulte SW ST - Manteca 115 kV Line
- A three-phase close-in fault on the Schulte SW ST - Manteca 115 kV Line at the Manteca Substation 115 kV bus with normal clearing time followed by loss of the Schulte SW ST- Manteca 115 kV Line

10.1.2 Category "C" Contingencies:

- A three-phase fault on the Tesla 115 kV bus with normal clearing time
- A three-phase fault on the new Schulte 115 kV bus with normal clearing time
- A three-phase fault on the Manteca 115 kV bus with normal clearing time
- A three-phase fault on the Tesla Substation 115 kV bus with normal clearing time followed by loss of the Tesla – Schulte and new Tesla – Schulte 115 kV lines
- A three-phase fault on the Schulte Substation 115 kV bus with normal clearing time followed by loss of the Tesla – Schulte and new Tesla – Schulte 115 kV lines

- A three-phase fault on the Schulte Substation 115 kV bus with normal clearing time followed by loss of the Schulte SW ST – Kasson and Schulte SW ST – Manteca 115 kV lines
- A three-phase fault on the Manteca Substation 115 kV bus with normal clearing time followed by loss of the Schulte SW ST – Kasson and Schulte SW ST – Manteca 115 kV lines

10.2 Parameters Monitored to Evaluate System Stability Performance

10.2.1 Rotor Angle

The rotor angle plots shown in [Appendix F](#) provide a measure for determining how the proposed generation units would swing with respect to one another. The plots also provide a measure of how the units would swing with respect to other generation units in the area.

10.2.2 Bus Voltage

The bus voltage plots, in conjunction with the relative rotor angle plots, also shown in [Appendix E](#), provide a means of detecting out-of-step conditions. The bus voltage plots are useful in assessing the magnitude and the duration of post disturbance voltage dips and peak-to-peak voltage oscillations. The bus voltage plots also give an indication of system damping and the level to which voltages are expected to recover in steady state conditions.

10.2.3 Bus Frequency

The bus frequency plots, also shown in [Appendix E](#), provide information on the magnitude and the duration of post fault frequency swings with the Project in service. These plots indicate the extent of possible over-frequency or under-frequency, which can occur because of the imbalance between the generation and load within an area.

10.2.4 Other Parameters

- Generator Terminal Power
- Generator Terminal Voltage
- Generator Rotor Speed
- Generator Field Voltage
- Bus Angle
- Line Flow

- Voltage Spread
- Frequency Spread

10.3 Results

Dynamic stability studies were conducted using the 2013 summer peak base cases described in [Section 4](#) and the generator models shown in [Appendix E](#) to determine whether the transmission system would maintain operating equilibrium following selected outages.

This Project would have no adverse impact on the stable operation of the transmission system. Dynamic stability studies indicate that the transmission system's transient stability performance would not be impacted by the Project following the selected contingencies. The results of the study are provided in the form of plots in [Appendix F](#).

11. Substation Evaluation

11.1 Overstressed Breakers

PG&E uses the following policy to allocate breaker replacement responsibility for projects that overstress or increase overstress⁴ on existing circuit breakers:

- If a breaker is not overstressed before the project, and the project results in an overstressed condition of the breaker, then the project is responsible for the cost of replacement.
- If a breaker is already overstressed, and a project increases the overstress by 5% or more, or the post-project overstress level exceeds 25%, then the project is responsible for the cost of replacement.
- If the overstress level exceeds 25% before the project, and for all other circumstances, PG&E or other generation projects will be responsible for any replacement costs.

Using the short-circuit study results of the System Fault Duties Study in [Section 7](#), an initial breaker evaluation found that the Project causes no overstressed breakers.

11.2 Substation Evaluation

The 115 kV bus at Schulte Switching Station is a breaker and a half bus with space for one extra bay. The Tesla – Manteca 115 kV Line will be looped in this new bay. Three new 115 kV breakers and their associated

⁴ Overstressed Circuit Breaker – The percent of overstress, or level of overstress, is the percent of maximum fault current above the breaker's nameplate rating. For example, a breaker rated at 40,000 amps symmetrical current interrupting a 44,000 amp symmetrical fault is overstressed by 10%.

relays/instruments are needed. The non binding cost estimate for these Network Upgrades is included in this report.

12. Overload Mitigation

Mitigation alternatives have been developed for Category “A” (normal) and Category “B” emergency overloads identified in [Section 6](#).

The preferred method to mitigate these normal as well as Category “B” emergency overloads is to re-conductor the overloaded lines with larger conductors. The alternative method to mitigate the normal overloads is by generation curtailment. The ISIS only provides cost estimates for the re-conducting alternative.

For CAISO Category “C” contingencies (according to WECC reliability criteria), the overloads may be mitigated by load shedding or generation dropping. PG&E or CAISO or both may require new generators to take part in and be responsible for the costs of operating procedures and/or Special Protection Systems (SPS) for Category “C” emergency overloads caused by the project. Only new Category “C” overload mitigation alternatives have been provided in the ISIS.

Tables 12-1, 12-2, and 12-3 summarized the worst normal overloads, Category “B” emergency overloads, and Category “C” emergency overloads from Tables 6-1, 6-2, and 6-3 tables respectively. The pre-project overloads are shown as shaded in the table.

Table 12-1: Worst Normal Overloads

Over Loaded Component	Rating (Amps / MVA)	Pre- Project Loading (Amps %Rating)		Post-Project Loading (Amps %Rating)		% Change from Pre-Project Loading	Mitigation
Tesla - Westley 230 kV Line	1484	1610	108%	1631	110%	2%	12.1.1
Warnerville - Wilson 230 kV Line	675	888	132%	910	135%	3%	12.1.2

Table 12-2: Worst Category “B” Emergency Overloads

Over Loaded Component	Contingency	Rating (Amps)	Pre- Project Loading (Amps %Rating)		Post-Project Loading (Amps %Rating)		% Change from Pre-Project Loading	Mitigation
Vierra - Tracy - Kasson 115 kV Line (Cross Rd Jct - Kasson Jct 2)	Schulte - Manteca 115 kV Line and Stanislaus Powerhouse	884	831	94%	889	101%	7%	12.2.1
Schulte - Lammers 115 kV Line (Lammers - Owens Tap 1)	Schulte - Manteca 115 kV Line and Stanislaus Powerhouse	1125	1117	99%	1264	112%	13%	12.2.2
Schulte - Lammers 115 kV Line (Owens Tap 1 - Schulte)	Schulte - Manteca 115 kV Line and Stanislaus Powerhouse	1125	1179	105%	1325	118%	13%	12.3.1
Bellota - Warnerville 230 kV	Bellota - Melones 230 kV Line	793	799	101%	822	104%	3%	12.3.2

Over Loaded Component	Contingency	Rating (Amps)	Pre- Project Loading (Amps %Rating)		Post-Project Loading (Amps %Rating)		% Change from Pre-Project Loading	Mitigation
Line (Bellota - Cottle B)	and Melones 1							
Tesla - Westley 230 kV Line	Tesla - Newark #1 230 kV Line	1600	1855	116%	1878	117%	1%	12.1.1
Warnerville - Wilson 230 kV Line	Bellota - Melones 230 kV Line and Melones 1	793	1108	140%	1134	143%	3%	12.1.2

Table 12-3: Worst New Category "C" Emergency Overloads

Over Loaded Component	Contingency	Rating (Amps)	Pre- Project Loading (Amps %Rating)		Post-Project Loading (Amps %Rating)		% Change from Pre-Project Loading	Mitigation
Bellota - Warnerville 230 kV Line (Bellota - Cottle B)	Bellota - Rancho Seco PP #1 and #2 230 kV Lines	793	790	100%	809	102%	2%	12.3.2
Kasson 115/60 kV Bank 1	Schulte - Manteca and Manteca - Vierra 115 kV Lines	91 MVA	90 MVA	98%	95 MVA	104%	6%	12.4.1
Vierra - Tracy - Kasson 115 kV Line (Kasson Jct 2 - Heinz - Tracy)	Tesla - Schulte #1 and #2 115 kV Lines	613	312	51%	700	114%	63%	12.4.2
Warnerville - Wilson 230 kV Line	Q172 - Tesla #1 and #2 230 kV Lines	793	776	98%	796	100%	2%	12.1.2

12.1 Overload Mitigation for Pre-project Normal Overloads

12.1.1 Tesla – Westley 230 kV Line

Limiting Factor		Bundled 795 ACSR @ 2 fps wind speed rating: 1484/1700 Amps Normal/Emergency	
Pre-project Normal Loading	1610 (108%)	Post Project Normal Loading	1631 (110%)
Pre-project Emergency Loading	1855 Amps (116%)	Post-project Emergency Loading	1878 Amps (117%)
Worst Contingency		Tesla – Newark # 1 230 kV line	
Overload Condition		2013 Spring Peak	

Solution: This line overload is a result of a generation project that has a higher queue position and an earlier online date. That project has been assigned the responsibility for mitigating this overload. Should that project not materialize or the mitigation provided by that project did not resolve the overload contributed by this Project, the IC may be responsible for mitigating this overload.

12.1.2 Warnerville – Wilson 230 kV Line

Limiting Factor			
Pre-project Normal Loading	888 (132%)	Post Project Normal Loading	910 (135%)
Pre-project Emergency Loading	1108 Amps (140%)	Post-project Emergency Loading	1134 Amps (143%)
Worst Contingency		Bellota – Melones 230 kV Line and Melones 1	
Overload Condition		2013 Summer Peak	

Solution: This line overload is a result of a generation project that has a higher queue position and an earlier online date. That project has been assigned the responsibility for mitigating this overload. Should that project not materialize or the mitigation provided by that project did not resolve the overload contributed by this Project, the IC may be responsible for mitigating this overload.

12.2 Overload Mitigation for New Category “B” Emergency Overloads

12.2.1 Vierra – Tracy – Kasson 115 kV Line (Cross Road – Kasson Jct 2)

Limiting Factor		715.5 Al @ 4 fps wind speed rating: 884 Amps Emergency	
Pre-project Emergency Loading	831 Amps (94%)	Post-project Emergency Loading	889 Amps (101%)
Worst Contingency		Fulton - Lakeville and Fulton - Ignacio 230 kV Lines	
Overload Condition		2010 Summer Off Peak	

Solution: Re-conductor 2.5 mile of the Vierra – Tracy – Kasson 115 kV Line (Cross Road – Kasson Jct 2) with 1113 kcmil ACSR or equivalent conductors. The 1113 kcmil ACSR conductors are rated for 1048 Amps emergency respectively @ 2 fps wind speed. Substation terminal equipment will also be upgraded to match or exceed the ampacity rating of the new conductors.

12.2.2 Schulte – Lammers 115 kV Line (Lammers – Owens Tap 1)

Limiting Factor		477 ACSS @ 2 fps wind speed rating: 1125 Amps Emergency	
Pre-project Emergency Loading	1117 Amps (99%)	Post-project Emergency Loading	1264 Amps (112%)
Worst Contingency		Schulte – Manteca 115 kV Line abd Stanislaus Power house	
Overload Condition		2013 Summer Peak	

Solution: Re-conductor 0.7 mile of the Schulte – Lammers 115 kV Line (Lammers – Owens Tap 1) with 954 kcmil ACSS or equivalent conductors. The 954 kcmil ACSS conductors are rated for 1714 emergency respectively @ 2 fps wind speed. Substation terminal equipment will also be upgraded to match or exceed the ampacity rating of the new conductors.

Alternative Solution: Currently, PG&E Project T680B (Tesla Area 115 kV Re-conductoring Project) will re-conductor this section of the Schulte – Lammers 115 kV Line. The EDRO date for Project T680B is 2009. If Project T680B is not materialized, the IC will be responsible for the above re-conductor.

12.3 Overload Mitigation for Pre-project Category “B” Emergency Overloads

12.3.1 Schulte – Lammers 115 kV Line (Owens Tap 1 - Schulte)

Limiting Factor		477 ACSS @ 2 fps wind speed rating: 1125 Amps Emergency	
Pre-project Emergency Loading	1179 Amps (105%)	Post-project Emergency Loading	1325 Amps (118%)
Worst Contingency		Schulte – Manteca 115 kV Line abd Stanislaus Power house	
Overload Condition		2013 Summer Peak	

Solution: This line overload is a result of a generation project that has a higher queue position and an earlier online date. That project has been assigned the responsibility for mitigating this overload. Should that project not materialize or the mitigation provided by that project did not resolve the overload contributed by this Project, the IC may be responsible for mitigating this overload.

12.3.2 Bellota – Warnerville 230 kV Line (Bellota – Cottle B)

Limiting Factor		397.5 AI @ 2 fps wind speed rating: 517 Amps Emergency	
Pre-project Emergency Loading	799 Amps (101%)	Post-project Emergency Loading	822 Amps (104%)
Worst Contingency		Bellota – Melones 230 kV Line and Melones 1	
Overload Condition		2013 Spring Peak	

Solution: This line overload is a result of a generation project that has a higher queue position and an earlier online date. That project has been assigned the responsibility for mitigating this overload. Should that project not materialize or the mitigation provided by that project did not resolve the overload contributed by this Project, the IC may be responsible for mitigating this overload.

12.4 Overload Mitigation for New Category “C” Emergency Overloads

12.4.1 Kasson 115/60 kV Bank 1

Limiting Factor		91 MVA emergency rating	
Pre-project Emergency Loading	90 MVA (98%)	Post-project Emergency Loading	95 MVA (104%)
Worst Contingency		Schulte – Manteca and Manteca – Vierra 115 kV Lines	
Overload Condition		2013 Summer Peak	

Solution: Re-rate the bank.

12.4.2 Vierra - Tracy - Kasson 115 kV Line (Kasson Jct 2 - Heinz - Tracy)

Limiting Factor		397.5 AI @ 4 fps wind speed rating: 613 Amps Emergency (5 miles)	
Pre-project Emergency Loading	312 Amps (51%)	Post-project Emergency Loading	700 Amps (114%)
Worst Contingency		Tesla – Schulte #1 & #2 115 kV Lines	
Overload Condition		2013 Summer Off Peak	

Solution: This line overload is a result of a generation project that has a higher queue position and an earlier online date. That project has been assigned the responsibility for mitigating this overload. Should that project not materialize or the mitigation provided by that project did not resolve the overload contributed by this Project, the IC may be responsible for mitigating this overload.

13. Deliverability Assessment

Deliverability Assessment is being conducted along with several other qualified projects in the CAISO Generation queue and the results are not expected until approximately September 2008. The final results will be posted on the CAISO website after a joint review by the CAISO and the applicable Participating Transmission Owners (PTOs).

As required by LGIP tariff language, deliverability results need to provide the following information about this Project regarding deliverability:

- 1) The capacity that can be deliverable without additional upgrades.
- 2) The upgrades necessary for this project to be fully deliverable (Delivery Upgrades) if the study results identify transmission limitations that prevent the project from being fully deliverable.

14. Environmental Evaluation/ Permitting

14.1 CPUC General Order 131-D

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

14.2 CPUC Section 851

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.

15. Cost and Construction Schedule Estimates

A non-binding good faith cost estimates for the interconnection of the Project is \$_____ exclusive of ITCC. The cost responsibility breakdown is provided in the sections below. These costs have no associated degree of accuracy and are provided for informational purpose only.

15.1 Interconnection Facilities Cost

Tables 15-1 detailed Interconnection Facilities cost to interconnect the Project.

Table 15-1 Interconnection Facilities Cost

Substation Work at Customer 's Substation	
Pre-parallel inspection, testing, SCADA/EMS setup, meters, etc.	
Subtotal Substation Work	
Transmission Work	
Install necessary structure and provide interconnection	
Subtotal Transmission Work	
Building & Land Work	
Land engineering support and permitting activities	
Subtotal Building & Land Work	
Total Interconnection Facilities Cost before ITCC	

15.2 Network Upgrades Cost

Table 15-2 detailed Network Upgrade cost to interconnect the Project.

Table 15-2 Network Upgrade Cost

Substation Work	
Adding a new BAAH bay at Schulte Switching Station	
Relay work in Tesla, Kasson, Lammers, and Manteca substations	
Install one SPS & re-rate transformer to mitigate new Cat "C" overloads	
Subtotal Substation Work	
Transmission Work	
Construct loop lines connecting the Tesla – Manteca 115 kV Line and Schulte Switching Station (about 0.5 circuit miles)	
Re-conductor 2.5 miles Portion of the Vierra – Tracy – Kasson 115 kV	

Line	
Re-conductor 0.7 miles Portion of the Schulte - Lammers 115 kV Line*	
Subtotal Transmission Work	
Communications Work	
SCADA/EMS, programming, testing, screening at TOC and Switching Center	
Subtotal Communications Work	
Total Network Upgrades Interconnection Cost	

* If PG&E Project T680B completes before the Project on-line date there is no need to re-conductor this line.

15.3 Construction Schedule Estimate

The non-binding construction schedule to engineer and construct the facilities based on the assumptions outlined in the ISIS is approximately 18-24 months from the signing of the Large Generator Interconnection Agreement (LGIA). This is based upon the assumption that the environmental permitting obtained by the IC is adequate for permitting all PG&E activities.

Note that if CPUC may require PG&E to obtain a Permit to Construct (PTC) or a Certificate of Public Convenience and Necessity (CPCN) for the tap line or any other work associated with the project, the project could require an additional one to two years to complete. The cost for obtaining any of this type of permitting is not included in the above estimates.

16. Standby Power

The ISIS did not address any requirements for standby power that the Project may require. The IC should contact their PG&E Generation Interconnection Services representative regarding this service.

Note: The IC is urged to contact their PG&E Generation Interconnection Services representative promptly regarding standby service in order to ensure its availability for the project’s start up date.

17. Study Updates

The ISIS is performed according to the assumptions shown in the Sections titled “Study Assumptions” and “Power Flow Study Base Cases”. If these assumptions are changed, a re-study according to the LGIP may be required to re-evaluate the Project’s impact on the CAISO Controlled Grid. The IC would be responsible for paying for any such updating study.

Appendix A

Study Plan

Interconnection System Impact Study Plan

Generation Interconnection

GWF Energy LLC

GWF Tracy Project

(Revision 2)



California ISO
Your Link to Power

January 15, 2008

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	Attachment 1 – Generation Projects	

1. Introduction

GWF Energy LLC, an Interconnection Customer (IC), has submitted a completed Interconnection Request (IR) to the California Independent System Operator Corporation (CAISO) for their proposed GWF Tracy Project (Project), interconnecting to the CAISO Controlled Grid. The Project adds one steam turbine generator to the existing two gas turbine generators and formed a combined cycle (2X1) plant. The steam turbine generator is rated for a gross output of 154.7 MW. With 9.7 MW plant auxiliary loads, the maximum output to the CAISO Controlled Grid is 145 MW. The proposed Commercial Operation Date of the Project is April 1, 2013. The Point of Interconnection (POI) is at Pacific Gas & Electric Company's (PG&E) Schulte Switching Station 115 kV bus in San Joaquin County. In addition, The Tesla – Manteca 115 kV Line will be looped into Schulte Switching Station. The Alternative Point of Interconnection is also the Schulte Switching Station but the Tesla-Manteca 115 kV line will not be looped. The IC has requested, and the CAISO and PG&E have concurred to waive the Interconnection Feasibility Study (IFS) and allow the IC to move into the Interconnection System Impact Study (ISIS) phase.

2. Interconnection System Impact Study Scope Summary

In accordance with the Federal Energy Regulatory Commission's (FERC) Large Generator Interconnection Agreement (LGIP), the IC, the CAISO, and PG&E have agreed that an ISIS is required to determine the impact of the Project on the CAISO Controlled Grid. This ISIS will:

1. Identify transmission system impacts on the CAISO Controlled Grid caused solely by the addition of the Project
2. Identify any system reinforcements necessary to mitigate the adverse impacts of the Project under various system conditions
3. Identify the level of deliverability of the Project by means of a Deliverability Assessment conducted by the CAISO per Section 3.3.3 of the LGIP

This ISIS Plan will form the basis for the ISIS Agreement (ISISA) by defining the scope, content, assumptions, and terms of reference of the ISISA.

3. Study Fee

The estimated study fee to perform the ISIS is \$56,000. The final cost to complete the ISIS will be based on actual cost. According to the LGIP, a \$50,000 deposit will be required when the IC returns the signed ISISA to the CAISO.

The CAISO will invoice the IC the remaining balance if the actual cost is higher than the collected deposit. If the actual cost is less than the collected deposit, the CAISO will refund the balance to the IC.

4. Schedule

Table 4-1 shows the tentative milestones/schedules associated with the ISIS.

Table 4-1: Study Schedule

Task	Milestone Description	Target Date
1	CAISO tenders an ISISA to the IC	November 30, 2007
2	The IC returns the signed ISISA and a deposit of \$50,000 to CAISO	+ 30 CD
3	CAISO issues final ISIS report to the IC	+ 120 CD
4	ISIS Results Meeting	+10 BD

Per the LGIP, the IC must execute and return the attached ISISA with the deposit of \$50,000 within 30 calendar days (CD) from the tendering of ISISA. If the IC fails to return an executed ISISA and the deposit within 30 CD, the IR will be deemed withdrawn and will be processed pursuant to Section 3.8 of the LGIP.

5. Project and Interconnection Information

Table 5-1 provides general information about the Project.

Table 5-1: GWF Tracy Project General Information

Project Location	14950 West Schulte Road, Tracy, San Joaquin County, California 95377
PG&E Planning Area	San Joaquin Valley Region Stockton Division
Number and Type of Generators	One Steam Turbine Generator (GE)
Maximum Generator Output	154.7 MW
Generator Auxiliary Load	9.7 MW
Maximum Net Output to Grid	145 MW
Power Factor Range	0.9 Lagging to 0.95 Leading
Step-up Transformer	One three phase, 13.8/115 kV 190 MVA Transformer
Description Of Interconnection Configuration	The Project will be interconnected at 115 kV Schulte Switching Station. Also, the Tesla – Manteca 115 kV Line will be looped into Schulte Switching Station
Connection Voltage	115 kV

Figure 5-1 provides the map for the Project and the transmission facilities in the vicinity. Figure 5-2 shows the conceptual single line diagram of the Project.

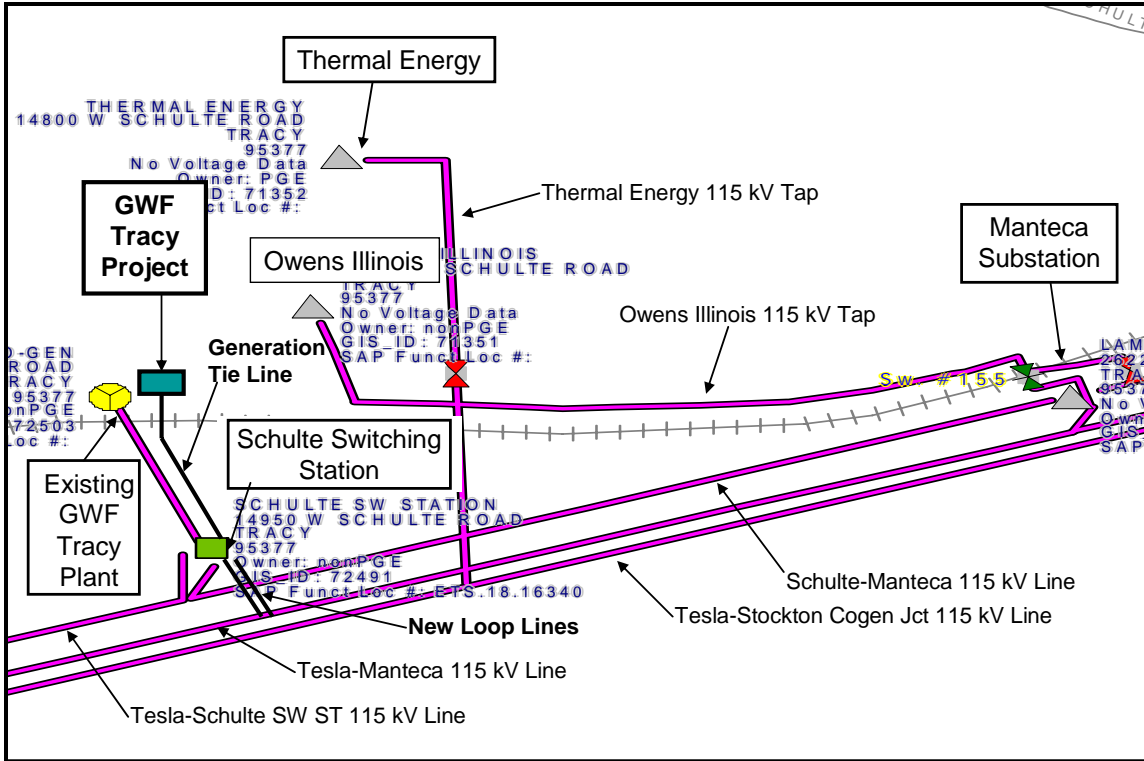


Figure 5-1: Map of the Project

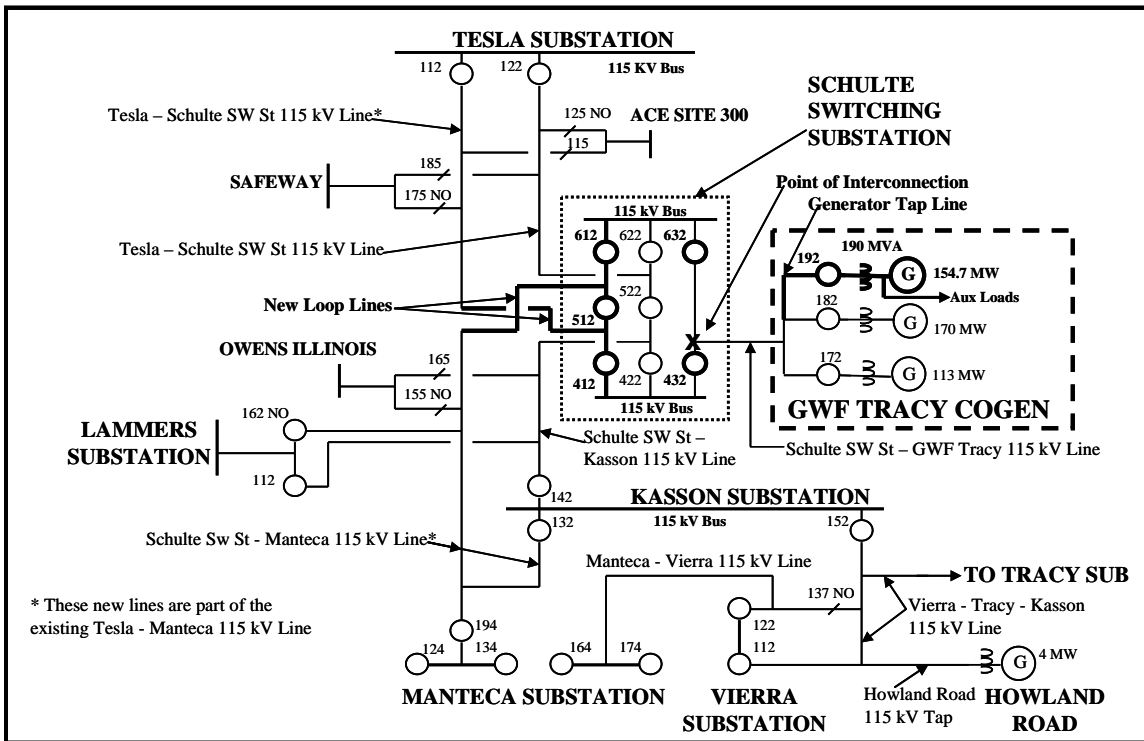


Figure 5-2: Conceptual One Line Diagram

6. Study Assumptions

The ISIS will be conducted under the following assumptions:

- 1) The Project consists of one steam turbine generator rated for 154.7 MW. With a total plant auxiliary load of 9.7 MW, the net output to the CAISO Controlled Grid is 145 MW.
- 2) The expected Commercial Operation Date is April 1, 2013.
- 3) The Project uses one step-up transformer. It is a three-phase 13.8/115 kV transformer rated for 190 MVA @ 65 degree C temperature rise with an impedance of 8.7% at 190 MVA base.
- 4) The IC will engineer, procure, construct, own, and maintain its project facility including the generator tap line. The generator tap line from the Project to the existing GWF Tracy Peaker Switchyard is about 0.14 miles long with 1431 kcmil "Bobolink" ACSS conductors.
- 5) PG&E will engineer, procure, construct, own, and maintain the loop lines (from the Tesla – Manteca 115 kV Line to Schulte Switching Substation). The conductor size of loop line is the same as the Tesla – Manteca 115 kV Line or equivalent. PG&E will modify the 115 kV bus at Schulte Switching Substation with a breaker and a half (BAAH) configuration in order to accommodate the new loop lines. PG&E will also evaluate the size adequacy of the existing generator tie line (from the GWF Tracy Peaker to the Schulte Switching Substation with the interconnection of the Project).

7. Power Flow Study Base Cases

Three power flow base cases will be used to evaluate the transmission system impacts of the Project. While it is impractical to study all combinations of system load and generation levels during all seasons and at all times of the day, these three base cases represent extreme loading and generation conditions for the study area.

The CAISO and PG&E cannot guarantee that the Project can operate at maximum rated output 24 hours a day, year round, without adverse system impacts, nor can the CAISO and PG&E guarantee that the Project will not have adverse system impacts during the times and seasons not studied in the ISIS.

The following power flow base cases will be used for the analysis in the ISIS:

- **2013 Summer Peak Full Loop Base Case:**

Power flow analysis will be performed using PG&E's 2013 summer peak full loop base case (in General Electric Power Flow format). This base case is developed from PG&E's 2007 base case series. It has a 1-in-10 year heat wave load forecast for PG&E's Sacramento, Sierra, Stockton, and Stanislaus areas.

- **2013 Spring Peak Full Loop Base Case:**

Power flow analysis will be performed using the 2013 spring peak full loop base case in order to evaluate the potential congestion on transmission facilities under reduced load and increased hydro generation levels during a typical spring season. Typical spring season loads will be applied in this spring peak full loop base case. As an aggregate, the PG&E system load level in the spring case is about 70% of the summer peak. However, the spring 2013 loads in Sacramento, Stockton, Stanislaus, and Sierra are about 50% of the summer peak loads. Hydro generation will be modeled at a very high level which is typical in the spring season. This base case will be used to evaluate PG&E's 60 kV through 230 kV systems.

- **2013 Summer Off-Peak Full Loop Base Case:**

Power flow analysis will be performed using the 2013 summer off peak full loop base case in order to evaluate the potential congestion on transmission facilities during the lightest loading conditions during the year. The summer 2013 off peak loads in Sacramento, Stockton, Stanislaus, and Sierra are about 30% - 35% of the summer peak loads. The rest of the PG&E system loads will be modeled as 2013 Spring Peak loads. This base case will be used to evaluate single element contingencies only on PG&E's 60 kV through 230 kV systems.

These base cases will model all approved PG&E transmission reliability projects that will be operational by 2013. These base cases will also model all proposed generation projects that would be operational by 2013. However, some generation projects that are electrically far from the proposed project will be either turned off or modeled with reduced generation to balance the loads and resources in the power flow model. The major generation projects included are shown in [Attachment 1](#).

8. Detailed Interconnection System Impact Study Scope

The ISIS will determine the impact of the Project on the CAISO Controlled Grid. The specific studies conducted are outlined below:

8.1 Steady State Power Flow Analysis

Power Flow analysis will be performed using the three base cases described in [Section 7](#). These base cases will be used to simulate the impact of the Project during normal operating conditions as well as during single (CAISO Category "B") and selected multiple (CAISO Category "C") contingency conditions. The study will cover the transmission facilities within PG&E's Sacramento, Sierra, Stockton, and Stanislaus areas.

The single (CAISO Category "B") and selected multiple (CAISO Category "C") contingencies include the following outages:

8.1.1 CAISO Category "B"

- All single generator outages within the study area.
- All single (60 - 230 kV) transmission circuit outages within the study area.
- All single (60-230 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.

8.1.2 CAISO 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 (60-230 kV) within the study area.

8.2 Reactive Power Deficiency Analysis

With the proposed project included in the system model, CAISO Category "B" and "C" contingencies will be analyzed to identify any reactive power deficiency:

- Whether the results show voltage drops of 5% or more from the pre-project levels, or
- Whether the results fail to meet applicable voltage criteria.

A post-transient power flow analysis will be performed, if necessary, after considering the network topology or power transfer paths involved when a significant amount of power transfer occurs.

8.3 Dynamic Stability Analysis

Dynamic stability studies will be conducted using the 2013 summer peak full loop base case to ensure that the transmission system remains in operating equilibrium through abnormal operating conditions after the Project begins operation.

Disturbance simulations will be performed for a study period of up to 20 seconds to determine whether the new facility will create any system instability during the following line and generator outages:

8.3.1 CAISO Category "B"

- Full load rejection of the 145 MW Project.
- A three-phase close-in fault on the new Tesla – Schulte SW ST 115 kV Line at the Tesla Substation 115 kV bus with normal clearing time followed by loss of the new Tesla – Schulte SW ST 115 kV Line
- A three-phase close-in fault on the new Tesla – Schulte SW ST 115 kV Line at the Schulte Substation 115 kV bus with normal clearing time followed by loss of the new Tesla – Schulte SW ST 115 kV Line
- A three-phase close-in fault on the Schulte SW ST - Manteca 115 kV Line at the Schulte Substation 115 kV bus with normal clearing time followed by loss of the Schulte SW ST - Manteca 115 kV Line
- A three-phase close-in fault on the Schulte SW ST - Manteca 115 kV Line at the Manteca Substation 115 kV bus with normal clearing time followed by loss of the Schulte SW ST - Manteca 115 kV Line

8.3.2 CAISO Category "C"

- A three-phase fault on the Tesla 115 kV bus with normal clearing time
- A three-phase fault on the new Schulte 115 kV bus with normal clearing time
- A three-phase fault on the Manteca 115 kV bus with normal clearing time
- A three-phase fault on the Tesla Substation 115 kV bus with normal clearing time followed by loss of the Tesla – Schulte and new Tesla – Schulte 115 kV lines
- A three-phase fault on the Schulte Substation 115 kV bus with normal clearing time followed by loss of the Tesla – Schulte and new Tesla – Schulte 115 kV lines
- A three-phase fault on the Schulte Substation 115 kV bus with normal clearing time followed by loss of the Schulte SW ST – Kasson and Schulte SW ST – Manteca 115 kV lines
- A three-phase fault on the Manteca Substation 115 kV bus with normal clearing time followed by loss of the Schulte SW ST – Kasson and Schulte SW ST – Manteca 115 kV lines

8.4 Deliverability Assessment

A Deliverability Assessment will be performed to determine the Project's ability to deliver its energy to the CAISO Controlled Grid under peak load conditions. The Deliverability Assessment will provide the IC with information as to the level of deliverability without Network Upgrades, and the required Network Upgrades for delivering the full output of the Project. The Deliverability Assessment will provide:

- Deliverability level with no Network Upgrades
- Required Network Upgrades to support 100% deliverability

CAISO will conduct the Deliverability Assessment in accordance with Section 3.3.3 of the LGIP.

8.5 Short Circuit Duty Analysis

Short circuit studies will be performed to determine the maximum fault currents on various transmission buses in the vicinity of the Project. This ISIS will assess the impact of increased fault duty resulting from the added generation. Equipment that may become overstressed as a result of increased fault duty will be identified.

8.6 System Protection Requirements

Preliminary system protection requirements will be provided based on the scope and assumptions outlined in this study plan and technical information provided by the IC.

8.7 Substation Evaluation

The substation evaluation will identify any existing equipment requiring upgrades to mitigate overstress or overload by the interconnection of the Project.

8.8 Transmission Line Evaluation

PG&E's transmission line evaluation will identify any existing transmission lines or equipment requiring upgrades to mitigate overload or overstress by the interconnection of the Project.

8.9 Land Evaluation

For the ISIS, PG&E's Corporate Real Estate Department will not perform an evaluation to determine if any new land rights are necessary to upgrade PG&E facilities that may be impacted by the Project such as, constructing the new generator tie line and re-conductoring of existing PG&E transmission lines, if required.

A land right evaluation will be provided when the Project progresses to the Interconnection Facilities Study (IFAS).

9. Costs and Construction Schedule Estimates

The ISIS will provide a list of required facilities and a non-binding good faith estimate of cost responsibility and a non-binding good faith estimate of time to construct.

10. Environmental Evaluation / Permitting

10.1 CPUC General Order 131-D

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

10.2 CPUC Section 851

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.

11. Standby Power

The ISIS will not address any requirements for standby power that the Project may require. The IC should contact their PG&E Generation Interconnection Services representative regarding this service.

Note: The IC is urged to contact their PG&E Generation Interconnection Services representative promptly regarding standby service in order to ensure its availability for the Project startup date.

12. Restudy

The ISIS will be performed according to the assumptions shown in the [Section 6](#). If these assumptions are changed, a restudy according to the LGIP may be required to re-evaluate the Project's impact on the CAISO Controlled Grid. The IC would be responsible for paying for any such restudy.

ATTACHMENT 1 – GENERATION PROJECTS

PG&E Generation Projects					
Project ID #	Project Name	Nearest Facility	Capacity (MW)	Latest Expected On-Line Date	Modeled In Study Cases
1	Confidential	Russell	92	2007	Yes

Non-PG&E Generation Projects to Be Modeled in Base Case per On-line Year					
Project ID #	Project Name	Nearest Facility	Capacity (MW)	Latest Expected On-Line Date	Modeled In Study Cases
TID	Confidential	Walnut (TID)	250	2007	Yes
SVP	Confidential	SSS (SVP)	320	2008	Yes

PG&E Generation Projects - ISO Generation Interconnection Queue					
Project ID #	Project Name	Nearest Facility	Capacity (MW)	Latest Expected On-Line Date	Modeled In Study Cases
1	Confidential	Contra Costa	590	2009	Yes
2	Confidential	Tesla	1156	2010	Yes
3	Confidential	Morro Bay	1200	2008	Yes
P0302	Confidential	Cabrillo	120	2009	Yes
P0304	Confidential	New Birds Landing SW STA	38	12/2011	Yes
P0401	Confidential	Birds' Landing Switchyard	150	2008	Yes
P0402	Confidential	Potrero	145.1	2008	Yes

PG&E Generation Projects - ISO Generation Interconnection Queue					
Project ID #	Project Name	Nearest Facility	Capacity (MW)	Latest Expected On-Line Date	Modeled In Study Cases
P0403	Confidential	Collector Station at Geysers #17 & Fulton Line	201	2009	Yes
P0404	Confidential	San Francisco Airport	48.7	2008	Yes
P0409	Confidential	Tesla	74.9	2010	Yes
P0411	Confidential	Humboldt Power Plant Substation	146.4	2008	Yes
P0412	Confidential	Birds' Landing Switchyard	200	2009	Yes
P0413	Confidential	East Shore	118	2007	Yes
P0418	Confidential	McCall 115 kV Bus	300	2013	Yes
P0424	Confidential	East Shore	361	2010	Yes
P0429	Confidential	Herndon-Kearney 230 kV Line	200	2008	Yes
P0435	Confidential	Panoche Substation 230 kV Bus	401	2009	Yes
P0504	Confidential	Panoche Substation 115 kV Bus	120	2009	Yes
P0506	Confidential	Cottonwood-Vaca Dixon 230 kV lines	715	2010	Yes
P0513	Confidential	Kern Oil Substation (115 kV)	94	2009	Yes
P0526	Confidential	Eastshore 230 kV Bus	245	2008	Yes
P0528L	Confidential	Pit 3-Round Mountain 230 kV	102	2007	Yes
P0529	Confidential	Le Grand- Chowchilla 115 kV	10.5	2007	Yes
P0530	Confidential	Merced #1 70 kV	10.5	2007	Yes
P0532L	Confidential	PG&E Geysers #17 Fulton 230 kV Line	55	2007	Yes
P0605L	Confidential	Coburn 230 kV Bus	210	2008	Yes

PG&E Generation Projects - ISO Generation Interconnection Queue					
Project ID #	Project Name	Nearest Facility	Capacity (MW)	Latest Expected On-Line Date	Modeled In Study Cases
P0609L	Confidential	Lambie-Contra Costa 230 kV	128	3/2011	Yes
P0610L	Confidential	Chevron 70 kV Tap	20	2009	Yes
P0611L	Confidential	Birds' Landing Switchyard	30	2009	Yes
P0615L	Confidential	Mc Call 230 kV Bus	565/600	2010	Yes
P0616L	Confidential	Mesa-Divide #1 & #2 115 kV Lines	105	2009	Yes
P0617L	Confidential	Oakland C Substation 115 kV Bus	300	2010	Yes
P0701L	Confidential	Morro Bay – Midway 230 kV Line	210	2010	Yes
P0702L	Confidential	Vaca – Tesla 500 kV Line	500	12/2011	Yes
P0703L	Confidential	Tesla – Bellota 230 kV Line	508	5/2011	Yes
P0704L	Confidential	Bahia-Moraga 230 kV Line	100	12/2011	Yes
P0706	Confidential	Geysers #3 – Cloverdale 115 kV Line	35	2010	Yes
P0708	Confidential	Geysers – Fulton 230 kV Line	50	1/1/2011	Yes
P0709	Confidential	Loop 230kV Lines newar Carrizo Plain Substation	190	12/1/2011	Yes
P0710	Confidential	Border Substation 230 kV Bus	508	6/15/2011	Yes
P0711	Confidential	60 kV bus at Posdef QF Facility	50	12/31/2009	Yes
Q0211	Confidential	230 kV Bus at Caribou Substation	201	10/31/2008	Yes
Q0212	Confidential	Rio Dell 60 kV	50	10/30/2010	Yes
Q0222	Confidential	Birs Landing Substation	100.5	12/31/2010	Yes

PG&E Generation Projects - ISO Generation Interconnection Queue					
Project ID #	Project Name	Nearest Facility	Capacity (MW)	Latest Expected On-Line Date	Modeled In Study Cases
Q0227	Confidential	Fulton – Ignacio 230 kV # 2 Line	175.5	12/31/2010	Yes
Q0235	Confidential	Tesla-Tracy #1 230 kV Line	630	6/1/2011	Yes
Q0236	Confidential	Tesla Substation 230 kV Bus	630	6/1/2011	Yes
Q0238	Confidential	Temblor-San Luis Obispo 115 kV Line	45	12/1/2008	Yes
Q0239	Confidential	Morro Bay-Midway 230 kV Line	250	12/1/2010	Yes
Q0242	Confidential	Morro Bay-Midway 230 kV Line	390	9/1/2012	Yes
Q0247	Confidential	Borden Substation 230 kv Bus	67	6/15/2011	Yes
Q0248	Confidential	Tesla-Bellota 230 kV Line	67	5/15/2011	Yes
Q0249	Confidential	Moss Landing-Salinas-Soledad 115 kV #1 & #2	200	2/1/2010	Yes
Q0250	Confidential	Redbud-Cortina 115 kV Line	200	8/1/2009	Yes
Q0253	Confidential	Cabrillo Sdubstation 115 kV Bus	40	12/31/2011	Yes
Q0254	Confidential	230 kV bus at Gates Substation	600	6/1/2012	Yes
Q0257	Confidential	New Fairfield Substation 230 kV Bus	575	6/1/2011	Yes
Q0258	Confidential	Contra Costa Substation 230 kV Bus	520	2/1/2012	Yes
Q0259	Confidential	Rio Oso Substation 115 kV Bus	345	2/1/2012	Yes
Q0260	Confidential	Gold Hill – Eight Miles 230 kV Line	260	2/1/2012	Yes
Q0261A	Confidential	Mendota Biomass Substation 70 kV Bus	5	4/15/2009	Yes

PG&E Generation Projects - ISO Generation Interconnection Queue					
Project ID #	Project Name	Nearest Facility	Capacity (MW)	Latest Expected On-Line Date	Modeled In Study Cases
Q0262	Confidential	Birds Landing Substation 230 kV Bus	390.6	4/15/2012	Yes
Q0266	Confidential	Rio Oso Substation 230 kV Bus	325	2/1/2012	Yes
Q0267	Confidential	Gold Hill – Eight Miles 230 kV Line	280	4/16/2012	Yes

Appendix B

Contingency Lists for Outages

2013 SUMMER CATEGORY "B" CONTINGENCY LIST

Q268 2013 summer category b contingency list
Sacramento, Sierra and Stockton-Stanislaus Divisions Zones 304, 305 and 311-312

2013 summer category b contingency list
Sacramento Division Zone 304

(1) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30114 30450 "1 " 0 # line from CPVSTA 230.00 BRKR to BRKR CORTINA 230.00
0

(2) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30114 30460 "2 " 0 # line from CPVSTA 230.00 BRKR to BRKR VACA-DIX 230.00
0

(3) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30114 30460 "3 " 0 # line from CPVSTA 230.00 BRKR to BRKR VACA-DIX 230.00
0

(4) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30114 30460 "4 " 0 # line from CPVSTA 230.00 BRKR to BRKR VACA-DIX 230.00
0

(5) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30330 30348 "1 " 0 # line from RIO OSO 230.00 BRKR to BRKR BRIGHTON 230.00
0

(6) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30348 30500 "1 " 0 # line from BRIGHTON 230.00 BRKR to BRKR BELLOTA 230.00
0

(7) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30435 30460 "1 " 0 # line from LAKEVILE 230.00 BRKR to BRKR VACA-DIX 230.00
0

(8) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30440 30460 "1 " 0 # line from TULUCAY 230.00 BRKR to BRKR VACA-DIX 230.00
0

(9) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30450 30460 "1 " 0 # line from CORTINA 230.00 BRKR to BRKR VACA-DIX 230.00
0

(10) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30460 30468 "1 " 0 # line from VACA-DIX 230.00 BRKR to BRKR Q257SWST 230.00
0

(11) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30460 30468 "2 " 0 # line from VACA-DIX 230.00 BRKR to BRKR Q257SWST 230.00
0

(12) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

2013 SUMMER CATEGORY "B" CONTINGENCY LIST

```

#
1 30460 30472 "1" 0 # line from VACA-DIX 230.00 BRKR to BRKR PEABODY 230.00
0
#
#
# (13) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30460 30478 "1" 0 # line from VACA-DIX 230.00 BRKR to BRKR LAMBIE 230.00
0
#
#
# (14) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30461 30462 "1" 0 # line from Q171 230.00 BRKR to (4) Q171CL1 230.00
1 30462 30463 "1" 0 # line from Q171CL1 230.00 (4) to (4) Q171CL2 230.00
2 30462 32181 "1" 0 # TRAN from Q171CL1 230.00 (4) to (1) Q171WG1 34.50
2 30462 32182 "1" 0 # TRAN from Q171CL1 230.00 (4) to (1) Q171WG2 34.50
1 30463 30461 "1" 0 # line from Q171CL2 230.00 (4) to BRKR Q171 230.00
2 30463 32183 "1" 0 # TRAN from Q171CL2 230.00 (4) to (1) Q171WG3 34.50
2 30463 32184 "1" 0 # TRAN from Q171CL2 230.00 (4) to (1) Q171WG4 34.50
3 32181 0 "1" 0 # GEN-DROP Q171WG1 34.50 GEN==125.00(-17.99)
3 32182 0 "2" 0 # GEN-DROP Q171WG2 34.50 GEN==125.00(-17.99)
3 32183 0 "3" 0 # GEN-DROP Q171WG3 34.50 GEN==125.00(-17.99)
3 32184 0 "4" 0 # GEN-DROP Q171WG4 34.50 GEN==125.00(-17.99)
0
#
#
# (15) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30468 30465 "1" 0 # line from Q257SWST 230.00 BRKR to BRKR BAHIA 230.00
0
#
#
# (16) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30468 30467 "1" 0 # line from Q257SWST 230.00 BRKR to BRKR PARKWAY 230.00
0
#
#
# (17) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30472 30479 "1" 0 # line from PEABODY 230.00 BRKR to BRKR BDLSWSTA 230.00
0
#
#
# (18) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30474 30475 "1" 0 # line from Q222 230.00 (2) to BRKR HIGHWND3 230.00
2 30474 32178 "1" 0 # TRAN from Q222 230.00 (2) to (2) Q222 34.50
2 32178 32179 "1" 0 # TRAN from Q222 34.50 (2) to (1) Q222 0.58
3 32179 0 "1" 0 # GEN-DROP Q222 0.58 GEN==100.50(15.45)
0
#
#
# (19) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30475 30529 "1" 0 # line from HIGHWND3 230.00 BRKR to (3) HIWD TAP 230.00
1 30529 30479 "1" 0 # line from HIWD TAP 230.00 (3) to BRKR BDLSWSTA 230.00
2 30529 32172 "1" 0 # TRAN from HIWD TAP 230.00 (3) to (1) HIGHWNDS 34.50
3 32172 0 "1" 0 # GEN-DROP HIGHWNDS 34.50 GEN==158.00(0.00)
0
#
#
# (20) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30476 30479 "1" 0 # line from SHILO 230.00 (5) to BRKR BDLSWSTA 230.00
1 30476 30483 "1" 0 # line from SHILO 230.00 (5) to (2) P0611 230.00
2 30476 32177 "1" 0 # TRAN from SHILO 230.00 (5) to (1) SHILO 34.50
2 30476 32189 "1" 0 # TRAN from SHILO 230.00 (5) to (3) Q039 34.50
2 30476 32189 "2" 0 # TRAN from SHILO 230.00 (5) to (3) Q039 34.50
2 30483 32188 "1" 0 # TRAN from P0611 230.00 (2) to (1) P0611G 34.50
2 32189 32190 "1" 0 # TRAN from Q039 34.50 (3) to (1) Q039 0.58
3 32177 0 "1" 0 # GEN-DROP SHILO 34.50 GEN==150.00(0.00)
3 32188 0 "1" 0 # GEN-DROP P0611G 34.50 GEN==30.00(3.78)

```

2013 SUMMER CATEGORY "B" CONTINGENCY LIST

```

3 32190 0 "1" 0 # GEN-DROP Q039 0.58 GEN==200.00(16.08)
0
#
#
# (21) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30477 30479 "1" 0 # line from SHILOHTP 230.00 (2) to BRKR BDLSWSTA 230.00
2 30477 32176 "2" 0 # TRAN from SHILOHTP 230.00 (2) to (1) SHILOH 34.50
3 32176 0 "1" 0 # GEN-DROP SHILOH 34.50 GEN==150.00(0.00)
0
#
#
# (22) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30478 30479 "1" 0 # line from LAMBIE 230.00 BRKR to BRKR BDLSWSTA 230.00
0
#
#
# (23) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30479 30480 "1" 0 # line from BDLSWSTA 230.00 BRKR to (4) USWP-RUS 230.00
1 30480 30481 "1" 0 # line from USWP-RUS 230.00 (4) to (2) P0609 230.00
2 30480 32168 "1" 0 # TRAN from USWP-RUS 230.00 (4) to (1) ENXCO 9.11
2 30480 32169 "1" 0 # TRAN from USWP-RUS 230.00 (4) to (1) SOLANOWP 21.00
2 30481 32186 "1" 0 # TRAN from P0609 230.00 (2) to (1) P0609 34.50
3 32168 0 "2" 0 # GEN-DROP ENXCO 9.11 GEN==49.00(0.00)
3 32169 0 "1" 0 # GEN-DROP SOLANOWP 21.00 GEN==95.00(0.00)
3 32186 0 "1" 0 # GEN-DROP P0609 34.50 GEN==128.00(15.11)
0
#
#
# (24) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30479 30471 "2" 0 # line from BDLSWSTA 230.00 BRKR to BRKR Q262SWST 230.00
0
#
#
# (25) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30471 30523 "1" 0 # line from Q262SWST 230.00 BRKR to BRKR CC SUB 230.00
0
#
#
# (26) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30479 30471 "1" 0 # line from BDLSWSTA 230.00 BRKR to BRKR Q262SWST 230.00
0
#
#
# (27) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30471 30525 "1" 0 # line from Q262SWST 230.00 BRKR to BRKR C.COSTA 230.00
0
#
#
# (28) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31231 31950 "1" 0 # line from Q250TAP1 115.00 (3) to BRKR CORTINA 115.00
1 31231 31234 "1" 0 # line from Q250TAP1 115.00 (3) to (2) Q250JCT 115.00
1 31231 31261 "1" 0 # line from Q250TAP1 115.00 (3) to (2) CACHE J1 115.00
1 31234 31235 "1" 0 # line from Q250JCT 115.00 (2) to (3) Q250 115.00
2 31235 31437 "1" 0 # TRAN from Q250 115.00 (3) to (2) Q250EQ1 34.50
2 31235 31438 "1" 0 # TRAN from Q250 115.00 (3) to (2) Q250EQ2 34.50
2 31437 31439 "1" 0 # TRAN from Q250EQ1 34.50 (2) to (1) Q250EQ1 0.58
2 31438 31440 "1" 0 # TRAN from Q250EQ2 34.50 (2) to (1) Q250EQ2 0.58
1 31261 31227 "1" 0 # line from CACHE J1 115.00 (2) to (3) HGHLNDJ2 115.00
1 31227 31226 "1" 0 # line from HGHLNDJ2 115.00 (3) to (1) HGHLAND 115.00
1 31227 31228 "1" 0 # line from HGHLNDJ2 115.00 (3) to (3) HOMSTKTP 115.00
1 31228 31220 "1" 0 # line from HOMSTKTP 115.00 (3) to BRKR EGLE RCK 115.00
1 31228 31230 "1" 0 # line from HOMSTKTP 115.00 (3) to (2) HOMEPROC 115.00
1 31230 31232 "1" 0 # line from HOMEPROC 115.00 (2) to (1) HOMEGRND 115.00
4 31439 0 "ss" 0 # LOAD-DROP Q250EQ1 0.58 LOAD==0.50(0.28)
4 31440 0 "ss" 0 # LOAD-DROP Q250EQ2 0.58 LOAD==0.50(0.28)
4 31226 0 "1" 0 # LOAD-DROP HGHLAND 115.00 LOAD==13.28(2.70)

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4 31226 0 "2" 0 # LOAD-DROP HIGHLAND 115.00 LOAD==7.81(1.59)
4 31230 0 "1" 0 # LOAD-DROP HOMEPROC 115.00 LOAD==0.80(0.16)
3 31439 0 "1" 0 # GEN-DROP Q250EQ1 0.58 GEN==100.50(8.48)
3 31440 0 "2" 0 # GEN-DROP Q250EQ2 0.58 GEN==100.50(8.48)
0
#
#
# (29) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31233 31950 "1" 0 # line from Q250TAP2 115.00 (2) to BRKR CORTINA 115.00
1 31233 31224 "1" 0 # line from Q250TAP2 115.00 (2) to (3) INDIN VL 115.00
1 31224 31215 "1" 0 # line from INDIN VL 115.00 (3) to (3) LUCERNJ1 115.00
2 31224 31436 "1" 0 # TRAN from INDIN VL 115.00 BRKR to (1) INDIAN V 9.11
1 31215 31200 "1" 0 # line from LUCERNJ1 115.00 (3) to BRKR MENDOCNO 115.00
1 31215 31216 "1" 0 # line from LUCERNJ1 115.00 (3) to (1) LUCERNE 115.00
4 31216 0 "1" 0 # LOAD-DROP LUCERNE 115.00 LOAD==12.24(2.48)
3 31436 0 "1" 0 # GEN-DROP INDIAN V 9.11 GEN==0.90(0.00)
1 31217 31216 "1" 1 # close line from LCERNJ2 115.00 to LUCERNE 115.00
4 31216 0 "1" 1 # restore all loads to LUCERNE 115.00 (Cortina - Mendocino 115 kV)
0
#
#
# (30) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31253 31974 "1" 0 # line from FLTN JT2 115.00 (2) to (1) MADISON 115.00
1 31253 31952 "1" 0 # line from FLTN JT2 115.00 (2) to (2) PUTH CRK 115.00
1 31952 31998 "1" 0 # line from PUTH CRK 115.00 (2) to BRKR VACA-DIX 115.00
4 31974 0 "1" 0 # LOAD-DROP MADISON 115.00 LOAD==8.25(0.37)
4 31974 0 "2" 0 # LOAD-DROP MADISON 115.00 LOAD==5.33(0.23)
4 31974 0 "3" 0 # LOAD-DROP MADISON 115.00 LOAD==15.02(0.68)
4 31952 0 "1" 0 # LOAD-DROP PUTH CRK 115.00 LOAD==16.83(0.75)
0
#
#
# (31) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31953 31256 "1" 0 # line from AMEGTAP 115.00 (3) to (1) FLTN JCT 115.00
1 31953 31954 "1" 0 # line from AMEGTAP 115.00 (3) to (1) AMERIGAS 115.00
1 31953 31998 "1" 0 # line from AMEGTAP 115.00 (3) to BRKR VACA-DIX 115.00
4 31954 0 "1" 0 # LOAD-DROP AMERIGAS 115.00 LOAD==6.73(1.37)
0
#
#
# (32) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31958 32012 "1" 0 # line from CORDELIA 115.00 (1) to (2) HALE J2 115.00
1 32012 32004 "1" 0 # line from HALE J2 115.00 (2) to (3) VCVLLE2J 115.00
1 32004 31998 "1" 0 # line from VCVLLE2J 115.00 (3) to BRKR VACA-DIX 115.00
1 32004 32002 "1" 0 # line from VCVLLE2J 115.00 (3) to BRKR VACAVLL2 115.00
4 31958 0 "2" 0 # LOAD-DROP CORDELIA 115.00 LOAD==17.61(0.79)
4 32002 0 "2" 0 # LOAD-DROP VACAVLL2 115.00 LOAD==44.68(2.00)
4 32002 0 "3" 0 # LOAD-DROP VACAVLL2 115.00 LOAD==43.87(1.96)
1 32000 32002 "1" 1 #Transfer VACAVLL2 load to alternate
4 32002 0 "1" 1 #Restore VACAVLL2 load
0
#
#
# (33) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31960 31966 "1" 0 # line from MOBILCHE 115.00 (2) to (3) WODLNDJ1 115.00
1 31960 31970 "1" 0 # line from MOBILCHE 115.00 (2) to BRKR WOODLD 115.00
1 31966 31965 "1" 0 # line from WODLNDJ1 115.00 (3) to (3) KNIGHT1 115.00
1 31966 31971 "1" 0 # line from WODLNDJ1 115.00 (3) to (1) ZAMORA1 115.00
1 31965 31963 "1" 0 # line from KNIGHT1 115.00 (3) to (1) KNIGHTLD 115.00
1 31965 32214 "1" 0 # line from KNIGHT1 115.00 (3) to BRKR RIO OSO 115.00
4 31960 0 "1" 0 # LOAD-DROP MOBILCHE 115.00 LOAD==0.10(0.00)
4 31963 0 "1" 0 # LOAD-DROP KNIGHTLD 115.00 LOAD==8.57(0.38)
0
#
#
# (34) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31962 31970 "1" 0 # line from WDLND_BM 115.00 (3) to BRKR WOODLD 115.00
1 31962 31992 "1" 0 # line from WDLND_BM 115.00 (3) to (2) HUNT 115.00

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2 31962 32156 "1" 0 # TRAN from WDLND_BM 115.00 (3) to (1) WOODLAND 9.11
1 31992 31990 "1" 0 # line from HUNT 115.00 (2) to BRKR DAVIS 115.00
4 31992 0 "1" 0 # LOAD-DROP HUNT 115.00 LOAD==0.27(0.05)
4 32156 0 "SG" 0 # LOAD-DROP WOODLAND 9.11 LOAD==1.49(0.34)
3 32156 0 "1" 0 # GEN-DROP WOODLAND 9.11 GEN==25.00(5.00)
0
#
#
# (35) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31964 31968 "2" 0 # line from KNIGHT2 115.00 (2) to (3) WODLNDJ2 115.00
1 31964 32214 "2" 0 # line from KNIGHT2 115.00 (2) to BRKR RIO OSO 115.00
1 31968 31970 "2" 0 # line from WODLNDJ2 115.00 (3) to BRKR WOODLD 115.00
1 31968 31973 "2" 0 # line from WODLNDJ2 115.00 (3) to (2) ZAMORA2 115.00
1 31973 31972 "2" 0 # line from ZAMORA2 115.00 (2) to (1) ZAMORA 115.00
4 31972 0 "1" 0 # LOAD-DROP ZAMORA 115.00 LOAD==10.62(0.48)
0
#
#
# (36) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31976 31980 "1" 0 # line from POST 115.00 (1) to (3) DPWTR_TP 115.00
1 31980 31986 "1" 0 # line from DPWTR_TP 115.00 (3) to BRKR W.SCRMNO 115.00
1 31980 32003 "1" 0 # line from DPWTR_TP 115.00 (3) to (3) UCD_TP1 115.00
1 32003 31990 "1" 0 # line from UCD_TP1 115.00 (3) to BRKR DAVIS 115.00
1 32003 32103 "2" 0 # line from UCD_TP1 115.00 (3) to (2) UCDAVSJ2 115.00
1 32103 32102 "1" 0 # line from UCDAVSJ2 115.00 (2) to (2) CAMPUS 115.00
2 32102 32166 "1" 0 # TRAN from CAMPUS 115.00 (2) to (1) UC DAVIS 9.11
4 31976 0 "1" 0 # LOAD-DROP POST 115.00 LOAD==1.31(0.19)
4 31976 0 "1A" 0 # LOAD-DROP POST 115.00 LOAD==1.31(0.19)
4 32102 0 "1" 0 # LOAD-DROP CAMPUS 115.00 LOAD==36.56(8.33)
3 32166 0 "1" 0 # GEN-DROP UC DAVIS 9.11 GEN==3.50(1.80)
1 31988 31976 "1" 1 #Transfer POST to alternate Deepwater tap
4 31976 0 "****" 1 #Restore load to POST
0
#
#
# (37) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31978 31984 "1" 0 # line from DPWT_TP2 115.00 (3) to BRKR BRIGHTN 115.00
1 31978 31986 "1" 0 # line from DPWT_TP2 115.00 (3) to BRKR W.SCRMNO 115.00
1 31978 31988 "1" 0 # line from DPWT_TP2 115.00 (3) to (1) DEEPWATR 115.00
4 31988 0 "2" 0 # LOAD-DROP DEEPWATR 115.00 LOAD==22.90(1.02)
4 31988 0 "3" 0 # LOAD-DROP DEEPWATR 115.00 LOAD==15.82(0.70)
1 31976 31988 "1" 1 #Transfer load to alternate Deepwater tap
4 31988 0 "****" 1 #Restore load at Deepwater
0
#
#
# (38) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31984 31993 "1" 0 # line from BRIGHTN 115.00 BRKR to (3) BRKRJCT 115.00
1 31993 31991 "1" 0 # line from BRKRJCT 115.00 (3) to (2) BRKR TP 115.00
1 31993 32001 "1" 0 # line from BRKRJCT 115.00 (3) to (3) UCD_TP2 115.00
1 31991 31989 "1" 0 # line from BRKR TP 115.00 (2) to BRKR BRKR SLG 115.00
1 32001 31990 "1" 0 # line from UCD_TP2 115.00 (3) to BRKR DAVIS 115.00
1 32001 32116 "1" 0 # line from UCD_TP2 115.00 (3) to (1) UCDAVSJ1 115.00
4 31989 0 "1" 0 # LOAD-DROP BRKR SLG 115.00 LOAD==1.75(0.00)
0
#
#
# (39) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31984 31994 "1" 0 # line from BRIGHTN 115.00 BRKR to BRKR GRAND IS 115.00
1 31984 31994 "2" 1 #Transfer Grand Island to alternate source
4 31994 0 "****" 1 #Restore Grand Island load
0
#
#
# (40) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31995 32013 "1" 0 # line from HALE 115.00 (2) to (1) HALE2 115.00
1 31995 31996 "1" 0 # line from HALE 115.00 (2) to (3) HALE J1 115.00
1 31996 32006 "1" 0 # line from HALE J1 115.00 (3) to (3) VCVLLE1J 115.00

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1 31996 32020 "1" 0 # line from HALE J1 115.00 (3) to (3) JMSN JCT 115.00
1 32006 31998 "1" 0 # line from VCVLLE1J 115.00 (3) to BRKR VACA-DIX 115.00
1 32006 32000 "1" 0 # line from VCVLLE1J 115.00 (3) to BRKR VACAVLL1 115.00
1 32020 32010 "1" 0 # line from JMSN JCT 115.00 (3) to BRKR JAMESON 115.00
1 32020 32618 "1" 0 # line from JMSN JCT 115.00 (3) to (1) NTWRJCT1 115.00
4 31995 0 "1" 0 # LOAD-DROP HALE 115.00 LOAD==2.39(1.42)
4 32000 0 "1" 0 # LOAD-DROP VACAVLL1 115.00 LOAD==30.49(1.36)
4 32010 0 "1" 0 # LOAD-DROP JAMESON 115.00 LOAD==38.91(1.74)
1 32002 32000 "1" 1 #Line transfer VACAVLL1 115kV TO VACAVLL2 115kV
4 32000 0 "1" 1 #Restore VACAVLL1 load
1 31995 32013 "1" 1 #Transfer load to HALE alternate
1 32012 32013 "1" 1 #Transfer load to HALE alternate
4 31995 0 "1" 1 #Restore load at HALE
1 32010 32009 "1" 1 # LINE-TRANSFER JMSN JCT 115.00 to JAMESN-A 115.00
4 32010 0 "1" 1 # RESTORE JAMESON load
0
#
#
# (41) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31998 31997 "1" 0 # line from VACA-DIX 115.00 BRKR to (3) SCHMLBCH 115.00
1 31997 32008 "1" 0 # line from SCHMLBCH 115.00 (3) to BRKR SUISUN 115.00
1 31997 32009 "1" 0 # line from SCHMLBCH 115.00 (3) to (1) JAMESN-A 115.00
4 31997 0 "1" 0 # LOAD-DROP SCHMLBCH 115.00 LOAD==10.08(6.77)
0
#
#
# (42) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31998 32011 "1" 0 # line from VACA-DIX 115.00 BRKR to (3) WEC 115.00
1 32011 32008 "1" 0 # line from WEC 115.00 (3) to BRKR SUISUN 115.00
2 32011 32185 "1" 0 # TRAN from WEC 115.00 (3) to (1) WOLFSKIL 13.80
4 32185 0 "ss" 0 # LOAD-DROP WOLFSKIL 13.80 LOAD==1.30(0.81)
3 32185 0 "1" 0 # GEN-DROP WOLFSKIL 13.80 GEN==50.00(5.67)
0
#
#
# (43) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31999 31998 "1" 0 # line from VACA-CB 115.00 (3) to BRKR VACA-DIX 115.00
2 31999 30460 "2" 0 # TRAN from VACA-CB 115.00 (3) to BRKR VACA-DIX 230.00
2 31999 30460 "2A" 0 # TRAN from VACA-CB 115.00 (3) to BRKR VACA-DIX 230.00
0
#
#
# (44) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32050 31740 "2" 0 # line from RICE 60.00 (1) to (2) JACINTO 60.00
1 31740 31732 "2" 0 # line from JACINTO 60.00 (2) to (2) HMLTN JT 60.00
1 31732 31734 "2" 0 # line from HMLTN JT 60.00 (2) to (2) HAMILTON 60.00
1 31734 31722 "2" 0 # line from HAMILTON 60.00 (2) to BRKR GLENN 60.00
4 32050 0 "1" 0 # LOAD-DROP RICE 60.00 LOAD==6.07(0.27)
4 32050 0 "2" 0 # LOAD-DROP RICE 60.00 LOAD==1.97(0.08)
4 31740 0 "1" 0 # LOAD-DROP JACINTO 60.00 LOAD==6.10(0.27)
4 31734 0 "1" 0 # LOAD-DROP HAMILTON 60.00 LOAD==5.61(0.25)
0
#
#
# (45) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32052 32054 "4" 0 # line from CLSA CRS 60.00 (2) to (2) MAXWELL 60.00
1 32052 32067 "4" 0 # line from CLSA CRS 60.00 (2) to (2) WILSONAV 60.00
1 32054 32055 "4" 0 # line from MAXWELL 60.00 (2) to (3) MAXTAP 60.00
1 32067 32068 "1" 0 # line from WILSONAV 60.00 (2) to (1) COLUSA 60.00
1 32055 32053 "4" 0 # line from MAXTAP 60.00 (3) to (1) DELEVAN 60.00
1 32055 32065 "4" 0 # line from MAXTAP 60.00 (3) to (2) WILL JCT 60.00
1 32065 32056 "4" 0 # line from WILL JCT 60.00 (2) to BRKR CORTINA 60.00
4 32054 0 "1" 0 # LOAD-DROP MAXWELL 60.00 LOAD==5.89(0.26)
4 32068 0 "1" 0 # LOAD-DROP COLUSA 60.00 LOAD==8.87(0.39)
4 32068 0 "2" 0 # LOAD-DROP COLUSA 60.00 LOAD==6.41(0.29)
0
#
#
# (46) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

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#
1 32056 32060 "1" 0 # line from CORTINA 60.00 BRKR to (2) ARBUCKLE 60.00
1 32060 32058 "1" 0 # line from ARBUCKLE 60.00 (2) to (2) HARINTON 60.00
1 32058 32062 "1" 0 # line from HARINTON 60.00 (2) to (2) DRAKE 60.00
1 32062 32066 "1" 0 # line from DRAKE 60.00 (2) to (1) DUNNIGAN 60.00
4 32060 0 "1" 0 # LOAD-DROP ARBUCKLE 60.00 LOAD==16.33(0.73)
4 32058 0 "1" 0 # LOAD-DROP HARINTON 60.00 LOAD==1.00(0.62)
4 32062 0 "1" 0 # LOAD-DROP DRAKE 60.00 LOAD==1.00(0.62)
4 32066 0 "1" 0 # LOAD-DROP DUNNIGAN 60.00 LOAD==8.65(0.38)
1 32061 32060 "1" 1 #Transfer Arbuckle to its alternate
4 32060 0 "1" 1 #Restore load at ARBUCKLE
4 32058 0 "1" 1 #Restore load at HARINTON
4 32062 0 "1" 1 #Restore load at DRAKE
4 32066 0 "1" 1 #Restore load at DUNNIGAN
0
#
#
# (47) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32057 32056 "2" 0 # line from HUSTD 60.00 (2) to BRKR CORTINA 60.00
1 32057 32063 "2" 0 # line from HUSTD 60.00 (2) to (3) ARBJCT 60.00
1 32063 32061 "2" 0 # line from ARBJCT 60.00 (3) to (1) ARBALT 60.00
1 32063 32078 "2" 0 # line from ARBJCT 60.00 (3) to (2) WLKSLJCT 60.00
1 32078 32076 "2" 0 # line from WLKSLJCT 60.00 (2) to (2) WILKINS 60.00
1 32076 32080 "2" 0 # line from WILKINS 60.00 (2) to (1) DIST2047 60.00
4 32076 0 "1" 0 # LOAD-DROP WILKINS 60.00 LOAD==6.44(0.29)
0
#
#
# (48) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32070 32071 "1" 0 # line from CLSA JCT 60.00 BRKR to (2) MERIDJCT 60.00
1 32071 32072 "1" 0 # line from MERIDJCT 60.00 (2) to (1) MERIDIAN 60.00
4 32072 0 "1" 0 # LOAD-DROP MERIDIAN 60.00 LOAD==4.55(0.21)
0
#
#
# (49) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32070 32073 "3" 0 # line from CLSA JCT 60.00 BRKR to (2) WESCOT1 60.00
1 32073 32075 "3" 0 # line from WESCOT1 60.00 (2) to (3) WESCOT2 60.00
1 32075 32064 "3" 0 # line from WESCOT2 60.00 (3) to (1) WILLIAMS 60.00
1 32075 32155 "3" 0 # line from WESCOT2 60.00 (3) to (3) WADHMJCT 60.00
1 32155 32056 "3" 0 # line from WADHMJCT 60.00 (3) to BRKR CORTINA 60.00
2 32155 32154 "1" 0 # TRAN from WADHMJCT 60.00 (3) to (1) WADHAM 9.11
4 32064 0 "1" 0 # LOAD-DROP WILLIAMS 60.00 LOAD==6.27(0.28)
4 32064 0 "2" 0 # LOAD-DROP WILLIAMS 60.00 LOAD==10.36(0.46)
4 32154 0 "SG" 0 # LOAD-DROP WADHAM 9.11 LOAD==1.08(0.25)
3 32154 0 "1" 0 # GEN-DROP WADHAM 9.11 GEN==22.80(3.70)
0
#
#
# (50) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32077 32662 "1" 0 # line from CORD PMP 60.00 (1) to (4) TULCY JT 60.00
1 32662 32655 "1" 0 # line from TULCY JT 60.00 (4) to (2) TULCAY1 60.00
1 32662 32656 "1" 0 # line from TULCY JT 60.00 (4) to BRKR NAPA 60.00
1 32662 32093 "1" 0 # line from TULCY JT 60.00 (4) to (3) CRD-JCT 60.00
1 32655 32654 "1" 0 # line from TULCAY1 60.00 (2) to BRKR TULUCAY 60.00
1 32093 32091 "1" 0 # line from CRD-JCT 60.00 (3) to (1) CRD_INTR 60.00
1 32093 32074 "1" 0 # line from CRD-JCT 60.00 (3) to (1) CORDELIA 60.00
4 32077 0 "1" 0 # LOAD-DROP CORD PMP 60.00 LOAD==4.74(1.56)
4 32091 0 "1" 0 # LOAD-DROP CRD_INTR 60.00 LOAD==2.80(0.90)
4 32074 0 "4" 0 # LOAD-DROP CORDELIA 60.00 LOAD==13.26(0.59)
1 32662 32656 "1" 1 # close line from TULCY JT 60.00 to NAPA 60.00
1 32662 32077 "1" 1 # close line from TULCY JT 60.00 to CORD PMP 60.00
1 32077 32074 "1" 1 # close line from CORD PMP 60.00 to CORDELIA 60.00
4 32077 0 "1" 1 # restore all loads to CORD PMP 60.00
4 32074 0 "1" 1 # restore all loads to CORDELIA 60.00 (Tulucay - Napa #1 60 kV)
0
#
#
# (51) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#

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1 32079 32083 "1" 0 # line from DST1001B 60.00 (3) to (1) DIST1001 60.00
1 32079 32087 "1" 0 # line from DST1001B 60.00 (3) to (2) KNTJALT 60.00
1 32079 32342 "1" 0 # line from DST1001B 60.00 (3) to BRKR E.NICOLS 60.00
1 32087 32085 "1" 0 # line from KNTJALT 60.00 (2) to (2) WOODJCT 60.00
1 32085 32084 "1" 0 # line from WOODJCT 60.00 (2) to (1) WLLW SLJ 60.00
0
#
#
# (52) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32081 32086 "1" 0 # line from DIST1500 60.00 (1) to (2) KNGHTSLJ 60.00
1 32086 32089 "1" 0 # line from KNGHTSLJ 60.00 (2) to (2) DST1001A 60.00
1 32089 32342 "1" 0 # line from DST1001A 60.00 (2) to BRKR E.NICOLS 60.00
0
#
#
# (53) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32082 32090 "1" 0 # line from PLFLDJCT 60.00 (2) to (2) WINTERS 60.00
1 32082 32092 "1" 0 # line from PLFLDJCT 60.00 (2) to (1) PLAINFLD 60.00
1 32090 32088 "1" 0 # line from WINTERS 60.00 (2) to BRKR VACA-DXN 60.00
4 32090 0 "1" 0 # LOAD-DROP WINTERS 60.00 LOAD==6.18(0.27)
4 32092 0 "1" 0 # LOAD-DROP PLAINFLD 60.00 LOAD==12.16(0.54)
0
#
#
# (54) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32088 32094 "2" 0 # line from VACA-DXN 60.00 BRKR to (2) VACA-JT2 60.00
1 32094 32109 "2" 0 # line from VACA-JT2 60.00 (2) to (3) CACHSLJ2 60.00
1 32109 32101 "2" 0 # line from CACHSLJ2 60.00 (3) to (2) DIXON-J2 60.00
1 32109 32107 "2" 0 # line from CACHSLJ2 60.00 (3) to (2) CACHSTAP 60.00
1 32101 32100 "2" 0 # line from DIXON-J2 60.00 (2) to BRKR DIXON 60.00
1 32107 32113 "2" 0 # line from CACHSTAP 60.00 (2) to (2) BTAV-JCT 60.00
1 32113 32112 "2" 0 # line from BTAV-JCT 60.00 (2) to (1) MAINE-PR 60.00
4 32112 0 "1" 0 # LOAD-DROP MAINE-PR 60.00 LOAD==0.10(0.02)
0
#
#
# (55) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32088 32096 "1" 0 # line from VACA-DXN 60.00 BRKR to (3) VACA-JT1 60.00
1 32096 32098 "1" 0 # line from VACA-JT1 60.00 (3) to (3) TRAVISJT 60.00
1 32096 32108 "1" 0 # line from VACA-JT1 60.00 (3) to (2) CACHSLJ1 60.00
1 32098 32097 "1" 0 # line from TRAVISJT 60.00 (3) to (1) TRAVIS 60.00
1 32098 32099 "1" 0 # line from TRAVISJT 60.00 (3) to (1) TRVS_HPT 60.00
1 32108 32105 "1" 0 # line from CACHSLJ1 60.00 (2) to (3) DIXON-J1 60.00
1 32105 32100 "1" 0 # line from DIXON-J1 60.00 (3) to BRKR DIXON 60.00
1 32105 32106 "1" 0 # line from DIXON-J1 60.00 (3) to (1) DIXONCAN 60.00
4 32097 0 "1" 0 # LOAD-DROP TRAVIS 60.00 LOAD==18.67(5.59)
4 32099 0 "1" 0 # LOAD-DROP TRVS_HPT 60.00 LOAD==4.82(1.41)
4 32106 0 "1" 0 # LOAD-DROP DIXONCAN 60.00 LOAD==3.50(0.80)
1 32094 32098 "1" 1 #Transfer load to alternate tap
4 32097 0 "1" 1 #Restore load at Travis AFB
4 32099 0 "1" 1 #Restore load at Travis Hospital
0
#
#
# (56) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32214 31986 "1" 0 # line from RIO OSO 115.00 BRKR to BRKR W.SCRMNO 115.00
0
#
#
# (57) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32586 31956 "1" 0 # line from HGHWY J2 115.00 (3) to (2) CORDELLT 115.00
1 32586 32578 "1" 0 # line from HGHWY J2 115.00 (3) to (2) SKGGS J2 115.00
1 32586 32590 "1" 0 # line from HGHWY J2 115.00 (3) to BRKR HIGHWAY 115.00
1 31956 32598 "1" 0 # line from CORDELLT 115.00 (2) to (2) NTWR ALT 115.00
1 32578 32568 "1" 0 # line from SKGGS J2 115.00 (2) to BRKR IGNACIO 115.00
1 32598 32608 "1" 0 # line from NTWR ALT 115.00 (2) to (2) CRQNZTP2 115.00
1 32608 32616 "1" 0 # line from CRQNZTP2 115.00 (2) to (1) MEYERTP2 115.00
4 32590 0 "1" 0 # LOAD-DROP HIGHWAY 115.00 LOAD==18.06(3.67)

```

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4 32590 0 "2" 0 # LOAD-DROP HIGHWAY 115.00 LOAD==22.17(4.50)
1 32588 32590 "1" 1 # LINE-TRANSFER HGHWY J2 115.00 to HGHWY J1 115.00
4 32590 0 "" 1 # RESTORE HIGHWAY load
0

(58) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 30070 30461 "1" 0 # TRAN from Q171 500.00 BRKR to BRKR Q171 230.00
0

(59) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 30450 30451 "1" 0 # TRAN from CORTINA 230.00 BRKR to (3) CRTNA M 230.00
2 30451 31951 "1" 0 # TRAN from CRTNA M 230.00 (3) to (1) CORT_D 115.00
2 30451 32056 "1" 0 # TRAN from CRTNA M 230.00 (3) to BRKR CORTINA 60.00
4 31951 0 "3" 0 # LOAD-DROP CORT_D 115.00 LOAD==7.98(0.36)
0

(60) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

**** 3-WINDING TRANSFORMER 30460 (30067) 30030 32152 :
2 30460 30030 "11" 0 # TRAN from VACA-DIX 230.00 BRKR to (1) VACA-DIX 500.00
0

(61) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

**** 3-WINDING TRANSFORMER 30460 (32158) 30030 32157 :
2 30460 30030 "12" 0 # TRAN from VACA-DIX 230.00 BRKR to (1) VACA-DIX 500.00
0

(62) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 31950 30450 "4" 0 # TRAN from CORTINA 115.00 BRKR to BRKR CORTINA 230.00
0

(63) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 31984 30348 "10" 0 # TRAN from BRIGHTN 115.00 BRKR to BRKR BRIGHTON 230.00
0

(64) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 31984 30348 "9" 0 # TRAN from BRIGHTN 115.00 BRKR to BRKR BRIGHTON 230.00
0

(65) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 31998 30460 "3" 0 # TRAN from VACA-DIX 115.00 BRKR to BRKR VACA-DIX 230.00
0

(66) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 31998 30460 "4" 0 # TRAN from VACA-DIX 115.00 BRKR to BRKR VACA-DIX 230.00
0

(67) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 32088 31998 "5" 0 # TRAN from VACA-DXN 60.00 BRKR to BRKR VACA-DIX 115.00
0

(68) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 32088 31998 "9" 0 # TRAN from VACA-DXN 60.00 BRKR to BRKR VACA-DIX 115.00

2013 SUMMER CATEGORY "B" CONTINGENCY LIST

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0
#
#
# (69) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 32162 31994 "1" 0 # TRAN from RIV.DLTA 9.11 (1) to BRKR GRAND IS 115.00
0
#
#
# (70) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 32164 32008 "1" 0 # TRAN from CTY FAIR 9.11 (1) to BRKR SUISUN 115.00
3 32164 0 "1" 0 # GEN-DROP CTY FAIR 9.11 GEN==0.80(0.07)
3 32164 0 "2" 0 # GEN-DROP CTY FAIR 9.11 GEN==1.50(0.13)
0
#
#
# (71) B1 GENERATOR OUTAGE
#
3 32150 0 "1" 0 # DG_VADIX 13.80 PGEN=49.00 QGEN=8.01
0
#
#
# (72) B1 GENERATOR OUTAGE
#
3 32154 0 "1" 0 # WADHAM 9.11 PGEN=22.84 QGEN=2.50
0
#
#
# (73) B1 GENERATOR OUTAGE
#
3 32156 0 "1" 0 # WOODLAND 9.11 PGEN=25.00 QGEN=5.00
0
#
#
# (74) B1 GENERATOR OUTAGE
#
3 32164 0 "1" 0 # CTY FAIR 9.11 PGEN=0.80 QGEN=0.07
0
#
#
# (75) B1 GENERATOR OUTAGE
#
3 32164 0 "2" 0 # CTY FAIR 9.11 PGEN=1.50 QGEN=0.13
0
#
#
# (76) B1 GENERATOR OUTAGE
#
3 32166 0 "1" 0 # UC DAVIS 9.11 PGEN=3.50 QGEN=-1.20
0
#
#
# (77) B1 GENERATOR OUTAGE
#
3 32168 0 "2" 0 # ENXCO 9.11 PGEN=49.00 QGEN=0.00
0
#
#
# (78) B1 GENERATOR OUTAGE
#
3 32169 0 "1" 0 # SOLANOWP 21.00 PGEN=150.00 QGEN=0.00
0
#
#
# (79) B1 GENERATOR OUTAGE
#
3 32171 0 "1" 0 # HIGHWND3 34.50 PGEN=38.00 QGEN=0.00
0
#
#
# (80) B1 GENERATOR OUTAGE
#
3 32172 0 "1" 0 # HIGHWNDS 34.50 PGEN=158.00 QGEN=0.00

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2013 SUMMER CATEGORY "B" CONTINGENCY LIST

0

(81) B1 GENERATOR OUTAGE

3 32173 0 "1" 0 # LAMBGT1 13.80 PGEN=46.30 QGEN=-7.63
0

(82) B1 GENERATOR OUTAGE

3 32174 0 "2" 0 # GOOSEHGT 13.80 PGEN=46.30 QGEN=-5.82
0

(83) B1 GENERATOR OUTAGE

3 32175 0 "3" 0 # CREEDGT1 13.80 PGEN=46.30 QGEN=-5.82
0

(84) B1 GENERATOR OUTAGE

3 32176 0 "1" 0 # SHILOH 34.50 PGEN=150.00 QGEN=0.00
0

(85) B1 GENERATOR OUTAGE

3 32177 0 "1" 0 # SHILO 34.50 PGEN=150.00 QGEN=0.00
0

(86) B1 GENERATOR OUTAGE

3 32185 0 "1" 0 # WOLFSKIL 13.80 PGEN=50.00 QGEN=5.90
0

(87) B1 GENERATOR OUTAGE

3 32186 0 "1" 0 # P0609 34.50 PGEN=128.00 QGEN=12.35
0

(88) B1 GENERATOR OUTAGE

3 32188 0 "1" 0 # P0611G 34.50 PGEN=30.00 QGEN=2.74
0

(89) B1 GENERATOR OUTAGE

3 32181 0 "1" 0 # Q171WG1 34.50 PGEN=125.00 QGEN=-17.99
0

(90) B1 GENERATOR OUTAGE

3 32179 0 "1" 0 # Q222 0.58 PGEN=100.50 QGEN=15.80
0

(91) B1 GENERATOR OUTAGE

3 32180 0 "1" 0 # Q262 13.80 PGEN=16.64 QGEN=2.33
0

(92) B1 GENERATOR OUTAGE

3 32190 0 "1" 0 # Q039 0.58 PGEN=200.00 QGEN=16.08
0
#

2013 SUMMER CATEGORY "B" CONTINGENCY LIST

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#
# (93) B1 GENERATOR OUTAGE
#
3 32191 0 "1" 0 # Q257GT1 16.50 PGEN=218.00 QGEN=40.20
0
#
#
# (94) B1 GENERATOR OUTAGE
#
3 32193 0 "3" 0 # Q257ST1 13.80 PGEN=77.00 QGEN=14.47
0
#
#
# (95) Overlapping Outage (L-1/G-1)
# Rio Oso - Brighton 230 kV Line and Woodland
1 30330 30348 "1" 0 # line from RIO OSO 230.00 BRKR to BRKR BRIGHTON 230.00
#
3 32156 0 "1" 0 # WOODLAND 9.11 PGEN=25.00 QGEN=5.00
0
#
#
# (96) Overlapping Outage (L-1/G-1)
# West Sacramento - Brighton 115 kV Line and Woodland
1 31978 31984 "1" 0 # line from DPWT_TP2 115.00 (3) to BRKR BRIGHTN 115.00
1 31978 31986 "1" 0 # line from DPWT_TP2 115.00 (3) to BRKR W.SCRMNO 115.00
1 31978 31988 "1" 0 # line from DPWT_TP2 115.00 (3) to (1) DEEPWATR 115.00
4 31988 0 "2" 0 # LOAD-DROP DEEPWATR 115.00 LOAD==22.90(1.02)
4 31988 0 "3" 0 # LOAD-DROP DEEPWATR 115.00 LOAD==15.82(0.70)
1 31976 31988 "1" 1 #Transfer load to alternate Deepwater tap
4 31988 0 "" 1 #Restore load at Deepwater
#
3 32156 0 "1" 0 # WOODLAND 9.11 PGEN=25.00 QGEN=5.00
0
#
#
# (97) Overlapping Outage (L-1/G-1)
# Rio Oso - West Sacramento 115 kV Line and Woodland
1 32214 31986 "1" 0 # line from RIO OSO 115.00 BRKR to BRKR W.SCRMNO 115.00
#
3 32156 0 "1" 0 # WOODLAND 9.11 PGEN=25.00 QGEN=5.00
0
#
#
# (98) Overlapping Outage (L-1/G-1)
# West Sacramento - Davis 115 kV Line and Woodland
1 31976 31980 "1" 0 # line from POST 115.00 (1) to (3) DPWTR_TP 115.00
1 31980 31986 "1" 0 # line from DPWTR_TP 115.00 (3) to BRKR W.SCRMNO 115.00
1 31980 32003 "1" 0 # line from DPWTR_TP 115.00 (3) to (3) UCD_TP1 115.00
1 32003 31990 "1" 0 # line from UCD_TP1 115.00 (3) to BRKR DAVIS 115.00
1 32003 32103 "2" 0 # line from UCD_TP1 115.00 (3) to (2) UCDAVSJ2 115.00
1 32103 32102 "1" 0 # line from UCDAVSJ2 115.00 (2) to (2) CAMPUS 115.00
2 32102 32166 "1" 0 # TRAN from CAMPUS 115.00 (2) to (1) UC DAVIS 9.11
4 31976 0 "1" 0 # LOAD-DROP POST 115.00 LOAD==1.31(0.19)
4 31976 0 "1A" 0 # LOAD-DROP POST 115.00 LOAD==1.31(0.19)
4 32102 0 "1" 0 # LOAD-DROP CAMPUS 115.00 LOAD==36.56(8.33)
3 32166 0 "1" 0 # GEN-DROP UC DAVIS 9.11 GEN==3.50(1.80)
1 31988 31976 "1" 1 #Transfer POST to alternate Deepwater tap
4 31976 0 "" 1 #Restore load to POST
#
3 32156 0 "1" 0 # WOODLAND 9.11 PGEN=25.00 QGEN=5.00
0
#
#
# (99) Overlapping Outage (L-1/G-1)
# Rio Oso - Woodland #1 115 kV Line and Woodland
1 31960 31966 "1" 0 # line from MOBILCHE 115.00 (2) to (3) WODLNDJ1 115.00
1 31960 31970 "1" 0 # line from MOBILCHE 115.00 (2) to BRKR WOODLD 115.00
1 31966 31965 "1" 0 # line from WODLNDJ1 115.00 (3) to (3) KNIGHT1 115.00
1 31966 31971 "1" 0 # line from WODLNDJ1 115.00 (3) to (1) ZAMORA1 115.00
1 31965 31963 "1" 0 # line from KNIGHT1 115.00 (3) to (1) KNIGHTLD 115.00
1 31965 32214 "1" 0 # line from KNIGHT1 115.00 (3) to BRKR RIO OSO 115.00
4 31960 0 "1" 0 # LOAD-DROP MOBILCHE 115.00 LOAD==0.10(0.00)
4 31963 0 "1" 0 # LOAD-DROP KNIGHTLD 115.00 LOAD==8.57(0.38)
#

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2013 SUMMER CATEGORY "B" CONTINGENCY LIST

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3 32156 0 "1" 0 # WOODLAND 9.11 PGEN=25.00 QGEN=5.00
0
#
#
# (100) Overlapping Outage (L-1/G-1)
# Vaca - Suisun - Jameson 115 kV Line and Wolfskill
1 31998 31997 "1" 0 # line from VACA-DIX 115.00 BRKR to (3) SCHMLBCH 115.00
1 31997 32008 "1" 0 # line from SCHMLBCH 115.00 (3) to BRKR SUISUN 115.00
1 31997 32009 "1" 0 # line from SCHMLBCH 115.00 (3) to (1) JAMESN-A 115.00
4 31997 0 "1" 0 # LOAD-DROP SCHMLBCH 115.00 LOAD==10.08(6.77)
#
3 32185 0 "1" 0 # WOLFSKIL 13.80 PGEN=50.00 QGEN=5.90
0
#
#
# 2013 summer category b contingency list
# Sierra Division Zone 305
#
#
# (101) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30261 30300 "1" 0 # line from BELDENTP 230.00 (2) to BRKR TBL MT D 230.00
1 30261 30250 "1" 0 # line from BELDENTP 230.00 (2) to BRKR CARIBOU 230.00
3 31808 0 "1" 0 # the RAS for Caribou-Table Mt 230 kV line loss will drop
3 31808 0 "2" 0 # Caribou Units 2 & 3
3 31782 0 "1" 0 # Caribou Units 4 & 5
3 31782 0 "2" 0 # Caribou Units 4 & 5
3 31810 0 "1" 0 # Caribou 1
3 31894 0 "1" 0 # Collins Pine
3 31892 0 "1" 0 # Lassen Power
3 31780 0 "1" 0 # Butt Valley
2 31780 31490 "1" 0 # Butt Valley transformer
1 31486 31490 "1" 0 # Caribou - Butt Valley line
0
#
#
# (102) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30275 30330 "1" 0 # line from CRESTA 230.00 BRKR to BRKR RIO OSO 230.00
0
#
#
# (103) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30280 30330 "1" 0 # line from POE 230.00 BRKR to BRKR RIO OSO 230.00
2 30280 31792 "1" 0 # Take the transformer out with Rio Oso-Poe 230 kV line outage
3 31792 0 "1" 0 # Take the generator out with Rio Oso-Poe 230 kV line outage
0
#
#
# (104) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30300 30330 "1" 0 # line from TBL MT D 230.00 BRKR to BRKR RIO OSO 230.00
0
#
#
# (105) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30325 30327 "1" 0 # line from PALERMO 230.00 BRKR to BRKR COLGATE 230.00
2 30327 32450 "1" 0 #Take one transformer out with Palermo-Colgate 230 kV line outage
3 32450 0 "1" 0 #Take one generator out with Palermo-Colgate 230 kV line outage
0
#
#
# (106) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30327 30330 "1" 0 # line from COLGATE 230.00 BRKR to BRKR RIO OSO 230.00
2 30327 32452 "1" 0 #Take one transformer out with Colgate-Rio Oso 230 kV line outage
3 32452 0 "1" 0 #Take one generator out with Colgate-Rio Oso 230 kV line outage
0
#
#
# (107) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#

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2013 SUMMER CATEGORY "B" CONTINGENCY LIST

1 30330 30335 "1 " 0 # line from RIO OSO 230.00 BRKR to BRKR ATLANTC 230.00
 0
 #
 #
 # (108) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 30330 30337 "1 " 0 # line from RIO OSO 230.00 BRKR to BRKR GOLDHILL 230.00
 0
 #
 #
 # (109) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 30330 30482 "1 " 0 # line from RIO OSO 230.00 BRKR to BRKR LOCKFORD 230.00
 0
 #
 #
 # (110) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 30331 30330 "1 " 0 # line from Q266 230.00 (3) to BRKR RIO OSO 230.00
 2 30331 32517 "1 " 0 # TRAN from Q266 230.00 (3) to (1) Q266CT1 18.00
 2 30331 32518 "1 " 0 # TRAN from Q266 230.00 (3) to (1) Q266ST1 18.00
 4 32517 0 "ss" 0 # LOAD-DROP Q266CT1 18.00 LOAD==36.00(19.92)
 3 32517 0 "1" 0 # GEN-DROP Q266CT1 18.00 GEN==173.00(45.33)
 3 32518 0 "1" 0 # GEN-DROP Q266ST1 18.00 GEN==188.00(30.71)
 0
 #
 #
 # (111) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 30335 30337 "1 " 0 # line from ATLANTC 230.00 BRKR to BRKR GOLDHILL 230.00
 0
 #
 #
 # (112) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 30337 30340 "1 " 0 # line from GOLDHILL 230.00 BRKR to (3) RALSTON 230.00
 1 30340 30345 "1 " 0 # line from RALSTON 230.00 (3) to BRKR MIDLFORK 230.00
 2 30340 32458 "1 " 0 # TRAN from RALSTON 230.00 (3) to (1) RALSTON 13.80
 3 32458 0 "1" 0 # GEN-DROP RALSTON 13.80 GEN==83.00(15.12)
 0
 #
 #
 # (113) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 30337 30621 "1 " 0 # line from GOLDHILL 230.00 BRKR to BRKR Q260 230.00
 0
 #
 #
 # (114) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 30621 30622 "1 " 0 # line from Q260 230.00 BRKR to BRKR EIGHT MI 230.00
 0
 #
 #
 # (115) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 30337 37012 "1 " 0 # line from GOLDHILL 230.00 BRKR to BRKR LAKE 230.00
 0
 #
 #
 # (116) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 30337 38000 "1 " 0 # line from GOLDHILL 230.00 BRKR to BRKR LODI 230.00
 0
 #
 #
 # (117) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 30993 64109 "1 " 0 # line from SUMMIT 60.00 (2) to BRKR SUMMIT 3 60.00
 1 30993 32365 "1 " 0 # line from SUMMIT 60.00 (2) to (2) TAMARACK 60.00
 1 32365 32366 "1 " 0 # line from TAMARACK 60.00 (2) to (3) CISCO GR 60.00
 1 32366 32363 "1 " 0 # line from CISCO GR 60.00 (3) to (1) CISCOTAP 60.00
 1 32366 32372 "1 " 0 # line from CISCO GR 60.00 (3) to BRKR SPAULDNG 60.00
 4 30993 0 "1" 0 # LOAD-DROP SUMMIT 60.00 LOAD==1.58(0.07)

2013 SUMMER CATEGORY "B" CONTINGENCY LIST

4 32365 0 "1" 0 # LOAD-DROP TAMARACK 60.00 LOAD==1.05(0.04)
 4 32363 0 "1" 0 # LOAD-DROP CISCOTAP 60.00 LOAD==1.00(0.47)
 4 30993 0 "" 0 #Drop Summit 3 load with outage
 0
 #
 #
 # (118) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 31482 32280 "1" 0 # line from PALERMO 115.00 BRKR to (2) E.MRY J2 115.00
 1 32280 32212 "1" 0 # line from E.MRY J2 115.00 (2) to BRKR E.NICOLS 115.00
 0
 #
 #
 # (119) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 31508 32286 "1" 0 # line from HONC JT3 115.00 (3) to (2) OLIVH J3 115.00
 1 31508 31482 "1" 0 # line from HONC JT3 115.00 (3) to BRKR PALERMO 115.00
 1 31508 31484 "1" 0 # line from HONC JT3 115.00 (3) to (1) HONCUT 115.00
 1 32286 32206 "1" 0 # line from OLIVH J3 115.00 (2) to BRKR BOGUE 115.00
 4 31484 0 "1" 0 # LOAD-DROP HONCUT 115.00 LOAD==16.18(0.73)
 0
 #
 #
 # (120) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 31656 31658 "1" 0 # line from PALERMO 60.00 BRKR to (1) BANGOR 60.00
 4 31658 0 "1" 0 # LOAD-DROP BANGOR 60.00 LOAD==6.68(0.30)
 0
 #
 #
 # (121) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 31660 32309 "1" 0 # line from DOBBINS 60.00 (2) to (2) CHLLNGEA 60.00
 1 31660 32307 "1" 0 # line from DOBBINS 60.00 (2) to (2) COLGATEA 60.00
 1 32309 31662 "1" 0 # line from CHLLNGEA 60.00 (2) to (1) CHALLENGE 60.00
 1 32307 32308 "1" 0 # line from COLGATEA 60.00 (2) to BRKR COLGATE 60.00
 4 31660 0 "1" 0 # LOAD-DROP DOBBINS 60.00 LOAD==2.90(0.13)
 4 31662 0 "1" 0 # LOAD-DROP CHALLENGE 60.00 LOAD==2.58(0.12)
 0
 #
 #
 # (122) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32018 32229 "1" 0 # line from GOLDHILL 115.00 BRKR to (3) HORSHE1 115.00
 1 32229 32230 "1" 0 # line from HORSHE1 115.00 (3) to (1) HORSESHE 115.00
 1 32229 32233 "1" 0 # line from HORSHE1 115.00 (3) to (3) NEWCSTL1 115.00
 1 32233 32234 "1" 0 # line from NEWCSTL1 115.00 (3) to (2) NEWCSTLE 115.00
 1 32233 32236 "1" 0 # line from NEWCSTL1 115.00 (3) to (2) FLINT1 115.00
 2 32234 32460 "1" 0 # TRAN from NEWCSTLE 115.00 (2) to (1) NEWCSTLE 13.20
 1 32236 32228 "1" 0 # line from FLINT1 115.00 (2) to BRKR PLACER 115.00
 4 32230 0 "1" 0 # LOAD-DROP HORSESHE 115.00 LOAD==15.79(0.71)
 4 32230 0 "2" 0 # LOAD-DROP HORSESHE 115.00 LOAD==36.15(1.61)
 1 32230 32231 "1" 1 #Transfer load to alternate
 4 32230 0 "" 1 #Restore load at Horseshoe
 0
 #
 #
 # (123) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32018 32231 "2" 0 # line from GOLDHILL 115.00 BRKR to (2) HORSHE2 115.00
 1 32231 32235 "2" 0 # line from HORSHE2 115.00 (2) to (2) NEWCSTL2 115.00
 1 32235 32239 "2" 0 # line from NEWCSTL2 115.00 (2) to (3) FLINT2 115.00
 1 32239 32228 "2" 0 # line from FLINT2 115.00 (3) to BRKR PLACER 115.00
 1 32239 32237 "1" 0 # line from FLINT2 115.00 (3) to (1) FLINT 115.00
 4 32237 0 "1" 0 # LOAD-DROP FLINT 115.00 LOAD==14.82(0.66)
 0
 #
 #
 # (124) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32018 32263 "1" 0 # line from GOLDHILL 115.00 BRKR to (1) CLRKSVLE 115.00
 4 32263 0 "1" 0 # LOAD-DROP CLRKSVLE 115.00 LOAD==44.58(2.00)
 4 32263 0 "2" 0 # LOAD-DROP CLRKSVLE 115.00 LOAD==47.39(2.12)
 4 32263 0 "3" 0 # LOAD-DROP CLRKSVLE 115.00 LOAD==45.28(2.03)

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1 32264 32263 "1" 1 #Transfer Clarksville to alternate
4 32263 0 **** 1 #Restore load at Clarksville
0
#
#
# (125) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32018 32268 "2" 0 # line from GOLDHILL 115.00 BRKR to (3) SHPRING2 115.00
1 32268 32259 "2" 0 # line from SHPRING2 115.00 (3) to (3) DIMOND_2 115.00
1 32268 32265 "2" 0 # line from SHPRING2 115.00 (3) to (1) SHPRING 115.00
1 32259 32258 "2" 0 # line from DIMOND_2 115.00 (3) to (1) DMND SPR 115.00
1 32259 32260 "2" 0 # line from DIMOND_2 115.00 (3) to BRKR MIZOU_T2 115.00
4 32265 0 "1" 0 # LOAD-DROP SHPRING 115.00 LOAD==19.57(0.88)
4 32265 0 "2" 0 # LOAD-DROP SHPRING 115.00 LOAD==21.49(0.96)
4 32258 0 "1" 0 # LOAD-DROP DMND SPR 115.00 LOAD==9.86(0.44)
4 32258 0 "2" 0 # LOAD-DROP DMND SPR 115.00 LOAD==28.07(1.25)
1 32262 32265 "1" 1 #Transfer Shingle Springs to alternate
4 32265 0 **** 1 #Restore load at Shingle Springs
1 32258 32267 "1" 1 #Transfer Diamond Springs to alternate
4 32258 0 **** 1 #Restore load at Diamond Springs
0
#
#
# (126) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32018 32275 "1" 0 # line from GOLDHILL 115.00 BRKR to (3) CPM TAP 115.00
1 32275 32264 "1" 0 # line from CPM TAP 115.00 (3) to (2) CLRKSVLT 115.00
1 32275 32276 "1" 0 # line from CPM TAP 115.00 (3) to (1) CPM 115.00
1 32264 32262 "1" 0 # line from CLRKSVLT 115.00 (2) to (2) SHPRING1 115.00
1 32262 32267 "1" 0 # line from SHPRING1 115.00 (2) to (2) DIMOND_1 115.00
1 32267 32261 "1" 0 # line from DIMOND_1 115.00 (2) to BRKR MIZOU_T1 115.00
0
#
#
# (127) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32110 32396 "1" 0 # line from GOLD HLL 60.00 BRKR to (2) LIMESTNE 60.00
1 32396 33618 "1" 0 # line from LIMESTNE 60.00 (2) to (1) OLETA 60.00
4 32396 0 "1" 0 # LOAD-DROP LIMESTNE 60.00 LOAD==0.02(0.00)
4 32396 0 "PW" 0 # LOAD-DROP LIMESTNE 60.00 LOAD==2.55(2.18)
4 33618 0 "1" 0 # LOAD-DROP OLETA 60.00 LOAD==3.87(0.17)
4 33618 0 "2" 0 # LOAD-DROP OLETA 60.00 LOAD==3.45(0.16)
0
#
#
# (128) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32200 31506 "1" 0 # line from PEASE 115.00 BRKR to (2) HONC JT1 115.00
1 31506 31482 "1" 0 # line from HONC JT1 115.00 (2) to BRKR PALERMO 115.00
0
#
#
# (129) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32200 32288 "1" 0 # line from PEASE 115.00 BRKR to (3) E.MRY J1 115.00
1 32288 32202 "1" 0 # line from E.MRY J1 115.00 (3) to (1) E.MRYSVE 115.00
1 32288 32290 "1" 0 # line from E.MRY J1 115.00 (3) to (3) OLIVH J1 115.00
1 32290 32204 "1" 0 # line from OLIVH J1 115.00 (3) to (1) OLIVHRST 115.00
1 32290 32214 "1" 0 # line from OLIVH J1 115.00 (3) to BRKR RIO OSO 115.00
4 32202 0 "2" 0 # LOAD-DROP E.MRYSVE 115.00 LOAD==10.55(0.47)
4 32202 0 "3" 0 # LOAD-DROP E.MRYSVE 115.00 LOAD==9.73(0.44)
4 32204 0 "1" 0 # LOAD-DROP OLIVHRST 115.00 LOAD==6.71(0.30)
4 32204 0 "2" 0 # LOAD-DROP OLIVHRST 115.00 LOAD==21.33(0.95)
1 32204 32286 "1" 1 #Transfer Olivehurst to alternate
4 32204 0 **** 1 #Restore load Olivehurst
1 32280 32202 "1" 1 #Transfer load to E. Marysville Alt. 2 summer
4 32202 0 **** 1 #Restore load at E. Marysville summer
0
#
#
# (130) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32206 32208 "1" 0 # line from BOGUE 115.00 BRKR to (3) GLEAF TP 115.00
1 32208 32210 "1" 0 # line from GLEAF TP 115.00 (3) to (2) GLEAF 1 115.00

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1 32208 32214 "1" 0 # line from GLEAF TP 115.00 (3) to BRKR RIO OSO 115.00
2 32210 32490 "1" 0 # TRAN from GLEAF 1 115.00 BRKR to (1) GRNLEAF1 13.80
4 32490 0 "ss" 0 # LOAD-DROP GRNLEAF1 13.80 LOAD==0.67(0.15)
3 32490 0 "1" 0 # GEN-DROP GRNLEAF1 13.80 GEN==40.00(-12.86)
3 32490 0 "2" 0 # GEN-DROP GRNLEAF1 13.80 GEN==9.50(-3.05)
0
#
#
# (131) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32206 32292 "1" 0 # line from BOGUE 115.00 BRKR to (2) FREC TAP 115.00
2 32292 32451 "1" 0 # TRAN from FREC TAP 115.00 (2) to (1) FREC 13.80
4 32451 0 "ss" 0 # LOAD-DROP FREC 13.80 LOAD==1.30(0.30)
3 32451 0 "1" 0 # GEN-DROP FREC 13.80 GEN==50.00(9.38)
0
#
#
# (132) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32212 32214 "1" 0 # line from E.NICOLS 115.00 BRKR to BRKR RIO OSO 115.00
0
#
#
# (133) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32214 31964 "2" 0 # line from RIO OSO 115.00 BRKR to (2) KNIGHT2 115.00
1 31964 31968 "2" 0 # line from KNIGHT2 115.00 (2) to (3) WODLNDJ2 115.00
1 31968 31970 "2" 0 # line from WODLNDJ2 115.00 (3) to BRKR WOODLD 115.00
1 31968 31973 "2" 0 # line from WODLNDJ2 115.00 (3) to (2) ZAMORA2 115.00
1 31973 31972 "2" 0 # line from ZAMORA2 115.00 (2) to (1) ZAMORA 115.00
4 31972 0 "1" 0 # LOAD-DROP ZAMORA 115.00 LOAD==8.47(0.38)
0
#
#
# (134) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32214 31965 "1" 0 # line from RIO OSO 115.00 BRKR to (3) KNIGHT1 115.00
1 31965 31963 "1" 0 # line from KNIGHT1 115.00 (3) to (1) KNIGHTLD 115.00
1 31965 31966 "1" 0 # line from KNIGHT1 115.00 (3) to (3) WODLNDJ1 115.00
1 31966 31960 "1" 0 # line from WODLNDJ1 115.00 (3) to (2) MOBILCHE 115.00
1 31966 31971 "1" 0 # line from WODLNDJ1 115.00 (3) to (1) ZAMORA1 115.00
1 31960 31970 "1" 0 # line from MOBILCHE 115.00 (2) to BRKR WOODLD 115.00
4 31963 0 "1" 0 # LOAD-DROP KNIGHTLD 115.00 LOAD==6.84(0.31)
4 31960 0 "1" 0 # LOAD-DROP MOBILCHE 115.00 LOAD==0.10(0.00)
0
#
#
# (135) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32214 32225 "1" 0 # line from RIO OSO 115.00 BRKR to (3) BRNSWKTP 115.00
1 32225 32222 "1" 0 # line from BRNSWKTP 115.00 (3) to (3) DTCH FL2 115.00
1 32225 32227 "2" 0 # line from BRNSWKTP 115.00 (3) to (1) BRNSWALT 115.00
1 32222 32218 "1" 0 # line from DTCH FL2 115.00 (3) to BRKR DRUM 115.00
2 32222 32502 "1" 0 # TRAN from DTCH FL2 115.00 BRKR to (1) DTCHFLT2 6.90
4 32227 0 "1" 0 # LOAD-DROP BRNSWALT 115.00 LOAD==24.08(1.08)
3 32502 0 "1" 0 # GEN-DROP DTCHFLT2 6.90 GEN==24.50(9.66)
0
#
#
# (136) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32214 32244 "2" 0 # line from RIO OSO 115.00 BRKR to (3) BRNSWCKP 115.00
1 32244 32218 "2" 0 # line from BRNSWCKP 115.00 (3) to BRKR DRUM 115.00
1 32244 32226 "2" 0 # line from BRNSWCKP 115.00 (3) to (1) BRUNSWCK 115.00
4 32226 0 "2" 0 # LOAD-DROP BRUNSWCK 115.00 LOAD==30.46(1.37)
4 32226 0 "3" 0 # LOAD-DROP BRUNSWCK 115.00 LOAD==8.00(0.36)
0
#
#
# (137) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32214 32356 "1" 0 # line from RIO OSO 115.00 BRKR to BRKR LINCOLN 115.00
0
#

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#
# (138) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32215 32214 "1 " 0 # line from Q259 115.00 (3) to BRKR RIO OSO 115.00
2 32215 32515 "1 " 0 # TRAN from Q259 115.00 (3) to (1) Q259CT1 18.00
2 32215 32516 "1 " 0 # TRAN from Q259 115.00 (3) to (1) Q259ST1 18.00
4 32515 0 "ss" 0 # LOAD-DROP Q259CT1 18.00 LOAD==16.00(8.85)
3 32515 0 "1 " 0 # GEN-DROP Q259CT1 18.00 GEN==173.00(33.36)
3 32516 0 "1 " 0 # GEN-DROP Q259ST1 18.00 GEN==188.00(27.79)
0
#
#
# (139) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32218 32220 "1 " 0 # line from DRUM 115.00 BRKR to (3) DTCH FL1 115.00
1 32220 32224 "1 " 0 # line from DTCH FL1 115.00 (3) to (3) CHCGO PK 115.00
2 32220 32464 "1 " 0 # TRAN from DTCH FL1 115.00 BRKR to (1) DTCHFLT1 11.00
1 32224 32232 "1 " 0 # line from CHCGO PK 115.00 (3) to BRKR HIGGINS 115.00
2 32224 32462 "1 " 0 # TRAN from CHCGO PK 115.00 BRKR to (1) CHI.PARK 11.50
3 32464 0 "1 " 0 # GEN-DROP DTCHFLT1 11.00 GEN==22.00(12.70)
3 32462 0 "1 " 0 # GEN-DROP CHI.PARK 11.50 GEN==37.90(14.75)
0
#
#
# (140) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32228 32238 "1 " 0 # line from PLACER 115.00 BRKR to BRKR BELL PGE 115.00
0
#
#
# (141) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32232 32238 "1 " 0 # line from HIGGINS 115.00 BRKR to BRKR BELL PGE 115.00
3 32464 0 "****" 0 #Drop Dutch Flat No. 1 generator during Higgins-Bell 115 kV outage
3 32462 0 "****" 0 #Drop Chicago Park generator during Higgins-Bell 115 kV outage
0
#
#
# (142) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32248 32266 "1 " 0 # line from ROCKLIN 60.00 (1) to (2) TAYLOR 60.00
1 32266 32413 "1 " 0 # line from TAYLOR 60.00 (2) to BRKR ATLANTI 60.00
4 32248 0 "1 " 0 # LOAD-DROP ROCKLIN 60.00 LOAD==18.53(0.00)
4 32248 0 "2 " 0 # LOAD-DROP ROCKLIN 60.00 LOAD==7.80(0.00)
4 32266 0 "1 " 0 # LOAD-DROP TAYLOR 60.00 LOAD==1.74(1.12)
0
#
#
# (143) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32250 32481 "2 " 0 # line from ELDORAD 115.00 BRKR to (2) APLHTAP2 115.00
1 32481 32257 "2 " 0 # line from APLHTAP2 115.00 (2) to (4) PLCRVLT2 115.00
1 32257 32254 "2 " 0 # line from PLCRVLT2 115.00 (4) to (2) PLCRVLB2 115.00
1 32257 32260 "2 " 0 # line from PLCRVLT2 115.00 (4) to BRKR MIZOU_T2 115.00
2 32257 32510 "1 " 0 # TRAN from PLCRVLT2 115.00 (4) to (1) CHILIBAR 4.16
1 32254 32256 "1 " 0 # line from PLCRVLB2 115.00 (2) to (1) PLCRVLB3 115.00
4 32254 0 "2 " 0 # LOAD-DROP PLCRVLB2 115.00 LOAD==9.02(0.41)
4 32256 0 "3 " 0 # LOAD-DROP PLCRVLB3 115.00 LOAD==25.95(1.16)
3 32510 0 "1 " 0 # GEN-DROP CHILIBAR 4.16 GEN==5.50(4.00)
1 32256 32255 "1 " 1 #Transfer Placerville to alternate
4 32256 0 "****" 1 #Restore load Bank 3 at Placerville
1 32254 32256 "1 " 1 #Transfer Placerville to alternate
4 32254 0 "****" 1 #Restore load Bank 2 at Placerville
0
#
#
# (144) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32250 32482 "1 " 0 # line from ELDORAD 115.00 BRKR to (3) APLHTAP1 115.00
1 32482 32255 "1 " 0 # line from APLHTAP1 115.00 (3) to (2) PLCRVLT1 115.00
1 32482 32278 "1 " 0 # line from APLHTAP1 115.00 (3) to (2) SPICAMIN 115.00
1 32255 32261 "1 " 0 # line from PLCRVLT1 115.00 (2) to BRKR MIZOU_T1 115.00
1 32278 32252 "1 " 0 # line from SPICAMIN 115.00 (2) to (1) APPLE HL 115.00
4 32278 0 "1 " 0 # LOAD-DROP SPICAMIN 115.00 LOAD==4.19(3.69)

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4 32252 0 "1" 0 # LOAD-DROP APPLE HL 115.00 LOAD==14.65(0.65)
 4 32252 0 "2" 0 # LOAD-DROP APPLE HL 115.00 LOAD==9.26(0.41)
 1 32252 32481 "1" 1 #Transfer Apple Hill to alternate
 4 32252 0 "1" 1 #Restore load at Apple Hill
 0
 #
 #
 # (145) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32270 32274 "1" 0 # line from PENRYN 60.00 (2) to (1) SIERRAPI 60.00
 1 32270 32394 "1" 0 # line from PENRYN 60.00 (2) to BRKR PLACER 60.00
 4 32270 0 "1" 0 # LOAD-DROP PENRYN 60.00 LOAD==28.99(0.00)
 4 32274 0 "1" 0 # LOAD-DROP SIERRAPI 60.00 LOAD==16.53(9.37)
 0
 #
 #
 # (146) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32300 32301 "1" 0 # line from GLEAF2 60.00 (2) to (2) GLEAF2TP 60.00
 2 32300 32492 "1" 0 # TRAN from GLEAF2 60.00 BRKR to (1) GRNLEAF2 13.80
 1 32301 32328 "1" 0 # line from GLEAF2TP 60.00 (2) to (3) YBA CTYJ 60.00
 1 32328 32332 "1" 0 # line from YBA CTYJ 60.00 (3) to BRKR PEASE 60.00
 1 32328 32336 "1" 0 # line from YBA CTYJ 60.00 (3) to (1) ALMENDRA 60.00
 4 32492 0 "ss" 0 # LOAD-DROP GRNLEAF2 13.80 LOAD==0.50(0.11)
 3 32492 0 "1" 0 # GEN-DROP GRNLEAF2 13.80 GEN==49.00(20.05)
 0
 #
 #
 # (147) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32302 32324 "1" 0 # line from YUBACITY 60.00 (4) to (1) HARTER 60.00
 1 32302 32333 "1" 0 # line from YUBACITY 60.00 (4) to (3) PEASETP 60.00
 2 32302 32496 "1" 0 # TRAN from YUBACITY 60.00 (4) to (1) YCEC 13.80
 2 32302 32494 "1" 0 # TRAN from YUBACITY 60.00 BRKR to (1) YUBA CTY 9.11
 1 32333 32320 "1" 0 # line from PEASETP 60.00 (3) to BRKR MRYSVLE 60.00
 1 32333 32332 "1" 0 # line from PEASETP 60.00 (3) to BRKR PEASE 60.00
 4 32324 0 "1" 0 # LOAD-DROP HARTER 60.00 LOAD==22.66(1.01)
 4 32324 0 "2" 0 # LOAD-DROP HARTER 60.00 LOAD==26.96(1.21)
 4 32496 0 "ss" 0 # LOAD-DROP YCEC 13.80 LOAD==1.39(0.32)
 4 32494 0 "ss" 0 # LOAD-DROP YUBA CTY 9.11 LOAD==0.32(0.07)
 3 32496 0 "1" 0 # GEN-DROP YCEC 13.80 GEN==50.00(0.00)
 3 32494 0 "1" 0 # GEN-DROP YUBA CTY 9.11 GEN==41.30(15.86)
 0
 #
 #
 # (148) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32306 32342 "1" 0 # line from CATLETT 60.00 (1) to BRKR E.NICOLS 60.00
 4 32306 0 "1" 0 # LOAD-DROP CATLETT 60.00 LOAD==6.47(0.29)
 0
 #
 #
 # (149) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32308 32311 "1" 0 # line from COLGATE 60.00 BRKR to (3) NRRWS1TP 60.00
 1 32311 32310 "1" 0 # line from NRRWS1TP 60.00 (3) to (2) NARRWS 1 60.00
 1 32311 32314 "1" 0 # line from NRRWS1TP 60.00 (3) to BRKR SMRTSVLE 60.00
 2 32310 32466 "1" 0 # TRAN from NARRWS 1 60.00 (2) to (1) NARROWS1 9.11
 4 32310 0 "1" 0 # LOAD-DROP NARRWS 1 60.00 LOAD==16.50(2.35)
 3 32466 0 "1" 0 # GEN-DROP NARROWS1 9.11 GEN==10.00(5.30)
 0
 #
 #
 # (150) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32308 32313 "2" 0 # line from COLGATE 60.00 BRKR to (3) NRRWS2TP 60.00
 1 32313 32312 "1" 0 # line from NRRWS2TP 60.00 (3) to (2) NARRWS 2 60.00
 1 32313 32314 "2" 0 # line from NRRWS2TP 60.00 (3) to BRKR SMRTSVLE 60.00
 2 32312 32468 "1" 0 # TRAN from NARRWS 2 60.00 BRKR to (1) NARROWS2 9.11
 4 32312 0 "2" 0 # LOAD-DROP NARRWS 2 60.00 LOAD==16.50(2.35)
 3 32468 0 "1" 0 # GEN-DROP NARROWS2 9.11 GEN==45.00(5.23)
 0
 #
 #

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# (151) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32308 32358 "1" 0 # line from COLGATE 60.00 BRKR to (2) CLMBA HL 60.00
1 32358 32360 "1" 0 # line from CLMBA HL 60.00 (2) to (2) PIKE CTY 60.00
1 32360 32362 "1" 0 # line from PIKE CTY 60.00 (2) to (1) ALLEGHNY 60.00
4 32358 0 "1" 0 # LOAD-DROP CLMBA HL 60.00 LOAD==2.01(0.09)
4 32360 0 "1" 0 # LOAD-DROP PIKE CTY 60.00 LOAD==0.62(0.03)
4 32362 0 "1" 0 # LOAD-DROP ALLEGHNY 60.00 LOAD==1.51(0.07)
0
#
#
# (152) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32308 32364 "1" 0 # line from COLGATE 60.00 BRKR to BRKR GRSS VLY 60.00
4 32364 0 "2" 0 # LOAD-DROP GRSS VLY 60.00 LOAD==14.20(0.64)
1 32377 32364 "1" 1 #Transfer Grass Valley load to alternate
4 32364 0 "" 1 #Restore load at Grass Valley
0
#
#
# (153) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32314 32316 "1" 0 # line from SMRTSVLE 60.00 BRKR to (1) YUBAGOLD 60.00
4 32316 0 "1" 0 # LOAD-DROP YUBAGOLD 60.00 LOAD==0.17(0.15)
0
#
#
# (154) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32314 32341 "2" 0 # line from SMRTSVLE 60.00 BRKR to (2) BEALE1J1 60.00
1 32341 32346 "2" 0 # line from BEALE1J1 60.00 (2) to (1) BEALE_1 60.00
4 32346 0 "1" 0 # LOAD-DROP BEALE_1 60.00 LOAD==5.75(3.01)
0
#
#
# (155) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32314 32348 "1" 0 # line from SMRTSVLE 60.00 BRKR to (2) BEALE2J2 60.00
1 32348 32352 "1" 0 # line from BEALE2J2 60.00 (2) to (2) WEST JCT 60.00
1 32352 32354 "1" 0 # line from WEST JCT 60.00 (2) to (2) CMP FRWT 60.00
2 32354 32470 "1" 0 # TRAN from CMP FRWT 60.00 (2) to (1) CMP.FARW 9.11
3 32470 0 "1" 0 # GEN-DROP CMP.FARW 9.11 GEN==4.60(-1.86)
0
#
#
# (156) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32314 32349 "1" 0 # line from SMRTSVLE 60.00 BRKR to (3) BEALE2J1 60.00
1 32349 32345 "1" 0 # line from BEALE2J1 60.00 (3) to (1) BEALE1J2 60.00
1 32349 32347 "1" 0 # line from BEALE2J1 60.00 (3) to (1) BEALE_2 60.00
4 32347 0 "1" 0 # LOAD-DROP BEALE_2 60.00 LOAD==17.25(3.93)
0
#
#
# (157) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32318 32320 "1" 0 # line from BRWNS VY 60.00 (1) to BRKR MRYSVLLE 60.00
4 32318 0 "1" 0 # LOAD-DROP BRWNS VY 60.00 LOAD==3.29(0.15)
0
#
#
# (158) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32322 32326 "1" 0 # line from ENCINAL 60.00 (1) to (3) ENCL TAP 60.00
1 32326 32332 "1" 0 # line from ENCL TAP 60.00 (3) to BRKR PEASE 60.00
1 32326 32334 "1" 0 # line from ENCL TAP 60.00 (3) to (2) LIVE OAK 60.00
1 32334 38054 "1" 0 # line from LIVE OAK 60.00 (2) to (2) GRIDLEY 60.00
1 38054 31642 "1" 0 # line from GRIDLEY 60.00 (2) to BRKR PEACHTON 60.00
4 32322 0 "1" 0 # LOAD-DROP ENCINAL 60.00 LOAD==0.70(0.16)
4 32334 0 "1" 0 # LOAD-DROP LIVE OAK 60.00 LOAD==10.09(0.45)
4 38054 0 "1" 0 # LOAD-DROP GRIDLEY 60.00 LOAD==13.84(1.89)
0
#
#

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2013 SUMMER CATEGORY "B" CONTINGENCY LIST

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# (159) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32332 32320 "1" 0 # line from PEASE 60.00 BRKR to BRKR MRYSVLE 60.00
0
#
#
# (160) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32338 32340 "1" 0 # line from BARRY 60.00 (1) to (2) TUDOR 60.00
1 32340 32342 "1" 0 # line from TUDOR 60.00 (2) to BRKR E.NICOLS 60.00
4 32338 0 "1" 0 # LOAD-DROP BARRY 60.00 LOAD==4.12(0.19)
4 32340 0 "1" 0 # LOAD-DROP TUDOR 60.00 LOAD==3.28(0.15)
0
#
#
# (161) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32342 32079 "1" 0 # line from E.NICOLS 60.00 BRKR to (3) DST1001B 60.00
1 32079 32083 "1" 0 # line from DST1001B 60.00 (3) to (1) DIST1001 60.00
1 32079 32087 "1" 0 # line from DST1001B 60.00 (3) to (2) KNTJALT 60.00
1 32087 32085 "1" 0 # line from KNTJALT 60.00 (2) to (2) WOODJCT 60.00
1 32085 32084 "1" 0 # line from WOODJCT 60.00 (2) to (1) WLLW SLJ 60.00
0
#
#
# (162) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32342 32305 "2" 0 # line from E.NICOLS 60.00 BRKR to (2) CATLETJT 60.00
1 32305 32351 "2" 0 # line from CATLETJT 60.00 (2) to (1) WHTLNDAL 60.00
0
#
#
# (163) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32342 32344 "1" 0 # line from E.NICOLS 60.00 BRKR to (1) PLUMAS 60.00
4 32344 0 "1" 0 # LOAD-DROP PLUMAS 60.00 LOAD==24.70(1.10)
0
#
#
# (164) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32342 32353 "1" 0 # line from E.NICOLS 60.00 BRKR to (2) WHTLND1 60.00
1 32353 32350 "1" 0 # line from WHTLND1 60.00 (2) to (1) WHEATLND 60.00
4 32350 0 "1" 0 # LOAD-DROP WHEATLND 60.00 LOAD==16.08(0.72)
1 32351 32350 "1" 1 #Transfer Wheatland to alternate
4 32350 0 "****" 1 #Restore load at Wheatland
0
#
#
# (165) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32356 32404 "1" 0 # line from LINCOLN 115.00 BRKR to (3) SPI JCT 115.00
1 32404 32398 "1" 0 # line from SPI JCT 115.00 (3) to (3) ULTRA JT 115.00
1 32404 32400 "1" 0 # line from SPI JCT 115.00 (3) to BRKR SPI-LINC 115.00
1 32398 32402 "1" 0 # line from ULTRA JT 115.00 (3) to (2) ULTR-RCK 115.00
1 32398 32414 "1" 0 # line from ULTRA JT 115.00 (3) to (2) FORMICA 115.00
2 32402 32500 "1" 0 # TRAN from ULTR-RCK 115.00 BRKR to (1) ULTR RCK 9.11
1 32414 32408 "1" 0 # line from FORMICA 115.00 (2) to BRKR PLSNT GR 115.00
4 32500 0 "SG" 0 # LOAD-DROP ULTR RCK 9.11 LOAD==1.42(0.32)
3 32500 0 "1" 0 # GEN-DROP ULTR RCK 9.11 GEN==22.10(-8.00)
0
#
#
# (166) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32367 32369 "1" 0 # line from CPEHRNTP 60.00 (3) to (3) COLFAXJT 60.00
1 32367 32368 "1" 0 # line from CPEHRNTP 60.00 (3) to (1) CAPEHORN 60.00
1 32367 32376 "1" 0 # line from CPEHRNTP 60.00 (3) to (2) BONNIE N 60.00
1 32369 32380 "1" 0 # line from COLFAXJT 60.00 (3) to BRKR WEMR SWS 60.00
1 32369 32381 "1" 0 # line from COLFAXJT 60.00 (3) to (2) SHADYGLN 60.00
1 32376 32374 "1" 0 # line from BONNIE N 60.00 (2) to BRKR DRUM 60.00
1 32381 32377 "1" 0 # line from SHADYGLN 60.00 (2) to (2) ROLLNSTP 60.00
1 32377 32378 "1" 0 # line from ROLLNSTP 60.00 (2) to BRKR ROLLINS 60.00
4 32368 0 "1" 0 # LOAD-DROP CAPEHORN 60.00 LOAD==2.39(1.29)

```

2013 SUMMER CATEGORY "B" CONTINGENCY LIST

4 32376 0 "1" 0 # LOAD-DROP BONNIE N 60.00 LOAD==1.48(0.07)
 4 32381 0 "1" 0 # LOAD-DROP SHADYGLN 60.00 LOAD==8.18(0.37)
 0
 #
 #
 # (167) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32370 32382 "1" 0 # line from ENVRO_HY 60.00 (2) to (2) FORST HL 60.00
 1 32370 32384 "1" 0 # line from ENVRO_HY 60.00 (2) to BRKR OXBOW 60.00
 1 32382 32380 "1" 0 # line from FORST HL 60.00 (2) to BRKR WEMR SWS 60.00
 4 32382 0 "1" 0 # LOAD-DROP FORST HL 60.00 LOAD==8.27(0.37)
 1 32384 32386 "1" 1 #Transfer to alternate
 2 32384 32484 "1" 1 #Restore transformer
 3 32484 0 "1" 1 #Restore generator
 0
 #
 #
 # (168) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32372 32407 "1" 0 # line from SPAULDNG 60.00 BRKR to (3) BOWMN TP 60.00
 1 32407 32374 "1" 0 # line from BOWMN TP 60.00 (3) to BRKR DRUM 60.00
 1 32407 32406 "1" 0 # line from BOWMN TP 60.00 (3) to (3) BOWMN PH 60.00
 1 32406 32416 "1" 0 # line from BOWMN PH 60.00 (3) to (2) HAYPRESS 60.00
 2 32406 32480 "1" 0 # TRAN from BOWMN PH 60.00 BRKR to (1) BOWMAN 9.11
 2 32416 32488 "1" 0 # TRAN from HAYPRESS 60.00 BRKR to (1) HAYPRES+ 9.11
 3 32480 0 "1" 0 # GEN-DROP BOWMAN 9.11 GEN==2.50(-1.00)
 3 32488 0 "2" 0 # GEN-DROP HAYPRES+ 9.11 GEN==1.90(-1.19)
 0
 #
 #
 # (169) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32386 32388 "1" 0 # line from MDDLE FK 60.00 BRKR to BRKR FRNCH MS 60.00
 0
 #
 #
 # (170) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32390 32410 "1" 0 # line from HALSEY 60.00 BRKR to (3) MTN_QJCT 60.00
 1 32410 32392 "1" 0 # line from MTN_QJCT 60.00 (3) to (2) AUBURN 60.00
 1 32410 32411 "1" 0 # line from MTN_QJCT 60.00 (3) to (1) MTN_QUAR 60.00
 1 32392 32394 "1" 0 # line from AUBURN 60.00 (2) to BRKR PLACER 60.00
 4 32392 0 "1" 0 # LOAD-DROP AUBURN 60.00 LOAD==5.14(0.23)
 4 32411 0 "1" 0 # LOAD-DROP MTN_QUAR 60.00 LOAD==14.25(0.64)
 0
 #
 #
 # (171) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32412 32408 "1" 0 # line from ATLANTIC 115.00 BRKR to BRKR PLSNT GR 115.00
 0
 #
 #
 # (172) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32412 32408 "2" 0 # line from ATLANTIC 115.00 BRKR to BRKR PLSNT GR 115.00
 0
 #
 #
 # (173) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32413 32272 "1" 0 # line from ATLANTI 60.00 BRKR to (1) DEL MAR 60.00
 4 32272 0 "1" 0 # LOAD-DROP DEL MAR 60.00 LOAD==17.40(0.00)
 4 32272 0 "2" 0 # LOAD-DROP DEL MAR 60.00 LOAD==34.13(0.00)
 0
 #
 #
 # (174) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33729 33736 "1" 0 # line from LODI AUX 60.00 BRKR to (2) LODI JCT 60.00
 1 33736 33724 "1" 0 # line from LODI JCT 60.00 (2) to BRKR LOCKEFRD 60.00
 0
 #
 #

2013 SUMMER CATEGORY "B" CONTINGENCY LIST

(175) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 64228 32218 "1" 0 # line from SUMMIT 1 115.00 (2) to BRKR DRUM 115.00
2 64228 64107 "1" 0 # TRAN from SUMMIT 1 115.00 (2) to BRKR SUMMIT 1 120.00
0

(176) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 64229 32218 "1" 0 # line from SUMMIT 2 115.00 (2) to BRKR DRUM 115.00
2 64229 64108 "1" 0 # TRAN from SUMMIT 2 115.00 (2) to BRKR SUMMIT 2 120.00
0

(177) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 30345 30346 "1" 0 # TRAN from MIDLFORK 230.00 BRKR to (3) MDDLFK M 230.00
2 30346 32386 "4" 0 # TRAN from MDDLFK M 230.00 (3) to BRKR MIDDLE FK 60.00
2 30346 32456 "1" 0 # TRAN from MDDLFK M 230.00 (3) to (1) MIDLFORK 13.80
3 32456 0 "1" 0 # GEN-DROP MIDLFORK 13.80 GEN==64.50(14.66)
3 32456 0 "2" 0 # GEN-DROP MIDLFORK 13.80 GEN==64.50(14.66)
1 30340 30345 "1" 0 #Open Ralston-Middle Fork 230 kV section with outage
1 32386 32384 "1" 0 #Open Ralston-Middle Fork 60 kV section with outage
1 32386 32388 "1" 0 #Open French Meadows-Middle Fork 60 kV section with outage
0

(178) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 32018 30337 "1" 0 # TRAN from GOLDHILL 115.00 BRKR to BRKR GOLDHILL 230.00
0

(179) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 32018 30337 "2" 0 # TRAN from GOLDHILL 115.00 BRKR to BRKR GOLDHILL 230.00
0

(180) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 32110 32018 "5" 0 # TRAN from GOLD HLL 60.00 BRKR to BRKR GOLDHILL 115.00
0

(181) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 32214 30330 "1" 0 # TRAN from RIO OSO 115.00 BRKR to BRKR RIO OSO 230.00
0

(182) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 32214 30330 "2" 0 # TRAN from RIO OSO 115.00 BRKR to BRKR RIO OSO 230.00
0

(183) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 32218 32242 "1" 0 # TRAN from DRUM 115.00 BRKR to (3) DRUM 1M 115.00
2 32242 32374 "1" 0 # TRAN from DRUM 1M 115.00 (3) to BRKR DRUM 60.00
2 32242 32504 "1" 0 # TRAN from DRUM 1M 115.00 (3) to (1) DRUM 1-2 6.60
3 32504 0 "1" 0 # GEN-DROP DRUM 1-2 6.60 GEN==13.20(5.69)
3 32504 0 "2" 0 # GEN-DROP DRUM 1-2 6.60 GEN==12.60(5.43)
2 32218 32246 "1" 0 # TRAN from DRUM 115.00 BRKR to (3) DRUM 2M 115.00
2 32246 32374 "2" 0 # TRAN from DRUM 2M 115.00 (3) to BRKR DRUM 60.00
2 32246 32506 "1" 0 # TRAN from DRUM 2M 115.00 (3) to (1) DRUM 3-4 6.60
3 32506 0 "1" 0 # GEN-DROP DRUM 3-4 6.60 GEN==13.20(5.58)
3 32506 0 "2" 0 # GEN-DROP DRUM 3-4 6.60 GEN==13.20(5.58)
0

(184) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#

2013 SUMMER CATEGORY "B" CONTINGENCY LIST

2 32308 30327 "3" 0 # TRAN from COLGATE 60.00 BRKR to BRKR COLGATE 230.00
 0
 #
 #
 # (185) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
 2 32330 32200 "2" 0 # TRAN from PEAS RG 60.00 (2) to BRKR PEASE 115.00
 2 32330 32332 "1" 0 # TRAN from PEAS RG 60.00 (2) to BRKR PEASE 60.00
 1 32200 32288 "1" 0 #Open Pease-East Marysville Jct1 line section
 4 32200 0 "3" 0 #Drop Pease Bank No. 3
 0
 #
 #
 # (186) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
 2 32342 32212 "2" 0 # TRAN from E.NICOLS 60.00 BRKR to BRKR E.NICOLS 115.00
 1 32212 32214 "1" 0 #Open East Nicolaus-Rio Oso 115 kV line section
 1 32212 32214 "1" 0 #Open East Nicolaus-East Marysville Jct2 115 kV line section
 0
 #
 #
 # (187) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
 2 32394 32228 "1" 0 # TRAN from PLACER 60.00 BRKR to BRKR PLACER 115.00
 0
 #
 #
 # (188) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
 2 32412 30335 "3" 0 # TRAN from ATLANTIC 115.00 BRKR to BRKR ATLANTC 230.00
 0
 #
 #
 # (189) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
 2 32412 30335 "4" 0 # TRAN from ATLANTIC 115.00 BRKR to BRKR ATLANTC 230.00
 0
 #
 #
 # (190) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
 2 32413 30335 "1" 0 # TRAN from ATLANTI 60.00 BRKR to BRKR ATLANTC 230.00
 0
 #
 #
 # (191) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
 2 32472 32372 "1" 0 # TRAN from SPAULDG 9.11 (1) to BRKR SPAULDNG 60.00
 3 32472 0 "1" 0 # GEN-DROP SPAULDG 9.11 GEN==7.00(-0.72)
 3 32472 0 "2" 0 # GEN-DROP SPAULDG 9.11 GEN==4.20(-0.43)
 3 32472 0 "3" 0 # GEN-DROP SPAULDG 9.11 GEN==1.70(-0.18)
 0
 #
 #
 # (192) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
 2 32486 32388 "1" 0 # TRAN from HELLHOLE 9.11 (1) to BRKR FRNCH MS 60.00
 0
 #
 #
 # (193) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
 2 32490 32210 "1" 0 # TRAN from GRNLEAF1 13.80 (1) to BRKR GLEAF 1 115.00
 4 32490 0 "ss" 0 # LOAD-DROP GRNLEAF1 13.80 LOAD==0.67(0.15)
 3 32490 0 "1" 0 # GEN-DROP GRNLEAF1 13.80 GEN==40.00(-12.86)
 3 32490 0 "2" 0 # GEN-DROP GRNLEAF1 13.80 GEN==9.50(-3.05)
 0
 #
 #
 # (194) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
 2 32498 32400 "1" 0 # TRAN from SPILINCF 12.50 (1) to BRKR SPI-LINC 115.00
 4 32498 0 "1" 0 # LOAD-DROP SPILINCF 12.50 LOAD==7.50(7.65)
 4 32498 0 "SG" 0 # LOAD-DROP SPILINCF 12.50 LOAD==1.10(0.60)

2013 SUMMER CATEGORY "B" CONTINGENCY LIST

3 32498 0 "1" 0 # GEN-DROP SPILINCF 12.50 GEN==18.30(2.45)
 0
 #
 #
 # (195) B1 GENERATOR OUTAGE
 #
 3 32450 0 "1" 0 # COLGATE1 13.80 PGEN=147.00 QGEN=20.11
 0
 #
 #
 # (196) B1 GENERATOR OUTAGE
 #
 3 32451 0 "1" 0 # FREC 13.80 PGEN=50.00 QGEN=8.28
 0
 #
 #
 # (197) B1 GENERATOR OUTAGE
 #
 3 32452 0 "1" 0 # COLGATE2 13.80 PGEN=147.00 QGEN=20.11
 0
 #
 #
 # (198) B1 GENERATOR OUTAGE
 #
 3 32454 0 "1" 0 # DRUM 5 13.80 PGEN=42.50 QGEN=15.00
 0
 #
 #
 # (199) B1 GENERATOR OUTAGE
 #
 3 32456 0 "1" 0 # MIDLFORK 13.80 PGEN=64.50 QGEN=13.48
 0
 #
 #
 # (200) B1 GENERATOR OUTAGE
 #
 3 32456 0 "2" 0 # MIDLFORK 13.80 PGEN=64.50 QGEN=13.48
 0
 #
 #
 # (201) B1 GENERATOR OUTAGE
 #
 3 32458 0 "1" 0 # RALSTON 13.80 PGEN=83.00 QGEN=13.11
 0
 #
 #
 # (202) B1 GENERATOR OUTAGE
 #
 3 32462 0 "1" 0 # CHI.PARK 11.50 PGEN=37.88 QGEN=11.50
 0
 #
 #
 # (203) B1 GENERATOR OUTAGE
 #
 3 32464 0 "1" 0 # DTCHFLT1 11.00 PGEN=22.00 QGEN=11.45
 0
 #
 #
 # (204) B1 GENERATOR OUTAGE
 #
 3 32466 0 "1" 0 # NARROWS1 9.11 PGEN=10.00 QGEN=5.30
 0
 #
 #
 # (205) B1 GENERATOR OUTAGE
 #
 3 32468 0 "1" 0 # NARROWS2 9.11 PGEN=45.00 QGEN=1.30
 0
 #
 #
 # (206) B1 GENERATOR OUTAGE
 #
 3 32470 0 "1" 0 # CMP.FARW 9.11 PGEN=4.60 QGEN=-2.29
 0

2013 SUMMER CATEGORY "B" CONTINGENCY LIST

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#
#
# (207) B1 GENERATOR OUTAGE
#
3 32472 0 "1" 0 # SPAULDG 9.11 PGEN=7.00 QGEN=-2.90
0
#
#
# (208) B1 GENERATOR OUTAGE
#
3 32472 0 "2" 0 # SPAULDG 9.11 PGEN=4.16 QGEN=-1.00
0
#
#
# (209) B1 GENERATOR OUTAGE
#
3 32472 0 "3" 0 # SPAULDG 9.11 PGEN=1.70 QGEN=-1.04
0
#
#
# (210) B1 GENERATOR OUTAGE
#
3 32474 0 "1" 0 # DEER CRK 9.11 PGEN=3.07 QGEN=-2.20
0
#
#
# (211) B1 GENERATOR OUTAGE
#
3 32476 0 "1" 0 # ROLLINSF 9.11 PGEN=12.00 QGEN=-0.00
0
#
#
# (212) B1 GENERATOR OUTAGE
#
3 32478 0 "1" 0 # HALSEY F 9.11 PGEN=8.57 QGEN=1.34
0
#
#
# (213) B1 GENERATOR OUTAGE
#
3 32480 0 "1" 0 # BOWMAN 9.11 PGEN=2.46 QGEN=-1.00
0
#
#
# (214) B1 GENERATOR OUTAGE
#
3 32484 0 "1" 0 # OXBOW F 9.11 PGEN=5.40 QGEN=2.00
0
#
#
# (215) B1 GENERATOR OUTAGE
#
3 32488 0 "2" 0 # HAYPRES+ 9.11 PGEN=1.90 QGEN=-2.50
0
#
#
# (216) B1 GENERATOR OUTAGE
#
3 32490 0 "1" 0 # GRNLEAF1 13.80 PGEN=40.00 QGEN=-13.86
0
#
#
# (217) B1 GENERATOR OUTAGE
#
3 32490 0 "2" 0 # GRNLEAF1 13.80 PGEN=9.50 QGEN=-3.29
0
#
#
# (218) B1 GENERATOR OUTAGE
#
3 32492 0 "1" 0 # GRNLEAF2 13.80 PGEN=49.00 QGEN=16.68
0
#
#

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2013 SUMMER CATEGORY "B" CONTINGENCY LIST

(219) B1 GENERATOR OUTAGE

3 32494 0 "1" 0 # YUBA CTY 9.11 PGEN=41.31 QGEN=9.01
0

(220) B1 GENERATOR OUTAGE

3 32496 0 "1" 0 # YCEC 13.80 PGEN=50.00 QGEN=4.39
0

(221) B1 GENERATOR OUTAGE

3 32498 0 "1" 0 # SPILINCF 12.50 PGEN=18.30 QGEN=4.66
0

(222) B1 GENERATOR OUTAGE

3 32500 0 "1" 0 # ULTR RCK 9.11 PGEN=22.12 QGEN=12.00
0

(223) B1 GENERATOR OUTAGE

3 32502 0 "1" 0 # DTCHFLT2 6.90 PGEN=24.50 QGEN=5.88
0

(224) B1 GENERATOR OUTAGE

3 32504 0 "1" 0 # DRUM 1-2 6.60 PGEN=13.20 QGEN=5.15
0

(225) B1 GENERATOR OUTAGE

3 32504 0 "2" 0 # DRUM 1-2 6.60 PGEN=12.60 QGEN=4.92
0

(226) B1 GENERATOR OUTAGE

3 32506 0 "1" 0 # DRUM 3-4 6.60 PGEN=13.20 QGEN=5.06
0

(227) B1 GENERATOR OUTAGE

3 32506 0 "2" 0 # DRUM 3-4 6.60 PGEN=13.20 QGEN=5.06
0

(228) B1 GENERATOR OUTAGE

3 32508 0 "1" 0 # FRNCH MD 4.16 PGEN=16.40 QGEN=3.14
0

(229) B1 GENERATOR OUTAGE

3 32510 0 "1" 0 # CHILIBAR 4.16 PGEN=5.50 QGEN=4.00
0

(230) B1 GENERATOR OUTAGE

3 32512 0 "1" 0 # WISE 12.00 PGEN=11.15 QGEN=4.29
0

(231) B1 GENERATOR OUTAGE
#

2013 SUMMER CATEGORY "B" CONTINGENCY LIST

3 32513 0 "1" 0 # ELDRADO1 21.60 PGEN=9.96 QGEN=-0.77
 0
 #
 #
 # (232) B1 GENERATOR OUTAGE
 #
 3 32514 0 "1" 0 # ELDRADO2 21.60 PGEN=9.96 QGEN=-0.77
 0
 #
 #
 # (233) B1 GENERATOR OUTAGE
 #
 3 32515 0 "1" 0 # Q259CT1 18.00 PGEN=173.00 QGEN=33.36
 0
 #
 #
 # (234) B1 GENERATOR OUTAGE
 #
 3 32516 0 "1" 0 # Q259ST1 18.00 PGEN=188.00 QGEN=27.79
 0
 #
 #
 # (235) B1 GENERATOR OUTAGE
 #
 3 32517 0 "1" 0 # Q266CT1 18.00 PGEN=173.00 QGEN=45.33
 0
 #
 #
 # (236) B1 GENERATOR OUTAGE
 #
 3 32518 0 "1" 0 # Q266ST1 18.00 PGEN=188.00 QGEN=30.71
 0
 #
 #
 # (237) L-1/G-1 OVERLAPPING OUTAGE
 # Pease - Marysville - Harter 60 kV Line and Greenleaf 2
 1 32302 32324 "1" 0 # line from YUBACITY 60.00 (4) to (1) HARTER 60.00
 1 32302 32333 "1" 0 # line from YUBACITY 60.00 (4) to (3) PEASETP 60.00
 2 32302 32496 "1" 0 # TRAN from YUBACITY 60.00 (4) to (1) YCEC 13.80
 2 32302 32494 "1" 0 # TRAN from YUBACITY 60.00 BRKR to (1) YUBA CTY 9.11
 1 32333 32320 "1" 0 # line from PEASETP 60.00 (3) to BRKR MRYSVLE 60.00
 1 32333 32332 "1" 0 # line from PEASETP 60.00 (3) to BRKR PEASE 60.00
 4 32324 0 "1" 0 # LOAD-DROP HARTER 60.00 LOAD==22.66(1.01)
 4 32324 0 "2" 0 # LOAD-DROP HARTER 60.00 LOAD==26.96(1.21)
 4 32496 0 "ss" 0 # LOAD-DROP YCEC 13.80 LOAD==1.39(0.32)
 4 32494 0 "ss" 0 # LOAD-DROP YUBA CTY 9.11 LOAD==0.32(0.07)
 3 32496 0 "1" 0 # GEN-DROP YCEC 13.80 GEN==50.00(0.00)
 3 32494 0 "1" 0 # GEN-DROP YUBA CTY 9.11 GEN==41.30(15.86)
 #
 3 32492 0 "1" 0 # GRNLEAF2 13.80 PGEN=49.00 QGEN=16.68
 0
 #
 #
 # (238) L-1/G-1 OVERLAPPING OUTAGE
 # Colgate - Smartville #2 60 kV Line and Narrows 2
 1 32308 32311 "1" 0 # line from COLGATE 60.00 BRKR to (3) NRRWS1TP 60.00
 1 32311 32310 "1" 0 # line from NRRWS1TP 60.00 (3) to (2) NARRWS 1 60.00
 1 32311 32314 "1" 0 # line from NRRWS1TP 60.00 (3) to BRKR SMRTSVLE 60.00
 2 32310 32466 "1" 0 # TRAN from NARRWS 1 60.00 (2) to (1) NARROWS1 9.11
 4 32310 0 "1" 0 # LOAD-DROP NARRWS 1 60.00 LOAD==16.50(2.35)
 3 32466 0 "1" 0 # GEN-DROP NARROWS1 9.11 GEN==10.00(5.30)
 #
 3 32468 0 "1" 0 # NARROWS2 9.11 PGEN=45.00 QGEN=1.30
 0
 #
 #
 # (239) L-1/G-1 OVERLAPPING OUTAGE
 # Colgate - Smartville #2 60 kV Line and Camp Far West
 1 32308 32311 "1" 0 # line from COLGATE 60.00 BRKR to (3) NRRWS1TP 60.00
 1 32311 32310 "1" 0 # line from NRRWS1TP 60.00 (3) to (2) NARRWS 1 60.00
 1 32311 32314 "1" 0 # line from NRRWS1TP 60.00 (3) to BRKR SMRTSVLE 60.00
 2 32310 32466 "1" 0 # TRAN from NARRWS 1 60.00 (2) to (1) NARROWS1 9.11
 4 32310 0 "1" 0 # LOAD-DROP NARRWS 1 60.00 LOAD==16.50(2.35)
 3 32466 0 "1" 0 # GEN-DROP NARROWS1 9.11 GEN==10.00(5.30)

2013 SUMMER CATEGORY "B" CONTINGENCY LIST

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#
3 32470 0 "1" 0 # CMP.FARW 9.11 PGEN=4.60 QGEN=-2.29
0
#
#
# (240) Overlapping Outage (L-1/G-1)
# Palermo - Pease 115 kV Line and Greenleaf 2
1 32200 31506 "1" 0 # line from PEASE 115.00 BRKR to (2) HONC JT1 115.00
1 31506 31482 "1" 0 # line from HONC JT1 115.00 (2) to BRKR PALERMO 115.00
#
3 32492 0 "1" 0 # GRNLEAF2 13.80 PGEN=49.00 QGEN=16.68
0
#
#
# (241) Overlapping Outage (L-1/G-1)
# Drum - Rio Oso #2 115 kV Line and Drum 5
1 32214 32244 "2" 0 # line from RIO OSO 115.00 BRKR to (3) BRNSWCKP 115.00
1 32244 32218 "2" 0 # line from BRNSWCKP 115.00 (3) to BRKR DRUM 115.00
1 32244 32226 "2" 0 # line from BRNSWCKP 115.00 (3) to (1) BRUNSWCK 115.00
4 32226 0 "2" 0 # LOAD-DROP BRUNSWCK 115.00 LOAD==30.46(1.37)
4 32226 0 "3" 0 # LOAD-DROP BRUNSWCK 115.00 LOAD==8.00(0.36)
#
3 32454 0 "1" 0 # DRUM 5 13.80 PGEN=42.50 QGEN=15.00
0
#
#
# (242) Overlapping Outage (L-1/G-1)
# Placer - Goldhill #1 115 kV Line and Wise PH
1 32018 32229 "1" 0 # line from GOLDHILL 115.00 BRKR to (3) HORSHE1 115.00
1 32229 32230 "1" 0 # line from HORSHE1 115.00 (3) to (1) HORSESHE 115.00
1 32229 32233 "1" 0 # line from HORSHE1 115.00 (3) to (3) NEWCSTL1 115.00
1 32233 32234 "1" 0 # line from NEWCSTL1 115.00 (3) to (2) NEWCSTLE 115.00
1 32233 32236 "1" 0 # line from NEWCSTL1 115.00 (3) to (2) FLINT1 115.00
2 32234 32460 "1" 0 # TRAN from NEWCSTLE 115.00 (2) to (1) NEWCSTLE 13.20
1 32236 32228 "1" 0 # line from FLINT1 115.00 (2) to BRKR PLACER 115.00
4 32230 0 "1" 0 # LOAD-DROP HORSESHE 115.00 LOAD==15.79(0.71)
4 32230 0 "2" 0 # LOAD-DROP HORSESHE 115.00 LOAD==36.15(1.61)
1 32230 32231 "1" 1 #Transfer load to alternate
4 32230 0 "****" 1 #Restore load at Horseshoe
#
3 32512 0 "1" 0 # WISE 12.00 PGEN=11.15 QGEN=4.29
0
#
#
# (243) Overlapping Outage (L-1/G-1)
# Palermo - E. Nicolaus 115 kV Line and Greenleaf 1 Unit 1
1 31482 32280 "1" 0 # line from PALERMO 115.00 BRKR to (2) E.MRY J2 115.00
1 32280 32212 "1" 0 # line from E.MRY J2 115.00 (2) to BRKR E.NICOLS 115.00
#
3 32490 0 "1" 0 # GRNLEAF1 13.80 PGEN=40.00 QGEN=-13.86
0
#
#
# (244) Overlapping Outage (L-1/G-1)
# Rio Oso - Goldhill 230 kV Line and Ralston
1 30330 30337 "1" 0 # line from RIO OSO 230.00 BRKR to BRKR GOLDHILL 230.00
#
3 32458 0 "1" 0 # RALSTON 13.80 PGEN=83.00 QGEN=13.11
0
#
#
# (245) Overlapping Outage (L-1/G-1)
# Colgate - Rio Oso 230 kV Line and Greanleaf 1 Unit 1
1 30327 30330 "1" 0 # line from COLGATE 230.00 BRKR to BRKR RIO OSO 230.00
2 30327 32452 "1" 0 #Take one transformer out with Colgate-Rio Oso 230 kV line outage
3 32452 0 "1" 0 #Take one generator out with Colgate-Rio Oso 230 kV line outage
#
3 32490 0 "1" 0 # GRNLEAF1 13.80 PGEN=40.00 QGEN=-13.86
0
#
#
# (246) Overlapping Outage (L-1/G-1)
# Table Mountain - Rio Oso 230 kV Line and Greanleaf 1 Unit 1
1 30300 30330 "1" 0 # line from TBL MT D 230.00 BRKR to BRKR RIO OSO 230.00

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2013 SUMMER CATEGORY "B" CONTINGENCY LIST

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#
3 32490 0 "1" 0 # GRNLEAF1 13.80  PGEN=40.00 QGEN=-13.86
0
#
#
# (247) Overlapping Outage (L-1/G-1)
# Palermo - Colgate 230 kV Line and Greanleaf 1 Unit 1
1 30325 30327 "1" 0 # line from PALERMO 230.00 BRKR to BRKR COLGATE 230.00
2 30327 32450 "1" 0 #Take one transformer out with Palermo-Colgate 230 kV line outage
3 32450 0 "1" 0 #Take one generator out with Palermo-Colgate 230 kV line outage
#
3 32490 0 "1" 0 # GRNLEAF1 13.80  PGEN=40.00 QGEN=-13.86
0
#
#
# (248) Overlapping Outage (L-1/G-1)
# Palermo - Bogue 115 kV Line and Greanleaf 1 Unit 1
1 31508 32286 "1" 0 # line from HONC JT3 115.00 (3) to (2) OLIVH J3 115.00
1 31508 31482 "1" 0 # line from HONC JT3 115.00 (3) to BRKR PALERMO 115.00
1 31508 31484 "1" 0 # line from HONC JT3 115.00 (3) to (1) HONCUT 115.00
1 32286 32206 "1" 0 # line from OLIVH J3 115.00 (2) to BRKR BOGUE 115.00
4 31484 0 "1" 0 # LOAD-DROP HONCUT 115.00 LOAD==16.18(0.73)
#
3 32490 0 "1" 0 # GRNLEAF1 13.80  PGEN=40.00 QGEN=-13.86
0
#
#
# (249) Overlapping Outage (L-1/G-1)
# Pease - Rio Oso 115 kV Line and Greanleaf 1 Unit 1
1 32200 32288 "1" 0 # line from PEASE 115.00 BRKR to (3) E.MRY J1 115.00
1 32288 32202 "1" 0 # line from E.MRY J1 115.00 (3) to (1) E.MRYSVE 115.00
1 32288 32290 "1" 0 # line from E.MRY J1 115.00 (3) to (3) OLIVH J1 115.00
1 32290 32204 "1" 0 # line from OLIVH J1 115.00 (3) to (1) OLIVHRST 115.00
1 32290 32214 "1" 0 # line from OLIVH J1 115.00 (3) to BRKR RIO OSO 115.00
4 32202 0 "2" 0 # LOAD-DROP E.MRYSVE 115.00 LOAD==10.55(0.47)
4 32202 0 "3" 0 # LOAD-DROP E.MRYSVE 115.00 LOAD==9.73(0.44)
4 32204 0 "1" 0 # LOAD-DROP OLIVHRST 115.00 LOAD==6.71(0.30)
4 32204 0 "2" 0 # LOAD-DROP OLIVHRST 115.00 LOAD==21.33(0.95)
1 32204 32286 "1" 1 #Transfer Olivehurst to alternate
4 32204 0 "****" 1 #Restore load Olivehurst
1 32280 32202 "1" 1 #Transfer load to E. Marysville Alt. 2 summer
4 32202 0 "****" 1 #Restore load at E. Marysville summer
#
3 32490 0 "1" 0 # GRNLEAF1 13.80  PGEN=40.00 QGEN=-13.86
0
#
#
# (250) Overlapping Outage (L-1/G-1)
# Rio Oso - E. Nicolaus 115 kV Line and Greanleaf 1 Unit 1
1 32212 32214 "1" 0 # line from E.NICOLS 115.00 BRKR to BRKR RIO OSO 115.00
#
3 32490 0 "1" 0 # GRNLEAF1 13.80  PGEN=40.00 QGEN=-13.86
0
#
#
# (251) Overlapping Outage (L-1/G-1)
# Drum - Higgins 115 kV Line and Wise PH
1 32218 32220 "1" 0 # line from DRUM 115.00 BRKR to (3) DTCH FL1 115.00
1 32220 32224 "1" 0 # line from DTCH FL1 115.00 (3) to (3) CHCGO PK 115.00
2 32220 32464 "1" 0 # TRAN from DTCH FL1 115.00 BRKR to (1) DTCHFLT1 11.00
1 32224 32232 "1" 0 # line from CHCGO PK 115.00 (3) to BRKR HIGGINS 115.00
2 32224 32462 "1" 0 # TRAN from CHCGO PK 115.00 BRKR to (1) CHI.PARK 11.50
3 32464 0 "1" 0 # GEN-DROP DTCHFLT1 11.00 GEN==22.00(12.70)
3 32462 0 "1" 0 # GEN-DROP CHI.PARK 11.50 GEN==37.90(14.75)
#
3 32512 0 "1" 0 # WISE 12.00  PGEN=11.15 QGEN=4.29
0
#
#
# (252) Overlapping Outage (L-1/G-1)
# Higgins - Bell 115 kV Line and Wise PH
1 32232 32238 "1" 0 # line from HIGGINS 115.00 BRKR to BRKR BELL PGE 115.00
3 32464 0 "****" 0 #Drop Dutch Flat No. 1 generator during Higgins-Bell 115 kV outage
3 32462 0 "****" 0 #Drop Chicago Park generator during Higgins-Bell 115 kV outage

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2013 SUMMER CATEGORY "B" CONTINGENCY LIST

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#
3 32512 0 "1" 0 # WISE 12.00 PGEN=11.15 QGEN=4.29
0
#
#
# (253) Overlapping Outage (L-1/G-1)
# Drum - Rio Oso #1 115 kV Line and Wise PH
1 32214 32225 "1" 0 # line from RIO OSO 115.00 BRKR to (3) BRNSWKTP 115.00
1 32225 32222 "1" 0 # line from BRNSWKTP 115.00 (3) to (3) DTCH FL2 115.00
1 32225 32227 "2" 0 # line from BRNSWKTP 115.00 (3) to (1) BRNSWALT 115.00
1 32222 32218 "1" 0 # line from DTCH FL2 115.00 (3) to BRKR DRUM 115.00
2 32222 32502 "1" 0 # TRAN from DTCH FL2 115.00 BRKR to (1) DTCHFLT2 6.90
4 32227 0 "1" 0 # LOAD-DROP BRNSWALT 115.00 LOAD==24.08(1.08)
3 32502 0 "1" 0 # GEN-DROP DTCHFLT2 6.90 GEN==24.50(9.66)
#
3 32512 0 "1" 0 # WISE 12.00 PGEN=11.15 QGEN=4.29
0
#
#
# (254) Overlapping Outage (L-1/G-1)
# Bogue - Rio Oso 115 kV Line and Greenleaf 2
1 32206 32208 "1" 0 # line from BOGUE 115.00 BRKR to (3) GLEAF TP 115.00
1 32208 32210 "1" 0 # line from GLEAF TP 115.00 (3) to (2) GLEAF 1 115.00
1 32208 32214 "1" 0 # line from GLEAF TP 115.00 (3) to BRKR RIO OSO 115.00
2 32210 32490 "1" 0 # TRAN from GLEAF 1 115.00 BRKR to (1) GRNLEAF1 13.80
4 32490 0 "ss" 0 # LOAD-DROP GRNLEAF1 13.80 LOAD==0.67(0.15)
3 32490 0 "1" 0 # GEN-DROP GRNLEAF1 13.80 GEN==40.00(-12.86)
3 32490 0 "2" 0 # GEN-DROP GRNLEAF1 13.80 GEN==9.50(-3.05)
#
3 32492 0 "1" 0 # GRNLEAF2 13.80 PGEN=49.00 QGEN=16.68
0
#
#
# (255) Overlapping Outage (L-1/G-1)
# Table Mountain - Pease 60 kV Line and Greenleaf 2
1 31640 31644 "1" 0 # line from TRES VIS 60.00 (2) to (3) BIGGSJCT 60.00
1 31640 31718 "1" 0 # line from TRES VIS 60.00 (2) to BRKR TBLE MTN 60.00
1 31644 31642 "1" 0 # line from BIGGSJCT 60.00 (3) to BRKR PEACHTON 60.00
1 31644 38052 "1" 0 # line from BIGGSJCT 60.00 (3) to (1) BIGGS 60.00
4 31640 0 "1" 0 # LOAD-DROP TRES VIS 60.00 LOAD==8.30(0.37)
4 38052 0 "1" 0 # LOAD-DROP BIGGS 60.00 LOAD==4.75(1.60)
#
3 32492 0 "1" 0 # GRNLEAF2 13.80 PGEN=49.00 QGEN=16.68
0
#
#
# (256) Overlapping Outage (L-1/G-1)
# Pease - Marysville - Harter 60 kV Line and Narrows 2
1 32302 32324 "1" 0 # line from YUBACITY 60.00 (4) to (1) HARTER 60.00
1 32302 32333 "1" 0 # line from YUBACITY 60.00 (4) to (3) PEASETP 60.00
2 32302 32496 "1" 0 # TRAN from YUBACITY 60.00 (4) to (1) YCEC 13.80
2 32302 32494 "1" 0 # TRAN from YUBACITY 60.00 BRKR to (1) YUBA CTY 9.11
1 32333 32320 "1" 0 # line from PEASETP 60.00 (3) to BRKR MRYSVLLE 60.00
1 32333 32332 "1" 0 # line from PEASETP 60.00 (3) to BRKR PEASE 60.00
4 32324 0 "1" 0 # LOAD-DROP HARTER 60.00 LOAD==22.66(1.01)
4 32324 0 "2" 0 # LOAD-DROP HARTER 60.00 LOAD==26.96(1.21)
4 32496 0 "ss" 0 # LOAD-DROP YCEC 13.80 LOAD==1.39(0.32)
4 32494 0 "ss" 0 # LOAD-DROP YUBA CTY 9.11 LOAD==0.32(0.07)
3 32496 0 "1" 0 # GEN-DROP YCEC 13.80 GEN==50.00(0.00)
3 32494 0 "1" 0 # GEN-DROP YUBA CTY 9.11 GEN==41.30(15.86)
#
3 32468 0 "1" 0 # NARROWS2 9.11 PGEN=45.00 QGEN=1.30
0
#
#
# (257) Overlapping Outage (L-1/G-1)
# Colgate - Rio Oso 230 kV Line and Belden
1 30327 30330 "1" 0 # line from COLGATE 230.00 BRKR to BRKR RIO OSO 230.00
2 30327 32452 "1" 0 #Take one transformer out with Colgate-Rio Oso 230 kV line outage
3 32452 0 "1" 0 #Take one generator out with Colgate-Rio Oso 230 kV line outage
#
3 31784 0 "1" 0 # BELDEN 13.80 PGEN=107.00 QGEN=27.77
0
#

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2013 SUMMER CATEGORY "B" CONTINGENCY LIST

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#
# (258) Overlapping Outage (L-1/G-1)
# Bogue - Rio Oso 115 kV Line and FREC
1 32206 32208 "1" 0 # line from BOGUE 115.00 BRKR to (3) GLEAF TP 115.00
1 32208 32210 "1" 0 # line from GLEAF TP 115.00 (3) to (2) GLEAF 1 115.00
1 32208 32214 "1" 0 # line from GLEAF TP 115.00 (3) to BRKR RIO OSO 115.00
2 32210 32490 "1" 0 # TRAN from GLEAF 1 115.00 BRKR to (1) GRNLEAF1 13.80
4 32490 0 "ss" 0 # LOAD-DROP GRNLEAF1 13.80 LOAD==0.67(0.15)
3 32490 0 "1" 0 # GEN-DROP GRNLEAF1 13.80 GEN==40.00(-12.86)
3 32490 0 "2" 0 # GEN-DROP GRNLEAF1 13.80 GEN==9.50(-3.05)
#
3 32451 0 "1" 0 # FREC 13.80 PGEN=50.00 QGEN=8.28
0
#
#
# (259) Overlapping Outage (L-1/G-1)
# Woodleaf - Palermo 115 kV Line and Greenleaf 1 Unit 1
1 31470 31472 "1" 0 # line from SLYCREEK 115.00 (2) to (4) WODLF TP 115.00
2 31470 31832 "1" 0 # TRAN from SLYCREEK 115.00 BRKR to (1) SLY.CR. 9.11
1 31472 31474 "1" 0 # line from WODLF TP 115.00 (4) to (3) FRBSTNTP 115.00
2 31472 31794 "1" 0 # TRAN from WODLF TP 115.00 BRKR to (1) WOODLEAF 13.80
2 31472 31862 "1" 0 # TRAN from WODLF TP 115.00 BRKR to (1) DEADWOOD 9.11
1 31474 31476 "1" 0 # line from FRBSTNTP 115.00 (3) to (3) OWID 115.00
2 31474 31814 "1" 0 # TRAN from FRBSTNTP 115.00 BRKR to (1) FORBSTWN 11.50
1 31476 31475 "1" 0 # line from OWID 115.00 (3) to (1) KANAKAJT 115.00
1 31476 31482 "1" 0 # line from OWID 115.00 (3) to BRKR PALERMO 115.00
4 31475 0 "KK" 0 # LOAD-DROP KANAKAJT 115.00 LOAD==1.19(0.05)
3 31832 0 "1" 0 # GEN-DROP SLY.CR. 9.11 GEN==9.50(0.62)
3 31794 0 "1" 0 # GEN-DROP WOODLEAF 13.80 GEN==55.00(2.34)
3 31814 0 "1" 0 # GEN-DROP FORBSTWN 11.50 GEN==30.00(2.09)
#
3 32490 0 "1" 0 # GRNLEAF1 13.80 PGEN=40.00 QGEN=-13.86
0
#
#
# (260) Overlapping Outage (L-1/G-1)
# Rio Oso - Atlantic 230 kV Line and Ralston
1 30330 30335 "1" 0 # line from RIO OSO 230.00 BRKR to BRKR ATLANTC 230.00
#
3 32458 0 "1" 0 # RALSTON 13.80 PGEN=83.00 QGEN=13.11
0
#
#
# (261) Overlapping Outage (L-1/G-1)
# Atlantic - Pleasant Grove #1 115 kV Line and Rio Bravo
1 32412 32408 "1" 0 # line from ATLANTIC 115.00 BRKR to BRKR PLSNT GR 115.00
#
3 32500 0 "1" 0 # ULTR RCK 9.11 PGEN=22.12 QGEN=12.00
0
#
#
# (262) Overlapping Outage (L-1/G-1)
# Atlantic - Pleasant Grove #2 115 kV Line and Rio Bravo
1 32412 32408 "2" 0 # line from ATLANTIC 115.00 BRKR to BRKR PLSNT GR 115.00
#
3 32500 0 "1" 0 # ULTR RCK 9.11 PGEN=22.12 QGEN=12.00
0
#
#
# (263) Overlapping Outage (L-1/G-1)
# El Dorado - Missouri Flat #2 115 kV Line and El Dorado PH1
1 32250 32481 "2" 0 # line from ELDORAD 115.00 BRKR to (2) APLHTAP2 115.00
1 32481 32257 "2" 0 # line from APLHTAP2 115.00 (2) to (4) PLCRVLT2 115.00
1 32257 32254 "2" 0 # line from PLCRVLT2 115.00 (4) to (2) PLCRVLB2 115.00
1 32257 32260 "2" 0 # line from PLCRVLT2 115.00 (4) to BRKR MIZOU_T2 115.00
2 32257 32510 "1" 0 # TRAN from PLCRVLT2 115.00 (4) to (1) CHILIBAR 4.16
1 32254 32256 "1" 0 # line from PLCRVLB2 115.00 (2) to (1) PLCRVLB3 115.00
4 32254 0 "2" 0 # LOAD-DROP PLCRVLB2 115.00 LOAD==9.02(0.41)
4 32256 0 "3" 0 # LOAD-DROP PLCRVLB3 115.00 LOAD==25.95(1.16)
3 32510 0 "1" 0 # GEN-DROP CHILIBAR 4.16 GEN==5.50(4.00)
1 32256 32255 "1" 1 #Transfer Placerville to alternate
4 32256 0 "****" 1 #Restore load Bank 3 at Placerville
1 32254 32256 "1" 1 #Transfer Placerville to alternate
4 32254 0 "****" 1 #Restore load Bank 2 at Placerville

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2013 SUMMER CATEGORY "B" CONTINGENCY LIST

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#
3 32513 0 "1" 0 # ELDRADO1 21.60 PGEN=9.96 QGEN=-0.77
0
#
#
# (264) Overlapping Outage (L-1/G-1)
# Goldhill - Clarksville 115 kV Line and El Dorado PH1
1 32018 32263 "1" 0 # line from GOLDHILL 115.00 BRKR to (1) CLRKSVLE 115.00
4 32263 0 "1" 0 # LOAD-DROP CLRKSVLE 115.00 LOAD==44.58(2.00)
4 32263 0 "2" 0 # LOAD-DROP CLRKSVLE 115.00 LOAD==47.39(2.12)
4 32263 0 "3" 0 # LOAD-DROP CLRKSVLE 115.00 LOAD==45.28(2.03)
1 32264 32263 "1" 1 #Transfer Clarksville to alternate
4 32263 0 "" 1 #Restore load at Clarksville
#
3 32513 0 "1" 0 # ELDRADO1 21.60 PGEN=9.96 QGEN=-0.77
0
#
#
# (265) Overlapping Outage (L-1/G-1)
# Placer - Gold Hill #2 115 kV Line and El Dorado PH1
1 32018 32231 "2" 0 # line from GOLDHILL 115.00 BRKR to (2) HORSHE2 115.00
1 32231 32235 "2" 0 # line from HORSHE2 115.00 (2) to (2) NEWCSTL2 115.00
1 32235 32239 "2" 0 # line from NEWCSTL2 115.00 (2) to (3) FLINT2 115.00
1 32239 32228 "2" 0 # line from FLINT2 115.00 (3) to BRKR PLACER 115.00
1 32239 32237 "1" 0 # line from FLINT2 115.00 (3) to (1) FLINT 115.00
4 32237 0 "1" 0 # LOAD-DROP FLINT 115.00 LOAD==14.82(0.66)
#
3 32513 0 "1" 0 # ELDRADO1 21.60 PGEN=9.96 QGEN=-0.77
0
#
#
# (266) Overlapping Outage (L-1/G-1)
# Table Mountain - Palermo 230 kV Line and Colgate 2
1 30300 30325 "1" 0 # line from TBL MT D 230.00 BRKR to BRKR PALERMO 230.00
#
3 32452 0 "1" 0 # COLGATE2 13.80 PGEN=147.00 QGEN=20.11
0
#
#
# 2013 category b contingency list
# Stockton/Stanslaus Divisions Zones 311/312
#
# (267) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30482 30500 "1" 0 # line from LOCKFORD 230.00 BRKR to BRKR BELLOTA 230.00
0
#
#
# (268) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30485 30487 "1" 0 # line from TIGR CRK 230.00 BRKR to BRKR ELECTRA 230.00
0
#
#
# (269) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30485 30490 "1" 0 # line from TIGR CRK 230.00 BRKR to BRKR VLLY SPS 230.00
0
#
#
# (270) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30487 30500 "1" 0 # line from ELECTRA 230.00 BRKR to BRKR BELLOTA 230.00
0
#
#
# (271) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30489 30624 "1" 0 # line from STAGG-J2 230.00 (2) to BRKR TESLA E 230.00
1 30489 30499 "1" 0 # line from STAGG-J2 230.00 (2) to BRKR STAGG-E 230.00
0
#
#

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2013 SUMMER CATEGORY "B" CONTINGENCY LIST

(272) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30490 30500 "1 " 0 # line from VLLY SPS 230.00 BRKR to BRKR BELLOTA 230.00
0

(273) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30500 30503 "1 " 0 # line from BELLOTA 230.00 BRKR to BRKR COLLERVL 230.00
0

(274) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30500 30503 "2 " 0 # line from BELLOTA 230.00 BRKR to BRKR COLLERVL 230.00
0

(275) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30500 30505 "1 " 0 # line from BELLOTA 230.00 BRKR to BRKR WEBER 230.00
0

(276) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30500 30888 "1 " 0 # line from BELLOTA 230.00 BRKR to BRKR P0703 230.00
0

(277) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

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==27.63(1.24)
3 34604 0 "****" 0 # Drop unit#3 with a loss Bellota - Melones line
0

(278) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30500 38208 "1 " 0 # line from BELLOTA 230.00 BRKR to (2) COTTLE B 230.00
1 38208 30515 "1 " 0 # line from COTTLE B 230.00 (2) to BRKR WARNERVL 230.00
4 38208 0 "2 " 0 # LOAD-DROP COTTLE B 230.00 LOAD==31.78(1.42)
3 34604 0 "****" 0 # Drop unit#3 with a loss Bellota - Warnerville line
0

(279) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30505 30888 "1 " 0 # line from WEBER 230.00 BRKR to BRKR P0703 230.00
0

(280) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30527 30595 "1 " 0 # line from PITSBG E 230.00 BRKR to (3) FLOWIND2 230.00
1 30595 30640 "1 " 0 # line from FLOWIND2 230.00 (3) to BRKR TESLA C 230.00
2 30595 33840 "1 " 0 # TRAN from FLOWIND2 230.00 (3) to (1) FLOWD3-6 9.11
4 33840 0 "SG" 0 # LOAD-DROP FLOWD3-6 9.11 LOAD==0.70(0.34)
3 33840 0 "1 " 0 # GEN-DROP FLOWD3-6 9.11 GEN==1.30(0.00)
3 33840 0 "4 " 0 # GEN-DROP FLOWD3-6 9.11 GEN==1.10(0.00)
0

(281) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30565 30569 "1 " 0 # line from BRENTWOD 230.00 BRKR to BRKR KELSO 230.00
0

(282) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30569 30570 "1 " 0 # line from KELSO 230.00 BRKR to (4) USWP-RLF 230.00

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1 30570 30571 "1" 0 # line from USWP-RLF 230.00 (4) to (2) ALTALAND 230.00
1 30570 30625 "1" 0 # line from USWP-RLF 230.00 (4) to BRKR TESLA D 230.00
2 30570 33836 "1" 0 # TRAN from USWP-RLF 230.00 (4) to (1) USWP_#4 9.11
2 30571 33832 "1" 0 # TRAN from ALTALAND 230.00 (2) to (1) COG.CAPT 9.11
4 33836 0 "SG" 0 # LOAD-DROP USWP_#4 9.11 LOAD==0.34(0.21)
3 33836 0 "3" 0 # GEN-DROP USWP_#4 9.11 GEN==4.50(0.00)
3 33832 0 "1" 0 # GEN-DROP COG.CAPT 9.11 GEN==4.30(6.60)
0

(283) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30580 30625 "1" 0 # line from ALTM MDW 230.00 (3) to BRKR TESLA D 230.00
1 30580 38610 "1" 0 # line from ALTM MDW 230.00 (3) to BRKR DELTAPMP 230.00
2 30580 33175 "1" 0 # TRAN from ALTM MDW 230.00 (3) to (1) ALTAMONT 9.11
0

(284) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30600 30640 "2" 0 # line from TRES VAQ 230.00 (3) to BRKR TESLA C 230.00
1 30600 30527 "2" 0 # line from TRES VAQ 230.00 (3) to BRKR PITSBG E 230.00
2 30600 33171 "1" 0 # TRAN from TRES VAQ 230.00 (3) to (1) TRSVQ+NW 9.11
0

(285) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30622 30495 "1" 0 # line from EIGHT MI 230.00 BRKR to BRKR STAGG 230.00
0

(286) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30622 30624 "1" 0 # line from EIGHT MI 230.00 BRKR to BRKR TESLA E 230.00
0

(287) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30624 30630 "1" 0 # line from TESLA E 230.00 BRKR to BRKR NEWARK D 230.00
0

(288) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30624 30670 "1" 0 # line from TESLA E 230.00 BRKR to BRKR WESTLEY 230.00
0

(289) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30624 30888 "1" 0 # line from TESLA E 230.00 BRKR to BRKR P0703 230.00
0

(290) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30624 30888 "2" 0 # line from TESLA E 230.00 BRKR to BRKR P0703 230.00
0

(291) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30625 30636 "1" 0 # line from TESLA D 230.00 BRKR to BRKR Q235SWST 230.00
0

(292) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30625 30636 "2" 0 # line from TESLA D 230.00 BRKR to BRKR Q235SWST 230.00
0

#

2013 SUMMER CATEGORY "B" CONTINGENCY LIST

(293) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30636 37585 "1 " 0 # line from Q235SWST 230.00 BRKR to BRKR TRCY PMP 230.00
0

(294) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30636 37585 "2 " 0 # line from Q235SWST 230.00 BRKR to BRKR TRCY PMP 230.00
0

(295) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30640 30641 "1 " 0 # line from TESLA C 230.00 BRKR to BRKR Q236BS1 230.00
0

(296) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30640 30642 "1 " 0 # line from TESLA C 230.00 BRKR to BRKR Q236BS2 230.00
0

(297) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30632 30624 "1 " 0 # line from TESL_GEN 230.00 BRKR to BRKR TESLA E 230.00
0

(298) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30632 30624 "2 " 0 # line from TESL_GEN 230.00 BRKR to BRKR TESLA E 230.00
0

(299) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30636 30637 "1 " 0 # line from Q235SWST 230.00 BRKR to BRKR Q235 230.00
0

(300) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30636 30637 "2 " 0 # line from Q235SWST 230.00 BRKR to BRKR Q235 230.00
0

(301) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30640 30655 "2 " 0 # line from TESLA C 230.00 BRKR to (3) ADCC 230.00
1 30655 30631 "2 " 0 # line from ADCC 230.00 (3) to BRKR NEWARK E 230.00
2 30655 35310 "1 " 0 # TRAN from ADCC 230.00 (3) to (1) LFC FIN+ 9.11
0

(302) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30640 30703 "1 " 0 # line from TESLA C 230.00 BRKR to BRKR RAVENSWD 230.00
0

(303) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30670 30765 "1 " 0 # line from WESTLEY 230.00 BRKR to BRKR LOSBANOS 230.00
0

(304) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 33083 33774 "1 " 0 # line from MDLRVRJT 60.00 (2) to (3) HRDLNJCT 60.00
1 33083 33084 "1 " 0 # line from MDLRVRJT 60.00 (2) to (3) BXL_R_TAP 60.00
1 33774 33770 "1 " 0 # line from HRDLNJCT 60.00 (3) to BRKR HERDLYN 60.00
1 33774 33782 "1 " 0 # line from HRDLNJCT 60.00 (3) to (1) WEST SDE 60.00

2013 SUMMER CATEGORY "B" CONTINGENCY LIST

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1 33084 33055 "1" 0 # line from BXL_R_TAP 60.00 (3) to (1) BIXLER 60.00
1 33084 33778 "1" 0 # line from BXL_R_TAP 60.00 (3) to (2) MDL_RIVR 60.00
1 33778 33780 "1" 0 # line from MDL_RIVR 60.00 (2) to (1) MCD_ISLE 60.00
4 33782 0 "1" 0 # LOAD-DROP WEST SDE 60.00 LOAD==1.90(0.40)
4 33055 0 "1" 0 # LOAD-DROP BIXLER 60.00 LOAD==2.00(0.97)
4 33778 0 "1" 0 # LOAD-DROP MDL_RIVR 60.00 LOAD==4.98(0.22)
4 33780 0 "1" 0 # LOAD-DROP MCD_ISLE 60.00 LOAD==5.76(0.82)
0
#
#
# (305) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33500 33509 "1" 0 # line from MELNS JA 115.00 (3) to (3) AVENATP1 115.00
1 33500 33501 "1" 0 # line from MELNS JA 115.00 (3) to (3) FRGTNTP1 115.00
1 33500 33932 "1" 0 # line from MELNS JA 115.00 (3) to BRKR MELONES 115.00
1 33509 33510 "1" 0 # line from AVENATP1 115.00 (3) to (1) AVENA 115.00
1 33509 33514 "1" 0 # line from AVENATP1 115.00 (3) to BRKR MANTECA 115.00
1 33501 33502 "1" 0 # line from FRGTNTP1 115.00 (3) to (1) FROGTOWN 115.00
1 33501 33506 "1" 0 # line from FRGTNTP1 115.00 (3) to BRKR STANISLS 115.00
4 33510 0 "1" 0 # LOAD-DROP AVENA 115.00 LOAD==14.18(0.63)
4 33502 0 "1" 0 # LOAD-DROP FROGTOWN 115.00 LOAD==11.55(0.52)
4 33502 0 "2" 0 # LOAD-DROP FROGTOWN 115.00 LOAD==8.33(0.37)
1 33511 33510 "1" 1 # Switches in Avenan SW 145 to transfer load
4 33510 0 "****" 1 # Restores Load at Avena
0
#
#
# (306) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33503 33936 "1" 0 # line from FRGTNTP2 115.00 (2) to (3) MELNS JB 115.00
1 33503 33504 "1" 0 # line from FRGTNTP2 115.00 (2) to (2) CATARACT 115.00
1 33936 33932 "1" 0 # line from MELNS JB 115.00 (3) to BRKR MELONES 115.00
1 33936 33947 "1" 0 # line from MELNS JB 115.00 (3) to BRKR RIVRBKJT 115.00
1 33504 33506 "1" 0 # line from CATARACT 115.00 (2) to BRKR STANISLS 115.00
0
#
#
# (307) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33506 33948 "1" 0 # line from STANISLS 115.00 BRKR to (2) RVRBK J2 115.00
1 33948 33953 "1" 0 # line from RVRBK J2 115.00 (2) to (2) VLYHMTP2 115.00
1 33953 33511 "1" 0 # line from VLYHMTP2 115.00 (2) to (2) AVENATP2 115.00
1 33511 33514 "1" 0 # line from AVENATP2 115.00 (2) to BRKR MANTECA 115.00
0
#
#
# (308) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
# pre-project outage
1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33535 "1" 0 # line from OWENSTP2 115.00 (2) to (2) SFWY_TP2 115.00
1 33535 33543 "1" 0 # line from SFWY_TP2 115.00 (2) to (3) AEC_TP2 115.00
1 33543 33540 "1" 0 # line from AEC_TP2 115.00 (3) to BRKR TESLA 115.00
1 33543 33545 "1" 0 # line from AEC_TP2 115.00 (3) to (2) AEC_JCT 115.00
1 33545 33547 "1" 0 # line from AEC_JCT 115.00 (2) to (1) AEC_300 115.00
4 33547 0 "1" 0 # LOAD-DROP AEC_300 115.00 LOAD==3.00(9.54)
0
#
#
# (309) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
# post-project outage
1 33535 33549 "2" 0 # line from SFWY_TP2 115.00 (2) to BRKR SCHULTE 115.00
1 33535 33543 "1" 0 # line from SFWY_TP2 115.00 (2) to (3) AEC_TP2 115.00
1 33543 33540 "1" 0 # line from AEC_TP2 115.00 (3) to BRKR TESLA 115.00
1 33543 33545 "1" 0 # line from AEC_TP2 115.00 (3) to (2) AEC_JCT 115.00
1 33545 33547 "1" 0 # line from AEC_JCT 115.00 (2) to (1) AEC_300 115.00
4 33547 0 "1" 0 # LOAD-DROP AEC_300 115.00 LOAD==3.00(9.54)
0
#
#
# (310) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
# post-project outage
1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00

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2013 SUMMER CATEGORY "B" CONTINGENCY LIST

1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
 1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
 1 33533 33549 "2" 0 # line from OWENSTP2 115.00 (2) to BRKR SCHULTE 115.00

0
 #
 #
 # (311) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #

1 33514 33970 "1" 0 # line from MANTECA 115.00 BRKR to (3) INGRM C. 115.00
 1 33970 33959 "1" 0 # line from INGRM C. 115.00 (3) to (2) TCHRT_T2 115.00
 1 33970 33965 "1" 0 # line from INGRM C. 115.00 (3) to (2) SALADO J 115.00
 1 33959 33540 "1" 0 # line from TCHRT_T2 115.00 (2) to BRKR TESLA 115.00
 1 33965 33964 "1" 0 # line from SALADO J 115.00 (2) to BRKR SALADO 115.00
 4 33970 0 "1" 0 # LOAD-DROP INGRM C. 115.00 LOAD==3.60(1.74)

0
 #
 #
 # (312) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #

1 33516 33514 "1" 0 # line from RPN JNCN 115.00 (3) to BRKR MANTECA 115.00
 1 33516 33520 "1" 0 # line from RPN JNCN 115.00 (3) to (1) RIPON 115.00
 1 33516 33951 "1" 0 # line from RPN JNCN 115.00 (3) to (3) VLYHMTP1 115.00
 1 33951 33947 "1" 0 # line from VLYHMTP1 115.00 (3) to BRKR RIVRBKJT 115.00
 1 33951 33952 "1" 0 # line from VLYHMTP1 115.00 (3) to (1) VALLY HM 115.00
 4 33520 0 "2" 0 # LOAD-DROP RIPON 115.00 LOAD==29.97(1.34)
 4 33952 0 "1" 0 # LOAD-DROP VALLY HM 115.00 LOAD==5.36(0.24)

0
 #
 #
 # (313) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #

1 33518 33514 "1" 0 # line from VIERRA 115.00 BRKR to BRKR MANTECA 115.00
 0

 #
 # (314) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #

1 33518 33522 "1" 0 # line from VIERRA 115.00 BRKR to (3) CROSRDJT 115.00
 1 33522 33524 "1" 0 # line from CROSRDJT 115.00 (3) to (1) CL AMMNA 115.00
 1 33522 33530 "1" 0 # line from CROSRDJT 115.00 (3) to (3) KSSN-JC2 115.00
 1 33530 33528 "1" 0 # line from KSSN-JC2 115.00 (3) to BRKR KASSON 115.00
 1 33530 33550 "1" 0 # line from KSSN-JC2 115.00 (3) to (2) HJ HEINZ 115.00
 1 33550 33548 "1" 0 # line from HJ HEINZ 115.00 (2) to BRKR TRACY 115.00
 4 33524 0 "1" 0 # LOAD-DROP CL AMMNA 115.00 LOAD==1.68(1.22)

0
 #
 #
 # (315) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #

1 33528 33529 "1" 0 # line from KASSON 115.00 BRKR to BRKR LAMMERS 115.00
 0

 #
 # (316) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #

1 33529 33531 "1" 0 # line from LAMMERS 115.00 BRKR to (3) OWENSTP1 115.00
 1 33531 33532 "1" 0 # line from OWENSTP1 115.00 (3) to (1) OI GLASS 115.00
 1 33531 33549 "1" 0 # line from OWENSTP1 115.00 (3) to BRKR SCHULTE 115.00
 4 33532 0 "1" 0 # LOAD-DROP OI GLASS 115.00 LOAD==11.34(7.03)

0
 #
 #
 # (317) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #

1 33537 33534 "1" 0 # line from SFWY_TP1 115.00 (3) to (1) SAFEWAY 115.00
 1 33537 33549 "1" 0 # line from SFWY_TP1 115.00 (3) to BRKR SCHULTE 115.00
 1 33537 33541 "1" 0 # line from SFWY_TP1 115.00 (3) to (2) AEC_TP1 115.00
 1 33541 33540 "1" 0 # line from AEC_TP1 115.00 (2) to BRKR TESLA 115.00
 4 33534 0 "1" 0 # LOAD-DROP SAFEWAY 115.00 LOAD==5.38(2.76)

0
 #
 #
 # (318) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #

2013 SUMMER CATEGORY "B" CONTINGENCY LIST

1 33540 33544 "1" 0 # line from TESLA 115.00 BRKR to (2) ELLS GTY 115.00
 1 33544 33546 "1" 0 # line from ELLS GTY 115.00 (2) to (2) TRACY JC 115.00
 1 33546 33542 "1" 0 # line from TRACY JC 115.00 (2) to (2) LEPRINO 115.00
 1 33542 33548 "1" 0 # line from LEPRINO 115.00 (2) to BRKR TRACY 115.00
 4 33544 0 "1" 0 # LOAD-DROP ELLS GTY 115.00 LOAD==3.62(1.86)
 4 33542 0 "1" 0 # LOAD-DROP LEPRINO 115.00 LOAD==3.67(2.37)
 0
 #
 #
 # (319) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33540 33568 "1" 0 # line from TESLA 115.00 BRKR to (3) T.H.E.DV. 115.00
 1 33568 33570 "1" 0 # line from T.H.E.DV. 115.00 (3) to (3) SPC JCT. 115.00
 2 33568 33806 "1" 0 # TRAN from T.H.E.DV. 115.00 (3) to (1) T.H.E.DV. 13.80
 1 33570 33587 "1" 0 # line from SPC JCT. 115.00 (3) to (3) P0409TP2 115.00
 1 33570 33956 "1" 0 # line from SPC JCT. 115.00 (3) to (2) SJ COGEN 115.00
 1 33587 33572 "1" 0 # line from P0409TP2 115.00 (3) to (2) SP CMPNY 115.00
 1 33587 33588 "1" 0 # line from P0409TP2 115.00 (3) to (2) P0409CG2 115.00
 2 33572 33810 "1" 0 # TRAN from SP CMPNY 115.00 (2) to (1) SP CMPNY 13.80
 2 33588 33858 "1" 0 # TRAN from P0409CG2 115.00 (2) to (1) P0409CG2 13.80
 2 33956 33808 "1" 0 # TRAN from SJ COGEN 115.00 (2) to (1) SJ COGEN 13.80
 4 33858 0 "ss" 0 # LOAD-DROP P0409CG2 13.80 LOAD==3.34(1.85)
 3 33806 0 "1" 0 # GEN-DROP T.H.E.DV. 13.80 GEN==19.60(6.00)
 3 33810 0 "1" 0 # GEN-DROP SP CMPNY 13.80 GEN==37.70(0.52)
 3 33858 0 "1" 0 # GEN-DROP P0409CG2 13.80 GEN==78.24(5.46)
 3 33808 0 "1" 0 # GEN-DROP SJ COGEN 13.80 GEN==45.20(9.58)
 0
 #
 #
 # (320) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33540 33574 "1" 0 # line from TESLA 115.00 BRKR to (2) LLNL TAP 115.00
 1 33574 37649 "1" 0 # line from LLNL TAP 115.00 (2) to BRKR LLNLAB 115.00
 0
 #
 #
 # (321) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33540 33576 "1" 0 # line from TESLA 115.00 BRKR to (3) USWP-PAT 115.00
 1 33576 33578 "1" 0 # line from USWP-PAT 115.00 (3) to (2) FAYETTE 115.00
 2 33576 33842 "1" 0 # TRAN from USWP-PAT 115.00 (3) to (1) PATTERSN 9.11
 1 33578 33580 "1" 0 # line from FAYETTE 115.00 (2) to (2) ALTENRGY 115.00
 2 33580 33834 "1" 0 # TRAN from ALTENRGY 115.00 (2) to (1) KALINA 9.11
 0
 #
 #
 # (322) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33540 33961 "1" 0 # line from TESLA 115.00 BRKR to (3) TCHRT_T1 115.00
 1 33961 33960 "1" 0 # line from TCHRT_T1 115.00 (3) to (2) MDSTO CN 115.00
 1 33961 33963 "1" 0 # line from TCHRT_T1 115.00 (3) to (2) TCHRTJCT 115.00
 1 33960 33962 "1" 0 # line from MDSTO CN 115.00 (2) to (3) SALDO TP 115.00
 1 33962 33964 "1" 0 # line from SALDO TP 115.00 (3) to BRKR SALADO 115.00
 1 33962 33967 "1" 0 # line from SALDO TP 115.00 (3) to (2) MILLER TP 115.00
 1 33967 33966 "1" 0 # line from MILLER TP 115.00 (2) to (1) MILLER 115.00
 1 33963 33968 "1" 0 # line from TCHRTJCT 115.00 (2) to (1) TEICHERT 115.00
 4 33966 0 "1" 0 # LOAD-DROP MILLER 115.00 LOAD==3.55(1.72)
 4 33968 0 "1" 0 # LOAD-DROP TEICHERT 115.00 LOAD==7.44(6.56)
 0
 #
 #
 # (323) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33551 33549 "1" 0 # line from GWFTRACY 115.00 (4) to BRKR SCHULTE 115.00
 2 33551 33805 "1" 0 # TRAN from GWFTRACY 115.00 (4) to (1) GWFTRCY1 13.80
 2 33551 33807 "1" 0 # TRAN from GWFTRACY 115.00 (4) to (1) GWFTRCY2 13.80
 2 33551 33809 "1" 0 # TRAN from GWFTRACY 115.00 (4) to (1) Q268ST1 13.80
 4 33809 0 "ss" 0 # LOAD-DROP Q268ST1 13.80 LOAD==9.70(5.37)
 3 33805 0 "1" 0 # GEN-DROP GWFTRCY1 13.80 GEN==85.90(18.01)
 3 33807 0 "1" 0 # GEN-DROP GWFTRCY2 13.80 GEN==85.90(18.01)
 3 33809 0 "1" 0 # GEN-DROP Q268ST1 13.80 GEN==154.70(14.72)
 0
 #
 #

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(324) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33552 33553 "1" 0 # line from STCKTNJB 115.00 (2) to BRKR STKTON B 115.00
 1 33552 33558 "1" 0 # line from STCKTNJB 115.00 (2) to (3) LCKFRDJB 115.00
 1 33558 33562 "1" 0 # line from LCKFRDJB 115.00 (3) to BRKR BELLOTA 115.00
 1 33558 33564 "1" 0 # line from LCKFRDJB 115.00 (3) to BRKR LOCKFORD 115.00
 4 33553 0 "3" 0 # LOAD-DROP STKTON B 115.00 LOAD==30.08(1.34)
 1 33555 33553 "1" 1 # Switches in Stockton 'A' SW 177 to transfer load
 4 33553 0 "****" 1 # Restore Load at Stockton 'A' Bk 3
 0

 #
 # (325) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33556 33555 "1" 0 # line from STN COGN 115.00 (3) to (1) STKTON A 115.00
 1 33556 33560 "1" 0 # line from STN COGN 115.00 (3) to (2) LCKFRDJA 115.00
 1 33556 33958 "1" 0 # line from STN COGN 115.00 (3) to (2) CPC STCN 115.00
 1 33560 33562 "1" 0 # line from LCKFRDJA 115.00 (2) to BRKR BELLOTA 115.00
 2 33958 33814 "1" 0 # TRAN from CPC STCN 115.00 (2) to (1) CPC STCN 12.47
 4 33555 0 "4" 0 # LOAD-DROP STKTON A 115.00 LOAD==32.05(1.43)
 4 33555 0 "5" 0 # LOAD-DROP STKTON A 115.00 LOAD==21.46(0.96)
 4 33814 0 "SG" 0 # LOAD-DROP CPC STCN 12.47 LOAD==6.19(1.41)
 3 33814 0 "1" 0 # GEN-DROP CPC STCN 12.47 GEN==49.00(2.53)
 0

 #
 # (326) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33561 33562 "1" 0 # line from BLLTAJCT 115.00 (3) to BRKR BELLOTA 115.00
 1 33561 33564 "1" 0 # line from BLLTAJCT 115.00 (3) to BRKR LOCKFORD 115.00
 1 33561 33565 "1" 0 # line from BLLTAJCT 115.00 (3) to (2) CMNCHETP 115.00
 1 33565 33566 "1" 0 # line from CMNCHETP 115.00 (2) to BRKR CAMANCHE 115.00
 0

 #
 # (327) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33562 33946 "1" 0 # line from BELLOTA 115.00 BRKR to (2) RVRBK J1 115.00
 1 33946 33944 "1" 0 # line from RVRBK J1 115.00 (2) to BRKR RVRBANK 115.00
 0

 #
 # (328) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33562 33950 "1" 0 # line from BELLOTA 115.00 BRKR to (3) RVRBK TP 115.00
 1 33950 33934 "1" 0 # line from RVRBK TP 115.00 (3) to (3) TULLOCH 115.00
 1 33950 33944 "1" 0 # line from RVRBK TP 115.00 (3) to BRKR RVRBANK 115.00
 1 33934 33932 "1" 0 # line from TULLOCH 115.00 (3) to BRKR MELONES 115.00
 2 33934 34076 "1" 0 # TRAN from TULLOCH 115.00 (3) to (1) TULLOCH 6.90
 3 34076 0 "1" 0 # GEN-DROP TULLOCH 6.90 GEN==8.30(1.00)
 3 34076 0 "2" 0 # GEN-DROP TULLOCH 6.90 GEN==8.30(1.00)
 0

 #
 # (329) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33582 33584 "1" 0 # line from SLT SPRG 115.00 BRKR to BRKR TIGR CRK 115.00
 0

 #
 # (330) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33602 33670 "1" 0 # line from NEWARKS 60.00 (2) to BRKR STCKTN A 60.00
 1 33602 33672 "1" 0 # line from NEWARKS 60.00 (2) to (2) CHRTRWYS 60.00
 1 33672 33673 "1" 0 # line from CHRTRWYS 60.00 (2) to (2) CAL CEDA 60.00
 1 33673 33688 "1" 0 # line from CAL CEDA 60.00 (2) to (3) ROB-LRNR 60.00
 1 33688 33687 "1" 0 # line from ROB-LRNR 60.00 (3) to (2) STKTN WW 60.00
 1 33688 33696 "1" 0 # line from ROB-LRNR 60.00 (3) to (3) Q199 60.00
 1 33687 33689 "1" 0 # line from STKTN WW 60.00 (2) to (1) LEARNER 60.00
 1 33696 33690 "1" 0 # line from Q199 60.00 (3) to (2) ROGH-RDY 60.00
 2 33696 33818 "1" 0 # TRAN from Q199 60.00 (3) to (1) Q199 13.80
 1 33690 33692 "1" 0 # line from ROGH-RDY 60.00 (2) to (2) CHANNEL 60.00
 1 33692 33694 "1" 0 # line from CHANNEL 60.00 (2) to (1) CHNNL JT 60.00
 4 33673 0 "1" 0 # LOAD-DROP CAL CEDA 60.00 LOAD==1.49(1.24)

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4 33687 0 "1" 0 # LOAD-DROP STKTN WW 60.00 LOAD==3.61(0.90)
4 33690 0 "1" 0 # LOAD-DROP ROGH-RDY 60.00 LOAD==12.05(0.54)
4 33818 0 "ss" 0 # LOAD-DROP Q199 13.80 LOAD==11.00(6.09)
4 33692 0 "1" 0 # LOAD-DROP CHANNEL 60.00 LOAD==8.49(0.38)
3 33687 0 "1" 0 # GEN-DROP STKTN WW 60.00 GEN==1.50(0.15)
3 33818 0 "1" 0 # GEN-DROP Q199 13.80 GEN==60.50(4.13)
0
#
#
# (331) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33604 33606 "1" 0 # line from WEST PNT 60.00 (2) to (3) P.GRVEJ. 60.00
2 33604 33820 "1" 0 # TRAN from WEST PNT 60.00 (2) to (1) WEST PNT 11.50
1 33606 33607 "1" 0 # line from P.GRVEJ. 60.00 (3) to (2) ELECTRAJ 60.00
1 33606 33608 "1" 0 # line from P.GRVEJ. 60.00 (3) to (1) PNE GRVE 60.00
1 33607 33610 "1" 0 # line from ELECTRAJ 60.00 (2) to BRKR VLLY SPS 60.00
4 33604 0 "1" 0 # LOAD-DROP WEST PNT 60.00 LOAD==4.74(0.21)
4 33604 0 "3" 0 # LOAD-DROP WEST PNT 60.00 LOAD==4.45(0.20)
4 33607 0 "1" 0 # LOAD-DROP ELECTRAJ 60.00 LOAD==10.32(0.47)
4 33608 0 "1" 0 # LOAD-DROP PNE GRVE 60.00 LOAD==8.62(0.39)
4 33608 0 "2" 0 # LOAD-DROP PNE GRVE 60.00 LOAD==10.99(0.49)
3 33820 0 "1" 0 # GEN-DROP WEST PNT 11.50 GEN==13.60(7.00)
0
#
#
# (332) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33610 33612 "1" 0 # line from VLLY SPS 60.00 BRKR to (2) N BRANCH 60.00
1 33612 33614 "1" 0 # line from N BRANCH 60.00 (2) to BRKR CAL CMNT 60.00
4 33612 0 "1" 0 # LOAD-DROP N BRANCH 60.00 LOAD==5.79(0.25)
4 33614 0 "1" 0 # LOAD-DROP CAL CMNT 60.00 LOAD==13.07(0.59)
0
#
#
# (333) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33610 33619 "1" 0 # line from VLLY SPS 60.00 BRKR to (3) AMFOR_SW 60.00
1 33619 33616 "1" 0 # line from AMFOR_SW 60.00 (3) to BRKR MARTELL 60.00
1 33619 33620 "1" 0 # line from AMFOR_SW 60.00 (3) to (1) AM FORST 60.00
4 33616 0 "1" 0 # LOAD-DROP MARTELL 60.00 LOAD==19.52(0.87)
4 33620 0 "1" 0 # LOAD-DROP AM FORST 60.00 LOAD==1.90(1.52)
0
#
#
# (334) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33610 33630 "1" 0 # line from VLLY SPS 60.00 BRKR to (2) PARDEE A 60.00
2 33630 33848 "1" 0 # TRAN from PARDEE A 60.00 (2) to (1) PARDE 2 7.20
3 33848 0 "1" 0 # GEN-DROP PARDE 2 7.20 GEN==8.00(-1.28)
0
#
#
# (335) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33610 33634 "1" 0 # line from VLLY SPS 60.00 BRKR to (3) PRDE JCT 60.00
1 33634 33626 "1" 0 # line from PRDE JCT 60.00 (3) to (3) I.NRGYJT 60.00
2 33634 33846 "1" 0 # TRAN from PRDE JCT 60.00 (3) to (1) PRDE 1-3 7.20
1 33626 33622 "1" 0 # line from I.NRGYJT 60.00 (3) to (2) CLAY 60.00
1 33626 33628 "1" 0 # line from I.NRGYJT 60.00 (3) to (2) I.ENERGY 60.00
1 33622 33623 "1" 0 # line from CLAY 60.00 (2) to (3) INE_TP 60.00
1 33623 33617 "1" 0 # line from INE_TP 60.00 (3) to (1) MARTELTP 60.00
1 33623 33624 "1" 0 # line from INE_TP 60.00 (3) to (1) INE PRSN 60.00
2 33628 33816 "1" 0 # TRAN from I.ENERGY 60.00 (2) to (1) I.ENERGY 12.00
4 33622 0 "1" 0 # LOAD-DROP CLAY 60.00 LOAD==13.69(0.62)
4 33622 0 "2" 0 # LOAD-DROP CLAY 60.00 LOAD==4.09(0.18)
4 33624 0 "1" 0 # LOAD-DROP INE PRSN 60.00 LOAD==12.55(0.56)
3 33846 0 "2" 0 # GEN-DROP PRDE 1-3 7.20 GEN==8.00(2.00)
0
#
#
# (336) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33610 33636 "1" 0 # line from VLLY SPS 60.00 BRKR to (3) N.HGN JT 60.00
1 33636 33638 "1" 0 # line from N.HGN JT 60.00 (3) to (2) N.HOGAN 60.00

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1 33636 33640 "1" 0 # line from N.HGN JT 60.00 (3) to (1) CORRAL 60.00
2 33638 38365 "1" 0 # TRAN from N.HOGAN 60.00 (2) to (1) N.HGN DM 12.00
4 33640 0 "1" 0 # LOAD-DROP CORRAL 60.00 LOAD==12.60(0.56)
4 33640 0 "2" 0 # LOAD-DROP CORRAL 60.00 LOAD==16.59(0.74)
3 38365 0 "1" 0 # GEN-DROP N.HGN DM 12.00 GEN==1.50(0.68)
3 38365 0 "2" 0 # GEN-DROP N.HGN DM 12.00 GEN==1.50(0.68)
0
#
#
# (337) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33642 33644 "1" 0 # line from LINDEN 60.00 (1) to (2) MRMN JCT 60.00
1 33644 33646 "1" 0 # line from MRMN JCT 60.00 (2) to (2) MORMON 60.00
1 33646 33650 "1" 0 # line from MORMON 60.00 (2) to BRKR WEBER 1 60.00
4 33642 0 "1" 0 # LOAD-DROP LINDEN 60.00 LOAD==18.79(0.84)
4 33646 0 "1" 0 # LOAD-DROP MORMON 60.00 LOAD==19.10(0.85)
1 33642 33640 "1" 1 # Switches in Linden SW 27 to transfer load
4 33642 0 "" 1 # Restore Load and Linden
0
#
#
# (338) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33654 33664 "1" 0 # line from SNTA FEA 60.00 (3) to (2) LIPTON 60.00
1 33654 33670 "1" 0 # line from SNTA FEA 60.00 (3) to BRKR STCKTN A 60.00
1 33654 33662 "1" 0 # line from SNTA FEA 60.00 (3) to BRKR WEBER 2 60.00
1 33664 33666 "1" 0 # line from LIPTON 60.00 (2) to (2) CHEROKEE 60.00
1 33666 33668 "1" 0 # line from CHEROKEE 60.00 (2) to (1) WATERLOO 60.00
4 33664 0 "1" 0 # LOAD-DROP LIPTON 60.00 LOAD==3.53(2.56)
4 33666 0 "1" 0 # LOAD-DROP CHEROKEE 60.00 LOAD==10.46(0.47)
4 33668 0 "2" 0 # LOAD-DROP WATERLOO 60.00 LOAD==11.35(0.51)
0
#
#
# (339) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33658 33670 "1" 0 # line from SNTA FEB 60.00 (3) to BRKR STCKTN A 60.00
1 33658 33678 "1" 0 # line from SNTA FEB 60.00 (3) to (2) MONARCH 60.00
1 33658 33662 "1" 0 # line from SNTA FEB 60.00 (3) to BRKR WEBER 2 60.00
1 33678 33684 "1" 0 # line from MONARCH 60.00 (2) to (2) HARDING 60.00
1 33684 33686 "1" 0 # line from HARDING 60.00 (2) to (1) STCKTNAR 60.00
4 33678 0 "2" 0 # LOAD-DROP MONARCH 60.00 LOAD==4.13(0.18)
4 33684 0 "1" 0 # LOAD-DROP HARDING 60.00 LOAD==4.75(0.21)
4 33684 0 "2" 0 # LOAD-DROP HARDING 60.00 LOAD==5.28(0.24)
4 33686 0 "1" 0 # LOAD-DROP STCKTNAR 60.00 LOAD==4.10(0.18)
0
#
#
# (340) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33662 33674 "1" 0 # line from WEBER 2 60.00 BRKR to (4) HAZLTN J 60.00
1 33674 33670 "1" 0 # line from HAZLTN J 60.00 (4) to BRKR STCKTN A 60.00
1 33674 33676 "1" 0 # line from HAZLTN J 60.00 (4) to (1) E.STCKTN 60.00
1 33674 33681 "1" 0 # line from HAZLTN J 60.00 (4) to (2) N.ST_SW 60.00
1 33681 33682 "1" 0 # line from N.ST_SW 60.00 (2) to (2) SUMIDEN 60.00
1 33682 33680 "1" 0 # line from SUMIDEN 60.00 (2) to (2) OAK PARK 60.00
1 33680 33712 "1" 0 # line from OAK PARK 60.00 (2) to (1) WESTLANE 60.00
4 33676 0 "1" 0 # LOAD-DROP E.STCKTN 60.00 LOAD==6.33(0.28)
4 33676 0 "3" 0 # LOAD-DROP E.STCKTN 60.00 LOAD==14.01(0.62)
4 33682 0 "1" 0 # LOAD-DROP SUMIDEN 60.00 LOAD==3.71(2.59)
4 33680 0 "1" 0 # LOAD-DROP OAK PARK 60.00 LOAD==2.44(0.11)
4 33712 0 "1" 0 # LOAD-DROP WESTLANE 60.00 LOAD==18.08(0.81)
0
#
#
# (341) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33693 33704 "1" 0 # line from STAGG JT 60.00 (2) to BRKR STAGG 60.00
1 33693 33719 "1" 0 # line from STAGG JT 60.00 (2) to (3) TERMNS J 60.00
1 33719 33720 "1" 0 # line from TERMNS J 60.00 (3) to (1) TERMNOUS 60.00
1 33719 33721 "1" 0 # line from TERMNS J 60.00 (3) to (2) SEBASTIA 60.00
1 33721 33722 "1" 0 # line from SEBASTIA 60.00 (2) to (2) NW HPE J 60.00
1 33722 33723 "1" 0 # line from NW HPE J 60.00 (2) to (1) NEW HOPE 60.00
4 33720 0 "1" 0 # LOAD-DROP TERMNOUS 60.00 LOAD==4.85(0.22)

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4 33721 0 "1" 0 # LOAD-DROP SEBASTIA 60.00 LOAD==2.82(2.12)
 4 33723 0 "1" 0 # LOAD-DROP NEW HOPE 60.00 LOAD==2.74(0.12)
 0
 #
 #
 # (342) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33703 33702 "1" 0 # line from LOUISJCT 60.00 (3) to (1) GRONMYER 60.00
 1 33703 33746 "1" 0 # line from LOUISJCT 60.00 (3) to BRKR LOUISE 60.00
 1 33703 33742 "1" 0 # line from LOUISJCT 60.00 (3) to BRKR MANTECA 60.00
 4 33702 0 "1" 0 # LOAD-DROP GRONMYER 60.00 LOAD==4.20(0.96)
 0
 #
 #
 # (343) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33704 33706 "1" 0 # line from STAGG 60.00 BRKR to BRKR CNTRY CB 60.00
 0
 #
 #
 # (344) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33704 33706 "2" 0 # line from STAGG 60.00 BRKR to BRKR CNTRY CB 60.00
 0
 #
 #
 # (345) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33704 33714 "1" 0 # line from STAGG 60.00 BRKR to BRKR HAMMER 60.00
 0
 #
 #
 # (346) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33706 33708 "1" 0 # line from CNTRY CB 60.00 BRKR to (2) UOP 60.00
 1 33708 33710 "1" 0 # line from UOP 60.00 (2) to (2) WSTLNESW 60.00
 1 33710 33716 "1" 0 # line from WSTLNESW 60.00 (2) to (3) HMMR JCT 60.00
 1 33716 33714 "1" 0 # line from HMMR JCT 60.00 (3) to BRKR HAMMER 60.00
 1 33716 33717 "1" 0 # line from HMMR JCT 60.00 (3) to (3) MORADAJT 60.00
 1 33717 33718 "1" 0 # line from MORADAJT 60.00 (3) to (1) METTLER 60.00
 1 33717 33740 "1" 0 # line from MORADAJT 60.00 (3) to BRKR MSHR 60V 60.00
 4 33708 0 "1" 0 # LOAD-DROP UOP 60.00 LOAD==5.99(4.18)
 4 33718 0 "3" 0 # LOAD-DROP METTLER 60.00 LOAD==8.41(0.38)
 4 33740 0 "1" 0 # LOAD-DROP MSHR 60V 60.00 LOAD==20.34(0.91)
 4 33740 0 "2" 0 # LOAD-DROP MSHR 60V 60.00 LOAD==33.96(1.52)
 1 33738 33740 "1" 1 # Switch in Mosher SW 67 to transfer load
 4 33740 0 "2" 1 # Restore Mosher Bank 2 load
 0
 #
 #
 # (347) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33724 33726 "1" 0 # line from LOCKEFRD 60.00 BRKR to (2) VICTOR 60.00
 1 33726 33731 "1" 0 # line from VICTOR 60.00 (2) to (2) WODBRG J 60.00
 1 33731 33735 "1" 0 # line from WODBRG J 60.00 (2) to (2) INDSTR J 60.00
 1 33735 38060 "1" 0 # line from INDSTR J 60.00 (2) to BRKR INDUSTRIL 60.00
 4 33726 0 "1" 0 # LOAD-DROP VICTOR 60.00 LOAD==0.21(0.01)
 4 33726 0 "2" 0 # LOAD-DROP VICTOR 60.00 LOAD==3.54(0.16)
 0
 #
 #
 # (348) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33724 33738 "1" 0 # line from LOCKEFRD 60.00 BRKR to (1) WATRLJCT 60.00
 0
 #
 #
 # (349) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33724 38060 "1" 0 # line from LOCKEFRD 60.00 BRKR to BRKR INDUSTRIL 60.00
 0
 #
 #
 # (350) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

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#
1 33725 33732 "1" 0 # line from LOCKFRD1 60.00 BRKR to (2) COLONY 60.00
1 33732 33734 "1" 0 # line from COLONY 60.00 (2) to (2) CLNY JCT 60.00
1 33734 33728 "1" 0 # line from CLNY JCT 60.00 (2) to BRKR LODI 60.00
4 33732 0 "2" 0 # LOAD-DROP COLONY 60.00 LOAD==4.67(0.21)
0
#
#
# (351) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33728 33729 "1" 0 # line from LODI 60.00 BRKR to BRKR LODI AUX 60.00
0
#
#
# (352) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33737 33727 "1" 0 # line from WINERY J 60.00 (2) to (1) MONDAVI 60.00
1 33737 33728 "1" 0 # line from WINERY J 60.00 (2) to BRKR LODI 60.00
4 33727 0 "1" 0 # LOAD-DROP MONDAVI 60.00 LOAD==2.48(2.06)
0
#
#
# (353) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33743 33742 "1" 0 # line from LEE_JCT 60.00 (2) to BRKR MANTECA 60.00
1 33743 33766 "1" 0 # line from LEE_JCT 60.00 (2) to (2) MNTCA JT 60.00
1 33766 33768 "1" 0 # line from MNTCA JT 60.00 (2) to (2) BNTA CRB 60.00
1 33768 34000 "1" 0 # line from BNTA CRB 60.00 (2) to (1) WESTLEY 60.00
4 33768 0 "1" 0 # LOAD-DROP BNTA CRB 60.00 LOAD==3.34(0.76)
4 34000 0 "1" 0 # LOAD-DROP WESTLEY 60.00 LOAD==12.45(0.55)
4 34000 0 "3" 0 # LOAD-DROP WESTLEY 60.00 LOAD==4.01(0.18)
1 33742 33752 "1" 0 # Must include Manteca - Lanthrop Jct in this outage
0
#
#
# (354) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33746 33748 "1" 0 # line from LOUISE 60.00 BRKR to (2) MSSDLESW 60.00
1 33748 33750 "1" 0 # line from MSSDLESW 60.00 (2) to (2) CALVO 60.00
1 33750 33756 "1" 0 # line from CALVO 60.00 (2) to BRKR KASSON 60.00
4 33750 0 "1" 0 # LOAD-DROP CALVO 60.00 LOAD==1.70(1.01)
0
#
#
# (355) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33756 33758 "1" 0 # line from KASSON 60.00 BRKR to BRKR BANTA 60.00
4 33758 0 "1" 0 # LOAD-DROP BANTA 60.00 LOAD==7.14(0.32)
0
#
#
# (356) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33756 33760 "1" 0 # line from KASSON 60.00 BRKR to (3) BNTA JCT 60.00
1 33760 33762 "1" 0 # line from BNTA JCT 60.00 (3) to (2) LYOTH-SP 60.00
1 33760 33764 "1" 0 # line from BNTA JCT 60.00 (3) to (1) CARBONA 60.00
1 33762 33763 "1" 0 # line from LYOTH-SP 60.00 (2) to (1) CRBNA JC 60.00
4 33762 0 "1" 0 # LOAD-DROP LYOTH-SP 60.00 LOAD==3.00(0.68)
4 33764 0 "1" 0 # LOAD-DROP CARBONA 60.00 LOAD==24.58(1.10)
4 33764 0 "2" 0 # LOAD-DROP CARBONA 60.00 LOAD==7.60(0.34)
0
#
#
# (357) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33770 33772 "1" 0 # line from HERDLYN 60.00 BRKR to (2) B.BTHNY- 60.00
1 33772 33773 "1" 0 # line from B.BTHNY- 60.00 (2) to (2) ALTA-CGE 60.00
1 33773 33775 "1" 0 # line from ALTA-CGE 60.00 (2) to (2) TOSCO-PP 60.00
1 33775 33776 "1" 0 # line from TOSCO-PP 60.00 (2) to (2) SOUTH BY 60.00
1 33776 35202 "1" 0 # line from SOUTH BY 60.00 (2) to (3) USWP-WKR 60.00
1 35202 35211 "1" 0 # line from USWP-WKR 60.00 (3) to (1) ALTAMONT 60.00
2 35202 35314 "1" 0 # TRAN from USWP-WKR 60.00 (3) to (1) WALKER+ 9.11
4 33772 0 "1" 0 # LOAD-DROP B.BTHNY- 60.00 LOAD==1.94(0.44)
4 33775 0 "1" 0 # LOAD-DROP TOSCO-PP 60.00 LOAD==0.98(0.89)

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4 33776 0 "1" 0 # LOAD-DROP SOUTH BY 60.00 LOAD==23.00(0.00)
3 33773 0 "1" 0 # GEN-DROP ALTA-CGE 60.00 GEN==4.00(-1.00)
0
#
#
# (358) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33900 33902 "1" 0 # line from DONNELLS 115.00 (2) to (3) BRDSLY J 115.00
2 33900 34058 "1" 0 # TRAN from DONNELLS 115.00 (2) to (1) DONNELLS 13.80
1 33902 33904 "1" 0 # line from BRDSLY J 115.00 (3) to (2) BEARDSLY 115.00
1 33902 33912 "1" 0 # line from BRDSLY J 115.00 (3) to (3) SPRNG GJ 115.00
2 33904 34074 "1" 0 # TRAN from BEARDSLY 115.00 (2) to (1) BEARDSLY 6.90
1 33912 33910 "1" 0 # line from SPRNG GJ 115.00 (3) to (3) SNDBR JT 115.00
1 33912 33914 "1" 0 # line from SPRNG GJ 115.00 (3) to (2) MI-WUK 115.00
1 33910 33906 "1" 0 # line from SNDBR JT 115.00 (3) to BRKR SPRNG GP 115.00
1 33910 33908 "1" 0 # line from SNDBR JT 115.00 (3) to (2) SANDBAR 115.00
2 33908 34060 "1" 0 # TRAN from SANDBAR 115.00 (2) to (1) SANDBAR 13.80
1 33914 33917 "1" 0 # line from MI-WUK 115.00 (2) to (2) FBERBORD 115.00
1 33917 33916 "1" 0 # line from FBERBORD 115.00 (2) to BRKR CURTISS 115.00
4 33914 0 "1" 0 # LOAD-DROP MI-WUK 115.00 LOAD==12.04(0.54)
4 33917 0 "SG" 0 # LOAD-DROP FBERBORD 115.00 LOAD==2.25(0.51)
3 34058 0 "1" 0 # GEN-DROP DONNELLS 13.80 GEN==64.20(-0.09)
3 34074 0 "1" 0 # GEN-DROP BEARDSLY 6.90 GEN==10.60(2.00)
3 34060 0 "1" 0 # GEN-DROP SANDBAR 13.80 GEN==14.70(7.50)
3 33917 0 "1" 0 # GEN-DROP FBERBORD 115.00 GEN==3.20(-2.21)
0
#
#
# (359) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33916 33920 "1" 0 # line from CURTISS 115.00 BRKR to (2) RCTRK J. 115.00
1 33920 33926 "1" 0 # line from RCTRK J. 115.00 (2) to (3) CH.STNJ 115.00
1 33926 33928 "1" 0 # line from CH.STNJ 115.00 (3) to (2) CH.STN 115.00
1 33926 33930 "1" 0 # line from CH.STNJ 115.00 (3) to (2) PEORIA 115.00
2 33928 34050 "1" 0 # TRAN from CH.STN 115.00 (2) to (1) CH.STN. 13.80
1 33930 33932 "1" 0 # line from PEORIA 115.00 (2) to BRKR MELONES 115.00
4 33928 0 "SP" 0 # LOAD-DROP CH.STN 115.00 LOAD==2.81(0.64)
4 33930 0 "1" 0 # LOAD-DROP PEORIA 115.00 LOAD==26.77(1.19)
3 34050 0 "1" 0 # GEN-DROP CH.STN. 13.80 GEN==10.00(11.00)
0
#
#
# (360) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33932 33922 "1" 0 # line from MELONES 115.00 BRKR to (1) R.TRACK 115.00
4 33922 0 "1" 0 # LOAD-DROP R.TRACK 115.00 LOAD==17.06(0.76)
0
#
#
# (361) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34002 34004 "1" 0 # line from SALADO 60.00 BRKR to (2) PTRSNFRZ 60.00
1 34004 34006 "1" 0 # line from PTRSNFRZ 60.00 (2) to BRKR PATTERSN 60.00
0
#
#
# (362) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34002 34008 "1" 0 # line from SALADO 60.00 BRKR to (3) STNSLSRP 60.00
1 34008 34016 "1" 0 # line from STNSLSRP 60.00 (3) to (2) MEDLIN J 60.00
2 34008 34056 "1" 0 # TRAN from STNSLSRP 60.00 (3) to (1) STNSLSRP 13.80
1 34016 34018 "1" 0 # line from MEDLIN J 60.00 (2) to (3) NWMN JCT 60.00
1 34018 34014 "1" 0 # line from NWMN JCT 60.00 (3) to BRKR NEWMAN 60.00
1 34018 34020 "1" 0 # line from NWMN JCT 60.00 (3) to (1) GUSTINE 60.00
4 34020 0 "1" 0 # LOAD-DROP GUSTINE 60.00 LOAD==9.90(0.44)
4 34020 0 "2" 0 # LOAD-DROP GUSTINE 60.00 LOAD==10.83(0.49)
3 34056 0 "1" 0 # GEN-DROP STNSLSRP 13.80 GEN==16.30(6.29)
1 34012 34020 "1" 1 # Switches in Gustine SW 19 to transfer load
4 34020 0 "" 1 # Restore Load at Gustine
0
#
#
# (363) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#

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2013 SUMMER CATEGORY "B" CONTINGENCY LIST

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1 34006 34010 "1" 0 # line from PATTERSN 60.00 BRKR to (3) CRWS LDJ 60.00
1 34010 34012 "1" 0 # line from CRWS LDJ 60.00 (3) to (2) GUSTN JT 60.00
1 34010 34017 "1" 0 # line from CRWS LDJ 60.00 (3) to (1) CRWS LDG 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==3.92(0.18)
1 34016 34017 "1" 1 # Switches in Crows Landing SW 57 to transfer load
4 34017 0 "" 1 # Restore Load at Crows Landing
0
#
#
# (364) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 37016 30500 "1" 0 # line from RNCHSECO 230.00 BRKR to BRKR BELLOTA 230.00
0
#
#
# (365) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 37016 30500 "2" 0 # line from RNCHSECO 230.00 BRKR to BRKR BELLOTA 230.00
0
#
#
# (366) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 38000 30622 "1" 0 # line from LODI 230.00 BRKR to BRKR EIGHT MI 230.00
0
#
#
# (367) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 38060 33729 "1" 0 # line from INDUSTRIAL 60.00 BRKR to BRKR LODI AUX 60.00
0
#
#
# (368) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 38060 33730 "1" 0 # line from INDUSTRIAL 60.00 BRKR to (2) GENMILLS 60.00
2 33730 33830 "1" 0 # TRAN from GENMILLS 60.00 (2) to (1) GEN.MILL 9.11
3 33830 0 "1" 0 # GEN-DROP GEN.MILL 9.11 GEN==2.50(1.50)
0
#
#
# (369) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 30485 30486 "1" 0 # TRAN from TIGR CRK 230.00 (3) to (3) TIGR CKM 230.00
1 30485 30487 "1" 0 # line from TIGR CRK 230.00 BRKR to BRKR ELECTRA 230.00
1 30485 30490 "1" 0 # line from TIGR CRK 230.00 BRKR to BRKR VLLY SPS 230.00
2 30486 33584 "1" 0 # TRAN from TIGR CKM 230.00 (3) to (2) TIGR CRK 115.00
2 30486 33822 "1" 0 # TRAN from TIGR CKM 230.00 (3) to (1) TIGR CRK 11.00
1 33584 33582 "1" 0 # line from TIGR CRK 115.00 BRKR to BRKR SLT SPRG 115.00
4 33822 0 "1" 0 # LOAD-DROP TIGR CRK 11.00 LOAD==0.20(0.00)
3 33822 0 "1" 0 # GEN-DROP TIGR CRK 11.00 GEN==26.70(8.10)
3 33822 0 "2" 0 # GEN-DROP TIGR CRK 11.00 GEN==27.00(8.19)
0
#
#
# (370) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 30487 33812 "1" 0 # TRAN from ELECTRA 230.00 (3) to (1) ELECTRA 13.80
1 30487 30485 "1" 0 # line from ELECTRA 230.00 BRKR to BRKR TIGR CRK 230.00
1 30487 30500 "1" 0 # line from ELECTRA 230.00 BRKR to BRKR BELLOTA 230.00
4 33812 0 "1" 0 # LOAD-DROP ELECTRA 13.80 LOAD==14.20(2.49)
3 33812 0 "1" 0 # GEN-DROP ELECTRA 13.80 GEN==29.00(12.37)
3 33812 0 "2" 0 # GEN-DROP ELECTRA 13.80 GEN==29.00(12.37)
3 33812 0 "3" 0 # GEN-DROP ELECTRA 13.80 GEN==29.00(12.37)
0
#
#
# (371) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 30500 30501 "1" 0 # TRAN from BELLOTA 230.00 BRKR to (3) BLLTA 1M 230.00
2 30501 33562 "1" 0 # TRAN from BLLTA 1M 230.00 (3) to BRKR BELLOTA 115.00
2 30501 33804 "1" 0 # TRAN from BLLTA 1M 230.00 (3) to (1) BELLTA T 13.80
0

```


2013 SUMMER CATEGORY "B" CONTINGENCY LIST

(372) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

**** 3-WINDING TRANSFORMER 30624 (33852) 30040 33802 :
2 30624 30040 "2" 0 # TRAN from TESLA E 230.00 BRKR to (1) TESLA 500.00
0

(373) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 30625 30040 "4" 0 # TRAN from TESLA D 230.00 BRKR to BRKR TESLA 500.00
0

(374) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 30640 30040 "6" 0 # TRAN from TESLA C 230.00 BRKR to BRKR TESLA 500.00
0

(375) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 33540 30625 "1" 0 # TRAN from TESLA 115.00 BRKR to BRKR TESLA D 230.00
0

(376) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 33540 30625 "3" 0 # TRAN from TESLA 115.00 BRKR to BRKR TESLA D 230.00
0

(377) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 33562 30500 "2" 0 # TRAN from BELLOTA 115.00 BRKR to BRKR BELLOTA 230.00
0

(378) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 33610 30490 "1" 0 # TRAN from VLLY SPS 60.00 BRKR to (3) VLLY SPS 230.00
1 30490 30485 "1" 0 # line from VLLY SPS 230.00 BRKR to BRKR TIGR CRK 230.00
1 30490 30500 "1" 0 # line from VLLY SPS 230.00 BRKR to BRKR BELLOTA 230.00
0

(379) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 33650 30505 "1" 0 # TRAN from WEBER 1 60.00 BRKR to BRKR WEBER 230.00
0

(380) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 33662 30505 "2" 0 # TRAN from WEBER 2 60.00 BRKR to BRKR WEBER 230.00
2 33662 30505 "2a" 0 # Bank 2 or 2a are tied to same breaker (CB 242,202&82)
0

(381) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 33704 30498 "1" 0 # TRAN from STAGG 60.00 BRKR to BRKR STAGG-D 230.00
0

(382) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 33704 30499 "4" 0 # TRAN from STAGG 60.00 BRKR to BRKR STAGG-E 230.00
1 30499 30489 "1" 0 #Open Stagg-E-Stagg Jct2 line section
0

(383) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2013 SUMMER CATEGORY "B" CONTINGENCY LIST

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#
2 33724 30482 "2" 0 # TRAN from LOCKEFRD 60.00 BRKR to BRKR LOCKFORD 230.00
0
#
#
# (384) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 33724 30482 "3" 0 # TRAN from LOCKEFRD 60.00 BRKR to BRKR LOCKFORD 230.00
0
#
#
# (385) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 33742 33514 "3" 0 # TRAN from MANTECA 60.00 BRKR to BRKR MANTECA 115.00
0
#
#
# (386) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 33756 33528 "1" 0 # TRAN from KASSON 60.00 (4) to BRKR KASSON 115.00
1 33756 33750 "1" 0 # line from KASSON 60.00 BRKR to (1) CALVO 60.00
1 33756 33758 "1" 0 # line from KASSON 60.00 BRKR to BRKR BANTA 60.00
1 33756 33760 "1" 0 # line from KASSON 60.00 BRKR to (1) BNTA JCT 60.00
4 33758 0 "1" 0 # LOAD-DROP BANTA 60.00 LOAD==7.14(0.32)
0
#
#
# (387) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 33770 33600 "2" 0 # TRAN from HERDLYN 60.00 BRKR to BRKR HERDLYN 70.00
1 33770 33772 "1" 0 #Open Herdlyn-Byron Bethany line section
1 33770 33774 "1" 0 #Open Herdlyn-Herdlyn Jct line section
4 33770 0 "****" 0 #Drop Herdlyn 60 kV load with outage
1 33600 37582 "1" 0 #Open Herdlyn-Tracy 70 kV Line section
0
#
#
# (388) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 33800 33582 "1" 0 # TRAN from SALT SPS 21.00 (2) to (2) SLT SPRG 115.00
1 33800 38100 "1" 0 # line from SALT SPS 21.00 BRKR to (1) SPICER 21.00
1 33582 33584 "1" 0 # line from SLT SPRG 115.00 BRKR to BRKR TIGR CRK 115.00
4 33800 0 "1" 0 # LOAD-DROP SALT SPS 21.00 LOAD==12.04(0.54)
3 33800 0 "1" 0 # GEN-DROP SALT SPS 21.00 GEN==10.20(3.00)
3 33800 0 "2" 0 # GEN-DROP SALT SPS 21.00 GEN==32.00(12.40)
0
#
#
# (389) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 33850 33566 "1" 0 # TRAN from CAMANCHE 4.16 (1) to BRKR CAMANCHE 115.00
3 33850 0 "1" 0 # GEN-DROP CAMANCHE 4.16 GEN==3.50(1.41)
3 33850 0 "2" 0 # GEN-DROP CAMANCHE 4.16 GEN==3.50(0.00)
3 33850 0 "3" 0 # GEN-DROP CAMANCHE 4.16 GEN==3.50(0.00)
0
#
#
# (390) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 33906 34078 "1" 0 # TRAN from SPRNG GP 115.00 BRKR to (1) SPRNG GP 6.00
3 34078 0 "1" 0 # GEN-DROP SPRNG GP 6.00 GEN==3.90(3.70)
4 33906 0 "****" 0 # This outage will also drop distribution load Bk1
0
#
#
# (391) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34002 33964 "1" 0 # TRAN from SALADO 60.00 BRKR to (3) SALADO 115.00
1 33964 33962 "1" 0 # line from SALADO 115.00 BRKR to (1) SALDO TP 115.00
1 33964 33965 "1" 0 # line from SALADO 115.00 BRKR to (1) SALADO J 115.00
0
#
#
# (392) B1 GENERATOR OUTAGE

```

2013 SUMMER CATEGORY "B" CONTINGENCY LIST

```

#
3 33687 0 "1" 0 # STKTN WW 60.00 PGEN=1.50 QGEN=0.15
0
#
#
# (393) B1 GENERATOR OUTAGE
#
3 33773 0 "1" 0 # ALTA-CGE 60.00 PGEN=4.03 QGEN=-1.00
0
#
#
# (394) B1 GENERATOR OUTAGE
#
3 33800 0 "1" 0 # SALT SPS 21.00 PGEN=10.18 QGEN=3.00
0
#
#
# (395) B1 GENERATOR OUTAGE
#
3 33800 0 "2" 0 # SALT SPS 21.00 PGEN=32.00 QGEN=12.40
0
#
#
# (396) B1 GENERATOR OUTAGE
#
3 33804 0 "1" 0 # BELLTA T 13.80 PGEN=0.00 QGEN=39.35
0
#
#
# (397) B1 GENERATOR OUTAGE
#
3 33805 0 "1" 0 # GWFTRCY1 13.80 PGEN=85.90 QGEN=17.66
0
#
#
# (398) B1 GENERATOR OUTAGE
#
3 33806 0 "1" 0 # TH.E.DV. 13.80 PGEN=19.65 QGEN=6.00
0
#
#
# (399) B1 GENERATOR OUTAGE
#
3 33807 0 "1" 0 # GWFTRCY2 13.80 PGEN=85.90 QGEN=17.66
0
#
#
# (400) B1 GENERATOR OUTAGE
#
3 33808 0 "1" 0 # SJ COGEN 13.80 PGEN=45.24 QGEN=27.41
0
#
#
# (401) B1 GENERATOR OUTAGE
#
3 33810 0 "1" 0 # SP CMPNY 13.80 PGEN=37.70 QGEN=16.07
0
#
#
# (402) B1 GENERATOR OUTAGE
#
3 33812 0 "1" 0 # ELECTRA 13.80 PGEN=29.00 QGEN=8.65
0
#
#
# (403) B1 GENERATOR OUTAGE
#
3 33812 0 "2" 0 # ELECTRA 13.80 PGEN=29.00 QGEN=8.65
0
#
#
# (404) B1 GENERATOR OUTAGE
#
3 33812 0 "3" 0 # ELECTRA 13.80 PGEN=29.00 QGEN=8.65

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2013 SUMMER CATEGORY "B" CONTINGENCY LIST

```

0
#
#
# (405) B1 GENERATOR OUTAGE
#
3 33814 0 "1" 0 # CPC STCN 12.47 PGEN=49.00 QGEN=15.30
0
#
#
# (406) B1 GENERATOR OUTAGE
#
3 33820 0 "1" 0 # WEST PNT 11.50 PGEN=13.60 QGEN=7.00
0
#
#
# (407) B1 GENERATOR OUTAGE
#
3 33822 0 "1" 0 # TIGR CRK 11.00 PGEN=26.70 QGEN=4.18
0
#
#
# (408) B1 GENERATOR OUTAGE
#
3 33822 0 "2" 0 # TIGR CRK 11.00 PGEN=27.00 QGEN=4.23
0
#
#
# (409) B1 GENERATOR OUTAGE
#
3 33830 0 "1" 0 # GEN.MILL 9.11 PGEN=2.50 QGEN=1.50
0
#
#
# (410) B1 GENERATOR OUTAGE
#
3 33832 0 "1" 0 # COG.CAPT 9.11 PGEN=4.30 QGEN=6.60
0
#
#
# (411) B1 GENERATOR OUTAGE
#
3 33836 0 "3" 0 # USWP_#4 9.11 PGEN=4.50 QGEN=0.00
0
#
#
# (412) B1 GENERATOR OUTAGE
#
3 33840 0 "1" 0 # FLOWD3-6 9.11 PGEN=1.25 QGEN=0.00
0
#
#
# (413) B1 GENERATOR OUTAGE
#
3 33840 0 "4" 0 # FLOWD3-6 9.11 PGEN=1.13 QGEN=0.00
0
#
#
# (414) B1 GENERATOR OUTAGE
#
3 33846 0 "2" 0 # PRDE 1-3 7.20 PGEN=8.00 QGEN=2.00
0
#
#
# (415) B1 GENERATOR OUTAGE
#
3 33848 0 "1" 0 # PARDE 2 7.20 PGEN=8.00 QGEN=-1.50
0
#
#
# (416) B1 GENERATOR OUTAGE
#
3 33850 0 "1" 0 # CAMANCHE 4.16 PGEN=3.50 QGEN=-2.00
0
#

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2013 SUMMER CATEGORY "B" CONTINGENCY LIST

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#
# (417) B1 GENERATOR OUTAGE
#
3 33850 0 "2" 0 # CAMANCHE 4.16 PGEN=3.50 QGEN=0.00
0
#
#
# (418) B1 GENERATOR OUTAGE
#
3 33850 0 "3" 0 # CAMANCHE 4.16 PGEN=3.50 QGEN=0.00
0
#
#
# (419) B1 GENERATOR OUTAGE
#
3 34050 0 "1" 0 # CH.STN. 13.80 PGEN=10.02 QGEN=10.00
0
#
#
# (420) B1 GENERATOR OUTAGE
#
3 34056 0 "1" 0 # STNSLSRP 13.80 PGEN=16.27 QGEN=7.52
0
#
#
# (421) B1 GENERATOR OUTAGE
#
3 34058 0 "1" 0 # DONNELLS 13.80 PGEN=64.15 QGEN=10.63
0
#
#
# (422) B1 GENERATOR OUTAGE
#
3 34060 0 "1" 0 # SANDBAR 13.80 PGEN=14.68 QGEN=0.96
0
#
#
# (423) B1 GENERATOR OUTAGE
#
3 34062 0 "1" 0 # STANISLS 13.80 PGEN=63.92 QGEN=15.00
0
#
#
# (424) B1 GENERATOR OUTAGE
#
3 34074 0 "1" 0 # BEARDSLY 6.90 PGEN=10.58 QGEN=0.58
0
#
#
# (425) B1 GENERATOR OUTAGE
#
3 34076 0 "1" 0 # TULLOCH 6.90 PGEN=8.25 QGEN=0.64
0
#
#
# (426) B1 GENERATOR OUTAGE
#
3 34076 0 "2" 0 # TULLOCH 6.90 PGEN=8.25 QGEN=0.64
0
#
#
# (427) B1 GENERATOR OUTAGE
#
3 34078 0 "1" 0 # SPRNG GP 6.00 PGEN=3.93 QGEN=1.41
0
#
#
# (428) B1 GENERATOR OUTAGE
#
3 38102 0 "1" 0 # COLLRVL1 13.80 PGEN=89.35 QGEN=58.46
0
#
#
# (429) B1 GENERATOR OUTAGE

```

2013 SUMMER CATEGORY "B" CONTINGENCY LIST

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#
3 38104 0 "1" 0 # COLLRVL2 13.80 PGEN=89.35 QGEN=58.46
0
#
#
# (430) B1 GENERATOR OUTAGE
#
3 38365 0 "1" 0 # N.HGN DM 12.00 PGEN=1.50 QGEN=0.10
0
#
#
# (431) B1 GENERATOR OUTAGE
#
3 38365 0 "2" 0 # N.HGN DM 12.00 PGEN=1.50 QGEN=0.10
0
#
#
# (432) B1 GENERATOR OUTAGE
#
3 33818 0 "1" 0 # Q199 13.80 PGEN=60.50 QGEN=4.13
0
#
#
# (433) B1 GENERATOR OUTAGE
#
3 33858 0 "1" 0 # P0409CG2 13.80 PGEN=78.24 QGEN=5.46
0
#
#
# (434) B1 GENERATOR OUTAGE
#
3 33859 0 "2" 0 # P0703ST2 13.80 PGEN=65.28 QGEN=3.31
0
#
#
# (435) B1 GENERATOR OUTAGE
#
3 33863 0 "1" 0 # Q235GT1 13.80 PGEN=109.00 QGEN=14.62
0
#
#
# (436) B1 GENERATOR OUTAGE
#
3 33871 0 "1" 0 # Q236GT1 13.80 PGEN=109.00 QGEN=12.29
0
#
#
# (437) B1 GENERATOR OUTAGE
#
3 33877 0 "1" 0 # Q260CT1 18.00 PGEN=174.00 QGEN=26.16
0
#
#
# (438) B1 GENERATOR OUTAGE
#
3 33878 0 "1" 0 # Q260ST1 13.80 PGEN=94.00 QGEN=12.26
0
#
#
# (439) B1 GENERATOR OUTAGE
#
3 33888 0 "1" 0 # P0703GT1 16.50 PGEN=184.50 QGEN=10.94
0
#
#
# (440) B1 GENERATOR OUTAGE
#
3 33891 0 "1" 0 # TESL_GT1 18.00 PGEN=173.00 QGEN=59.83
0
#
#
# (441) B1 GENERATOR OUTAGE
#
3 33895 0 "1" 0 # TESL_ST1 18.00 PGEN=232.00 QGEN=79.95

```

2013 SUMMER CATEGORY "B" CONTINGENCY LIST

```

0
#
#
# (442) B1 GENERATOR OUTAGE
#
3 33809 0 "1" 0 # Q268ST1 13.80 PGEN=154.70 QGEN=14.72
0
#
#
# (443) L-1/G-1 OVERLAPPING OUTAGE
# Melones - Race Track 115 kV Line and Chinese Station
1 33932 33922 "1" 0 # line from MELONES 115.00 BRKR to (1) R.TRACK 115.00
4 33922 0 "1" 0 # LOAD-DROP R.TRACK 115.00 LOAD==17.06(0.76)
#
3 34050 0 "1" 0 # CH.STN. 13.80 PGEN=10.02 QGEN=10.00
0
#
#
# (444) L-1/G-1 OVERLAPPING OUTAGE
# Tesla - Tracy 115 kV Line and Stanislaus Powerhouse
1 33540 33544 "1" 0 # line from TESLA 115.00 BRKR to (2) ELLS GTY 115.00
1 33544 33546 "1" 0 # line from ELLS GTY 115.00 (2) to (2) TRACY JC 115.00
1 33546 33542 "1" 0 # line from TRACY JC 115.00 (2) to (2) LEPRINO 115.00
1 33542 33548 "1" 0 # line from LEPRINO 115.00 (2) to BRKR TRACY 115.00
4 33544 0 "1" 0 # LOAD-DROP ELLS GTY 115.00 LOAD==3.62(1.86)
4 33542 0 "1" 0 # LOAD-DROP LEPRINO 115.00 LOAD==3.67(2.37)
#
3 34062 0 "1" 0 # STANISLS 13.80 PGEN=63.92 QGEN=15.00
0
#
#
# (445) L-1/G-1 OVERLAPPING OUTAGE
# Tesla - Manteca 115 kV Line and Stanislaus Powerhouse pre-project outage
1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33535 "1" 0 # line from OWENSTP2 115.00 (2) to (2) SFWY_TP2 115.00
1 33535 33543 "1" 0 # line from SFWY_TP2 115.00 (2) to (3) AEC_TP2 115.00
1 33543 33540 "1" 0 # line from AEC_TP2 115.00 (3) to BRKR TESLA 115.00
1 33543 33545 "1" 0 # line from AEC_TP2 115.00 (3) to (2) AEC_JCT 115.00
1 33545 33547 "1" 0 # line from AEC_JCT 115.00 (2) to (1) AEC_300 115.00
4 33547 0 "1" 0 # LOAD-DROP AEC_300 115.00 LOAD==3.00(9.54)
#
3 34062 0 "1" 0 # STANISLS 13.80 PGEN=63.92 QGEN=15.00
0
#
#
# (446) L-1/G-1 OVERLAPPING OUTAGE
# Tesla - Schulte #2 115 kV Line and Stanislaus Powerhouse post-project outage
1 33535 33549 "2" 0 # line from SFWY_TP2 115.00 (2) to BRKR SCHULTE 115.00
1 33535 33543 "1" 0 # line from SFWY_TP2 115.00 (2) to (3) AEC_TP2 115.00
1 33543 33540 "1" 0 # line from AEC_TP2 115.00 (3) to BRKR TESLA 115.00
1 33543 33545 "1" 0 # line from AEC_TP2 115.00 (3) to (2) AEC_JCT 115.00
1 33545 33547 "1" 0 # line from AEC_JCT 115.00 (2) to (1) AEC_300 115.00
4 33547 0 "1" 0 # LOAD-DROP AEC_300 115.00 LOAD==3.00(9.54)
#
3 34062 0 "1" 0 # STANISLS 13.80 PGEN=63.92 QGEN=15.00
0
#
#
# (447) L-1/G-1 OVERLAPPING OUTAGE
# Schulte - Manteca 115 kV Line and Stanislaus Powerhouse post-project outage
1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33549 "2" 0 # line from OWENSTP2 115.00 (2) to BRKR SCHULTE 115.00
#
3 34062 0 "1" 0 # STANISLS 13.80 PGEN=63.92 QGEN=15.00
0
#
#
# (448) L-1/G-1 OVERLAPPING OUTAGE
# Bellota - Riverbank - Melones 115 kV Line and Stanislaus Powerhouse
1 33562 33950 "1" 0 # line from BELLOTA 115.00 BRKR to (3) RVRBK TP 115.00

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2013 SUMMER CATEGORY "B" CONTINGENCY LIST

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1 33950 33934 "1" 0 # line from RVRBK TP 115.00 (3) to (3) TULLOCH 115.00
1 33950 33944 "1" 0 # line from RVRBK TP 115.00 (3) to BRKR RVRBANK 115.00
1 33934 33932 "1" 0 # line from TULLOCH 115.00 (3) to BRKR MELONES 115.00
2 33934 34076 "1" 0 # TRAN from TULLOCH 115.00 (3) to (1) TULLOCH 6.90
3 34076 0 "1" 0 # GEN-DROP TULLOCH 6.90 GEN==8.30(1.00)
3 34076 0 "2" 0 # GEN-DROP TULLOCH 6.90 GEN==8.30(1.00)
#
3 34062 0 "1" 0 # STANISLS 13.80 PGEN=63.92 QGEN=15.00
0
#
#
# (449) L-1/G-1 OVERLAPPING OUTAGE
# Stanislaus - Manteca #2 115 kV Line and Stanislaus Powerhouse
1 33506 33948 "1" 0 # line from STANISLS 115.00 BRKR to (2) RVRBK J2 115.00
1 33948 33953 "1" 0 # line from RVRBK J2 115.00 (2) to (2) VLYHMTP2 115.00
1 33953 33511 "1" 0 # line from VLYHMTP2 115.00 (2) to (2) AVENATP2 115.00
1 33511 33514 "1" 0 # line from AVENATP2 115.00 (2) to BRKR MANTECA 115.00
#
3 34062 0 "1" 0 # STANISLS 13.80 PGEN=63.92 QGEN=15.00
0
#
#
# (450) L-1/G-1 OVERLAPPING OUTAGE
# Riverbank Jct Sw Sta - Manteca 115 kV Line and Stanislaus Powerhouse
1 33516 33514 "1" 0 # line from RPN JNCN 115.00 (3) to BRKR MANTECA 115.00
1 33516 33520 "1" 0 # line from RPN JNCN 115.00 (3) to (1) RIPON 115.00
1 33516 33951 "1" 0 # line from RPN JNCN 115.00 (3) to (3) VLYHMTP1 115.00
1 33951 33947 "1" 0 # line from VLYHMTP1 115.00 (3) to BRKR RIVRBKJT 115.00
1 33951 33952 "1" 0 # line from VLYHMTP1 115.00 (3) to (1) VALLY HM 115.00
4 33520 0 "2" 0 # LOAD-DROP RIPON 115.00 LOAD==29.97(1.34)
4 33952 0 "1" 0 # LOAD-DROP VALLY HM 115.00 LOAD==5.36(0.24)
#
3 34062 0 "1" 0 # STANISLS 13.80 PGEN=63.92 QGEN=15.00
0
#
#
# (451) L-1/G-1 OVERLAPPING OUTAGE
# Stanislaus - Melones - Manteca #1 115 kV Line and Stanislaus Powerhouse
1 33500 33509 "1" 0 # line from MELNS JA 115.00 (3) to (3) AVENATP1 115.00
1 33500 33501 "1" 0 # line from MELNS JA 115.00 (3) to (3) FRGTNTP1 115.00
1 33500 33932 "1" 0 # line from MELNS JA 115.00 (3) to BRKR MELONES 115.00
1 33509 33510 "1" 0 # line from AVENATP1 115.00 (3) to (1) AVENA 115.00
1 33509 33514 "1" 0 # line from AVENATP1 115.00 (3) to BRKR MANTECA 115.00
1 33501 33502 "1" 0 # line from FRGTNTP1 115.00 (3) to (1) FROGTOWN 115.00
1 33501 33506 "1" 0 # line from FRGTNTP1 115.00 (3) to BRKR STANISLS 115.00
4 33510 0 "1" 0 # LOAD-DROP AVENA 115.00 LOAD==13.67(0.61)
4 33502 0 "1" 0 # LOAD-DROP FROGTOWN 115.00 LOAD==11.14(0.50)
4 33502 0 "2" 0 # LOAD-DROP FROGTOWN 115.00 LOAD==8.04(0.36)
1 33511 33510 "1" 1 # Switches in Avenan SW 145 to transfer load
4 33510 0 "****" 1 # Restores Load at Avena
#
3 34062 0 "1" 0 # STANISLS 13.80 PGEN=63.92 QGEN=15.00
0
#
#
# (452) L-1/G-1 OVERLAPPING OUTAGE
# Tesla - Stockton Cogen 115 kV Line and Stanislaus Powerhouse
1 33540 33568 "1" 0 # line from TESLA 115.00 BRKR to (3) TH.E.DV. 115.00
1 33568 33570 "1" 0 # line from TH.E.DV. 115.00 (3) to (3) SPC JCT. 115.00
2 33568 33806 "1" 0 # TRAN from TH.E.DV. 115.00 (3) to (1) TH.E.DV. 13.80
1 33570 33587 "1" 0 # line from SPC JCT. 115.00 (3) to (3) P0409TP2 115.00
1 33570 33956 "1" 0 # line from SPC JCT. 115.00 (3) to (2) SJ COGEN 115.00
1 33587 33572 "1" 0 # line from P0409TP2 115.00 (3) to (2) SP CMPNY 115.00
1 33587 33588 "1" 0 # line from P0409TP2 115.00 (3) to (2) P0409CG2 115.00
2 33572 33810 "1" 0 # TRAN from SP CMPNY 115.00 (2) to (1) SP CMPNY 13.80
2 33588 33858 "1" 0 # TRAN from P0409CG2 115.00 (2) to (1) P0409CG2 13.80
2 33956 33808 "1" 0 # TRAN from SJ COGEN 115.00 (2) to (1) SJ COGEN 13.80
4 33858 0 "ss" 0 # LOAD-DROP P0409CG2 13.80 LOAD==3.34(1.85)
3 33806 0 "1" 0 # GEN-DROP TH.E.DV. 13.80 GEN==19.60(6.00)
3 33810 0 "1" 0 # GEN-DROP SP CMPNY 13.80 GEN==37.70(0.52)
3 33858 0 "1" 0 # GEN-DROP P0409CG2 13.80 GEN==78.24(5.46)
3 33808 0 "1" 0 # GEN-DROP SJ COGEN 13.80 GEN==45.20(9.58)
#
3 34062 0 "1" 0 # STANISLS 13.80 PGEN=63.92 QGEN=15.00

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2013 SUMMER CATEGORY "B" CONTINGENCY LIST

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0
#
#
# (453) L-1/G-1 OVERLAPPING OUTAGE
# Stockton A - Weber #2 60 kV Line and POSDEF
1 33658 33670 "1" 0 # line from SNTA FEB 60.00 (3) to BRKR STCKTN A 60.00
1 33658 33678 "1" 0 # line from SNTA FEB 60.00 (3) to (2) MONARCH 60.00
1 33658 33662 "1" 0 # line from SNTA FEB 60.00 (3) to BRKR WEBER 2 60.00
1 33678 33684 "1" 0 # line from MONARCH 60.00 (2) to (2) HARDING 60.00
1 33684 33686 "1" 0 # line from HARDING 60.00 (2) to (1) STCKTNAR 60.00
4 33678 0 "2" 0 # LOAD-DROP MONARCH 60.00 LOAD==4.13(0.18)
4 33684 0 "1" 0 # LOAD-DROP HARDING 60.00 LOAD==4.75(0.21)
4 33684 0 "2" 0 # LOAD-DROP HARDING 60.00 LOAD==5.28(0.24)
4 33686 0 "1" 0 # LOAD-DROP STCKTNAR 60.00 LOAD==4.10(0.18)
#
3 33818 0 "1" 0 # Q199 13.80 PGEN=60.50 QGEN=4.13
0
#
#
# (454) L-1/G-1 OVERLAPPING OUTAGE
# Salado - Patterson 60 kV Line and Stanislaus Waste Cogen
1 34002 34004 "1" 0 # line from SALADO 60.00 BRKR to (2) PTRSNFRZ 60.00
1 34004 34006 "1" 0 # line from PTRSNFRZ 60.00 (2) to BRKR PATTERSN 60.00
#
3 34056 0 "1" 0 # STNSLSRP 13.80 PGEN=16.27 QGEN=7.52
0
#
#
# (455) L-1/G-1 OVERLAPPING OUTAGE
# Salado - Newman #2 60 kV Line and Stanislaus Waste Cogen
1 34002 34008 "1" 0 # line from SALADO 60.00 BRKR to (3) STNSLSRP 60.00
1 34008 34016 "1" 0 # line from STNSLSRP 60.00 (3) to (2) MEDLIN J 60.00
2 34008 34056 "1" 0 # TRAN from STNSLSRP 60.00 (3) to (1) STNSLSRP 13.80
1 34016 34018 "1" 0 # line from MEDLIN J 60.00 (2) to (3) NWMN JCT 60.00
1 34018 34014 "1" 0 # line from NWMN JCT 60.00 (3) to BRKR NEWMAN 60.00
1 34018 34020 "1" 0 # line from NWMN JCT 60.00 (3) to (1) GUSTINE 60.00
4 34020 0 "1" 0 # LOAD-DROP GUSTINE 60.00 LOAD==9.90(0.44)
4 34020 0 "2" 0 # LOAD-DROP GUSTINE 60.00 LOAD==10.83(0.49)
3 34056 0 "1" 0 # GEN-DROP STNSLSRP 13.80 GEN==16.30(6.29)
1 34012 34020 "1" 1 # Switches in Gustine SW 19 to transfer load
4 34020 0 "****" 1 # Restore Load at Gustine
#
3 34056 0 "1" 0 # STNSLSRP 13.80 PGEN=16.27 QGEN=7.52
0
#
#
# (456) L-1/G-1 OVERLAPPING OUTAGE
# Tesla - Salado #1 115 kV Line and Stanislaus Waste Cogen
1 33540 33961 "1" 0 # line from TESLA 115.00 BRKR to (3) TCHRT_T1 115.00
1 33961 33960 "1" 0 # line from TCHRT_T1 115.00 (3) to (2) MDSTO CN 115.00
1 33961 33963 "1" 0 # line from TCHRT_T1 115.00 (3) to (2) TCHRTJCT 115.00
1 33960 33962 "1" 0 # line from MDSTO CN 115.00 (2) to (3) SALDO TP 115.00
1 33962 33964 "1" 0 # line from SALDO TP 115.00 (3) to BRKR SALADO 115.00
1 33962 33967 "1" 0 # line from SALDO TP 115.00 (3) to (2) MILLER TP 115.00
1 33967 33966 "1" 0 # line from MILLER TP 115.00 (2) to (1) MILLER 115.00
1 33963 33968 "1" 0 # line from TCHRTJCT 115.00 (2) to (1) TEICHERT 115.00
4 33966 0 "1" 0 # LOAD-DROP MILLER 115.00 LOAD==3.55(1.72)
4 33968 0 "1" 0 # LOAD-DROP TEICHERT 115.00 LOAD==7.44(6.56)
#
3 34056 0 "1" 0 # STNSLSRP 13.80 PGEN=16.27 QGEN=7.52
0
#
#
# (457) L-1/G-1 OVERLAPPING OUTAGE
# Tesla - Salado - Manteca 115 kV Line and Stanislaus Waste Cogen
1 33514 33970 "1" 0 # line from MANTECA 115.00 BRKR to (3) INGRM C. 115.00
1 33970 33959 "1" 0 # line from INGRM C. 115.00 (3) to (2) TCHRT_T2 115.00
1 33970 33965 "1" 0 # line from INGRM C. 115.00 (3) to (2) SALADO J 115.00
1 33959 33540 "1" 0 # line from TCHRT_T2 115.00 (2) to BRKR TESLA 115.00
1 33965 33964 "1" 0 # line from SALADO J 115.00 (2) to BRKR SALADO 115.00
4 33970 0 "1" 0 # LOAD-DROP INGRM C. 115.00 LOAD==3.60(1.74)
#
3 34056 0 "1" 0 # STNSLSRP 13.80 PGEN=16.27 QGEN=7.52
0

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2013 SUMMER CATEGORY "B" CONTINGENCY LIST

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#
#
# (458) L-1/G-1 OVERLAPPING OUTAGE
# Tesla - Schulte #1 115 kV Line and GWF Tracy 1
1 33537 33534 "1" 0 # line from SFWY_TP1 115.00 (3) to (1) SAFEWAY 115.00
1 33537 33549 "1" 0 # line from SFWY_TP1 115.00 (3) to BRKR SCHULTE 115.00
1 33537 33541 "1" 0 # line from SFWY_TP1 115.00 (3) to (2) AEC_TP1 115.00
1 33541 33540 "1" 0 # line from AEC_TP1 115.00 (2) to BRKR TESLA 115.00
4 33534 0 "1" 0 # LOAD-DROP SAFEWAY 115.00 LOAD==5.38(2.76)
#
3 33805 0 "1" 0 # GWFTRCY1 13.80 PGEN=85.90 QGEN=17.66
0
#
#
# (459) L-1/G-1 OVERLAPPING OUTAGE
# Tesla - Manteca 115 kV Line and GWF Tracy 1 pre-project outage
1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33535 "1" 0 # line from OWENSTP2 115.00 (2) to (2) SFWY_TP2 115.00
1 33535 33543 "1" 0 # line from SFWY_TP2 115.00 (2) to (3) AEC_TP2 115.00
1 33543 33540 "1" 0 # line from AEC_TP2 115.00 (3) to BRKR TESLA 115.00
1 33543 33545 "1" 0 # line from AEC_TP2 115.00 (3) to (2) AEC_JCT 115.00
1 33545 33547 "1" 0 # line from AEC_JCT 115.00 (2) to (1) AEC_300 115.00
4 33547 0 "1" 0 # LOAD-DROP AEC_300 115.00 LOAD==3.00(9.54)
#
3 33805 0 "1" 0 # GWFTRCY1 13.80 PGEN=85.90 QGEN=17.66
0
#
#
# (460) L-1/G-1 OVERLAPPING OUTAGE
# Tesla - Schulte #2 115 kV Line and GWF Tracy 1 post-project outage
1 33535 33549 "2" 0 # line from SFWY_TP2 115.00 (2) to BRKR SCHULTE 115.00
1 33535 33543 "1" 0 # line from SFWY_TP2 115.00 (2) to (3) AEC_TP2 115.00
1 33543 33540 "1" 0 # line from AEC_TP2 115.00 (3) to BRKR TESLA 115.00
1 33543 33545 "1" 0 # line from AEC_TP2 115.00 (3) to (2) AEC_JCT 115.00
1 33545 33547 "1" 0 # line from AEC_JCT 115.00 (2) to (1) AEC_300 115.00
4 33547 0 "1" 0 # LOAD-DROP AEC_300 115.00 LOAD==3.00(9.54)
#
3 33805 0 "1" 0 # GWFTRCY1 13.80 PGEN=85.90 QGEN=17.66
0
#
#
# (461) L-1/G-1 OVERLAPPING OUTAGE
# Schulte - Manteca 115 kV Line and GWF Tracy 1 post-project outage
1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33549 "2" 0 # line from OWENSTP2 115.00 (2) to BRKR SCHULTE 115.00
#
3 33805 0 "1" 0 # GWFTRCY1 13.80 PGEN=85.90 QGEN=17.66
0
#
#
# (462) L-1/G-1 OVERLAPPING OUTAGE
# Lockeford - Lodi #2 60 kV Line and Lodi CT
1 33724 33726 "1" 0 # line from LOCKEFRD 60.00 BRKR to (2) VICTOR 60.00
1 33726 33731 "1" 0 # line from VICTOR 60.00 (2) to (2) WODBRG J 60.00
1 33731 33735 "1" 0 # line from WODBRG J 60.00 (2) to (2) INDSTR J 60.00
1 33735 38060 "1" 0 # line from INDSTR J 60.00 (2) to BRKR INDUSTRIAL 60.00
4 33726 0 "1" 0 # LOAD-DROP VICTOR 60.00 LOAD==0.21(0.01)
4 33726 0 "2" 0 # LOAD-DROP VICTOR 60.00 LOAD==3.54(0.16)
#
3 38120 0 "1" 0 # LODI CT 13.80 PGEN=21.01 QGEN=0.10
0
#
#
# (463) L-1/G-1 OVERLAPPING OUTAGE
# Lockeford - Lodi #3 60 kV Line and Lodi CT
1 33724 33736 "1" 0 # line from LOCKEFRD 60.00 BRKR to (2) LODI JCT 60.00
1 33736 33729 "1" 0 # line from LODI JCT 60.00 (2) to BRKR LODI AUX 60.00
#
3 38120 0 "1" 0 # LODI CT 13.80 PGEN=21.01 QGEN=0.10
0

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2013 SUMMER CATEGORY "B" CONTINGENCY LIST

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#
#
# (464) L-1/G-1 OVERLAPPING OUTAGE
# Lockeford #1 60 kV Line and Lodi CT
1 33724 33738 "1" 0 # line from LOCKEFRD 60.00 BRKR to (1) WATRLJCT 60.00
#
3 38120 0 "1" 0 # LODI CT 13.80 PGEN=21.01 QGEN=0.10
0
#
#
# (465) L-1/G-1 OVERLAPPING OUTAGE
# Lockeford - Industrial 60 kV Line and Lodi CT
1 33724 38060 "1" 0 # line from LOCKEFRD 60.00 BRKR to BRKR INDUSTRIAL 60.00
#
3 38120 0 "1" 0 # LODI CT 13.80 PGEN=21.01 QGEN=0.10
0
#
#
# (466) L-1/G-1 OVERLAPPING OUTAGE
# Stockton Jct Sw Sta - Lockeford - Bellota #2 115 kV Line and Stockton Cogen
1 33552 33553 "1" 0 # line from STCKTNJB 115.00 (2) to BRKR STKTON B 115.00
1 33552 33558 "1" 0 # line from STCKTNJB 115.00 (2) to (3) LCKFRDJB 115.00
1 33558 33562 "1" 0 # line from LCKFRDJB 115.00 (3) to BRKR BELLOTA 115.00
1 33558 33564 "1" 0 # line from LCKFRDJB 115.00 (3) to BRKR LOCKFORD 115.00
4 33553 0 "3" 0 # LOAD-DROP STKTON B 115.00 LOAD==30.08(1.34)
1 33555 33553 "1" 1 # Switches in Stockton 'A' SW 177 to transfer load
4 33553 0 "****" 1 # Restore Load at Stockton 'A' Bk 3
#
3 33814 0 "1" 0 # CPC STCN 12.47 PGEN=49.00 QGEN=13.80
0
#
#
# (467) L-1/G-1 OVERLAPPING OUTAGE
# Bellota - Melones 230 kV Line and Melones 1
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==27.63(1.24)
3 34604 0 "****" 0 # Drop unit#3 with a loss Bellota - Melones line
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.0 QGEN=53.00
0
#
#
# (468) L-1/G-1 OVERLAPPING OUTAGE
# Bellota - Warnerville 230 kV Line and Melones 1
1 30500 38208 "1" 0 # line from BELLOTA 230.00 BRKR to (2) COTTLE B 230.00
1 38208 30515 "1" 0 # line from COTTLE B 230.00 (2) to BRKR WARNERVL 230.00
4 38208 0 "2" 0 # LOAD-DROP COTTLE B 230.00 LOAD==31.78(1.42)
3 34604 0 "****" 0 # Drop unit#3 with a loss Bellota - Warnerville line
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.0 QGEN=53.00
0
#
#
-1
# EOF

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2013 SUMMER CATEGORY "C" CONTINGENCY LIST

Q268 2013 summer category c contingency list (dctl and bus outages)
Sacramento, Sierra and Stockton-Stanislaus Divisions Zones 304, 305 and 311-312

2013 category c contingency list (dctl and bus outages)
Sacramento Division Zone 304

(1) C5 DCTL OUTAGE
Vaca-Dixon - Peabody and Vaca-Dixon - Lambie 230 kV Lines
1 30460 30472 "1 " 0 # line from VACA-DIX 230.00 BRKR to BRKR PEABODY 230.00

1 30460 30478 "1 " 0 # line from VACA-DIX 230.00 BRKR to BRKR LAMBIE 230.00
0

(2) C5 DCTL OUTAGE
Vaca-Dixon - Peabody and Peabody - Birds Landing 230 kV Lines
1 30460 30472 "1 " 0 # line from VACA-DIX 230.00 BRKR to BRKR PEABODY 230.00

1 30472 30479 "1 " 0 # line from PEABODY 230.00 BRKR to BRKR BDLSWSTA 230.00
0

(3) C5 DCTL OUTAGE
Vaca-Dixon - Lambie and Peabody - Birds Landing 230 kV Lines
1 30460 30478 "1 " 0 # line from VACA-DIX 230.00 BRKR to BRKR LAMBIE 230.00

1 30472 30479 "1 " 0 # line from PEABODY 230.00 BRKR to BRKR BDLSWSTA 230.00
0

(4) C5 DCTL OUTAGE
Lambie - Birds Landing and Peabody - Birds Landing 230 kV Lines
1 30478 30479 "1 " 0 # line from LAMBIE 230.00 BRKR to BRKR BDLSWSTA 230.00

1 30472 30479 "1 " 0 # line from PEABODY 230.00 BRKR to BRKR BDLSWSTA 230.00
0

(5) C5 DCTL OUTAGE
Birds Landing - Q262 #1 and #2 230 kV Lines
1 30479 30471 "1 " 0 # line from BDLSWSTA 230.00 BRKR to BRKR Q262SWST 230.00

1 30479 30471 "2 " 0 # line from BDLSWSTA 230.00 BRKR to BRKR Q262SWST 230.00
0

(6) C5 DCTL OUTAGE
Q262 - Contra Costa PP and Q262 - Contra Costa Sub 230 kV Lines
1 30471 30525 "1 " 0 # line from Q262SWST 230.00 BRKR to BRKR C.COSTA 230.00

1 30471 30523 "1 " 0 # line from Q262SWST 230.00 BRKR to BRKR CC SUB 230.00
0

(7) C5 DCTL OUTAGE
Q171 - Tesla 500 kV and Peabody - Birds Landing 230 kV Lines
1 30070 30040 "1 " 0 # line from Q171 500.00 BRKR to BRKR TESLA 500.00

1 30472 30479 "1 " 0 # line from PEABODY 230.00 BRKR to BRKR BDLSWSTA 230.00
0

(8) C5 DCTL OUTAGE
Vaca-Dixon - Q257 #1 and #2 230 kV Lines
1 30460 30468 "1 " 0 # line from VACA-DIX 230.00 BRKR to BRKR Q257SWST 230.00

1 30460 30468 "2 " 0 # line from VACA-DIX 230.00 BRKR to BRKR Q257SWST 230.00
0

(9) C5 DCTL OUTAGE
Q257 - Bahia and Q257 - Parkway 230 kV Lines
1 30468 30465 "1 " 0 # line from Q257SWST 230.00 BRKR to BRKR BAHIA 230.00

2013 SUMMER CATEGORY "C" CONTINGENCY LIST

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#
1 30468 30467 "1 " 0 # line from Q257SWST 230.00 BRKR to BRKR PARKWAY 230.00
0
#
#
# (10) C5 DCTL OUTAGE
# Tulucay - Vaca-Dixon and Lakeville - Vaca-Dixon 230 kV Lines
1 30440 30460 "1 " 0 # line from TULUCAY 230.00 BRKR to BRKR VACA-DIX 230.00
#
1 30435 30460 "1 " 0 # line from LAKEVILLE 230.00 BRKR to BRKR VACA-DIX 230.00
0
#
#
# (11) C5 DCTL OUTAGE
# Glenn - CPV Colusa and Cottonwood - CPV Colusa #2 230 kV Lines
1 30110 30114 "4 " 0 # line from GLENN 230.00 BRKR to BRKR CPVSTA 230.00
#
1 30106 30114 "2 " 0 # line from COTWD_F 230.00 BRKR to BRKR CPVSTA 230.00
0
#
#
# (12) C5 DCTL OUTAGE
# CPV Colusa - Vaca-Dixon #2 and #3 230 kV Lines
1 30114 30460 "2 " 0 # line from CPVSTA 230.00 BRKR to BRKR VACA-DIX 230.00
#
1 30114 30460 "3 " 0 # line from CPVSTA 230.00 BRKR to BRKR VACA-DIX 230.00
0
#
#
# (13) C5 DCTL OUTAGE
# Cottonwood - CPV Colusa #1 and Cottonwood - Logan Creek 230 kV Lines
1 30105 30114 "1 " 0 # line from COTWD_E 230.00 BRKR to BRKR CPVSTA 230.00
#
1 30105 30111 "1 " 0 # line from COTWD_E 230.00 BRKR to BRKR LOGAN CR 230.00
0
#
#
# (14) C5 DCTL OUTAGE
# CPV Colusa - Cortina and CPV Colusa - Vaca-Dixon #4 230 kV Lines
1 30114 30450 "1 " 0 # line from CPVSTA 230.00 BRKR to BRKR CORTINA 230.00
#
1 30114 30460 "4 " 0 # line from CPVSTA 230.00 BRKR to BRKR VACA-DIX 230.00
0
#
#
# (15) C5 DCTL OUTAGE
# Brighton - Bellota and Rio Oso - Lockeford 230 kV Lines
1 30348 30500 "1 " 0 # line from BRIGHTON 230.00 BRKR to BRKR BELLOTA 230.00
#
1 30330 30482 "1 " 0 # line from RIO OSO 230.00 BRKR to BRKR LOCKFORD 230.00
0
#
#
# (16) C5 DCTL OUTAGE
# Rio Oso - Brighton and Rio Oso - Lockeford 230 kV Lines
1 30330 30348 "1 " 0 # line from RIO OSO 230.00 BRKR to BRKR BRIGHTON 230.00
#
1 30330 30482 "1 " 0 # line from RIO OSO 230.00 BRKR to BRKR LOCKFORD 230.00
0
#
#
# (17) C5 DCTL OUTAGE
# Fulton Jct - Vaca-Dixon and Madison - Vaca-Dixon 115 kV Lines
1 31953 31256 "1 " 0 # line from AMEGTAP 115.00 (3) to (1) FLTN JCT 115.00
1 31953 31954 "1 " 0 # line from AMEGTAP 115.00 (3) to (1) AMERIGAS 115.00
1 31953 31998 "1 " 0 # line from AMEGTAP 115.00 (3) to BRKR VACA-DIX 115.00
4 31954 0 "1 " 0 # LOAD-DROP AMERIGAS 115.00 LOAD==6.73(1.37)
#
1 31253 31974 "1 " 0 # line from FLTN JT2 115.00 (2) to (1) MADISON 115.00
1 31253 31952 "1 " 0 # line from FLTN JT2 115.00 (2) to (2) PUTH CRK 115.00
1 31952 31998 "1 " 0 # line from PUTH CRK 115.00 (2) to BRKR VACA-DIX 115.00
4 31974 0 "1 " 0 # LOAD-DROP MADISON 115.00 LOAD==8.25(0.37)
4 31974 0 "2 " 0 # LOAD-DROP MADISON 115.00 LOAD==5.33(0.23)
4 31974 0 "3 " 0 # LOAD-DROP MADISON 115.00 LOAD==15.02(0.68)

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2013 SUMMER CATEGORY "C" CONTINGENCY LIST

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4 31952 0 "1" 0 # LOAD-DROP PUTH CRK 115.00 LOAD==16.83(0.75)
0
#
#
# (18) C5 DCTL OUTAGE
# Vaca-Vacaville-Jameson-North Tower and Vaca-Vacaville-Cordelia 115 kV Lines
1 31995 32013 "1" 0 # line from HALE 115.00 (2) to (1) HALE2 115.00
1 31995 31996 "1" 0 # line from HALE 115.00 (2) to (3) HALE J1 115.00
1 31996 32006 "1" 0 # line from HALE J1 115.00 (3) to (3) VCVLLE1J 115.00
1 31996 32020 "1" 0 # line from HALE J1 115.00 (3) to (3) JMSN JCT 115.00
1 32006 31998 "1" 0 # line from VCVLLE1J 115.00 (3) to BRKR VACA-DIX 115.00
1 32006 32000 "1" 0 # line from VCVLLE1J 115.00 (3) to BRKR VACAVLL1 115.00
1 32020 32010 "1" 0 # line from JMSN JCT 115.00 (3) to BRKR JAMESON 115.00
1 32020 32618 "1" 0 # line from JMSN JCT 115.00 (3) to (1) NTRWJCT1 115.00
4 31995 0 "1" 0 # LOAD-DROP HALE 115.00 LOAD==2.39(1.42)
4 32000 0 "1" 0 # LOAD-DROP VACAVLL1 115.00 LOAD==30.49(1.36)
4 32010 0 "1" 0 # LOAD-DROP JAMESON 115.00 LOAD==38.91(1.74)
1 32002 32000 "1" 1 #Line transfer VACAVLL1 115kV TO VACAVLL2 115kV
4 32000 0 "1" 1 #Restore VACAVLL1 load
1 31995 32013 "1" 1 #Transfer load to HALE alternate
1 32012 32013 "1" 1 #Transfer load to HALE alternate
4 31995 0 "1" 1 #Restore load at HALE
1 32010 32009 "1" 1 # LINE-TRANSFER JMSN JCT 115.00 to JAMESN-A 115.00
4 32010 0 "1" 1 # RESTORE JAMESON load
#
1 31958 32012 "1" 0 # line from CORDELIA 115.00 (1) to (2) HALE J2 115.00
1 32012 32004 "1" 0 # line from HALE J2 115.00 (2) to (3) VCVLLE2J 115.00
1 32004 31998 "1" 0 # line from VCVLLE2J 115.00 (3) to BRKR VACA-DIX 115.00
1 32004 32002 "1" 0 # line from VCVLLE2J 115.00 (3) to BRKR VACAVLL2 115.00
4 31958 0 "2" 0 # LOAD-DROP CORDELIA 115.00 LOAD==17.61(0.79)
4 32002 0 "2" 0 # LOAD-DROP VACAVLL2 115.00 LOAD==44.68(2.00)
4 32002 0 "3" 0 # LOAD-DROP VACAVLL2 115.00 LOAD==43.87(1.96)
1 32000 32002 "1" 1 #Transfer VACAVLL2 load to alternate
4 32002 0 "1" 1 #Restore VACAVLL2 load
0
#
#
# (19) C5 DCTL OUTAGE
# Rio Oso - Woodland #1 and #2 115 kV Lines
1 31960 31966 "1" 0 # line from MOBILCHE 115.00 (2) to (3) WODLNDJ1 115.00
1 31960 31970 "1" 0 # line from MOBILCHE 115.00 (2) to BRKR WOODLD 115.00
1 31966 31965 "1" 0 # line from WODLNDJ1 115.00 (3) to (3) KNIGHT1 115.00
1 31966 31971 "1" 0 # line from WODLNDJ1 115.00 (3) to (1) ZAMORA1 115.00
1 31965 31963 "1" 0 # line from KNIGHT1 115.00 (3) to (1) KNIGHTLD 115.00
1 31965 32214 "1" 0 # line from KNIGHT1 115.00 (3) to BRKR RIO OSO 115.00
4 31960 0 "1" 0 # LOAD-DROP MOBILCHE 115.00 LOAD==0.10(0.00)
4 31963 0 "1" 0 # LOAD-DROP KNIGHTLD 115.00 LOAD==8.57(0.38)
#
1 31964 31968 "2" 0 # line from KNIGHT2 115.00 (2) to (3) WODLNDJ2 115.00
1 31964 32214 "2" 0 # line from KNIGHT2 115.00 (2) to BRKR RIO OSO 115.00
1 31968 31970 "2" 0 # line from WODLNDJ2 115.00 (3) to BRKR WOODLD 115.00
1 31968 31973 "2" 0 # line from WODLNDJ2 115.00 (3) to (2) ZAMORA2 115.00
1 31973 31972 "2" 0 # line from ZAMORA2 115.00 (2) to (1) ZAMORA 115.00
4 31972 0 "1" 0 # LOAD-DROP ZAMORA 115.00 LOAD==10.62(0.48)
0
#
#
# (20) C5 DCTL OUTAGE
# Rio Oso - West Sacramento and West Sacramento - Brighton 115 kV Lines
1 32214 31986 "1" 0 # line from RIO OSO 115.00 BRKR to BRKR W.SCRMNO 115.00
#
1 31978 31984 "1" 0 # line from DPWT_TP2 115.00 (3) to BRKR BRIGHTN 115.00
1 31978 31986 "1" 0 # line from DPWT_TP2 115.00 (3) to BRKR W.SCRMNO 115.00
1 31978 31988 "1" 0 # line from DPWT_TP2 115.00 (3) to (1) DEEPWATR 115.00
4 31988 0 "2" 0 # LOAD-DROP DEEPWATR 115.00 LOAD==22.90(1.02)
4 31988 0 "3" 0 # LOAD-DROP DEEPWATR 115.00 LOAD==15.82(0.70)
1 31976 31988 "1" 1 #Transfer load to alternate Deepwater tap
4 31988 0 "1" 1 #Restore load at Deepwater
0
#
#
# (21) BUS FAULT 30460 "VACA-DIX" bus section 1F
#

```

2013 SUMMER CATEGORY "C" CONTINGENCY LIST

1 30460 30468 "1" 0 # LINE from VACA-DIX 230.00 to Q257SWST 230.00
 1 30460 30435 "1" 0 # LINE from VACA-DIX 230.00 to LAKEVILLE 230.00
 1 30460 30450 "1" 0 # LINE from VACA-DIX 230.00 to CORTINA 230.00
 6 30460 0 "v" 0 # SVD-DROP VACA-DIX 230.00
 0
 #
 #
 # (22) BUS FAULT 30460 "VACA-DIX" bus section 1E
 #
 1 30460 30114 "2" 0 # LINE from VACA-DIX 230.00 to CPVSTA 230.00
 1 30460 30478 "1" 0 # LINE from VACA-DIX 230.00 to LAMBIE 230.00
 2 30460 31998 "3" 0 # TRAN from VACA-DIX 230.00 to VACA-DIX 115.00
 0
 #
 #
 # (23) BUS FAULT 30460 "VACA-DIX" bus section 2F
 #
 1 30460 30468 "2" 0 # LINE from VACA-DIX 230.00 to Q257SWST 230.00
 1 30460 30440 "1" 0 # LINE from VACA-DIX 230.00 to TULUCAY 230.00
 1 30460 30114 "3" 0 # LINE from VACA-DIX 230.00 to CPVSTA 230.00
 0
 #
 #
 # (24) BUS FAULT 30460 "VACA-DIX" bus section 2E
 #
 1 30460 30114 "4" 0 # LINE from VACA-DIX 230.00 to CPVSTA 230.00
 1 30460 30472 "1" 0 # LINE from VACA-DIX 230.00 to PEABODY 230.00
 2 30460 31998 "4" 0 # TRAN from VACA-DIX 230.00 to VACA-DIX 115.00
 2 30460 31999 "2" 0 # TRAN from VACA-DIX 230.00 to VACA-CB 115.00
 2 30460 31999 "2A" 0 # TRAN from VACA-DIX 230.00 to VACA-CB 115.00
 0
 #
 #
 # (25) BUS FAULT 30461 "Q171"
 #
 1 30461 30462 "1" 0 # LINE from Q171 230.00 to Q171CL1 230.00
 1 30461 30463 "1" 0 # LINE from Q171 230.00 to Q171CL2 230.00
 2 30461 30070 "1" 0 # TRAN from Q171 230.00 to Q171 500.00
 0
 #
 #
 # (26) BUS FAULT 30472 "PEABODY"
 #
 1 30472 30460 "1" 0 # LINE from PEABODY 230.00 to VACA-DIX 230.00
 1 30472 30479 "1" 0 # LINE from PEABODY 230.00 to BDLNWSTA 230.00
 4 30472 0 "1" 0 # LOAD-DROP PEABODY 230.00 LOAD==51.80(2.32)
 4 30472 0 "2" 0 # LOAD-DROP PEABODY 230.00 LOAD==64.49(2.88)
 4 30472 0 "3" 0 # LOAD-DROP PEABODY 230.00 LOAD==42.16(1.89)
 0
 #
 #
 # (27) BUS FAULT 31970 "WOODLD"
 #
 1 31970 31960 "1" 0 # LINE from WOODLD 115.00 to MOBILCHE 115.00
 1 31970 31962 "1" 0 # LINE from WOODLD 115.00 to WDLND_BM 115.00
 1 31970 31968 "2" 0 # LINE from WOODLD 115.00 to WODLNDJ2 115.00
 4 31970 0 "1" 0 # LOAD-DROP WOODLD 115.00 LOAD==51.29(2.29)
 4 31970 0 "2" 0 # LOAD-DROP WOODLD 115.00 LOAD==41.79(1.87)
 4 31970 0 "3" 0 # LOAD-DROP WOODLD 115.00 LOAD==33.16(1.48)
 0
 #
 #
 # (28) BUS FAULT 31984 "BRIGHTN"
 #
 1 31984 31978 "1" 0 # LINE from BRIGHTN 115.00 to DPWT_TP2 115.00
 1 31984 31993 "1" 0 # LINE from BRIGHTN 115.00 to BRKRJCT 115.00
 1 31984 31994 "1" 0 # LINE from BRIGHTN 115.00 to GRAND IS 115.00
 1 31984 31994 "2" 0 # LINE from BRIGHTN 115.00 to GRAND IS 115.00
 2 31984 30348 "10" 0 # TRAN from BRIGHTN 115.00 to BRIGHTON 230.00
 2 31984 30348 "9" 0 # TRAN from BRIGHTN 115.00 to BRIGHTON 230.00
 0
 #
 #
 # (29) BUS FAULT 31986 "W.SCRMNO"

2013 SUMMER CATEGORY "C" CONTINGENCY LIST

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#
1 31986 31978 "1" 0 # LINE from W.SCRMNO 115.00 to DPWT_TP2 115.00
1 31986 31980 "1" 0 # LINE from W.SCRMNO 115.00 to DPWTR_TP 115.00
1 31986 32214 "1" 0 # LINE from W.SCRMNO 115.00 to RIO OSO 115.00
4 31986 0 "1" 0 # LOAD-DROP W.SCRMNO 115.00 LOAD==27.70(1.24)
4 31986 0 "2" 0 # LOAD-DROP W.SCRMNO 115.00 LOAD==21.98(0.99)
4 31986 0 "3" 0 # LOAD-DROP W.SCRMNO 115.00 LOAD==38.46(1.72)
0
#
#
# (30) BUS FAULT 31989 "BRKR SLG"
#
1 31989 31991 "1" 0 # LINE from BRKR SLG 115.00 to BRKR TP 115.00
4 31989 0 "1" 0 # LOAD-DROP BRKR SLG 115.00 LOAD==1.75(0.00)
0
#
#
# (31) BUS FAULT 31990 "DAVIS"
#
1 31990 31992 "1" 0 # LINE from DAVIS 115.00 to HUNT 115.00
1 31990 32001 "1" 0 # LINE from DAVIS 115.00 to UCD_TP2 115.00
1 31990 32003 "1" 0 # LINE from DAVIS 115.00 to UCD_TP1 115.00
4 31990 0 "1" 0 # LOAD-DROP DAVIS 115.00 LOAD==33.77(1.51)
4 31990 0 "2" 0 # LOAD-DROP DAVIS 115.00 LOAD==36.35(1.63)
4 31990 0 "3" 0 # LOAD-DROP DAVIS 115.00 LOAD==43.58(1.95)
0
#
#
# (32) BUS FAULT 31994 "GRAND IS"
#
1 31994 31984 "1" 0 # LINE from GRAND IS 115.00 to BRIGHTN 115.00
1 31994 31984 "2" 0 # LINE from GRAND IS 115.00 to BRIGHTN 115.00
1 31994 33046 "1" 0 # LINE from GRAND IS 115.00 to FIBRJCT2 115.00
1 31994 33048 "1" 0 # LINE from GRAND IS 115.00 to RVECTP 115.00
2 31994 32162 "1" 0 # TRAN from GRAND IS 115.00 to RIV.DLTA 9.11
4 31994 0 "1" 0 # LOAD-DROP GRAND IS 115.00 LOAD==21.34(0.96)
4 31994 0 "2" 0 # LOAD-DROP GRAND IS 115.00 LOAD==16.67(0.74)
0
#
#
# (33) BUS FAULT 31998 "VACA-DIX" bus section 1
#
1 31998 31953 "1" 0 # LINE from VACA-DIX 115.00 to AMEGTAP 115.00
1 31998 31952 "1" 0 # LINE from VACA-DIX 115.00 to PUTH CRK 115.00
1 31998 32006 "1" 0 # LINE from VACA-DIX 115.00 to VCVLLE1J 115.00
1 31998 32011 "1" 0 # LINE from VACA-DIX 115.00 to WEC 115.00
2 31998 30460 "3" 0 # TRAN from VACA-DIX 115.00 to VACA-DIX 230.00
2 31998 32088 "5" 0 # TRAN from VACA-DIX 115.00 to VACA-DXN 60.00
4 31998 0 "8" 0 # LOAD-DROP VACA-DIX 115.00 LOAD==27.77(1.24)
0
#
#
# (34) BUS FAULT 31998 "VACA-DIX" bus section 2
#
1 31998 32004 "1" 0 # LINE from VACA-DIX 115.00 to VCVLLE2J 115.00
1 31998 31997 "1" 0 # LINE from VACA-DIX 115.00 to SCHMLBCH 115.00
1 31998 31999 "1" 0 # LINE from VACA-DIX 115.00 to VACA-CB 115.00
2 31998 30460 "4" 0 # TRAN from VACA-DIX 115.00 to VACA-DIX 230.00
2 31998 32150 "1" 0 # TRAN from VACA-DIX 115.00 to DG_VADIX 13.80
2 31998 32088 "9" 0 # TRAN from VACA-DIX 115.00 to VACA-DXN 60.00
4 31998 0 "6" 0 # LOAD-DROP VACA-DIX 115.00 LOAD==16.53(0.74)
4 31998 0 "7" 0 # LOAD-DROP VACA-DIX 115.00 LOAD==26.06(1.16)
0
#
#
# (35) BUS FAULT 32000 "VACAVLL1"
#
1 32000 32002 "1" 0 # LINE from VACAVLL1 115.00 to VACAVLL2 115.00
1 32000 32006 "1" 0 # LINE from VACAVLL1 115.00 to VCVLLE1J 115.00
4 32000 0 "1" 0 # LOAD-DROP VACAVLL1 115.00 LOAD==30.49(1.36)
0
#
#
# (36) BUS FAULT 32002 "VACAVLL2"

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2013 SUMMER CATEGORY "C" CONTINGENCY LIST

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#
1 32002 32000 "1" 0 # LINE from VACAVLL2 115.00 to VACAVLL1 115.00
1 32002 32004 "1" 0 # LINE from VACAVLL2 115.00 to VCVLLE2J 115.00
4 32002 0 "2" 0 # LOAD-DROP VACAVLL2 115.00 LOAD==44.68(2.00)
4 32002 0 "3" 0 # LOAD-DROP VACAVLL2 115.00 LOAD==43.87(1.96)
0
#
#
# (37) BUS FAULT 32008 "SUISUN"
#
1 32008 31997 "1" 0 # LINE from SUISUN 115.00 to SCHMLBCH 115.00
1 32008 32011 "1" 0 # LINE from SUISUN 115.00 to WEC 115.00
2 32008 32164 "1" 0 # TRAN from SUISUN 115.00 to CTY FAIR 9.11
4 32008 0 "1" 0 # LOAD-DROP SUISUN 115.00 LOAD==29.64(1.32)
4 32008 0 "2" 0 # LOAD-DROP SUISUN 115.00 LOAD==32.19(1.44)
4 32008 0 "3" 0 # LOAD-DROP SUISUN 115.00 LOAD==26.23(1.17)
0
#
#
# (38) BUS FAULT 32010 "JAMESON"
#
1 32010 32009 "1" 0 # LINE from JAMESON 115.00 to JAMESN-A 115.00
1 32010 32020 "1" 0 # LINE from JAMESON 115.00 to JMSN JCT 115.00
4 32010 0 "1" 0 # LOAD-DROP JAMESON 115.00 LOAD==38.91(1.74)
0
#
#
# (39) BUS FAULT 32056 "CORTINA"
#
1 32056 32060 "1" 0 # LINE from CORTINA 60.00 to ARBUCKLE 60.00
1 32056 32065 "4" 0 # LINE from CORTINA 60.00 to WILL JCT 60.00
1 32056 32057 "2" 0 # LINE from CORTINA 60.00 to HUSTD 60.00
1 32056 32155 "3" 0 # LINE from CORTINA 60.00 to WADH MJCT 60.00
2 32056 30451 "1" 0 # TRAN from CORTINA 60.00 to CRTNA M 230.00
0
#
#
# (40) BUS FAULT 32070 "CLSA JCT"
#
1 32070 32068 "1" 0 # LINE from CLSA JCT 60.00 to COLUSA 60.00
1 32070 32071 "1" 0 # LINE from CLSA JCT 60.00 to MERIDJCT 60.00
1 32070 32073 "3" 0 # LINE from CLSA JCT 60.00 to WESCOT1 60.00
4 32070 0 "1" 0 # LOAD-DROP CLSA JCT 60.00 LOAD==3.55(0.16)
0
#
#
# (41) BUS FAULT 32088 "VACA-DXN"
#
1 32088 32090 "1" 0 # LINE from VACA-DXN 60.00 to WINTERS 60.00
1 32088 32094 "2" 0 # LINE from VACA-DXN 60.00 to VACA-JT2 60.00
1 32088 32096 "1" 0 # LINE from VACA-DXN 60.00 to VACA-JT1 60.00
2 32088 31998 "5" 0 # TRAN from VACA-DXN 60.00 to VACA-DIX 115.00
2 32088 31998 "9" 0 # TRAN from VACA-DXN 60.00 to VACA-DIX 115.00
0
#
#
# (42) BUS FAULT 32100 "DIXON"
#
1 32100 32101 "2" 0 # LINE from DIXON 60.00 to DIXON-J2 60.00
1 32100 32105 "1" 0 # LINE from DIXON 60.00 to DIXON-J1 60.00
4 32100 0 "1" 0 # LOAD-DROP DIXON 60.00 LOAD==18.52(0.83)
4 32100 0 "2" 0 # LOAD-DROP DIXON 60.00 LOAD==15.49(0.69)
0
#
#
# 2013 summer category c contingency list (dctl and bus outages)
# Sierra Division Zone 305
#
#
# (43) C5 DCTL OUTAGE
# Palermo - Colgate and Colgate - Rio Oso 230 kV Lines
1 30325 30327 "1" 0 # line from PALERMO 230.00 BRKR to BRKR COLGATE 230.00
2 30327 32450 "1" 0 #Take one transformer out with Palermo-Colgate 230 kV line outage
3 32450 0 "1" 0 #Take one generator out with Palermo-Colgate 230 kV line outage

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2013 SUMMER CATEGORY "C" CONTINGENCY LIST

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#
1 30327 30330 "1 " 0 # line from COLGATE 230.00 BRKR to BRKR RIO OSO 230.00
2 30327 32452 "1 " 0 #Take one transformer out with Colgate-Rio Oso 230 kV line outage
3 32452 0 "1 " 0 #Take one generator out with Colgate-Rio Oso 230 kV line outage
0
#
#
# (44) C5 DCTL OUTAGE
# Rio Oso - Atlantic and Rio Oso - Gold Hill 230 kV Lines
1 30330 30335 "1 " 0 # line from RIO OSO 230.00 BRKR to BRKR ATLANTC 230.00
#
1 30330 30337 "1 " 0 # line from RIO OSO 230.00 BRKR to BRKR GOLDHILL 230.00
0
#
#
# (45) C5 DCTL OUTAGE
# Poe - Rio Oso and Cresta - Rio Oso 230 kV Lines
1 30280 30330 "1 " 0 # line from POE 230.00 BRKR to BRKR RIO OSO 230.00
2 30280 31792 "1 " 0 # Take the transformer out with Rio Oso-Poe 230 kV line outage
3 31792 0 "1 " 0 # Take the generator out with Rio Oso-Poe 230 kV line outage
#
1 30275 30330 "1 " 0 # line from CRESTA 230.00 BRKR to BRKR RIO OSO 230.00
0
#
#
# (46) C5 DCTL OUTAGE
# Colgate - Rio Oso and Table Mountain - Rio Oso 230 kV Lines
1 30327 30330 "1 " 0 # line from COLGATE 230.00 BRKR to BRKR RIO OSO 230.00
2 30327 32452 "1 " 0 #Take one transformer out with Colgate-Rio Oso 230 kV line outage
3 32452 0 "1 " 0 #Take one generator out with Colgate-Rio Oso 230 kV line outage
#
1 30300 30330 "1 " 0 # line from TBL MT D 230.00 BRKR to BRKR RIO OSO 230.00
0
#
#
# (47) C5 DCTL OUTAGE
# Palermo - Colgate and Table Mountain - Rio Oso 230 kV Lines
1 30325 30327 "1 " 0 # line from PALERMO 230.00 BRKR to BRKR COLGATE 230.00
2 30327 32450 "1 " 0 #Take one transformer out with Palermo-Colgate 230 kV line outage
3 32450 0 "1 " 0 #Take one generator out with Palermo-Colgate 230 kV line outage
#
1 30300 30330 "1 " 0 # line from TBL MT D 230.00 BRKR to BRKR RIO OSO 230.00
0
#
#
# (48) C5 DCTL OUTAGE
# Atlantic - Gold Hill and Rio Oso - Gold Hill 230 kV Lines
1 30335 30337 "1 " 0 # line from ATLANTC 230.00 BRKR to BRKR GOLDHILL 230.00
#
1 30330 30337 "1 " 0 # line from RIO OSO 230.00 BRKR to BRKR GOLDHILL 230.00
0
#
#
# (49) C5 DCTL OUTAGE
# Middle Fork - Gold Hill 230 kV and Placer - Gold Hill #1 115 kV Lines
1 30337 30340 "1 " 0 # line from GOLDHILL 230.00 BRKR to (3) RALSTON 230.00
1 30340 30345 "1 " 0 # line from RALSTON 230.00 (3) to BRKR MIDLFORK 230.00
2 30340 32458 "1 " 0 # TRAN from RALSTON 230.00 (3) to (1) RALSTON 13.80
3 32458 0 "1 " 0 # GEN-DROP RALSTON 13.80 GEN==83.00(15.12)
#
1 32018 32229 "1 " 0 # line from GOLDHILL 115.00 BRKR to (3) HORSHE1 115.00
1 32229 32230 "1 " 0 # line from HORSHE1 115.00 (3) to (1) HORSESHE 115.00
1 32229 32233 "1 " 0 # line from HORSHE1 115.00 (3) to (3) NEWCSTL1 115.00
1 32233 32234 "1 " 0 # line from NEWCSTL1 115.00 (3) to (2) NEWCSTLE 115.00
1 32233 32236 "1 " 0 # line from NEWCSTL1 115.00 (3) to (2) FLINT1 115.00
2 32234 32460 "1 " 0 # TRAN from NEWCSTLE 115.00 (2) to (1) NEWCSTLE 13.20
1 32236 32228 "1 " 0 # line from FLINT1 115.00 (2) to BRKR PLACER 115.00
4 32230 0 "1 " 0 # LOAD-DROP HORSESHE 115.00 LOAD==15.79(0.71)
4 32230 0 "2 " 0 # LOAD-DROP HORSESHE 115.00 LOAD==36.15(1.61)
1 32230 32231 "1 " 1 #Transfer load to alternate
4 32230 0 "" 1 #Restore load at Horseshoe
0
#
#

```

2013 SUMMER CATEGORY "C" CONTINGENCY LIST

(50) C5 DCTL OUTAGE

Caribou - Palermo and Palermo - Pease 115 kV Lines

1 31482 31516 "2" 0 # line from PALERMO 115.00 BRKR to (2) WYANDJT2 115.00
 1 31516 31512 "2" 0 # line from WYANDJT2 115.00 (2) to (2) BIG BEND 115.00
 1 31512 31488 "1" 0 # line from BIG BEND 115.00 (2) to (3) GRIZ JCT 115.00
 1 31488 31486 "1" 0 # line from GRIZ JCT 115.00 (3) to BRKR CARIBOU 115.00
 1 31488 31492 "1" 0 # line from GRIZ JCT 115.00 (3) to (2) GRIZZLY1 115.00
 2 31492 31900 "1" 0 # TRAN from GRIZZLY1 115.00 BRKR to (1) GRIZZLYG 6.90
 3 31900 0 "1" 0 # GEN-DROP GRIZZLYG 6.90 GEN==16.80(-4.00)

#

1 32200 31506 "1" 0 # line from PEASE 115.00 BRKR to (2) HONC JT1 115.00
 1 31506 31482 "1" 0 # line from HONC JT1 115.00 (2) to BRKR PALERMO 115.00

0

#

#

(51) C5 DCTL OUTAGE

Palermo - Wyandotte and Palermo - Pease 115 kV Lines

1 31480 31518 "1" 0 # line from WYANDTTE 115.00 (1) to (2) WYANDJT1 115.00
 1 31518 31482 "1" 0 # line from WYANDJT1 115.00 (2) to BRKR PALERMO 115.00
 4 31480 0 "1" 0 # LOAD-DROP WYANDTTE 115.00 LOAD==10.93(0.49)
 4 31480 0 "2" 0 # LOAD-DROP WYANDTTE 115.00 LOAD==20.57(0.92)
 4 31480 0 "3" 0 # LOAD-DROP WYANDTTE 115.00 LOAD==31.49(1.41)
 1 31480 31516 "1" 1 #Transfer load from PALERMO-WYANDOTTE to CARIBOU-PALERMO 115kV
 4 31480 0 "****" 1 #Restore loads at Wyandotte

#

1 32200 31506 "1" 0 # line from PEASE 115.00 BRKR to (2) HONC JT1 115.00
 1 31506 31482 "1" 0 # line from HONC JT1 115.00 (2) to BRKR PALERMO 115.00

0

#

#

(52) C5 DCTL OUTAGE

Drum - Rio Oso #1 and #2 115 kV Lines

1 32214 32225 "1" 0 # line from RIO OSO 115.00 BRKR to (3) BRNSWKTP 115.00
 1 32225 32222 "1" 0 # line from BRNSWKTP 115.00 (3) to (3) DTCH FL2 115.00
 1 32225 32227 "2" 0 # line from BRNSWKTP 115.00 (3) to (1) BRNSWALT 115.00
 1 32222 32218 "1" 0 # line from DTCH FL2 115.00 (3) to BRKR DRUM 115.00
 2 32222 32502 "1" 0 # TRAN from DTCH FL2 115.00 BRKR to (1) DTCHFLT2 6.90
 4 32227 0 "1" 0 # LOAD-DROP BRNSWALT 115.00 LOAD==24.08(1.08)
 3 32502 0 "1" 0 # GEN-DROP DTCHFLT2 6.90 GEN==24.50(9.66)

#

1 32214 32244 "2" 0 # line from RIO OSO 115.00 BRKR to (3) BRNSWCKP 115.00
 1 32244 32218 "2" 0 # line from BRNSWCKP 115.00 (3) to BRKR DRUM 115.00

1 32244 32226 "2" 0 # line from BRNSWCKP 115.00 (3) to (1) BRUNSWCK 115.00

4 32226 0 "2" 0 # LOAD-DROP BRUNSWCK 115.00 LOAD==30.46(1.37)

4 32226 0 "3" 0 # LOAD-DROP BRUNSWCK 115.00 LOAD==8.00(0.36)

0

#

#

(53) C5 DCTL OUTAGE

Rio Oso - E. Nicolaus and Bogue - Rio Oso 115 kV Lines

1 32212 32214 "1" 0 # line from E.NICOLS 115.00 BRKR to BRKR RIO OSO 115.00

#

1 32206 32208 "1" 0 # line from BOGUE 115.00 BRKR to (3) GLEAF TP 115.00

1 32208 32210 "1" 0 # line from GLEAF TP 115.00 (3) to (2) GLEAF 1 115.00

1 32208 32214 "1" 0 # line from GLEAF TP 115.00 (3) to BRKR RIO OSO 115.00

2 32210 32490 "1" 0 # TRAN from GLEAF 1 115.00 BRKR to (1) GRNLEAF1 13.80

4 32490 0 "ss" 0 # LOAD-DROP GRNLEAF1 13.80 LOAD==0.67(0.15)

3 32490 0 "1" 0 # GEN-DROP GRNLEAF1 13.80 GEN==40.00(-12.86)

3 32490 0 "2" 0 # GEN-DROP GRNLEAF1 13.80 GEN==9.50(-3.05)

0

#

#

(54) C5 DCTL OUTAGE

Palermo - E. Nicolaus and Bogue - Rio Oso 115 kV Lines

1 31482 32280 "1" 0 # line from PALERMO 115.00 BRKR to (2) E.MRY J2 115.00

1 32280 32212 "1" 0 # line from E.MRY J2 115.00 (2) to BRKR E.NICOLS 115.00

#

1 32206 32208 "1" 0 # line from BOGUE 115.00 BRKR to (3) GLEAF TP 115.00

1 32208 32210 "1" 0 # line from GLEAF TP 115.00 (3) to (2) GLEAF 1 115.00

1 32208 32214 "1" 0 # line from GLEAF TP 115.00 (3) to BRKR RIO OSO 115.00

2 32210 32490 "1" 0 # TRAN from GLEAF 1 115.00 BRKR to (1) GRNLEAF1 13.80

4 32490 0 "ss" 0 # LOAD-DROP GRNLEAF1 13.80 LOAD==0.67(0.15)

3 32490 0 "1" 0 # GEN-DROP GRNLEAF1 13.80 GEN==40.00(-12.86)

3 32490 0 "2" 0 # GEN-DROP GRNLEAF1 13.80 GEN==9.50(-3.05)

2013 SUMMER CATEGORY "C" CONTINGENCY LIST

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0
#
#
# (55) C5 DCTL OUTAGE
# Palermo - E. Nicolaus and Palermo - Bogue 115 kV Lines
1 31482 32280 "1" 0 # line from PALERMO 115.00 BRKR to (2) E.MRY J2 115.00
1 32280 32212 "1" 0 # line from E.MRY J2 115.00 (2) to BRKR E.NICOLS 115.00
#
1 31508 32286 "1" 0 # line from HONC JT3 115.00 (3) to (2) OLIVH J3 115.00
1 31508 31482 "1" 0 # line from HONC JT3 115.00 (3) to BRKR PALERMO 115.00
1 31508 31484 "1" 0 # line from HONC JT3 115.00 (3) to (1) HONCUT 115.00
1 32286 32206 "1" 0 # line from OLIVH J3 115.00 (2) to BRKR BOGUE 115.00
4 31484 0 "1" 0 # LOAD-DROP HONCUT 115.00 LOAD==16.18(0.73)
0
#
#
# (56) C5 DCTL OUTAGE
# Rio Oso - Woodland #1 and #2 115 kV Lines
1 32214 31965 "1" 0 # line from RIO OSO 115.00 BRKR to (3) KNIGHT1 115.00
1 31965 31963 "1" 0 # line from KNIGHT1 115.00 (3) to (1) KNIGHTLD 115.00
1 31965 31966 "1" 0 # line from KNIGHT1 115.00 (3) to (3) WODLNDJ1 115.00
1 31966 31960 "1" 0 # line from WODLNDJ1 115.00 (3) to (2) MOBILCHE 115.00
1 31966 31971 "1" 0 # line from WODLNDJ1 115.00 (3) to (1) ZAMORA1 115.00
1 31960 31970 "1" 0 # line from MOBILCHE 115.00 (2) to BRKR WOODLD 115.00
4 31963 0 "1" 0 # LOAD-DROP KNIGHTLD 115.00 LOAD==6.84(0.31)
4 31960 0 "1" 0 # LOAD-DROP MOBILCHE 115.00 LOAD==0.10(0.00)
#
1 32214 31964 "2" 0 # line from RIO OSO 115.00 BRKR to (2) KNIGHT2 115.00
1 31964 31968 "2" 0 # line from KNIGHT2 115.00 (2) to (3) WODLNDJ2 115.00
1 31968 31970 "2" 0 # line from WODLNDJ2 115.00 (3) to BRKR WOODLD 115.00
1 31968 31973 "2" 0 # line from WODLNDJ2 115.00 (3) to (2) ZAMORA2 115.00
1 31973 31972 "2" 0 # line from ZAMORA2 115.00 (2) to (1) ZAMORA 115.00
4 31972 0 "1" 0 # LOAD-DROP ZAMORA 115.00 LOAD==8.47(0.38)
0
#
#
# (57) C5 DCTL OUTAGE
# Rio Oso - West Sacramento and Pease - Rio Oso 115 kV Lines
1 32214 31986 "1" 0 # line from RIO OSO 115.00 BRKR to BRKR W.SCRMNO 115.00
#
1 32200 32288 "1" 0 # line from PEASE 115.00 BRKR to (3) E.MRY J1 115.00
1 32288 32202 "1" 0 # line from E.MRY J1 115.00 (3) to (1) E.MRYSVE 115.00
1 32288 32290 "1" 0 # line from E.MRY J1 115.00 (3) to (3) OLIVH J1 115.00
1 32290 32204 "1" 0 # line from OLIVH J1 115.00 (3) to (1) OLIVHRST 115.00
1 32290 32214 "1" 0 # line from OLIVH J1 115.00 (3) to BRKR RIO OSO 115.00
4 32202 0 "2" 0 # LOAD-DROP E.MRYSVE 115.00 LOAD==10.55(0.47)
4 32202 0 "3" 0 # LOAD-DROP E.MRYSVE 115.00 LOAD==9.73(0.44)
4 32204 0 "1" 0 # LOAD-DROP OLIVHRST 115.00 LOAD==6.71(0.30)
4 32204 0 "2" 0 # LOAD-DROP OLIVHRST 115.00 LOAD==21.33(0.95)
1 32204 32286 "1" 1 #Transfer Olivehurst to alternate
4 32204 0 "1" 1 #Restore load Olivehurst
1 32280 32202 "1" 1 #Transfer load to E. Marysville Alt. 2 summer
4 32202 0 "1" 1 #Restore load at E. Marysville summer
0
#
#
# (58) C5 DCTL OUTAGE
# Missouri Flat - Gold Hill #1 and #2 115 kV Lines
1 32018 32275 "1" 0 # line from GOLDHILL 115.00 BRKR to (3) CPM TAP 115.00
1 32275 32264 "1" 0 # line from CPM TAP 115.00 (3) to (2) CLRKSVLT 115.00
1 32275 32276 "1" 0 # line from CPM TAP 115.00 (3) to (1) CPM 115.00
1 32264 32262 "1" 0 # line from CLRKSVLT 115.00 (2) to (2) SHPRING1 115.00
1 32262 32267 "1" 0 # line from SHPRING1 115.00 (2) to (2) DIMOND_1 115.00
1 32267 32261 "1" 0 # line from DIMOND_1 115.00 (2) to BRKR MIZOU_T1 115.00
#
1 32018 32268 "2" 0 # line from GOLDHILL 115.00 BRKR to (3) SHPRING2 115.00
1 32268 32259 "2" 0 # line from SHPRING2 115.00 (3) to (3) DIMOND_2 115.00
1 32268 32265 "2" 0 # line from SHPRING2 115.00 (3) to (1) SHPRING 115.00
1 32259 32258 "2" 0 # line from DIMOND_2 115.00 (3) to (1) DMND SPR 115.00
1 32259 32260 "2" 0 # line from DIMOND_2 115.00 (3) to BRKR MIZOU_T2 115.00
4 32265 0 "1" 0 # LOAD-DROP SHPRING 115.00 LOAD==19.57(0.88)
4 32265 0 "2" 0 # LOAD-DROP SHPRING 115.00 LOAD==21.49(0.96)
4 32258 0 "1" 0 # LOAD-DROP DMND SPR 115.00 LOAD==9.86(0.44)
4 32258 0 "2" 0 # LOAD-DROP DMND SPR 115.00 LOAD==28.07(1.25)

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2013 SUMMER CATEGORY "C" CONTINGENCY LIST

1 32262 32265 "1" 1 #Transfer Shingle Springs to alternate
 4 32265 0 "****" 1 #Restore load at Shingle Springs
 1 32258 32267 "1" 1 #Transfer Diamond Springs to alternate
 4 32258 0 "****" 1 #Restore load at Diamond Springs
 0
 #
 #
 # (59) C5 DCTL OUTAGE
 # El Dorado - Missouri Flat #1 and #2 115 kV Lines
 1 32250 32482 "1" 0 # line from ELDORAD 115.00 BRKR to (3) APLHTAP1 115.00
 1 32482 32255 "1" 0 # line from APLHTAP1 115.00 (3) to (2) PLCRVLT1 115.00
 1 32482 32278 "1" 0 # line from APLHTAP1 115.00 (3) to (2) SPICAMIN 115.00
 1 32255 32261 "1" 0 # line from PLCRVLT1 115.00 (2) to BRKR MIZOU_T1 115.00
 1 32278 32252 "1" 0 # line from SPICAMIN 115.00 (2) to (1) APPLE HL 115.00
 4 32278 0 "1" 0 # LOAD-DROP SPICAMIN 115.00 LOAD==4.19(3.69)
 4 32252 0 "1" 0 # LOAD-DROP APPLE HL 115.00 LOAD==14.65(0.65)
 4 32252 0 "2" 0 # LOAD-DROP APPLE HL 115.00 LOAD==9.26(0.41)
 1 32252 32481 "1" 1 #Transfer Apple Hill to alternate
 4 32252 0 "****" 1 #Restore load at Apple Hill
 #
 1 32250 32481 "2" 0 # line from ELDORAD 115.00 BRKR to (2) APLHTAP2 115.00
 1 32481 32257 "2" 0 # line from APLHTAP2 115.00 (2) to (4) PLCRVLT2 115.00
 1 32257 32254 "2" 0 # line from PLCRVLT2 115.00 (4) to (2) PLCRVLB2 115.00
 1 32257 32260 "2" 0 # line from PLCRVLT2 115.00 (4) to BRKR MIZOU_T2 115.00
 2 32257 32510 "1" 0 # TRAN from PLCRVLT2 115.00 (4) to (1) CHILIBAR 4.16
 1 32254 32256 "1" 0 # line from PLCRVLB2 115.00 (2) to (1) PLCRVLB3 115.00
 4 32254 0 "2" 0 # LOAD-DROP PLCRVLB2 115.00 LOAD==9.02(0.41)
 4 32256 0 "3" 0 # LOAD-DROP PLCRVLB3 115.00 LOAD==25.95(1.16)
 3 32510 0 "1" 0 # GEN-DROP CHILIBAR 4.16 GEN==5.50(4.00)
 1 32256 32255 "1" 1 #Transfer Placerville to alternate
 4 32256 0 "****" 1 #Restore load Bank 3 at Placerville
 1 32254 32256 "1" 1 #Transfer Placerville to alternate
 4 32254 0 "****" 1 #Restore load Bank 2 at Placerville
 0
 #
 #
 # (60) C5 DCTL OUTAGE
 # Placer - Gold Hill #1 and #2 115 kV Lines
 1 32018 32229 "1" 0 # line from GOLDHILL 115.00 BRKR to (3) HORSHE1 115.00
 1 32229 32230 "1" 0 # line from HORSHE1 115.00 (3) to (1) HORSESHE 115.00
 1 32229 32233 "1" 0 # line from HORSHE1 115.00 (3) to (3) NEWCSTL1 115.00
 1 32233 32234 "1" 0 # line from NEWCSTL1 115.00 (3) to (2) NEWCSTLE 115.00
 1 32233 32236 "1" 0 # line from NEWCSTL1 115.00 (3) to (2) FLINT1 115.00
 2 32234 32460 "1" 0 # TRAN from NEWCSTLE 115.00 (2) to (1) NEWCSTLE 13.20
 1 32236 32228 "1" 0 # line from FLINT1 115.00 (2) to BRKR PLACER 115.00
 4 32230 0 "1" 0 # LOAD-DROP HORSESHE 115.00 LOAD==15.79(0.71)
 4 32230 0 "2" 0 # LOAD-DROP HORSESHE 115.00 LOAD==36.15(1.61)
 1 32230 32231 "1" 1 #Transfer load to alternate
 4 32230 0 "****" 1 #Restore load at Horseshoe
 #
 1 32018 32231 "2" 0 # line from GOLDHILL 115.00 BRKR to (2) HORSHE2 115.00
 1 32231 32235 "2" 0 # line from HORSHE2 115.00 (2) to (2) NEWCSTL2 115.00
 1 32235 32239 "2" 0 # line from NEWCSTL2 115.00 (2) to (3) FLINT2 115.00
 1 32239 32228 "2" 0 # line from FLINT2 115.00 (3) to BRKR PLACER 115.00
 1 32239 32237 "1" 0 # line from FLINT2 115.00 (3) to (1) FLINT 115.00
 4 32237 0 "1" 0 # LOAD-DROP FLINT 115.00 LOAD==14.82(0.66)
 0
 #
 #
 # (61) C5 DCTL OUTAGE
 # Palermo - Pease and Pease - Rio Oso 115 kV Lines
 1 32200 31506 "1" 0 # line from PEASE 115.00 BRKR to (2) HONC JT1 115.00
 1 31506 31482 "1" 0 # line from HONC JT1 115.00 (2) to BRKR PALERMO 115.00
 #
 1 32200 32288 "1" 0 # line from PEASE 115.00 BRKR to (3) E.MRY J1 115.00
 1 32288 32202 "1" 0 # line from E.MRY J1 115.00 (3) to (1) E.MRYSVE 115.00
 1 32288 32290 "1" 0 # line from E.MRY J1 115.00 (3) to (3) OLIVH J1 115.00
 1 32290 32204 "1" 0 # line from OLIVH J1 115.00 (3) to (1) OLIVHRST 115.00
 1 32290 32214 "1" 0 # line from OLIVH J1 115.00 (3) to BRKR RIO OSO 115.00
 4 32202 0 "2" 0 # LOAD-DROP E.MRYSVE 115.00 LOAD==10.55(0.47)
 4 32202 0 "3" 0 # LOAD-DROP E.MRYSVE 115.00 LOAD==9.73(0.44)
 4 32204 0 "1" 0 # LOAD-DROP OLIVHRST 115.00 LOAD==6.71(0.30)
 4 32204 0 "2" 0 # LOAD-DROP OLIVHRST 115.00 LOAD==21.33(0.95)
 1 32204 32286 "1" 1 #Transfer Olivehurst to alternate

2013 SUMMER CATEGORY "C" CONTINGENCY LIST

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4 32204 0 "" 1 #Restore load Olivehurst
1 32280 32202 "1" 1 #Transfer load to E. Marysville Alt. 2 summer
4 32202 0 "" 1 #Restore load at E. Marysville summer
0
#
#
# (62) BUS FAULT 30335 "ATLANTC"
#
1 30335 30330 "1" 0 # LINE from ATLANTC 230.00 to RIO OSO 230.00
1 30335 30337 "1" 0 # LINE from ATLANTC 230.00 to GOLDHILL 230.00
2 30335 32412 "3" 0 # TRAN from ATLANTC 230.00 to ATLANTIC 115.00
2 30335 32412 "4" 0 # TRAN from ATLANTC 230.00 to ATLANTIC 115.00
2 30335 32413 "1" 0 # TRAN from ATLANTC 230.00 to ATLANTI 60.00
0
#
#
# (63) BUS FAULT 30337 "GOLDHILL" 230 kV bus section 1
#
1 30337 30335 "1" 0 # LINE from GOLDHILL 230.00 to ATLANTC 230.00
1 30337 37012 "1" 0 # LINE from GOLDHILL 230.00 to LAKE 230.00
1 30337 38000 "1" 0 # LINE from GOLDHILL 230.00 to LODI 230.00
2 30337 32018 "1" 0 # TRAN from GOLDHILL 230.00 to GOLDHILL 115.00
0
#
#
# (64) BUS FAULT 30337 "GOLDHILL" 230 kV bus section 2
#
1 30337 30330 "1" 0 # LINE from GOLDHILL 230.00 to RIO OSO 230.00
1 30337 30340 "1" 0 # LINE from GOLDHILL 230.00 to RALSTON 230.00
1 30337 30621 "1" 0 # LINE from GOLDHILL 230.00 to Q260 230.00
2 30337 32018 "2" 0 # TRAN from GOLDHILL 230.00 to GOLDHILL 115.00
0
#
#
# (65) BUS FAULT 30345 "MIDLFORK"
#
1 30345 30340 "1" 0 # LINE from MIDLFORK 230.00 to RALSTON 230.00
2 30345 30346 "1" 0 # TRAN from MIDLFORK 230.00 to MDDLFK M 230.00
0
#
#
# (66) BUS FAULT 32018 "GOLDHILL" 115 kV bus section 1
#
1 32018 32229 "1" 0 # LINE from GOLDHILL 115.00 to HORSHE1 115.00
1 32018 32263 "1" 0 # LINE from GOLDHILL 115.00 to CLRKSVLE 115.00
1 32018 32275 "1" 0 # LINE from GOLDHILL 115.00 to CPM TAP 115.00
2 32018 30337 "1" 0 # TRAN from GOLDHILL 115.00 to GOLDHILL 230.00
0
#
#
# (67) BUS FAULT 32018 "GOLDHILL" 115 kV bus section 2
#
1 32018 32231 "2" 0 # LINE from GOLDHILL 115.00 to HORSHE2 115.00
1 32018 32268 "2" 0 # LINE from GOLDHILL 115.00 to SHPRING2 115.00
1 32018 33565 "1" 0 # LINE from GOLDHILL 115.00 to CMNCHETP 115.00
2 32018 30337 "2" 0 # TRAN from GOLDHILL 115.00 to GOLDHILL 230.00
2 32018 32110 "5" 0 # TRAN from GOLDHILL 115.00 to GOLD HLL 60.00
6 32018 0 "v" 0 # SVD-DROP GOLDHILL 115
0
#
#
# (68) BUS FAULT 32110 "GOLD HLL"
#
1 32110 32396 "1" 0 # LINE from GOLD HLL 60.00 to LIMESTNE 60.00
2 32110 32018 "5" 0 # TRAN from GOLD HLL 60.00 to GOLDHILL 115.00
0
#
#
# (69) BUS FAULT 32200 "PEASE" 115 kV Bus Section 1
#
1 32200 31506 "1" 0 # LINE from PEASE 115.00 to HONC JT1 115.00
4 32200 0 "1" 0 # LOAD-DROP PEASE 115.00 LOAD==10.30(0.46)
4 32200 0 "4" 0 # LOAD-DROP PEASE 115.00 LOAD==10.47(0.47)
0

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2013 SUMMER CATEGORY "C" CONTINGENCY LIST

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#
#
# (70) BUS FAULT 32200 "PEASE" 115 kV Bus Section 2
#
1 32200 32288 "1" 0 # LINE from PEASE 115.00 to E.MRY J1 115.00
2 32200 32330 "2" 0 # TRAN from PEASE 115.00 to PEAS RG 60.00
4 32200 0 "3" 0 # LOAD-DROP PEASE 115.00 LOAD==9.78(0.44)
0
#
#
# (71) BUS FAULT 32212 "E.NICOLS"
#
1 32212 32214 "1" 0 # LINE from E.NICOLS 115.00 to RIO OSO 115.00
1 32212 32280 "1" 0 # LINE from E.NICOLS 115.00 to E.MRY J2 115.00
2 32212 32342 "2" 0 # TRAN from E.NICOLS 115.00 to E.NICOLS 60.00
0
#
#
# (72) BUS FAULT 32228 "PLACER"
#
1 32228 32238 "1" 0 # LINE from PLACER 115.00 to BELL PGE 115.00
1 32228 32239 "2" 0 # LINE from PLACER 115.00 to FLINT2 115.00
1 32228 32236 "1" 0 # LINE from PLACER 115.00 to FLINT1 115.00
2 32228 32512 "1" 0 # TRAN from PLACER 115.00 to WISE 12.00
2 32228 32394 "1" 0 # TRAN from PLACER 115.00 to PLACER 60.00
4 32228 0 "2" 0 # LOAD-DROP PLACER 115.00 LOAD==23.05(1.03)
4 32228 0 "3" 0 # LOAD-DROP PLACER 115.00 LOAD==10.02(0.45)
0
#
#
# (73) BUS FAULT 32232 "HIGGINS"
#
1 32232 32224 "1" 0 # LINE from HIGGINS 115.00 to CHCGO PK 115.00
1 32232 32238 "1" 0 # LINE from HIGGINS 115.00 to BELL PGE 115.00
4 32232 0 "2" 0 # LOAD-DROP HIGGINS 115.00 LOAD==14.63(0.65)
4 32232 0 "3" 0 # LOAD-DROP HIGGINS 115.00 LOAD==17.29(0.77)
0
#
#
# (74) BUS FAULT 32238 "BELL PGE"
#
1 32238 32228 "1" 0 # LINE from BELL PGE 115.00 to PLACER 115.00
1 32238 32232 "1" 0 # LINE from BELL PGE 115.00 to HIGGINS 115.00
4 32238 0 "2" 0 # LOAD-DROP BELL PGE 115.00 LOAD==22.61(1.01)
4 32238 0 "3" 0 # LOAD-DROP BELL PGE 115.00 LOAD==15.50(0.69)
0
#
#
# (75) BUS FAULT 32250 "ELDORAD"
#
1 32250 32481 "2" 0 # LINE from ELDORAD 115.00 to APLHTAP2 115.00
1 32250 32482 "1" 0 # LINE from ELDORAD 115.00 to APLHTAP1 115.00
2 32250 32513 "1" 0 # TRAN from ELDORAD 115.00 to ELDRADO1 21.60
2 32250 32514 "1" 0 # TRAN from ELDORAD 115.00 to ELDRADO2 21.60
4 32250 0 "1" 0 # LOAD-DROP ELDORAD 115.00 LOAD==9.35(0.42)
0
#
#
# (76) BUS FAULT 32260 "MIZOU_T2"
#
1 32260 32257 "2" 0 # LINE from MIZOU_T2 115.00 to PLCRVLT2 115.00
1 32260 32259 "2" 0 # LINE from MIZOU_T2 115.00 to DIMOND_2 115.00
0
#
#
# (77) BUS FAULT 32261 "MIZOU_T1"
#
1 32261 32255 "1" 0 # LINE from MIZOU_T1 115.00 to PLCRVLT1 115.00
1 32261 32267 "1" 0 # LINE from MIZOU_T1 115.00 to DIMOND_1 115.00
0
#
#
# (78) BUS FAULT 32308 "COLGATE"
#

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2013 SUMMER CATEGORY "C" CONTINGENCY LIST

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1 32308 31658 "1" 0 # LINE from COLGATE 60.00 to BANGOR 60.00
1 32308 32307 "1" 0 # LINE from COLGATE 60.00 to COLGATEA 60.00
1 32308 32311 "1" 0 # LINE from COLGATE 60.00 to NRRWS1TP 60.00
1 32308 32313 "2" 0 # LINE from COLGATE 60.00 to NRRWS2TP 60.00
1 32308 32358 "1" 0 # LINE from COLGATE 60.00 to CLMBA HL 60.00
1 32308 32364 "1" 0 # LINE from COLGATE 60.00 to GRSS VLY 60.00
2 32308 30327 "3" 0 # TRAN from COLGATE 60.00 to COLGATE 230.00
0
#
#
# (79) BUS FAULT 32314 "SMRTSVLE"
#
1 32314 32311 "1" 0 # LINE from SMRTSVLE 60.00 to NRRWS1TP 60.00
1 32314 32313 "2" 0 # LINE from SMRTSVLE 60.00 to NRRWS2TP 60.00
1 32314 32316 "1" 0 # LINE from SMRTSVLE 60.00 to YUBAGOLD 60.00
1 32314 32341 "2" 0 # LINE from SMRTSVLE 60.00 to BEALE1J1 60.00
1 32314 32348 "1" 0 # LINE from SMRTSVLE 60.00 to BEALE2J2 60.00
1 32314 32349 "1" 0 # LINE from SMRTSVLE 60.00 to BEALE2J1 60.00
4 32314 0 "1" 0 # LOAD-DROP SMRTSVLE 60.00 LOAD==2.61(0.12)
0
#
#
# (80) BUS FAULT 32320 "MRYSVLLE"
#
1 32320 32318 "1" 0 # LINE from MRYSVLLE 60.00 to BRWNS VY 60.00
1 32320 32333 "1" 0 # LINE from MRYSVLLE 60.00 to PEASETP 60.00
1 32320 32344 "1" 0 # LINE from MRYSVLLE 60.00 to PLUMAS 60.00
1 32320 32332 "1" 0 # LINE from MRYSVLLE 60.00 to PEASE 60.00
4 32320 0 "1" 0 # LOAD-DROP MRYSVLLE 60.00 LOAD==18.85(0.84)
4 32320 0 "3" 0 # LOAD-DROP MRYSVLLE 60.00 LOAD==14.52(0.65)
0
#
#
# (81) BUS FAULT 32332 "PEASE"
#
1 32332 32326 "1" 0 # LINE from PEASE 60.00 to ENCL TAP 60.00
1 32332 32328 "1" 0 # LINE from PEASE 60.00 to YBA CTYJ 60.00
1 32332 32320 "1" 0 # LINE from PEASE 60.00 to MRYSVLLE 60.00
1 32332 32333 "1" 0 # LINE from PEASE 60.00 to PEASETP 60.00
2 32332 32330 "1" 0 # TRAN from PEASE 60.00 to PEAS RG 60.00
0
#
#
# (82) BUS FAULT 32342 "E.NICOLS"
#
1 32342 32306 "1" 0 # LINE from E.NICOLS 60.00 to CATLETT 60.00
1 32342 32340 "1" 0 # LINE from E.NICOLS 60.00 to TUDOR 60.00
1 32342 32079 "1" 0 # LINE from E.NICOLS 60.00 to DST1001B 60.00
1 32342 32089 "1" 0 # LINE from E.NICOLS 60.00 to DST1001A 60.00
1 32342 32305 "2" 0 # LINE from E.NICOLS 60.00 to CATLETJT 60.00
1 32342 32344 "1" 0 # LINE from E.NICOLS 60.00 to PLUMAS 60.00
1 32342 32353 "1" 0 # LINE from E.NICOLS 60.00 to WHTLND1 60.00
2 32342 32212 "2" 0 # TRAN from E.NICOLS 60.00 to E.NICOLS 115.00
4 32342 0 "1" 0 # LOAD-DROP E.NICOLS 60.00 LOAD==5.47(0.25)
0
#
#
# (83) BUS FAULT 32356 "LINCOLN"
#
1 32356 32214 "1" 0 # LINE from LINCOLN 115.00 to RIO OSO 115.00
1 32356 32404 "1" 0 # LINE from LINCOLN 115.00 to SPI JCT 115.00
4 32356 0 "1" 0 # LOAD-DROP LINCOLN 115.00 LOAD==34.00(0.00)
4 32356 0 "2" 0 # LOAD-DROP LINCOLN 115.00 LOAD==8.02(0.00)
4 32356 0 "3" 0 # LOAD-DROP LINCOLN 115.00 LOAD==18.77(0.00)
0
#
#
# (84) BUS FAULT 32364 "GRSS VLY"
#
1 32364 32308 "1" 0 # LINE from GRSS VLY 60.00 to COLGATE 60.00
1 32364 32377 "1" 0 # LINE from GRSS VLY 60.00 to ROLLNSTP 60.00
4 32364 0 "2" 0 # LOAD-DROP GRSS VLY 60.00 LOAD==14.20(0.64)
0
#

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2013 SUMMER CATEGORY "C" CONTINGENCY LIST

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#
# (85) BUS FAULT 32372 "SPAULDNG"
#
1 32372 32366 "1" 0 # LINE from SPAULDNG 60.00 to CISCO GR 60.00
1 32372 32407 "1" 0 # LINE from SPAULDNG 60.00 to BOWMN TP 60.00
2 32372 32472 "1" 0 # TRAN from SPAULDNG 60.00 to SPAULDG 9.11
4 32372 0 "1" 0 # LOAD-DROP SPAULDNG 60.00 LOAD==0.53(0.02)
0
#
#
# (86) BUS FAULT 32374 "DRUM"
#
1 32374 32376 "1" 0 # LINE from DRUM 60.00 to BONNIE N 60.00
1 32374 32407 "1" 0 # LINE from DRUM 60.00 to BOWMN TP 60.00
2 32374 32242 "1" 0 # TRAN from DRUM 60.00 to DRUM 1M 115.00
2 32374 32246 "2" 0 # TRAN from DRUM 60.00 to DRUM 2M 115.00
2 32374 32474 "1" 0 # TRAN from DRUM 60.00 to DEER CRK 9.11
4 32374 0 "1" 0 # LOAD-DROP DRUM 60.00 LOAD==0.35(0.01)
0
#
#
# (87) BUS FAULT 32378 "ROLLINS"
#
1 32378 32377 "1" 0 # LINE from ROLLINS 60.00 to ROLLNSTP 60.00
2 32378 32476 "1" 0 # TRAN from ROLLINS 60.00 to ROLLINSF 9.11
0
#
#
# (88) BUS FAULT 32380 "WEMR SWS"
#
1 32380 32369 "1" 0 # LINE from WEMR SWS 60.00 to COLFAXJT 60.00
1 32380 32382 "1" 0 # LINE from WEMR SWS 60.00 to FORST HL 60.00
1 32380 32390 "1" 0 # LINE from WEMR SWS 60.00 to HALSEY 60.00
4 32380 0 "1" 0 # LOAD-DROP WEMR SWS 60.00 LOAD==8.05(0.36)
0
#
#
# (89) BUS FAULT 32384 "OXBOW"
#
1 32384 32370 "1" 0 # LINE from OXBOW 60.00 to ENVRO_HY 60.00
1 32384 32386 "1" 0 # LINE from OXBOW 60.00 to MDDLE FK 60.00
2 32384 32484 "1" 0 # TRAN from OXBOW 60.00 to OXBOW F 9.11
0
#
#
# (90) BUS FAULT 32386 "MDDLE FK"
#
1 32386 32384 "1" 0 # LINE from MDDLE FK 60.00 to OXBOW 60.00
1 32386 32388 "1" 0 # LINE from MDDLE FK 60.00 to FRNCH MS 60.00
2 32386 30346 "4" 0 # TRAN from MDDLE FK 60.00 to MDDLFK M 230.00
0
#
#
# (91) BUS FAULT 32388 "FRNCH MS"
#
1 32388 32386 "1" 0 # LINE from FRNCH MS 60.00 to MDDLE FK 60.00
2 32388 32486 "1" 0 # TRAN from FRNCH MS 60.00 to HELLHOLE 9.11
2 32388 32508 "1" 0 # TRAN from FRNCH MS 60.00 to FRNCH MD 4.16
0
#
#
# (92) BUS FAULT 32390 "HALSEY"
#
1 32390 32380 "1" 0 # LINE from HALSEY 60.00 to WEMR SWS 60.00
1 32390 32410 "1" 0 # LINE from HALSEY 60.00 to MTN_QJCT 60.00
2 32390 32478 "1" 0 # TRAN from HALSEY 60.00 to HALSEY F 9.11
4 32390 0 "1" 0 # LOAD-DROP HALSEY 60.00 LOAD==17.90(0.80)
0
#
#
# (93) BUS FAULT 32394 "PLACER"
#
1 32394 32392 "1" 0 # LINE from PLACER 60.00 to AUBURN 60.00
1 32394 32270 "1" 0 # LINE from PLACER 60.00 to PENRYN 60.00

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2013 SUMMER CATEGORY "C" CONTINGENCY LIST

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2 32394 32228 "1" 0 # TRAN from PLACER 60.00 to PLACER 115.00
0
#
#
# (94) BUS FAULT 32400 "SPI-LINC"
#
1 32400 32404 "1" 0 # LINE from SPI-LINC 115.00 to SPI JCT 115.00
2 32400 32498 "1" 0 # TRAN from SPI-LINC 115.00 to SPILINCF 12.50
0
#
#
# (95) BUS FAULT 32408 "PLSNT GR"
#
1 32408 32414 "1" 0 # LINE from PLSNT GR 115.00 to FORMICA 115.00
1 32408 32412 "1" 0 # LINE from PLSNT GR 115.00 to ATLANTIC 115.00
1 32408 32412 "2" 0 # LINE from PLSNT GR 115.00 to ATLANTIC 115.00
4 32408 0 "1" 0 # LOAD-DROP PLSNT GR 115.00 LOAD==43.07(0.00)
4 32408 0 "2" 0 # LOAD-DROP PLSNT GR 115.00 LOAD==41.19(0.00)
4 32408 0 "3" 0 # LOAD-DROP PLSNT GR 115.00 LOAD==34.23(0.00)
0
#
#
# (96) BUS FAULT 32412 "ATLANTIC"
#
1 32412 32408 "1" 0 # LINE from ATLANTIC 115.00 to PLSNT GR 115.00
1 32412 32408 "2" 0 # LINE from ATLANTIC 115.00 to PLSNT GR 115.00
2 32412 30335 "3" 0 # TRAN from ATLANTIC 115.00 to ATLANTC 230.00
2 32412 30335 "4" 0 # TRAN from ATLANTIC 115.00 to ATLANTC 230.00
0
#
#
# (97) BUS FAULT 32413 "ATLANTI"
#
1 32413 32266 "1" 0 # LINE from ATLANTI 60.00 to TAYLOR 60.00
1 32413 32272 "1" 0 # LINE from ATLANTI 60.00 to DEL MAR 60.00
2 32413 30335 "1" 0 # TRAN from ATLANTI 60.00 to ATLANTC 230.00
0
#
#
# 2013 category c contingency list (dctl and bus outages)
# Stockton/Stanislaus Divisions Zones 311-312
#
#
# (98) C5 DCTL OUTAGE
# Valley Springs - Martell #1 and #2 60 kV Lines
1 33610 33619 "1" 0 # line from VLLY SPS 60.00 BRKR to (3) AMFOR_SW 60.00
1 33619 33616 "1" 0 # line from AMFOR_SW 60.00 (3) to BRKR MARTELL 60.00
1 33619 33620 "1" 0 # line from AMFOR_SW 60.00 (3) to (1) AM FORST 60.00
4 33616 0 "1" 0 # LOAD-DROP MARTELL 60.00 LOAD==19.52(0.87)
4 33620 0 "1" 0 # LOAD-DROP AM FORST 60.00 LOAD==1.90(1.52)
#
1 33610 33634 "1" 0 # line from VLLY SPS 60.00 BRKR to (3) PRDE JCT 60.00
1 33634 33626 "1" 0 # line from PRDE JCT 60.00 (3) to (3) I.NRGYJT 60.00
2 33634 33846 "1" 0 # TRAN from PRDE JCT 60.00 (3) to (1) PRDE 1-3 7.20
1 33626 33622 "1" 0 # line from I.NRGYJT 60.00 (3) to (2) CLAY 60.00
1 33626 33628 "1" 0 # line from I.NRGYJT 60.00 (3) to (2) I.ENERGY 60.00
1 33622 33623 "1" 0 # line from CLAY 60.00 (2) to (3) INE_TP 60.00
1 33623 33617 "1" 0 # line from INE_TP 60.00 (3) to (1) MARTELTP 60.00
1 33623 33624 "1" 0 # line from INE_TP 60.00 (3) to (1) INE PRSN 60.00
2 33628 33816 "1" 0 # TRAN from I.ENERGY 60.00 (2) to (1) I.ENERGY 12.00
4 33622 0 "1" 0 # LOAD-DROP CLAY 60.00 LOAD==13.69(0.62)
4 33622 0 "2" 0 # LOAD-DROP CLAY 60.00 LOAD==4.09(0.18)
4 33624 0 "1" 0 # LOAD-DROP INE PRSN 60.00 LOAD==12.55(0.56)
3 33846 0 "2" 0 # GEN-DROP PRDE 1-3 7.20 GEN==8.00(2.00)
0
#
#
# (99) C5 DCTL OUTAGE
# Bellota - Riverbank - Melones and Bellota - Riverbank 115 kV Lines
1 33562 33950 "1" 0 # line from BELLOTA 115.00 BRKR to (3) RVRBK TP 115.00
1 33950 33934 "1" 0 # line from RVRBK TP 115.00 (3) to (3) TULLOCH 115.00
1 33950 33944 "1" 0 # line from RVRBK TP 115.00 (3) to BRKR RVRBANK 115.00
1 33934 33932 "1" 0 # line from TULLOCH 115.00 (3) to BRKR MELONES 115.00
2 33934 34076 "1" 0 # TRAN from TULLOCH 115.00 (3) to (1) TULLOCH 6.90

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2013 SUMMER CATEGORY "C" CONTINGENCY LIST

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3 34076 0 "1" 0 # GEN-DROP TULLOCH 6.90 GEN==8.30(1.00)
3 34076 0 "2" 0 # GEN-DROP TULLOCH 6.90 GEN==8.30(1.00)
#
1 33562 33946 "1" 0 # line from BELLOTA 115.00 BRKR to (2) RVRBK J1 115.00
1 33946 33944 "1" 0 # line from RVRBK J1 115.00 (2) to BRKR RVRBANK 115.00
0
#
#
# (100) C5 DCTL OUTAGE
# Stanislaus - Manteca #2 and Riverbank Jct Sw Sta - Manteca 115 kV Lines
1 33506 33948 "1" 0 # line from STANISLS 115.00 BRKR to (2) RVRBK J2 115.00
1 33948 33953 "1" 0 # line from RVRBK J2 115.00 (2) to (2) VLYHMTP2 115.00
1 33953 33511 "1" 0 # line from VLYHMTP2 115.00 (2) to (2) AVENATP2 115.00
1 33511 33514 "1" 0 # line from AVENATP2 115.00 (2) to BRKR MANTECA 115.00
#
1 33516 33514 "1" 0 # line from RPN JNCN 115.00 (3) to BRKR MANTECA 115.00
1 33516 33520 "1" 0 # line from RPN JNCN 115.00 (3) to (1) RIPON 115.00
1 33516 33951 "1" 0 # line from RPN JNCN 115.00 (3) to (3) VLYHMTP1 115.00
1 33951 33947 "1" 0 # line from VLYHMTP1 115.00 (3) to BRKR RIVRBKJT 115.00
1 33951 33952 "1" 0 # line from VLYHMTP1 115.00 (3) to (1) VALLY HM 115.00
4 33520 0 "2" 0 # LOAD-DROP RIPON 115.00 LOAD==29.97(1.34)
4 33952 0 "1" 0 # LOAD-DROP VALLY HM 115.00 LOAD==5.36(0.24)
0
#
#
# (101) C5 DCTL OUTAGE
# Stanislaus - Melones - Manteca #1 and Stanislaus - Manteca #2 115 kV Lines
1 33500 33509 "1" 0 # line from MELNS JA 115.00 (3) to (3) AVENATP1 115.00
1 33500 33501 "1" 0 # line from MELNS JA 115.00 (3) to (3) FRGTNTP1 115.00
1 33500 33932 "1" 0 # line from MELNS JA 115.00 (3) to BRKR MELONES 115.00
1 33509 33510 "1" 0 # line from AVENATP1 115.00 (3) to (1) AVENA 115.00
1 33509 33514 "1" 0 # line from AVENATP1 115.00 (3) to BRKR MANTECA 115.00
1 33501 33502 "1" 0 # line from FRGTNTP1 115.00 (3) to (1) FROGTOWN 115.00
1 33501 33506 "1" 0 # line from FRGTNTP1 115.00 (3) to BRKR STANISLS 115.00
4 33510 0 "1" 0 # LOAD-DROP AVENA 115.00 LOAD==13.67(0.61)
4 33502 0 "1" 0 # LOAD-DROP FROGTOWN 115.00 LOAD==11.14(0.50)
4 33502 0 "2" 0 # LOAD-DROP FROGTOWN 115.00 LOAD==8.04(0.36)
1 33511 33510 "1" 1 # Switches in Avenan SW 145 to transfer load
4 33510 0 "1" 1 # Restores Load at Avena
#
1 33506 33948 "1" 0 # line from STANISLS 115.00 BRKR to (2) RVRBK J2 115.00
1 33948 33953 "1" 0 # line from RVRBK J2 115.00 (2) to (2) VLYHMTP2 115.00
1 33953 33511 "1" 0 # line from VLYHMTP2 115.00 (2) to (2) AVENATP2 115.00
1 33511 33514 "1" 0 # line from AVENATP2 115.00 (2) to BRKR MANTECA 115.00
0
#
#
# (102) C5 DCTL OUTAGE
# Tesla - Manteca and Tesla - Schulte 115 kV Lines pre-project outage
1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33535 "1" 0 # line from OWENSTP2 115.00 (2) to (2) SFWY_TP2 115.00
1 33535 33543 "1" 0 # line from SFWY_TP2 115.00 (2) to (3) AEC_TP2 115.00
1 33543 33540 "1" 0 # line from AEC_TP2 115.00 (3) to BRKR TESLA 115.00
1 33543 33545 "1" 0 # line from AEC_TP2 115.00 (3) to (2) AEC_JCT 115.00
1 33545 33547 "1" 0 # line from AEC_JCT 115.00 (2) to (1) AEC_300 115.00
4 33547 0 "1" 0 # LOAD-DROP AEC_300 115.00 LOAD==3.00(9.54)
#
1 33537 33534 "1" 0 # line from SFWY_TP1 115.00 (3) to (1) SAFEWAY 115.00
1 33537 33549 "1" 0 # line from SFWY_TP1 115.00 (3) to BRKR GWFRACY 115.00
1 33537 33541 "1" 0 # line from SFWY_TP1 115.00 (3) to (2) AEC_TP1 115.00
1 33541 33540 "1" 0 # line from AEC_TP1 115.00 (2) to BRKR TESLA 115.00
4 33534 0 "1" 0 # LOAD-DROP SAFEWAY 115.00 LOAD==5.38(2.76)
0
#
#
# (103) C5 DCTL OUTAGE
# Tesla - Manteca and Schulte - Lammers 115 kV Lines pre-project outage
1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33535 "1" 0 # line from OWENSTP2 115.00 (2) to (2) SFWY_TP2 115.00
1 33535 33543 "1" 0 # line from SFWY_TP2 115.00 (2) to (3) AEC_TP2 115.00

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1 33543 33540 "1" 0 # line from AEC_TP2 115.00 (3) to BRKR TESLA 115.00
1 33543 33545 "1" 0 # line from AEC_TP2 115.00 (3) to (2) AEC_JCT 115.00
1 33545 33547 "1" 0 # line from AEC_JCT 115.00 (2) to (1) AEC_300 115.00
4 33547 0 "1" 0 # LOAD-DROP AEC_300 115.00 LOAD==3.00(9.54)

1 33529 33531 "1" 0 # line from LAMMERS 115.00 BRKR to (3) OWENSTP1 115.00
1 33531 33532 "1" 0 # line from OWENSTP1 115.00 (3) to (1) OI GLASS 115.00
1 33531 33549 "1" 0 # line from OWENSTP1 115.00 (3) to BRKR GWFTRACY 115.00
4 33532 0 "1" 0 # LOAD-DROP OI GLASS 115.00 LOAD==11.34(7.03)
0

(104) C5 DCTL OUTAGE
Tesla - Schulte #1 and #2 115 kV Lines post-project outage
1 33537 33534 "1" 0 # line from SFWY_TP1 115.00 (3) to (1) SAFEWAY 115.00
1 33537 33549 "1" 0 # line from SFWY_TP1 115.00 (3) to BRKR SCHULTE 115.00
1 33537 33541 "1" 0 # line from SFWY_TP1 115.00 (3) to (2) AEC_TP1 115.00
1 33541 33540 "1" 0 # line from AEC_TP1 115.00 (2) to BRKR TESLA 115.00
4 33534 0 "1" 0 # LOAD-DROP SAFEWAY 115.00 LOAD==5.38(2.76)

1 33535 33549 "2" 0 # line from SFWY_TP2 115.00 (2) to BRKR SCHULTE 115.00
1 33535 33543 "1" 0 # line from SFWY_TP2 115.00 (2) to (3) AEC_TP2 115.00
1 33543 33540 "1" 0 # line from AEC_TP2 115.00 (3) to BRKR TESLA 115.00
1 33543 33545 "1" 0 # line from AEC_TP2 115.00 (3) to (2) AEC_JCT 115.00
1 33545 33547 "1" 0 # line from AEC_JCT 115.00 (2) to (1) AEC_300 115.00
4 33547 0 "1" 0 # LOAD-DROP AEC_300 115.00 LOAD==3.00(9.54)
0

(105) C5 DCTL OUTAGE
Schulte - Lammers and Schulte - Manteca 115 kV Lines post-project outage
1 33529 33531 "1" 0 # line from LAMMERS 115.00 BRKR to (3) OWENSTP1 115.00
1 33531 33532 "1" 0 # line from OWENSTP1 115.00 (3) to (1) OI GLASS 115.00
1 33531 33549 "1" 0 # line from OWENSTP1 115.00 (3) to BRKR SCHULTE 115.00
4 33532 0 "1" 0 # LOAD-DROP OI GLASS 115.00 LOAD==11.34(7.03)

1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33549 "2" 0 # line from OWENSTP2 115.00 (2) to BRKR SCHULTE 115.00
0

(106) C5 DCTL OUTAGE
Tesla - Manteca and Manteca - Vierra 115 kV Lines pre-project outage
1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33535 "1" 0 # line from OWENSTP2 115.00 (2) to (2) SFWY_TP2 115.00
1 33535 33543 "1" 0 # line from SFWY_TP2 115.00 (2) to (3) AEC_TP2 115.00
1 33543 33540 "1" 0 # line from AEC_TP2 115.00 (3) to BRKR TESLA 115.00
1 33543 33545 "1" 0 # line from AEC_TP2 115.00 (3) to (2) AEC_JCT 115.00
1 33545 33547 "1" 0 # line from AEC_JCT 115.00 (2) to (1) AEC_300 115.00
4 33547 0 "1" 0 # LOAD-DROP AEC_300 115.00 LOAD==3.00(9.54)

1 33518 33514 "1" 0 # line from VIERRA 115.00 BRKR to BRKR MANTECA 115.00
0

(107) C5 DCTL OUTAGE
Schulte - Manteca and Manteca - Vierra 115 kV Lines post-project outage
1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33549 "2" 0 # line from OWENSTP2 115.00 (2) to BRKR SCHULTE 115.00

1 33518 33514 "1" 0 # line from VIERRA 115.00 BRKR to BRKR MANTECA 115.00
0

(108) C5 DCTL OUTAGE
Tesla - Manteca and Tesla - Salado - Manteca 115 kV Lines pre-project outage
1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00

2013 SUMMER CATEGORY "C" CONTINGENCY LIST

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1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33535 "1" 0 # line from OWENSTP2 115.00 (2) to (2) SFWY_TP2 115.00
1 33535 33543 "1" 0 # line from SFWY_TP2 115.00 (2) to (3) AEC_TP2 115.00
1 33543 33540 "1" 0 # line from AEC_TP2 115.00 (3) to BRKR TESLA 115.00
1 33543 33545 "1" 0 # line from AEC_TP2 115.00 (3) to (2) AEC_JCT 115.00
1 33545 33547 "1" 0 # line from AEC_JCT 115.00 (2) to (1) AEC_300 115.00
4 33547 0 "1" 0 # LOAD-DROP AEC_300 115.00 LOAD==3.00(9.54)
#
1 33514 33970 "1" 0 # line from MANTECA 115.00 BRKR to (3) INGRM C. 115.00
1 33970 33959 "1" 0 # line from INGRM C. 115.00 (3) to (2) TCHRT_T2 115.00
1 33970 33965 "1" 0 # line from INGRM C. 115.00 (3) to (2) SALADO J 115.00
1 33959 33540 "1" 0 # line from TCHRT_T2 115.00 (2) to BRKR TESLA 115.00
1 33965 33964 "1" 0 # line from SALADO J 115.00 (2) to BRKR SALADO 115.00
4 33970 0 "1" 0 # LOAD-DROP INGRM C. 115.00 LOAD==3.59(1.74)
0
#
#
# (109) C5 DCTL OUTAGE
# Schulte - Manteca and Tesla - Salado - Manteca 115 kV Lines post-project outage
1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33549 "2" 0 # line from OWENSTP2 115.00 (2) to BRKR SCHULTE 115.00
#
1 33514 33970 "1" 0 # line from MANTECA 115.00 BRKR to (3) INGRM C. 115.00
1 33970 33959 "1" 0 # line from INGRM C. 115.00 (3) to (2) TCHRT_T2 115.00
1 33970 33965 "1" 0 # line from INGRM C. 115.00 (3) to (2) SALADO J 115.00
1 33959 33540 "1" 0 # line from TCHRT_T2 115.00 (2) to BRKR TESLA 115.00
1 33965 33964 "1" 0 # line from SALADO J 115.00 (2) to BRKR SALADO 115.00
4 33970 0 "1" 0 # LOAD-DROP INGRM C. 115.00 LOAD==3.59(1.74)
0
#
#
# (110) C5 DCTL OUTAGE
# Tesla - Salado #1 and Tesla - Salado - Manteca 115 kV Lines
1 33540 33961 "1" 0 # line from TESLA 115.00 BRKR to (3) TCHRT_T1 115.00
1 33961 33960 "1" 0 # line from TCHRT_T1 115.00 (3) to (2) MDSTO CN 115.00
1 33961 33963 "1" 0 # line from TCHRT_T1 115.00 (3) to (2) TCHRTJCT 115.00
1 33960 33962 "1" 0 # line from MDSTO CN 115.00 (2) to (3) SALDO TP 115.00
1 33962 33964 "1" 0 # line from SALDO TP 115.00 (3) to BRKR SALADO 115.00
1 33962 33967 "1" 0 # line from SALDO TP 115.00 (3) to (2) MILLER TP 115.00
1 33967 33966 "1" 0 # line from MILLER TP 115.00 (2) to (1) MILLER 115.00
1 33963 33968 "1" 0 # line from TCHRTJCT 115.00 (2) to (1) TEICHERT 115.00
4 33966 0 "1" 0 # LOAD-DROP MILLER 115.00 LOAD==3.54(1.71)
4 33968 0 "1" 0 # LOAD-DROP TEICHERT 115.00 LOAD==7.42(6.54)
#
1 33514 33970 "1" 0 # line from MANTECA 115.00 BRKR to (3) INGRM C. 115.00
1 33970 33959 "1" 0 # line from INGRM C. 115.00 (3) to (2) TCHRT_T2 115.00
1 33970 33965 "1" 0 # line from INGRM C. 115.00 (3) to (2) SALADO J 115.00
1 33959 33540 "1" 0 # line from TCHRT_T2 115.00 (2) to BRKR TESLA 115.00
1 33965 33964 "1" 0 # line from SALADO J 115.00 (2) to BRKR SALADO 115.00
4 33970 0 "1" 0 # LOAD-DROP INGRM C. 115.00 LOAD==3.59(1.74)
0
#
#
# (111) C5 DCTL OUTAGE
# Stockton Jct Sw Sta - Lockeford - Bellota #1 and #2 115 kV Lines
1 33556 33555 "1" 0 # line from STN COGN 115.00 (3) to (1) STKTON A 115.00
1 33556 33560 "1" 0 # line from STN COGN 115.00 (3) to (2) LCKFRDJA 115.00
1 33556 33958 "1" 0 # line from STN COGN 115.00 (3) to (2) CPC STCN 115.00
1 33560 33562 "1" 0 # line from LCKFRDJA 115.00 (2) to BRKR BELLOTA 115.00
2 33958 33814 "1" 0 # TRAN from CPC STCN 115.00 (2) to (1) CPC STCN 12.47
4 33555 0 "4" 0 # LOAD-DROP STKTON A 115.00 LOAD==32.05(1.43)
4 33555 0 "5" 0 # LOAD-DROP STKTON A 115.00 LOAD==21.46(0.96)
4 33814 0 "SG" 0 # LOAD-DROP CPC STCN 12.47 LOAD==6.19(1.41)
3 33814 0 "1" 0 # GEN-DROP CPC STCN 12.47 GEN==49.00(2.53)
#
1 33552 33553 "1" 0 # line from STCKTNJB 115.00 (2) to BRKR STKTON B 115.00
1 33552 33558 "1" 0 # line from STCKTNJB 115.00 (2) to (3) LCKFRDJB 115.00
1 33558 33562 "1" 0 # line from LCKFRDJB 115.00 (3) to BRKR BELLOTA 115.00
1 33558 33564 "1" 0 # line from LCKFRDJB 115.00 (3) to BRKR LOCKFORD 115.00
4 33553 0 "3" 0 # LOAD-DROP STKTON B 115.00 LOAD==30.08(1.34)
1 33555 33553 "1" 1 # Switches in Stockton 'A' SW 177 to transfer load
4 33553 0 "1" 1 # Restore Load at Stockton 'A' Bk 3

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2013 SUMMER CATEGORY "C" CONTINGENCY LIST

0

(112) C5 DCTL OUTAGE
Stanislaus - Manteca #2 and Stanislaus - Melones - Riverbank Jct Sw Sta 115 kV Lines
1 33506 33948 "1" 0 # line from STANISLS 115.00 BRKR to (2) RVRBK J2 115.00
1 33948 33953 "1" 0 # line from RVRBK J2 115.00 (2) to (2) VLYHMTP2 115.00
1 33953 33511 "1" 0 # line from VLYHMTP2 115.00 (2) to (2) AVENATP2 115.00
1 33511 33514 "1" 0 # line from AVENATP2 115.00 (2) to BRKR MANTECA 115.00

1 33503 33936 "1" 0 # line from FRGTNTP2 115.00 (2) to (3) MELNS JB 115.00
1 33503 33504 "1" 0 # line from FRGTNTP2 115.00 (2) to (2) CATARACT 115.00
1 33936 33932 "1" 0 # line from MELNS JB 115.00 (3) to BRKR MELONES 115.00
1 33936 33947 "1" 0 # line from MELNS JB 115.00 (3) to BRKR RIVRBKJT 115.00
1 33504 33506 "1" 0 # line from CATARACT 115.00 (2) to BRKR STANISLS 115.00
0

(113) C5 DCTL OUTAGE
Kasson - Lammers 115 kV Line and Tesla - Manteca 115 kV Line pre-project outage
1 33528 33529 "1" 0 # line from KASSON 115.00 BRKR to BRKR LAMMERS 115.00

1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33535 "1" 0 # line from OWENSTP2 115.00 (2) to (2) SFWY_TP2 115.00
1 33535 33543 "1" 0 # line from SFWY_TP2 115.00 (2) to (3) AEC_TP2 115.00
1 33543 33540 "1" 0 # line from AEC_TP2 115.00 (3) to BRKR TESLA 115.00
1 33543 33545 "1" 0 # line from AEC_TP2 115.00 (3) to (2) AEC_JCT 115.00
1 33545 33547 "1" 0 # line from AEC_JCT 115.00 (2) to (1) AEC_300 115.00
4 33547 0 "1" 0 # LOAD-DROP AEC_300 115.00 LOAD==3.00(9.54)
0

(114) C5 DCTL OUTAGE
Kasson - Lammers 115 kV Line and Schulte - Manteca 115 kV Line post-project outage
1 33528 33529 "1" 0 # line from KASSON 115.00 BRKR to BRKR LAMMERS 115.00

1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33549 "2" 0 # line from OWENSTP2 115.00 (2) to BRKR SCHULTE 115.00
0

(115) C5 DCTL OUTAGE
Tesla - Stagg and Tesla - Eight Mile 230 kV Lines
1 30489 30624 "1" 0 # line from STAGG-J2 230.00 (2) to BRKR TESLA E 230.00
1 30489 30499 "1" 0 # line from STAGG-J2 230.00 (2) to BRKR STAGG-E 230.00

1 30622 30624 "1" 0 # line from EIGHT MI 230.00 BRKR to BRKR TESLA E 230.00
0

(116) C5 DCTL OUTAGE
Stagg - Eight Mile and Tesla - Eight Mile 230 kV Lines
1 30622 30495 "1" 0 # line from EIGHT MI 230.00 BRKR to BRKR STAGG 230.00

1 30622 30624 "1" 0 # line from EIGHT MI 230.00 BRKR to BRKR TESLA E 230.00
0

(117) C5 DCTL OUTAGE
Q260 - Eight Mile and Eight Mile - Lodi Stig 230 kV Lines
1 30621 30622 "1" 0 # line from Q260 230.00 BRKR to BRKR EIGHT MI 230.00

1 38000 30622 "1" 0 # line from LODI 230.00 BRKR to BRKR EIGHT MI 230.00
0

(118) C5 DCTL OUTAGE
Gold Hill - Q260 and Lodi Stig - Gold Hill 230 kV Lines
1 30337 30621 "1" 0 # line from GOLDHILL 230.00 BRKR to BRKR Q260 230.00
#

2013 SUMMER CATEGORY "C" CONTINGENCY LIST

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1 30337 38000 "1 " 0 # line from GOLDHILL 230.00 BRKR to BRKR LODI 230.00
0
#
#
# (119) C5 DCTL OUTAGE
# Q260 - Eight Mile and Lodi Stig - Gold Hill 230 kV Lines
1 30621 30622 "1 " 0 # line from Q260 230.00 BRKR to BRKR EIGHT MI 230.00
#
1 30337 38000 "1 " 0 # line from GOLDHILL 230.00 BRKR to BRKR LODI 230.00
0
#
#
# (120) C5 DCTL OUTAGE
# Bellota - P0703 and Bellota - Weber 230 kV Lines
1 30500 30888 "1 " 0 # line from BELLOTA 230.00 BRKR to BRKR P0703 230.00
#
1 30500 30505 "1 " 0 # line from BELLOTA 230.00 BRKR to BRKR WEBER 230.00
0
#
#
# (121) C5 DCTL OUTAGE
# Bellota - P0703 and Weber - P0703 230 kV Lines
1 30500 30888 "1 " 0 # line from BELLOTA 230.00 BRKR to BRKR P0703 230.00
#
1 30624 30888 "2 " 0 # line from TESLA E 230.00 BRKR to BRKR P0703 230.00
0
#
#
# (122) C5 DCTL OUTAGE
# P0703 - Tesla #1 and #2 230 kV Lines
1 30624 30888 "1 " 0 # line from TESLA E 230.00 BRKR to BRKR P0703 230.00
#
1 30624 30888 "2 " 0 # line from TESLA E 230.00 BRKR to BRKR P0703 230.00
0
#
#
# (123) C5 DCTL OUTAGE
# Tesla - Newark #1 and Tesla - Ravenswood 230 kV Lines
1 30624 30630 "1 " 0 # line from TESLA E 230.00 BRKR to BRKR NEWARK D 230.00
#
1 30640 30703 "1 " 0 # line from TESLA C 230.00 BRKR to BRKR RAVENSWD 230.00
0
#
#
# (124) C5 DCTL OUTAGE
# Delta Switching Yard - Telsa and Kelso - Telsa 230 kV Lines
1 30580 30625 "1 " 0 # line from ALTM MDW 230.00 (3) to BRKR TESLA D 230.00
1 30580 38610 "1 " 0 # line from ALTM MDW 230.00 (3) to BRKR DELTAPMP 230.00
2 30580 33175 "1 " 0 # TRAN from ALTM MDW 230.00 (3) to (1) ALTAMONT 9.11
#
1 30569 30570 "1 " 0 # line from KELSO 230.00 BRKR to (4) USWP-RLF 230.00
1 30570 30571 "1 " 0 # line from USWP-RLF 230.00 (4) to (2) ALTALAND 230.00
1 30570 30625 "1 " 0 # line from USWP-RLF 230.00 (4) to BRKR TESLA D 230.00
2 30570 33836 "1 " 0 # TRAN from USWP-RLF 230.00 (4) to (1) USWP_#4 9.11
2 30571 33832 "1 " 0 # TRAN from ALTALAND 230.00 (2) to (1) COG.CAPT 9.11
4 33836 0 "SG" 0 # LOAD-DROP USWP_#4 9.11 LOAD==0.34(0.21)
3 33836 0 "3" 0 # GEN-DROP USWP_#4 9.11 GEN==4.50(0.00)
3 33832 0 "1" 0 # GEN-DROP COG.CAPT 9.11 GEN==4.30(6.60)
0
#
#
# (125) C5 DCTL OUTAGE
# Tesla - Q235 Sw Station #1 and #2 230 kV Lines
1 30625 30636 "1 " 0 # line from TESLA D 230.00 BRKR to BRKR Q235SWST 230.00
#
1 30625 30636 "2 " 0 # line from TESLA D 230.00 BRKR to BRKR Q235SWST 230.00
0
#
#
# (126) C5 DCTL OUTAGE
# Q235 Sw Station - Tracy #1 and #2 230 kV Lines
1 30636 37585 "1 " 0 # line from Q235SWST 230.00 BRKR to BRKR TRCY PMP 230.00
#
1 30636 37585 "2 " 0 # line from Q235SWST 230.00 BRKR to BRKR TRCY PMP 230.00

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2013 SUMMER CATEGORY "C" CONTINGENCY LIST

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0
#
#
# (127) C5 DCTL OUTAGE
# Bellota - Rancho Seco PP #1 and #2 230 kV Lines
1 37016 30500 "1 " 0 # line from RNCHSECO 230.00 BRKR to BRKR BELLOTA 230.00
#
1 37016 30500 "2 " 0 # line from RNCHSECO 230.00 BRKR to BRKR BELLOTA 230.00
0
#
#
# (128) C5 DCTL OUTAGE
# Lockeford - Bellota and Brighton - Bellota 230 kV Lines
1 30482 30500 "1 " 0 # line from LOCKFORD 230.00 BRKR to BRKR BELLOTA 230.00
#
1 30348 30500 "1 " 0 # line from BRIGHTON 230.00 BRKR to BRKR BELLOTA 230.00
0
#
#
# (129) BUS FAULT 30495 "STAGG"
#
1 30495 30489 "1" 0 # LINE from STAGG 230.00 to STAGG-J2 230.00
1 30495 30496 "1" 0 # LINE from STAGG 230.00 to STAGG-H 230.00
1 30495 30622 "1" 0 # LINE from STAGG 230.00 to EIGHT MI 230.00
0
#
#
# (130) BUS FAULT 30498 "STAGG-D"
#
1 30498 30497 "1" 0 # LINE from STAGG-D 230.00 to STAGG-F 230.00
1 30498 30499 "1" 0 # LINE from STAGG-D 230.00 to STAGG-E 230.00
2 30498 33704 "1" 0 # TRAN from STAGG-D 230.00 to STAGG 60.00
0
#
#
# (131) BUS FAULT 30499 "STAGG-E"
#
1 30499 30498 "1" 0 # LINE from STAGG-E 230.00 to STAGG-D 230.00
1 30499 30489 "1" 0 # LINE from STAGG-E 230.00 to STAGG-J2 230.00
2 30499 33704 "4" 0 # TRAN from STAGG-E 230.00 to STAGG 60.00
0
#
#
# (132) BUS FAULT 30500 "BELLOTA" 230 kV Bus Section 1
#
1 30500 30348 "1" 0 # LINE from BELLOTA 230.00 to BRIGHTON 230.00
1 30500 30505 "1" 0 # LINE from BELLOTA 230.00 to WEBER 230.00
1 30500 38206 "1" 0 # LINE from BELLOTA 230.00 to COTTLE A 230.00
1 30500 37016 "1" 0 # LINE from BELLOTA 230.00 to RNCHSECO 230.00
1 30500 30487 "1" 0 # LINE from BELLOTA 230.00 to ELECTRA 230.00
1 30500 30503 "2" 0 # LINE from BELLOTA 230.00 to COLLERVL 230.00
2 30500 30501 "1" 0 # TRAN from BELLOTA 230.00 to BLLTA 1M 230.00
0
#
#
# (133) BUS FAULT 30500 "BELLOTA" 230 kV Bus Section 2
#
1 30500 30482 "1" 0 # LINE from BELLOTA 230.00 to LOCKFORD 230.00
1 30500 30490 "1" 0 # LINE from BELLOTA 230.00 to VLLY SPS 230.00
1 30500 30503 "1" 0 # LINE from BELLOTA 230.00 to COLLERVL 230.00
1 30500 30888 "1" 0 # LINE from BELLOTA 230.00 to P0703 230.00
1 30500 38208 "1" 0 # LINE from BELLOTA 230.00 to COTTLE B 230.00
1 30500 37016 "2" 0 # LINE from BELLOTA 230.00 to RNCHSECO 230.00
2 30500 33562 "2" 0 # TRAN from BELLOTA 230.00 to BELLOTA 115.00
0
#
#
# (134) BUS FAULT 30503 "COLLERVL"
#
1 30503 30500 "1" 0 # LINE from COLLERVL 230.00 to BELLOTA 230.00
1 30503 30500 "2" 0 # LINE from COLLERVL 230.00 to BELLOTA 230.00
2 30503 38102 "1" 0 # TRAN from COLLERVL 230.00 to COLLRVL1 13.80
2 30503 38104 "1" 0 # TRAN from COLLERVL 230.00 to COLLRVL2 13.80
0

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2013 SUMMER CATEGORY "C" CONTINGENCY LIST

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#
#
# (135) BUS FAULT 30569 "KELSO"
#
1 30569 30565 "1" 0 # LINE from KELSO 230.00 to BRENTWOD 230.00
1 30569 30570 "1" 0 # LINE from KELSO 230.00 to USWP-RLF 230.00
4 30569 0 "1" 0 # LOAD-DROP KELSO 230.00 LOAD==11.86(7.35)
0
#
#
# (136) BUS FAULT 30624 "TESLA E" 230 kV Bus Section 1E
#
1 30624 30630 "1" 0 # LINE from TESLA E 230.00 to NEWARK D 230.00
1 30624 30622 "1" 0 # LINE from TESLA E 230.00 to EIGHT MI 230.00
1 30624 30888 "1" 0 # LINE from TESLA E 230.00 to P0703 230.00
1 30624 30632 "1" 0 # LINE from TESLA E 230.00 to TESL_GEN 230.00
0
#
#
# (137) BUS FAULT 30624 "TESLA E" 230 kV Bus Section 1E
#
1 30624 30489 "1" 0 # LINE from TESLA E 230.00 to STAGG-J2 230.00
1 30624 30670 "1" 0 # LINE from TESLA E 230.00 to WESTLEY 230.00
1 30624 30632 "2" 0 # LINE from TESLA E 230.00 to TESL_GEN 230.00
1 30624 30888 "2" 0 # LINE from TESLA E 230.00 to P0703 230.00
0
#
#
# (138) BUS FAULT 30625 "TESLA D" 230 kV Bus Section 1D
#
1 30625 30570 "1" 0 # LINE from TESLA D 230.00 to USWP-RLF 230.00
1 30625 37585 "1" 0 # LINE from TESLA D 230.00 to TRCY PMP 230.00
1 30625 30636 "1" 0 # LINE from TESLA D 230.00 to Q235SWST 230.00
2 30625 33540 "1" 0 # TRAN from TESLA D 230.00 to TESLA 115.00
0
#
#
# (139) BUS FAULT 30625 "TESLA D" 230 kV Bus Section 2D
#
1 30625 30580 "1" 0 # LINE from TESLA D 230.00 to ALTM MDW 230.00
1 30625 37585 "2" 0 # LINE from TESLA D 230.00 to TRCY PMP 230.00
1 30625 30636 "2" 0 # LINE from TESLA D 230.00 to Q235SWST 230.00
2 30625 33540 "3" 0 # TRAN from TESLA D 230.00 to TESLA 115.00
6 30625 0 "v" 0 # SVD-DROP TESLA D 230.00
0
#
#
# (140) BUS FAULT 30637 "Q235"
#
1 30637 30636 "1" 0 # LINE from Q235 230.00 to Q235SWST 230.00
1 30637 30636 "2" 0 # LINE from Q235 230.00 to Q235SWST 230.00
2 30637 33863 "1" 0 # TRAN from Q235 230.00 to Q235GT1 13.80
2 30637 33864 "1" 0 # TRAN from Q235 230.00 to Q235GT2 13.80
2 30637 33865 "1" 0 # TRAN from Q235 230.00 to Q235GT3 13.80
2 30637 33866 "1" 0 # TRAN from Q235 230.00 to Q235GT4 13.80
2 30637 33867 "1" 0 # TRAN from Q235 230.00 to Q235GT5 13.80
2 30637 33868 "1" 0 # TRAN from Q235 230.00 to Q235GT6 13.80
0
#
#
# (141) BUS FAULT 30641 "Q236BS1"
#
1 30641 30640 "1" 0 # LINE from Q236BS1 230.00 to TESLA C 230.00
1 30641 30642 "1" 0 # LINE from Q236BS1 230.00 to Q236BS2 230.00
2 30641 33871 "1" 0 # TRAN from Q236BS1 230.00 to Q236GT1 13.80
2 30641 33872 "1" 0 # TRAN from Q236BS1 230.00 to Q236GT2 13.80
2 30641 33873 "1" 0 # TRAN from Q236BS1 230.00 to Q236GT3 13.80
0
#
#
# (142) BUS FAULT 30642 "Q236BS2"
#
1 30642 30640 "1" 0 # LINE from Q236BS2 230.00 to TESLA C 230.00
1 30642 30641 "1" 0 # LINE from Q236BS2 230.00 to Q236BS1 230.00

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2013 SUMMER CATEGORY "C" CONTINGENCY LIST

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2 30642 33874 "1" 0 # TRAN from Q236BS2 230.00 to Q236GT4 13.80
2 30642 33875 "1" 0 # TRAN from Q236BS2 230.00 to Q236GT5 13.80
2 30642 33876 "1" 0 # TRAN from Q236BS2 230.00 to Q236GT6 13.80
0
#
#
# (143) BUS FAULT 33506 "STANISLS"
#
1 33506 33501 "1" 0 # LINE from STANISLS 115.00 to FRGTNTP1 115.00
1 33506 33504 "1" 0 # LINE from STANISLS 115.00 to CATARACT 115.00
1 33506 33948 "1" 0 # LINE from STANISLS 115.00 to RVRBK J2 115.00
2 33506 34062 "1" 0 # TRAN from STANISLS 115.00 to STANISLS 13.80
4 33506 0 "1" 0 # LOAD-DROP STANISLS 115.00 LOAD==8.71(0.39)
0
#
#
# (144) BUS FAULT 33518 "VIERRA"
#
1 33518 33514 "1" 0 # LINE from VIERRA 115.00 to MANTECA 115.00
1 33518 33522 "1" 0 # LINE from VIERRA 115.00 to CROSRDJT 115.00
4 33518 0 "1" 0 # LOAD-DROP VIERRA 115.00 LOAD==34.06(1.52)
0
#
#
# (145) BUS FAULT 33528 "KASSON"
#
1 33528 33526 "1" 0 # LINE from KASSON 115.00 to KSSN-JC1 115.00
1 33528 33529 "1" 0 # LINE from KASSON 115.00 to LAMMERS 115.00
1 33528 33530 "1" 0 # LINE from KASSON 115.00 to KSSN-JC2 115.00
2 33528 33756 "1" 0 # TRAN from KASSON 115.00 to KASSON 60.00
0
#
#
# (146) BUS FAULT 33529 "LAMMERS"
#
1 33529 33528 "1" 0 # LINE from LAMMERS 115.00 to KASSON 115.00
1 33529 33531 "1" 0 # LINE from LAMMERS 115.00 to OWENSTP1 115.00
4 33529 0 "1" 0 # LOAD-DROP LAMMERS 115.00 LOAD==28.19(1.26)
4 33529 0 "2" 0 # LOAD-DROP LAMMERS 115.00 LOAD==9.54(0.43)
0
#
#
# (147) BUS FAULT 33540 "TESLA" 115 kV Bus Section 1
#
1 33540 33543 "1" 0 # LINE from TESLA 115.00 to AEC_TP2 115.00
2 33540 30625 "1" 0 # TRAN from TESLA 115.00 to TESLA D 230.00
1 33540 33961 "1" 0 # LINE from TESLA 115.00 to TCHRT_T1 115.00
0
#
#
# (148) BUS FAULT 33540 "TESLA" 115 kV Bus Section 2
#
1 33540 33541 "1" 0 # LINE from TESLA 115.00 to AEC_TP1 115.00
1 33540 33544 "1" 0 # LINE from TESLA 115.00 to ELLS_GTY 115.00
1 33540 33574 "1" 0 # LINE from TESLA 115.00 to LLNL TAP 115.00
1 33540 33568 "1" 0 # LINE from TESLA 115.00 to TH.E.DV. 115.00
1 33540 33959 "1" 0 # LINE from TESLA 115.00 to TCHRT_T2 115.00
1 33540 33576 "1" 0 # LINE from TESLA 115.00 to USWP-PAT 115.00
2 33540 30625 "3" 0 # TRAN from TESLA 115.00 to TESLA D 230.00
0
#
#
# (149) BUS FAULT 33562 "BELLOTA" 115 kV Bus Section 1
#
1 33562 33561 "1" 0 # LINE from BELLOTA 115.00 to BLLTAJCT 115.00
1 33562 33558 "1" 0 # LINE from BELLOTA 115.00 to LCKFRDJB 115.00
1 33562 33946 "1" 0 # LINE from BELLOTA 115.00 to RVRBK J1 115.00
2 33562 30501 "1" 0 # TRAN from BELLOTA 115.00 to BLLTA 1M 230.00
0
#
#
# (150) BUS FAULT 33562 "BELLOTA" 115 kV Bus Section 2
#
1 33562 33560 "1" 0 # LINE from BELLOTA 115.00 to LCKFRDJA 115.00

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2013 SUMMER CATEGORY "C" CONTINGENCY LIST

1 33562 33950 "1" 0 # LINE from BELLOTA 115.00 to RVRBK TP 115.00
 2 33562 30500 "2" 0 # TRAN from BELLOTA 115.00 to BELLOTA 230.00
 0
 #
 #
 # (151) BUS FAULT 33564 "LOCKFORD"
 #
 1 33564 33558 "1" 0 # LINE from LOCKFORD 115.00 to LCKFRDJB 115.00
 1 33564 33560 "1" 0 # LINE from LOCKFORD 115.00 to LCKFRDJA 115.00
 1 33564 33561 "1" 0 # LINE from LOCKFORD 115.00 to BLLTAJCT 115.00
 2 33564 33725 "1" 0 # TRAN from LOCKFORD 115.00 to LOCKFRD1 60.00
 4 33564 0 "4" 0 # LOAD-DROP LOCKFORD 115.00 LOAD==21.90(0.98)
 0
 #
 #
 # (152) BUS FAULT 33566 "CAMANCHE"
 #
 1 33566 33565 "1" 0 # LINE from CAMANCHE 115.00 to CMNCHETP 115.00
 2 33566 33850 "1" 0 # TRAN from CAMANCHE 115.00 to CAMANCHE 4.16
 0
 #
 #
 # (153) BUS FAULT 33600 "HERDLYN"
 #
 1 33600 37582 "1" 0 # LINE from HERDLYN 70.00 to TRACY YG 69.00
 2 33600 33770 "2" 0 # TRAN from HERDLYN 70.00 to HERDLYN 60.00
 0
 #
 #
 # (154) BUS FAULT 33610 "VLLY SPS"
 #
 1 33610 33607 "1" 0 # LINE from VLLY SPS 60.00 to ELECTRAJ 60.00
 1 33610 33612 "1" 0 # LINE from VLLY SPS 60.00 to N BRANCH 60.00
 1 33610 33619 "1" 0 # LINE from VLLY SPS 60.00 to AMFOR_SW 60.00
 1 33610 33630 "1" 0 # LINE from VLLY SPS 60.00 to PARDEE A 60.00
 1 33610 33634 "1" 0 # LINE from VLLY SPS 60.00 to PRDE JCT 60.00
 1 33610 33636 "1" 0 # LINE from VLLY SPS 60.00 to N.HGN JT 60.00
 2 33610 30490 "1" 0 # TRAN from VLLY SPS 60.00 to VLLY SPS 230.00
 0
 #
 #
 # (155) BUS FAULT 33616 "MARTELL"
 #
 1 33616 33617 "1" 0 # LINE from MARTELL 60.00 to MARTELTP 60.00
 1 33616 33619 "1" 0 # LINE from MARTELL 60.00 to AMFOR_SW 60.00
 4 33616 0 "1" 0 # LOAD-DROP MARTELL 60.00 LOAD==14.75(0.66)
 0
 #
 #
 # (156) BUS FAULT 33650 "WEBER 1"
 #
 1 33650 33646 "1" 0 # LINE from WEBER 1 60.00 to MORMON 60.00
 1 33650 33647 "1" 0 # LINE from WEBER 1 60.00 to WEBER016 60.00
 1 33650 33662 "1" 0 # LINE from WEBER 1 60.00 to WEBER 2 60.00
 1 33650 33672 "1" 0 # LINE from WEBER 1 60.00 to CHRTRWYS 60.00
 1 33650 33698 "1" 0 # LINE from WEBER 1 60.00 to FRNCH CP 60.00
 2 33650 30505 "1" 0 # TRAN from WEBER 1 60.00 to WEBER 230.00
 4 33650 0 "3" 0 # LOAD-DROP WEBER 1 60.00 LOAD==16.37(0.73)
 4 33650 0 "4" 0 # LOAD-DROP WEBER 1 60.00 LOAD==8.45(0.38)
 0
 #
 #
 # (157) BUS FAULT 33662 "WEBER 2"
 #
 1 33662 33650 "1" 0 # LINE from WEBER 2 60.00 to WEBER 1 60.00
 1 33662 33654 "1" 0 # LINE from WEBER 2 60.00 to SNTA FEA 60.00
 1 33662 33658 "1" 0 # LINE from WEBER 2 60.00 to SNTA FEB 60.00
 1 33662 33674 "1" 0 # LINE from WEBER 2 60.00 to HAZLTN J 60.00
 2 33662 30505 "2" 0 # TRAN from WEBER 2 60.00 to WEBER 230.00
 2 33662 30505 "2a" 0 # TRAN from WEBER 2 60.00 to WEBER 230.00
 0
 #
 #
 # (158) BUS FAULT 33670 "STCKTN A"

2013 SUMMER CATEGORY "C" CONTINGENCY LIST

```

#
1 33670 33602 "1" 0 # LINE from STCKTN A 60.00 to NEWARKS 60.00
1 33670 33654 "1" 0 # LINE from STCKTN A 60.00 to SNNTA FEA 60.00
1 33670 33658 "1" 0 # LINE from STCKTN A 60.00 to SNNTA FEB 60.00
1 33670 33674 "1" 0 # LINE from STCKTN A 60.00 to HAZLTN J 60.00
4 33670 0 "1" 0 # LOAD-DROP STCKTN A 60.00 LOAD==1.40(0.06)
4 33670 0 "2" 0 # LOAD-DROP STCKTN A 60.00 LOAD==0.93(0.04)
0
#
#
# (159) BUS FAULT 33704 "STAGG"
#
1 33704 33693 "1" 0 # LINE from STAGG 60.00 to STAGG JT 60.00
1 33704 33706 "1" 0 # LINE from STAGG 60.00 to CNTRY CB 60.00
1 33704 33706 "2" 0 # LINE from STAGG 60.00 to CNTRY CB 60.00
1 33704 33714 "1" 0 # LINE from STAGG 60.00 to HAMMER 60.00
2 33704 30498 "1" 0 # TRAN from STAGG 60.00 to STAGG-D 230.00
2 33704 30499 "4" 0 # TRAN from STAGG 60.00 to STAGG-E 230.00
4 33704 0 "2" 0 # LOAD-DROP STAGG 60.00 LOAD==14.47(0.64)
4 33704 0 "3" 0 # LOAD-DROP STAGG 60.00 LOAD==14.47(0.64)
0
#
#
# (160) BUS FAULT 33706 "CNTRY CB"
#
1 33706 33704 "1" 0 # LINE from CNTRY CB 60.00 to STAGG 60.00
1 33706 33704 "2" 0 # LINE from CNTRY CB 60.00 to STAGG 60.00
1 33706 33708 "1" 0 # LINE from CNTRY CB 60.00 to UOP 60.00
4 33706 0 "1" 0 # LOAD-DROP CNTRY CB 60.00 LOAD==4.55(0.21)
4 33706 0 "2" 0 # LOAD-DROP CNTRY CB 60.00 LOAD==7.46(0.33)
4 33706 0 "3" 0 # LOAD-DROP CNTRY CB 60.00 LOAD==8.28(0.37)
4 33706 0 "4" 0 # LOAD-DROP CNTRY CB 60.00 LOAD==12.69(0.56)
0
#
#
# (161) BUS FAULT 33714 "HAMMER"
#
1 33714 33704 "1" 0 # LINE from HAMMER 60.00 to STAGG 60.00
1 33714 33716 "1" 0 # LINE from HAMMER 60.00 to HMMR JCT 60.00
4 33714 0 "1" 0 # LOAD-DROP HAMMER 60.00 LOAD==14.55(0.65)
4 33714 0 "2" 0 # LOAD-DROP HAMMER 60.00 LOAD==13.96(0.62)
4 33714 0 "3" 0 # LOAD-DROP HAMMER 60.00 LOAD==15.23(0.68)
0
#
#
# (162) BUS FAULT 33724 "LOCKEFRD"
#
1 33724 33630 "1" 0 # LINE from LOCKEFRD 60.00 to PARDEE A 60.00
1 33724 33725 "1" 0 # LINE from LOCKEFRD 60.00 to LOCKFRD1 60.00
1 33724 33726 "1" 0 # LINE from LOCKEFRD 60.00 to VICTOR 60.00
1 33724 33736 "1" 0 # LINE from LOCKEFRD 60.00 to LODI JCT 60.00
1 33724 33738 "1" 0 # LINE from LOCKEFRD 60.00 to WATRLJCT 60.00
1 33724 38060 "1" 0 # LINE from LOCKEFRD 60.00 to INDUSTRIAL 60.00
2 33724 30482 "2" 0 # TRAN from LOCKEFRD 60.00 to LOCKFORD 230.00
2 33724 30482 "3" 0 # TRAN from LOCKEFRD 60.00 to LOCKFORD 230.00
0
#
#
# (163) BUS FAULT 33725 "LOCKFRD1"
#
1 33725 33724 "1" 0 # LINE from LOCKFRD1 60.00 to LOCKEFRD 60.00
1 33725 33732 "1" 0 # LINE from LOCKFRD1 60.00 to COLONY 60.00
2 33725 33564 "1" 0 # TRAN from LOCKFRD1 60.00 to LOCKFORD 115.00
0
#
#
# (164) BUS FAULT 33728 "LODI"
#
1 33728 33729 "1" 0 # LINE from LODI 60.00 to LODI AUX 60.00
1 33728 33734 "1" 0 # LINE from LODI 60.00 to CLNY JCT 60.00
1 33728 33737 "1" 0 # LINE from LODI 60.00 to WINERY J 60.00
4 33728 0 "1" 0 # LOAD-DROP LODI 60.00 LOAD==0.31(0.01)
4 33728 0 "2" 0 # LOAD-DROP LODI 60.00 LOAD==14.72(0.66)
0

```

2013 SUMMER CATEGORY "C" CONTINGENCY LIST

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#
#
# (165) BUS FAULT 33729 "LODI AUX"
#
1 33729 33728 "1" 0 # LINE from LODI AUX 60.00 to LODI 60.00
1 33729 33736 "1" 0 # LINE from LODI AUX 60.00 to LODI JCT 60.00
1 33729 38060 "1" 0 # LINE from LODI AUX 60.00 to INDUSTRL 60.00
0
#
#
# (166) BUS FAULT 33740 "MSHR 60V"
#
1 33740 33717 "1" 0 # LINE from MSHR 60V 60.00 to MORADAJT 60.00
1 33740 33738 "1" 0 # LINE from MSHR 60V 60.00 to WATRLJCT 60.00
4 33740 0 "1" 0 # LOAD-DROP MSHR 60V 60.00 LOAD==15.38(0.69)
4 33740 0 "2" 0 # LOAD-DROP MSHR 60V 60.00 LOAD==25.67(1.15)
0
#
#
# (167) BUS FAULT 33742 "MANTECA"
#
1 33742 33703 "1" 0 # LINE from MANTECA 60.00 to LOUISJCT 60.00
1 33742 33752 "1" 0 # LINE from MANTECA 60.00 to LTHRP JT 60.00
1 33742 33743 "1" 0 # LINE from MANTECA 60.00 to LEE_JCT 60.00
2 33742 33514 "3" 0 # TRAN from MANTECA 60.00 to MANTECA 115.00
0
#
#
# (168) BUS FAULT 33746 "LOUISE"
#
1 33746 33703 "1" 0 # LINE from LOUISE 60.00 to LOUISJCT 60.00
1 33746 33748 "1" 0 # LINE from LOUISE 60.00 to MSSDLESW 60.00
4 33746 0 "1" 0 # LOAD-DROP LOUISE 60.00 LOAD==1.27(1.02)
0
#
#
# (169) BUS FAULT 33770 "HERDLYN"
#
1 33770 33772 "1" 0 # LINE from HERDLYN 60.00 to B.BTHNY- 60.00
1 33770 33774 "1" 0 # LINE from HERDLYN 60.00 to HRDLNJCT 60.00
2 33770 33600 "2" 0 # TRAN from HERDLYN 60.00 to HERDLYN 70.00
4 33770 0 "1" 0 # LOAD-DROP HERDLYN 60.00 LOAD==4.67(0.21)
0
#
#
# (170) BUS FAULT 33906 "SPRNG GP"
#
1 33906 33910 "1" 0 # LINE from SPRNG GP 115.00 to SNDBR JT 115.00
2 33906 34078 "1" 0 # TRAN from SPRNG GP 115.00 to SPRNG GP 6.00
4 33906 0 "1" 0 # LOAD-DROP SPRNG GP 115.00 LOAD==2.01(0.09)
0
#
#
# (171) BUS FAULT 33916 "CURTISS"
#
1 33916 33917 "1" 0 # LINE from CURTISS 115.00 to FBERBORD 115.00
1 33916 33920 "1" 0 # LINE from CURTISS 115.00 to RCTRK J. 115.00
4 33916 0 "1" 0 # LOAD-DROP CURTISS 115.00 LOAD==36.54(1.63)
4 33916 0 "2" 0 # LOAD-DROP CURTISS 115.00 LOAD==17.25(0.77)
0
#
#
# (172) BUS FAULT 33932 "MELONES"
#
1 33932 33930 "1" 0 # LINE from MELONES 115.00 to PEORIA 115.00
1 33932 33500 "1" 0 # LINE from MELONES 115.00 to MELNS JA 115.00
1 33932 33922 "1" 0 # LINE from MELONES 115.00 to R.TRACK 115.00
1 33932 33934 "1" 0 # LINE from MELONES 115.00 to TULLOCH 115.00
1 33932 33936 "1" 0 # LINE from MELONES 115.00 to MELNS JB 115.00
0
#
#
# (173) BUS FAULT 33944 "RVRBANK"
#

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2013 SUMMER CATEGORY "C" CONTINGENCY LIST

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1 33944 33946 "1" 0 # LINE from RVRBANK 115.00 to RVRBK J1 115.00
1 33944 33950 "1" 0 # LINE from RVRBANK 115.00 to RVRBK TP 115.00
4 33944 0 "1" 0 # LOAD-DROP RVRBANK 115.00 LOAD==24.45(1.10)
4 33944 0 "2" 0 # LOAD-DROP RVRBANK 115.00 LOAD==21.90(0.98)
0
#
#
# (174) BUS FAULT 33947 "RIVRBKJT"
#
1 33947 33936 "1" 0 # LINE from RIVRBKJT 115.00 to MELNS JB 115.00
1 33947 33951 "1" 0 # LINE from RIVRBKJT 115.00 to VLYHMTP1 115.00
0
#
#
# (175) BUS FAULT 34002 "SALADO"
#
1 34002 34004 "1" 0 # LINE from SALADO 60.00 to PTRSNFRZ 60.00
1 34002 34008 "1" 0 # LINE from SALADO 60.00 to STNSLSRP 60.00
2 34002 33964 "1" 0 # TRAN from SALADO 60.00 to SALADO 115.00
0
#
#
# (176) BUS FAULT 34006 "PATTERSN"
#
1 34006 34000 "1" 0 # LINE from PATTERSN 60.00 to WESTLEY 60.00
1 34006 34004 "1" 0 # LINE from PATTERSN 60.00 to PTRSNFRZ 60.00
1 34006 34010 "1" 0 # LINE from PATTERSN 60.00 to CRWS LDJ 60.00
0
#
#
# (177) BUS FAULT 34014 "NEWMAN"
#
1 34014 34012 "1" 0 # LINE from NEWMAN 60.00 to GUSTN JT 60.00
1 34014 34018 "1" 0 # LINE from NEWMAN 60.00 to NWMN JCT 60.00
4 34014 0 "1" 0 # LOAD-DROP NEWMAN 60.00 LOAD==9.08(0.41)
4 34014 0 "2" 0 # LOAD-DROP NEWMAN 60.00 LOAD==6.32(0.28)
6 34014 0 "v" 0 # SVD-DROP NEWMAN 60.0
0
#
#
-1
# EOF

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2013 SPRING CATEGORY "B" CONTINGENCY LIST

Q268 2013 spring category b contingency list
Sacramento, Sierra and Stockton-Stanislaus Divisions Zones 304, 305 and 311-312

2013 spring category b contingency list
Sacramento Division Zone 304

(1) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30114 30450 "1 " 0 # line from CPVSTA 230.00 BRKR to BRKR CORTINA 230.00
0

(2) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30114 30460 "2 " 0 # line from CPVSTA 230.00 BRKR to BRKR VACA-DIX 230.00
0

(3) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30114 30460 "3 " 0 # line from CPVSTA 230.00 BRKR to BRKR VACA-DIX 230.00
0

(4) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30114 30460 "4 " 0 # line from CPVSTA 230.00 BRKR to BRKR VACA-DIX 230.00
0

(5) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30330 30348 "1 " 0 # line from RIO OSO 230.00 BRKR to BRKR BRIGHTON 230.00
0

(6) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30348 30500 "1 " 0 # line from BRIGHTON 230.00 BRKR to BRKR BELLOTA 230.00
0

(7) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30435 30460 "1 " 0 # line from LAKEVILE 230.00 BRKR to BRKR VACA-DIX 230.00
0

(8) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30440 30460 "1 " 0 # line from TULUCAY 230.00 BRKR to BRKR VACA-DIX 230.00
0

(9) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30450 30460 "1 " 0 # line from CORTINA 230.00 BRKR to BRKR VACA-DIX 230.00
0

(10) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30460 30468 "1 " 0 # line from VACA-DIX 230.00 BRKR to BRKR Q257SWST 230.00
0

(11) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30460 30468 "2 " 0 # line from VACA-DIX 230.00 BRKR to BRKR Q257SWST 230.00
0

(12) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

2013 SPRING CATEGORY "B" CONTINGENCY LIST

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#
1 30460 30472 "1" 0 # line from VACA-DIX 230.00 BRKR to BRKR PEABODY 230.00
0
#
#
# (13) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30460 30478 "1" 0 # line from VACA-DIX 230.00 BRKR to BRKR LAMBIE 230.00
0
#
#
# (14) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30461 30462 "1" 0 # line from Q171 230.00 BRKR to (4) Q171CL1 230.00
1 30462 30463 "1" 0 # line from Q171CL1 230.00 (4) to (4) Q171CL2 230.00
2 30462 32181 "1" 0 # TRAN from Q171CL1 230.00 (4) to (1) Q171WG1 34.50
2 30462 32182 "1" 0 # TRAN from Q171CL1 230.00 (4) to (1) Q171WG2 34.50
1 30463 30461 "1" 0 # line from Q171CL2 230.00 (4) to BRKR Q171 230.00
2 30463 32183 "1" 0 # TRAN from Q171CL2 230.00 (4) to (1) Q171WG3 34.50
2 30463 32184 "1" 0 # TRAN from Q171CL2 230.00 (4) to (1) Q171WG4 34.50
3 32181 0 "1" 0 # GEN-DROP Q171WG1 34.50 GEN==125.00(-17.99)
3 32182 0 "2" 0 # GEN-DROP Q171WG2 34.50 GEN==125.00(-17.99)
3 32183 0 "3" 0 # GEN-DROP Q171WG3 34.50 GEN==125.00(-17.99)
3 32184 0 "4" 0 # GEN-DROP Q171WG4 34.50 GEN==125.00(-17.99)
0
#
#
# (15) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30468 30465 "1" 0 # line from Q257SWST 230.00 BRKR to BRKR BAHIA 230.00
0
#
#
# (16) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30468 30467 "1" 0 # line from Q257SWST 230.00 BRKR to BRKR PARKWAY 230.00
0
#
#
# (17) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30472 30479 "1" 0 # line from PEABODY 230.00 BRKR to BRKR BDLSWSTA 230.00
0
#
#
# (18) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30474 30475 "1" 0 # line from Q222 230.00 (2) to BRKR HIGHWND3 230.00
2 30474 32178 "1" 0 # TRAN from Q222 230.00 (2) to (2) Q222 34.50
2 32178 32179 "1" 0 # TRAN from Q222 34.50 (2) to (1) Q222 0.58
3 32179 0 "1" 0 # GEN-DROP Q222 0.58 GEN==100.50(15.45)
0
#
#
# (19) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30475 30529 "1" 0 # line from HIGHWND3 230.00 BRKR to (3) HIWD TAP 230.00
1 30529 30479 "1" 0 # line from HIWD TAP 230.00 (3) to BRKR BDLSWSTA 230.00
2 30529 32172 "1" 0 # TRAN from HIWD TAP 230.00 (3) to (1) HIGHWNDS 34.50
3 32172 0 "1" 0 # GEN-DROP HIGHWNDS 34.50 GEN==158.00(0.00)
0
#
#
# (20) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30476 30479 "1" 0 # line from SHILO 230.00 (5) to BRKR BDLSWSTA 230.00
1 30476 30483 "1" 0 # line from SHILO 230.00 (5) to (2) P0611 230.00
2 30476 32177 "1" 0 # TRAN from SHILO 230.00 (5) to (1) SHILO 34.50
2 30476 32189 "1" 0 # TRAN from SHILO 230.00 (5) to (3) Q039 34.50
2 30476 32189 "2" 0 # TRAN from SHILO 230.00 (5) to (3) Q039 34.50
2 30483 32188 "1" 0 # TRAN from P0611 230.00 (2) to (1) P0611G 34.50
2 32189 32190 "1" 0 # TRAN from Q039 34.50 (3) to (1) Q039 0.58
3 32177 0 "1" 0 # GEN-DROP SHILO 34.50 GEN==150.00(0.00)
3 32188 0 "1" 0 # GEN-DROP P0611G 34.50 GEN==30.00(3.78)

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2013 SPRING CATEGORY "B" CONTINGENCY LIST

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3 32190 0 "1" 0 # GEN-DROP Q039 0.58 GEN==200.00(16.08)
0
#
#
# (21) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30477 30479 "1" 0 # line from SHILOHTP 230.00 (2) to BRKR BDLSWSTA 230.00
2 30477 32176 "2" 0 # TRAN from SHILOHTP 230.00 (2) to (1) SHILOH 34.50
3 32176 0 "1" 0 # GEN-DROP SHILOH 34.50 GEN==150.00(0.00)
0
#
#
# (22) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30478 30479 "1" 0 # line from LAMBIE 230.00 BRKR to BRKR BDLSWSTA 230.00
0
#
#
# (23) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30479 30480 "1" 0 # line from BDLSWSTA 230.00 BRKR to (4) USWP-RUS 230.00
1 30480 30481 "1" 0 # line from USWP-RUS 230.00 (4) to (2) P0609 230.00
2 30480 32168 "1" 0 # TRAN from USWP-RUS 230.00 (4) to (1) ENXCO 9.11
2 30480 32169 "1" 0 # TRAN from USWP-RUS 230.00 (4) to (1) SOLANOWP 21.00
2 30481 32186 "1" 0 # TRAN from P0609 230.00 (2) to (1) P0609 34.50
3 32168 0 "2" 0 # GEN-DROP ENXCO 9.11 GEN==49.00(0.00)
3 32169 0 "1" 0 # GEN-DROP SOLANOWP 21.00 GEN==95.00(0.00)
3 32186 0 "1" 0 # GEN-DROP P0609 34.50 GEN==128.00(15.11)
0
#
#
# (24) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30479 30471 "2" 0 # line from BDLSWSTA 230.00 BRKR to BRKR Q262SWST 230.00
0
#
#
# (25) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30471 30523 "1" 0 # line from Q262SWST 230.00 BRKR to BRKR CC SUB 230.00
0
#
#
# (26) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30479 30471 "1" 0 # line from BDLSWSTA 230.00 BRKR to BRKR Q262SWST 230.00
0
#
#
# (27) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30471 30525 "1" 0 # line from Q262SWST 230.00 BRKR to BRKR C.COSTA 230.00
0
#
#
# (28) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31231 31950 "1" 0 # line from Q250TAP1 115.00 (3) to BRKR CORTINA 115.00
1 31231 31234 "1" 0 # line from Q250TAP1 115.00 (3) to (2) Q250JCT 115.00
1 31231 31261 "1" 0 # line from Q250TAP1 115.00 (3) to (2) CACHE J1 115.00
1 31234 31235 "1" 0 # line from Q250JCT 115.00 (2) to (3) Q250 115.00
2 31235 31437 "1" 0 # TRAN from Q250 115.00 (3) to (2) Q250EQ1 34.50
2 31235 31438 "1" 0 # TRAN from Q250 115.00 (3) to (2) Q250EQ2 34.50
2 31437 31439 "1" 0 # TRAN from Q250EQ1 34.50 (2) to (1) Q250EQ1 0.58
2 31438 31440 "1" 0 # TRAN from Q250EQ2 34.50 (2) to (1) Q250EQ2 0.58
1 31261 31227 "1" 0 # line from CACHE J1 115.00 (2) to (3) HGHLNDJ2 115.00
1 31227 31226 "1" 0 # line from HGHLNDJ2 115.00 (3) to (1) HGHLAND 115.00
1 31227 31228 "1" 0 # line from HGHLNDJ2 115.00 (3) to (3) HOMSTKTP 115.00
1 31228 31220 "1" 0 # line from HOMSTKTP 115.00 (3) to BRKR EGLE RCK 115.00
1 31228 31230 "1" 0 # line from HOMSTKTP 115.00 (3) to (2) HOMEPROC 115.00
1 31230 31232 "1" 0 # line from HOMEPROC 115.00 (2) to (1) HOMEGRND 115.00
4 31439 0 "ss" 0 # LOAD-DROP Q250EQ1 0.58 LOAD==0.50(0.28)
4 31440 0 "ss" 0 # LOAD-DROP Q250EQ2 0.58 LOAD==0.50(0.28)
4 31226 0 "1" 0 # LOAD-DROP HGHLAND 115.00 LOAD==13.28(2.70)

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2013 SPRING CATEGORY "B" CONTINGENCY LIST

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4 31226 0 "2" 0 # LOAD-DROP HIGHLAND 115.00 LOAD==7.81(1.59)
4 31230 0 "1" 0 # LOAD-DROP HOMEPROC 115.00 LOAD==0.80(0.16)
3 31439 0 "1" 0 # GEN-DROP Q250EQ1 0.58 GEN==100.50(8.48)
3 31440 0 "2" 0 # GEN-DROP Q250EQ2 0.58 GEN==100.50(8.48)
0
#
#
# (29) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31233 31950 "1" 0 # line from Q250TAP2 115.00 (2) to BRKR CORTINA 115.00
1 31233 31224 "1" 0 # line from Q250TAP2 115.00 (2) to (3) INDIN VL 115.00
1 31224 31215 "1" 0 # line from INDIN VL 115.00 (3) to (3) LUCERNJ1 115.00
2 31224 31436 "1" 0 # TRAN from INDIN VL 115.00 BRKR to (1) INDIAN V 9.11
1 31215 31200 "1" 0 # line from LUCERNJ1 115.00 (3) to BRKR MENDOCNO 115.00
1 31215 31216 "1" 0 # line from LUCERNJ1 115.00 (3) to (1) LUCERNE 115.00
4 31216 0 "1" 0 # LOAD-DROP LUCERNE 115.00 LOAD==12.24(2.48)
3 31436 0 "1" 0 # GEN-DROP INDIAN V 9.11 GEN==0.90(0.00)
1 31217 31216 "1" 1 # close line from LCERNJ2 115.00 to LUCERNE 115.00
4 31216 0 "1" 1 # restore all loads to LUCERNE 115.00 (Cortina - Mendocino 115 kV)
0
#
#
# (30) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31253 31974 "1" 0 # line from FLTN JT2 115.00 (2) to (1) MADISON 115.00
1 31253 31952 "1" 0 # line from FLTN JT2 115.00 (2) to (2) PUTH CRK 115.00
1 31952 31998 "1" 0 # line from PUTH CRK 115.00 (2) to BRKR VACA-DIX 115.00
4 31974 0 "1" 0 # LOAD-DROP MADISON 115.00 LOAD==8.25(0.37)
4 31974 0 "2" 0 # LOAD-DROP MADISON 115.00 LOAD==5.33(0.23)
4 31974 0 "3" 0 # LOAD-DROP MADISON 115.00 LOAD==15.02(0.68)
4 31952 0 "1" 0 # LOAD-DROP PUTH CRK 115.00 LOAD==16.83(0.75)
0
#
#
# (31) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31953 31256 "1" 0 # line from AMEGTAP 115.00 (3) to (1) FLTN JCT 115.00
1 31953 31954 "1" 0 # line from AMEGTAP 115.00 (3) to (1) AMERIGAS 115.00
1 31953 31998 "1" 0 # line from AMEGTAP 115.00 (3) to BRKR VACA-DIX 115.00
4 31954 0 "1" 0 # LOAD-DROP AMERIGAS 115.00 LOAD==6.73(1.37)
0
#
#
# (32) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31958 32012 "1" 0 # line from CORDELIA 115.00 (1) to (2) HALE J2 115.00
1 32012 32004 "1" 0 # line from HALE J2 115.00 (2) to (3) VCVLLE2J 115.00
1 32004 31998 "1" 0 # line from VCVLLE2J 115.00 (3) to BRKR VACA-DIX 115.00
1 32004 32002 "1" 0 # line from VCVLLE2J 115.00 (3) to BRKR VACAVLL2 115.00
4 31958 0 "2" 0 # LOAD-DROP CORDELIA 115.00 LOAD==17.61(0.79)
4 32002 0 "2" 0 # LOAD-DROP VACAVLL2 115.00 LOAD==44.68(2.00)
4 32002 0 "3" 0 # LOAD-DROP VACAVLL2 115.00 LOAD==43.87(1.96)
1 32000 32002 "1" 1 #Transfer VACAVLL2 load to alternate
4 32002 0 "1" 1 #Restore VACAVLL2 load
0
#
#
# (33) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31960 31966 "1" 0 # line from MOBILCHE 115.00 (2) to (3) WODLNDJ1 115.00
1 31960 31970 "1" 0 # line from MOBILCHE 115.00 (2) to BRKR WOODLD 115.00
1 31966 31965 "1" 0 # line from WODLNDJ1 115.00 (3) to (3) KNIGHT1 115.00
1 31966 31971 "1" 0 # line from WODLNDJ1 115.00 (3) to (1) ZAMORA1 115.00
1 31965 31963 "1" 0 # line from KNIGHT1 115.00 (3) to (1) KNIGHTLD 115.00
1 31965 32214 "1" 0 # line from KNIGHT1 115.00 (3) to BRKR RIO OSO 115.00
4 31960 0 "1" 0 # LOAD-DROP MOBILCHE 115.00 LOAD==0.10(0.00)
4 31963 0 "1" 0 # LOAD-DROP KNIGHTLD 115.00 LOAD==8.57(0.38)
0
#
#
# (34) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31962 31970 "1" 0 # line from WDLND_BM 115.00 (3) to BRKR WOODLD 115.00
1 31962 31992 "1" 0 # line from WDLND_BM 115.00 (3) to (2) HUNT 115.00

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2 31962 32156 "1" 0 # TRAN from WDLND_BM 115.00 (3) to (1) WOODLAND 9.11
1 31992 31990 "1" 0 # line from HUNT 115.00 (2) to BRKR DAVIS 115.00
4 31992 0 "1" 0 # LOAD-DROP HUNT 115.00 LOAD==0.27(0.05)
4 32156 0 "SG" 0 # LOAD-DROP WOODLAND 9.11 LOAD==1.49(0.34)
3 32156 0 "1" 0 # GEN-DROP WOODLAND 9.11 GEN==25.00(5.00)
0
#
#
# (35) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31964 31968 "2" 0 # line from KNIGHT2 115.00 (2) to (3) WODLNDJ2 115.00
1 31964 32214 "2" 0 # line from KNIGHT2 115.00 (2) to BRKR RIO OSO 115.00
1 31968 31970 "2" 0 # line from WODLNDJ2 115.00 (3) to BRKR WOODLD 115.00
1 31968 31973 "2" 0 # line from WODLNDJ2 115.00 (3) to (2) ZAMORA2 115.00
1 31973 31972 "2" 0 # line from ZAMORA2 115.00 (2) to (1) ZAMORA 115.00
4 31972 0 "1" 0 # LOAD-DROP ZAMORA 115.00 LOAD==10.62(0.48)
0
#
#
# (36) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31976 31980 "1" 0 # line from POST 115.00 (1) to (3) DPWTR_TP 115.00
1 31980 31986 "1" 0 # line from DPWTR_TP 115.00 (3) to BRKR W.SCRMNO 115.00
1 31980 32003 "1" 0 # line from DPWTR_TP 115.00 (3) to (3) UCD_TP1 115.00
1 32003 31990 "1" 0 # line from UCD_TP1 115.00 (3) to BRKR DAVIS 115.00
1 32003 32103 "2" 0 # line from UCD_TP1 115.00 (3) to (2) UCDAVSJ2 115.00
1 32103 32102 "1" 0 # line from UCDAVSJ2 115.00 (2) to (2) CAMPUS 115.00
2 32102 32166 "1" 0 # TRAN from CAMPUS 115.00 (2) to (1) UC DAVIS 9.11
4 31976 0 "1" 0 # LOAD-DROP POST 115.00 LOAD==1.31(0.19)
4 31976 0 "1A" 0 # LOAD-DROP POST 115.00 LOAD==1.31(0.19)
4 32102 0 "1" 0 # LOAD-DROP CAMPUS 115.00 LOAD==36.56(8.33)
3 32166 0 "1" 0 # GEN-DROP UC DAVIS 9.11 GEN==3.50(1.80)
1 31988 31976 "1" 1 #Transfer POST to alternate Deepwater tap
4 31976 0 "****" 1 #Restore load to POST
0
#
#
# (37) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31978 31984 "1" 0 # line from DPWT_TP2 115.00 (3) to BRKR BRIGHTN 115.00
1 31978 31986 "1" 0 # line from DPWT_TP2 115.00 (3) to BRKR W.SCRMNO 115.00
1 31978 31988 "1" 0 # line from DPWT_TP2 115.00 (3) to (1) DEEPWATR 115.00
4 31988 0 "2" 0 # LOAD-DROP DEEPWATR 115.00 LOAD==22.90(1.02)
4 31988 0 "3" 0 # LOAD-DROP DEEPWATR 115.00 LOAD==15.82(0.70)
1 31976 31988 "1" 1 #Transfer load to alternate Deepwater tap
4 31988 0 "****" 1 #Restore load at Deepwater
0
#
#
# (38) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31984 31993 "1" 0 # line from BRIGHTN 115.00 BRKR to (3) BRKRJCT 115.00
1 31993 31991 "1" 0 # line from BRKRJCT 115.00 (3) to (2) BRKR TP 115.00
1 31993 32001 "1" 0 # line from BRKRJCT 115.00 (3) to (3) UCD_TP2 115.00
1 31991 31989 "1" 0 # line from BRKR TP 115.00 (2) to BRKR BRKR SLG 115.00
1 32001 31990 "1" 0 # line from UCD_TP2 115.00 (3) to BRKR DAVIS 115.00
1 32001 32116 "1" 0 # line from UCD_TP2 115.00 (3) to (1) UCDAVSJ1 115.00
4 31989 0 "1" 0 # LOAD-DROP BRKR SLG 115.00 LOAD==1.75(0.00)
0
#
#
# (39) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31984 31994 "1" 0 # line from BRIGHTN 115.00 BRKR to BRKR GRAND IS 115.00
1 31984 31994 "2" 1 #Transfer Grand Island to alternate source
4 31994 0 "****" 1 #Restore Grand Island load
0
#
#
# (40) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31995 32013 "1" 0 # line from HALE 115.00 (2) to (1) HALE2 115.00
1 31995 31996 "1" 0 # line from HALE 115.00 (2) to (3) HALE J1 115.00
1 31996 32006 "1" 0 # line from HALE J1 115.00 (3) to (3) VCVLLE1J 115.00

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1 31996 32020 "1" 0 # line from HALE J1 115.00 (3) to (3) JMSN JCT 115.00
1 32006 31998 "1" 0 # line from VCVLLE1J 115.00 (3) to BRKR VACA-DIX 115.00
1 32006 32000 "1" 0 # line from VCVLLE1J 115.00 (3) to BRKR VACAVLL1 115.00
1 32020 32010 "1" 0 # line from JMSN JCT 115.00 (3) to BRKR JAMESON 115.00
1 32020 32618 "1" 0 # line from JMSN JCT 115.00 (3) to (1) NTWRJCT1 115.00
4 31995 0 "1" 0 # LOAD-DROP HALE 115.00 LOAD==2.39(1.42)
4 32000 0 "1" 0 # LOAD-DROP VACAVLL1 115.00 LOAD==30.49(1.36)
4 32010 0 "1" 0 # LOAD-DROP JAMESON 115.00 LOAD==38.91(1.74)
1 32002 32000 "1" 1 #Line transfer VACAVLL1 115kV TO VACAVLL2 115kV
4 32000 0 "" 1 #Restore VACAVLL1 load
1 31995 32013 "1" 1 #Transfer load to HALE alternate
1 32012 32013 "1" 1 #Transfer load to HALE alternate
4 31995 0 "" 1 #Restore load at HALE
1 32010 32009 "1" 1 # LINE-TRANSFER JMSN JCT 115.00 to JAMESN-A 115.00
4 32010 0 "" 1 # RESTORE JAMESON load
0
#
#
# (41) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31998 31997 "1" 0 # line from VACA-DIX 115.00 BRKR to (3) SCHMLBCH 115.00
1 31997 32008 "1" 0 # line from SCHMLBCH 115.00 (3) to BRKR SUISUN 115.00
1 31997 32009 "1" 0 # line from SCHMLBCH 115.00 (3) to (1) JAMESN-A 115.00
4 31997 0 "1" 0 # LOAD-DROP SCHMLBCH 115.00 LOAD==10.08(6.77)
0
#
#
# (42) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31998 32011 "1" 0 # line from VACA-DIX 115.00 BRKR to (3) WEC 115.00
1 32011 32008 "1" 0 # line from WEC 115.00 (3) to BRKR SUISUN 115.00
2 32011 32185 "1" 0 # TRAN from WEC 115.00 (3) to (1) WOLFSKIL 13.80
4 32185 0 "ss" 0 # LOAD-DROP WOLFSKIL 13.80 LOAD==1.30(0.81)
3 32185 0 "1" 0 # GEN-DROP WOLFSKIL 13.80 GEN==50.00(5.67)
0
#
#
# (43) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31999 31998 "1" 0 # line from VACA-CB 115.00 (3) to BRKR VACA-DIX 115.00
2 31999 30460 "2" 0 # TRAN from VACA-CB 115.00 (3) to BRKR VACA-DIX 230.00
2 31999 30460 "2A" 0 # TRAN from VACA-CB 115.00 (3) to BRKR VACA-DIX 230.00
0
#
#
# (44) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
# spring outage
1 31740 31732 "2" 0 # line from JACINTO 60.00 (2) to (2) HMLTN JT 60.00
1 31732 31734 "2" 0 # line from HMLTN JT 60.00 (2) to (2) HAMILTON 60.00
1 31734 31722 "2" 0 # line from HAMILTON 60.00 (2) to BRKR GLENN 60.00
4 31740 0 "1" 0 # LOAD-DROP JACINTO 60.00 LOAD==6.10(0.27)
4 31734 0 "1" 0 # LOAD-DROP HAMILTON 60.00 LOAD==5.61(0.25)
0
#
#
# (45) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
# spring outage
1 32050 32052 "4" 0 # line from RICE 60.00 (1) to (3) CLSA CRS 60.00
1 32052 32054 "4" 0 # line from CLSA CRS 60.00 (3) to (2) MAXWELL 60.00
1 32052 32067 "4" 0 # line from CLSA CRS 60.00 (3) to (1) WILSONAV 60.00
1 32054 32055 "4" 0 # line from MAXWELL 60.00 (2) to (3) MAXTAP 60.00
1 32055 32053 "4" 0 # line from MAXTAP 60.00 (3) to (1) DELEVAN 60.00
1 32055 32065 "4" 0 # line from MAXTAP 60.00 (3) to (2) WILL JCT 60.00
1 32065 32056 "4" 0 # line from WILL JCT 60.00 (2) to BRKR CORTINA 60.00
4 32050 0 "1" 0 # LOAD-DROP RICE 60.00 LOAD==4.09(0.18)
4 32050 0 "2" 0 # LOAD-DROP RICE 60.00 LOAD==1.33(0.06)
4 32054 0 "1" 0 # LOAD-DROP MAXWELL 60.00 LOAD==3.97(0.18)
0
#
#
# (46) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32056 32060 "1" 0 # line from CORTINA 60.00 BRKR to (2) ARBUCKLE 60.00
1 32060 32058 "1" 0 # line from ARBUCKLE 60.00 (2) to (2) HARINTON 60.00

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1 32058 32062 "1" 0 # line from HARINTON 60.00 (2) to (2) DRAKE 60.00
1 32062 32066 "1" 0 # line from DRAKE 60.00 (2) to (1) DUNNIGAN 60.00
4 32060 0 "1" 0 # LOAD-DROP ARBUCKLE 60.00 LOAD==16.33(0.73)
4 32058 0 "1" 0 # LOAD-DROP HARINTON 60.00 LOAD==1.00(0.62)
4 32062 0 "1" 0 # LOAD-DROP DRAKE 60.00 LOAD==1.00(0.62)
4 32066 0 "1" 0 # LOAD-DROP DUNNIGAN 60.00 LOAD==8.65(0.38)
1 32061 32060 "1" 1 #Transfer Arbuckle to its alternate
4 32060 0 "****" 1 #Restore load at ARBUCKLE
4 32058 0 "****" 1 #Restore load at HARINTON
4 32062 0 "****" 1 #Restore load at DRAKE
4 32066 0 "****" 1 #Restore load at DUNNIGAN
0
#
#
# (47) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32057 32056 "2" 0 # line from HUSTD 60.00 (2) to BRKR CORTINA 60.00
1 32057 32063 "2" 0 # line from HUSTD 60.00 (2) to (3) ARBJCT 60.00
1 32063 32061 "2" 0 # line from ARBJCT 60.00 (3) to (1) ARBALT 60.00
1 32063 32078 "2" 0 # line from ARBJCT 60.00 (3) to (2) WLKSLJCT 60.00
1 32078 32076 "2" 0 # line from WLKSLJCT 60.00 (2) to (2) WILKINS 60.00
1 32076 32080 "2" 0 # line from WILKINS 60.00 (2) to (1) DIST2047 60.00
4 32076 0 "1" 0 # LOAD-DROP WILKINS 60.00 LOAD==6.44(0.29)
0
#
#
# (48) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
# spring outage
1 32070 32071 "1" 0 # line from CLSA JCT 60.00 BRKR to (2) MERIDJCT 60.00
1 32071 32072 "1" 0 # line from MERIDJCT 60.00 (2) to (1) MERIDIAN 60.00
1 32068 32070 "1" 0 # line from COLUSA 60.00 (1) to BRKR CLSA JCT 60.00
4 32072 0 "1" 0 # LOAD-DROP MERIDIAN 60.00 LOAD==4.55(0.21)
4 32068 0 "1" 0 # LOAD-DROP COLUSA 60.00 LOAD==5.98(0.27)
4 32068 0 "2" 0 # LOAD-DROP COLUSA 60.00 LOAD==4.32(0.20)
1 32067 32068 "1" 1 #Transfer Colusa to alternate
4 32068 0 "****" 1 #Restore Colusa load
0
#
#
# (49) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32070 32073 "3" 0 # line from CLSA JCT 60.00 BRKR to (2) WESCOT1 60.00
1 32073 32075 "3" 0 # line from WESCOT1 60.00 (2) to (3) WESCOT2 60.00
1 32075 32064 "3" 0 # line from WESCOT2 60.00 (3) to (1) WILLIAMS 60.00
1 32075 32155 "3" 0 # line from WESCOT2 60.00 (3) to (3) WADHMJCT 60.00
1 32155 32056 "3" 0 # line from WADHMJCT 60.00 (3) to BRKR CORTINA 60.00
2 32155 32154 "1" 0 # TRAN from WADHMJCT 60.00 (3) to (1) WADHAM 9.11
4 32064 0 "1" 0 # LOAD-DROP WILLIAMS 60.00 LOAD==6.27(0.28)
4 32064 0 "2" 0 # LOAD-DROP WILLIAMS 60.00 LOAD==10.36(0.46)
4 32154 0 "SG" 0 # LOAD-DROP WADHAM 9.11 LOAD==1.08(0.25)
3 32154 0 "1" 0 # GEN-DROP WADHAM 9.11 GEN==22.80(3.70)
0
#
#
# (50) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32077 32662 "1" 0 # line from CORD PMP 60.00 (1) to (4) TULCY JT 60.00
1 32662 32655 "1" 0 # line from TULCY JT 60.00 (4) to (2) TULCAY1 60.00
1 32662 32656 "1" 0 # line from TULCY JT 60.00 (4) to BRKR NAPA 60.00
1 32662 32093 "1" 0 # line from TULCY JT 60.00 (4) to (3) CRD-JCT 60.00
1 32655 32654 "1" 0 # line from TULCAY1 60.00 (2) to BRKR TULUCAY 60.00
1 32093 32091 "1" 0 # line from CRD-JCT 60.00 (3) to (1) CRD_INTR 60.00
1 32093 32074 "1" 0 # line from CRD-JCT 60.00 (3) to (1) CORDELIA 60.00
4 32077 0 "1" 0 # LOAD-DROP CORD PMP 60.00 LOAD==4.74(1.56)
4 32091 0 "1" 0 # LOAD-DROP CRD_INTR 60.00 LOAD==2.80(0.90)
4 32074 0 "4" 0 # LOAD-DROP CORDELIA 60.00 LOAD==13.26(0.59)
1 32662 32656 "1" 1 # close line from TULCY JT 60.00 to NAPA 60.00
1 32662 32077 "1" 1 # close line from TULCY JT 60.00 to CORD PMP 60.00
1 32077 32074 "1" 1 # close line from CORD PMP 60.00 to CORDELIA 60.00
4 32077 0 "****" 1 # restore all loads to CORD PMP 60.00
4 32074 0 "****" 1 # restore all loads to CORDELIA 60.00 (Tulucay - Napa #1 60 kV)
0
#
#

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# (51) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32079 32083 "1" 0 # line from DST1001B 60.00 (3) to (1) DIST1001 60.00
1 32079 32087 "1" 0 # line from DST1001B 60.00 (3) to (2) KNTJALT 60.00
1 32079 32342 "1" 0 # line from DST1001B 60.00 (3) to BRKR E.NICOLS 60.00
1 32087 32085 "1" 0 # line from KNTJALT 60.00 (2) to (2) WOODJCT 60.00
1 32085 32084 "1" 0 # line from WOODJCT 60.00 (2) to (1) WLLW SLJ 60.00
0
#
#
# (52) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32081 32086 "1" 0 # line from DIST1500 60.00 (1) to (2) KNGHTSLJ 60.00
1 32086 32089 "1" 0 # line from KNGHTSLJ 60.00 (2) to (2) DST1001A 60.00
1 32089 32342 "1" 0 # line from DST1001A 60.00 (2) to BRKR E.NICOLS 60.00
0
#
#
# (53) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32082 32090 "1" 0 # line from PLFLDJCT 60.00 (2) to (2) WINTERS 60.00
1 32082 32092 "1" 0 # line from PLFLDJCT 60.00 (2) to (1) PLAINFLD 60.00
1 32090 32088 "1" 0 # line from WINTERS 60.00 (2) to BRKR VACA-DXN 60.00
4 32090 0 "1" 0 # LOAD-DROP WINTERS 60.00 LOAD==6.18(0.27)
4 32092 0 "1" 0 # LOAD-DROP PLAINFLD 60.00 LOAD==12.16(0.54)
0
#
#
# (54) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32088 32094 "2" 0 # line from VACA-DXN 60.00 BRKR to (2) VACA-JT2 60.00
1 32094 32109 "2" 0 # line from VACA-JT2 60.00 (2) to (3) CACHSLJ2 60.00
1 32109 32101 "2" 0 # line from CACHSLJ2 60.00 (3) to (2) DIXON-J2 60.00
1 32109 32107 "2" 0 # line from CACHSLJ2 60.00 (3) to (2) CACHSTAP 60.00
1 32101 32100 "2" 0 # line from DIXON-J2 60.00 (2) to BRKR DIXON 60.00
1 32107 32113 "2" 0 # line from CACHSTAP 60.00 (2) to (2) BTAV-JCT 60.00
1 32113 32112 "2" 0 # line from BTAV-JCT 60.00 (2) to (1) MAINE-PR 60.00
4 32112 0 "1" 0 # LOAD-DROP MAINE-PR 60.00 LOAD==0.10(0.02)
0
#
#
# (55) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32088 32096 "1" 0 # line from VACA-DXN 60.00 BRKR to (3) VACA-JT1 60.00
1 32096 32098 "1" 0 # line from VACA-JT1 60.00 (3) to (3) TRAVISJT 60.00
1 32096 32108 "1" 0 # line from VACA-JT1 60.00 (3) to (2) CACHSLJ1 60.00
1 32098 32097 "1" 0 # line from TRAVISJT 60.00 (3) to (1) TRAVIS 60.00
1 32098 32099 "1" 0 # line from TRAVISJT 60.00 (3) to (1) TRVS_HPT 60.00
1 32108 32105 "1" 0 # line from CACHSLJ1 60.00 (2) to (3) DIXON-J1 60.00
1 32105 32100 "1" 0 # line from DIXON-J1 60.00 (3) to BRKR DIXON 60.00
1 32105 32106 "1" 0 # line from DIXON-J1 60.00 (3) to (1) DIXONCAN 60.00
4 32097 0 "1" 0 # LOAD-DROP TRAVIS 60.00 LOAD==18.67(5.59)
4 32099 0 "1" 0 # LOAD-DROP TRVS_HPT 60.00 LOAD==4.82(1.41)
4 32106 0 "1" 0 # LOAD-DROP DIXONCAN 60.00 LOAD==3.50(0.80)
1 32094 32098 "1" 1 #Transfer load to alternate tap
4 32097 0 "1" 1 #Restore load at Travis AFB
4 32099 0 "1" 1 #Restore load at Travis Hospital
0
#
#
# (56) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32214 31986 "1" 0 # line from RIO OSO 115.00 BRKR to BRKR W.SCRMNO 115.00
0
#
#
# (57) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32586 31956 "1" 0 # line from HGHWY J2 115.00 (3) to (2) CORDELLT 115.00
1 32586 32578 "1" 0 # line from HGHWY J2 115.00 (3) to (2) SKGGS J2 115.00
1 32586 32590 "1" 0 # line from HGHWY J2 115.00 (3) to BRKR HIGHWAY 115.00
1 31956 32598 "1" 0 # line from CORDELLT 115.00 (2) to (2) NTWR ALT 115.00
1 32578 32568 "1" 0 # line from SKGGS J2 115.00 (2) to BRKR IGNACIO 115.00
1 32598 32608 "1" 0 # line from NTWR ALT 115.00 (2) to (2) CRQNZTP2 115.00

```

2013 SPRING CATEGORY "B" CONTINGENCY LIST

1 32608 32616 "1" 0 # line from CRQNZTP2 115.00 (2) to (1) MEYERTP2 115.00
4 32590 0 "1" 0 # LOAD-DROP HIGHWAY 115.00 LOAD==18.06(3.67)
4 32590 0 "2" 0 # LOAD-DROP HIGHWAY 115.00 LOAD==22.17(4.50)
1 32588 32590 "1" 1 # LINE-TRANSFER HGHWY J2 115.00 to HGHWY J1 115.00
4 32590 0 "3" 1 # RESTORE HIGHWAY load
0

(58) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 30070 30461 "1" 0 # TRAN from Q171 500.00 BRKR to BRKR Q171 230.00
0

(59) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 30450 30451 "1" 0 # TRAN from CORTINA 230.00 BRKR to (3) CRTNA M 230.00
2 30451 31951 "1" 0 # TRAN from CRTNA M 230.00 (3) to (1) CORT_D 115.00
2 30451 32056 "1" 0 # TRAN from CRTNA M 230.00 (3) to BRKR CORTINA 60.00
4 31951 0 "3" 0 # LOAD-DROP CORT_D 115.00 LOAD==7.98(0.36)
0

(60) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

**** 3-WINDING TRANSFORMER 30460 (30067) 30030 32152 :
2 30460 30030 "11" 0 # TRAN from VACA-DIX 230.00 BRKR to (1) VACA-DIX 500.00
0

(61) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

**** 3-WINDING TRANSFORMER 30460 (32158) 30030 32157 :
2 30460 30030 "12" 0 # TRAN from VACA-DIX 230.00 BRKR to (1) VACA-DIX 500.00
0

(62) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 31950 30450 "4" 0 # TRAN from CORTINA 115.00 BRKR to BRKR CORTINA 230.00
0

(63) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 31984 30348 "10" 0 # TRAN from BRIGHTN 115.00 BRKR to BRKR BRIGHTON 230.00
0

(64) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 31984 30348 "9" 0 # TRAN from BRIGHTN 115.00 BRKR to BRKR BRIGHTON 230.00
0

(65) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 31998 30460 "3" 0 # TRAN from VACA-DIX 115.00 BRKR to BRKR VACA-DIX 230.00
0

(66) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 31998 30460 "4" 0 # TRAN from VACA-DIX 115.00 BRKR to BRKR VACA-DIX 230.00
0

(67) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 32088 31998 "5" 0 # TRAN from VACA-DIXN 60.00 BRKR to BRKR VACA-DIX 115.00
0

(68) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2013 SPRING CATEGORY "B" CONTINGENCY LIST

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#
2 32088 31998 "9" 0 # TRAN from VACA-DXN 60.00 BRKR to BRKR VACA-DIX 115.00
0
#
#
# (69) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 32162 31994 "1" 0 # TRAN from RIV.DLTA 9.11 (1) to BRKR GRAND IS 115.00
0
#
#
# (70) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 32164 32008 "1" 0 # TRAN from CTY FAIR 9.11 (1) to BRKR SUISUN 115.00
3 32164 0 "1" 0 # GEN-DROP CTY FAIR 9.11 GEN==0.80(0.07)
3 32164 0 "2" 0 # GEN-DROP CTY FAIR 9.11 GEN==1.50(0.13)
0
#
#
# (71) B1 GENERATOR OUTAGE
#
3 32150 0 "1" 0 # DG_VADIX 13.80 PGEN=49.00 QGEN=8.01
0
#
#
# (72) B1 GENERATOR OUTAGE
#
3 32154 0 "1" 0 # WADHAM 9.11 PGEN=22.84 QGEN=2.50
0
#
#
# (73) B1 GENERATOR OUTAGE
#
3 32156 0 "1" 0 # WOODLAND 9.11 PGEN=25.00 QGEN=5.00
0
#
#
# (74) B1 GENERATOR OUTAGE
#
3 32164 0 "1" 0 # CTY FAIR 9.11 PGEN=0.80 QGEN=0.07
0
#
#
# (75) B1 GENERATOR OUTAGE
#
3 32164 0 "2" 0 # CTY FAIR 9.11 PGEN=1.50 QGEN=0.13
0
#
#
# (76) B1 GENERATOR OUTAGE
#
3 32166 0 "1" 0 # UC DAVIS 9.11 PGEN=3.50 QGEN=-1.20
0
#
#
# (77) B1 GENERATOR OUTAGE
#
3 32168 0 "2" 0 # ENXCO 9.11 PGEN=49.00 QGEN=0.00
0
#
#
# (78) B1 GENERATOR OUTAGE
#
3 32169 0 "1" 0 # SOLANOWP 21.00 PGEN=150.00 QGEN=0.00
0
#
#
# (79) B1 GENERATOR OUTAGE
#
3 32171 0 "1" 0 # HIGHWND3 34.50 PGEN=38.00 QGEN=0.00
0
#
#
# (80) B1 GENERATOR OUTAGE

```


2013 SPRING CATEGORY "B" CONTINGENCY LIST

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#
3 32172 0 "1" 0 # HIGHWINDS 34.50  PGEN=158.00 QGEN=0.00
0
#
#
# (81) B1 GENERATOR OUTAGE
#
3 32173 0 "1" 0 # LAMBGT1 13.80  PGEN=46.30 QGEN=-7.63
0
#
#
# (82) B1 GENERATOR OUTAGE
#
3 32174 0 "2" 0 # GOOSEHGT 13.80  PGEN=46.30 QGEN=-5.82
0
#
#
# (83) B1 GENERATOR OUTAGE
#
3 32175 0 "3" 0 # CREEDGT1 13.80  PGEN=46.30 QGEN=-5.82
0
#
#
# (84) B1 GENERATOR OUTAGE
#
3 32176 0 "1" 0 # SHILOH 34.50  PGEN=150.00 QGEN=0.00
0
#
#
# (85) B1 GENERATOR OUTAGE
#
3 32177 0 "1" 0 # SHILO 34.50  PGEN=150.00 QGEN=0.00
0
#
#
# (86) B1 GENERATOR OUTAGE
#
3 32185 0 "1" 0 # WOLFSKIL 13.80  PGEN=50.00 QGEN=5.90
0
#
#
# (87) B1 GENERATOR OUTAGE
#
3 32186 0 "1" 0 # P0609 34.50  PGEN=128.00 QGEN=12.35
0
#
#
# (88) B1 GENERATOR OUTAGE
#
3 32188 0 "1" 0 # P0611G 34.50  PGEN=30.00 QGEN=2.74
0
#
#
# (89) B1 GENERATOR OUTAGE
#
3 32181 0 "1" 0 # Q171WG1 34.50  PGEN=125.00 QGEN=-17.99
0
#
#
# (90) B1 GENERATOR OUTAGE
#
3 32179 0 "1" 0 # Q222 0.58  PGEN=100.50 QGEN=15.80
0
#
#
# (91) B1 GENERATOR OUTAGE
#
3 32180 0 "1" 0 # Q262 13.80  PGEN=16.64 QGEN=2.33
0
#
#
# (92) B1 GENERATOR OUTAGE
#
3 32190 0 "1" 0 # Q039 0.58  PGEN=200.00 QGEN=16.08

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2013 SPRING CATEGORY "B" CONTINGENCY LIST

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0
#
#
# (93) B1 GENERATOR OUTAGE
#
3 32191 0 "1" 0 # Q257GT1 16.50 PGEN=218.00 QGEN=40.20
0
#
#
# (94) B1 GENERATOR OUTAGE
#
3 32193 0 "3" 0 # Q257ST1 13.80 PGEN=77.00 QGEN=14.47
0
#
#
# (95) Overlapping Outage (L-1/G-1)
# Rio Oso - Brighton 230 kV Line and Woodland
1 30330 30348 "1" 0 # line from RIO OSO 230.00 BRKR to BRKR BRIGHTON 230.00
#
3 32156 0 "1" 0 # WOODLAND 9.11 PGEN=25.00 QGEN=5.00
0
#
#
# (96) Overlapping Outage (L-1/G-1)
# West Sacramento - Brighton 115 kV Line and Woodland
1 31978 31984 "1" 0 # line from DPWT_TP2 115.00 (3) to BRKR BRIGHTN 115.00
1 31978 31986 "1" 0 # line from DPWT_TP2 115.00 (3) to BRKR W.SCRMNO 115.00
1 31978 31988 "1" 0 # line from DPWT_TP2 115.00 (3) to (1) DEEPWATR 115.00
4 31988 0 "2" 0 # LOAD-DROP DEEPWATR 115.00 LOAD==22.90(1.02)
4 31988 0 "3" 0 # LOAD-DROP DEEPWATR 115.00 LOAD==15.82(0.70)
1 31976 31988 "1" 1 #Transfer load to alternate Deepwater tap
4 31988 0 "****" 1 #Restore load at Deepwater
#
3 32156 0 "1" 0 # WOODLAND 9.11 PGEN=25.00 QGEN=5.00
0
#
#
# (97) Overlapping Outage (L-1/G-1)
# Rio Oso - West Sacramento 115 kV Line and Woodland
1 32214 31986 "1" 0 # line from RIO OSO 115.00 BRKR to BRKR W.SCRMNO 115.00
#
3 32156 0 "1" 0 # WOODLAND 9.11 PGEN=25.00 QGEN=5.00
0
#
#
# (98) Overlapping Outage (L-1/G-1)
# West Sacramento - Davis 115 kV Line and Woodland
1 31976 31980 "1" 0 # line from POST 115.00 (1) to (3) DPWTR_TP 115.00
1 31980 31986 "1" 0 # line from DPWTR_TP 115.00 (3) to BRKR W.SCRMNO 115.00
1 31980 32003 "1" 0 # line from DPWTR_TP 115.00 (3) to (3) UCD_TP1 115.00
1 32003 31990 "1" 0 # line from UCD_TP1 115.00 (3) to BRKR DAVIS 115.00
1 32003 32103 "2" 0 # line from UCD_TP1 115.00 (3) to (2) UCDAVSJ2 115.00
1 32103 32102 "1" 0 # line from UCDAVSJ2 115.00 (2) to (2) CAMPUS 115.00
2 32102 32166 "1" 0 # TRAN from CAMPUS 115.00 (2) to (1) UC DAVIS 9.11
4 31976 0 "1" 0 # LOAD-DROP POST 115.00 LOAD==1.31(0.19)
4 31976 0 "1A" 0 # LOAD-DROP POST 115.00 LOAD==1.31(0.19)
4 32102 0 "1" 0 # LOAD-DROP CAMPUS 115.00 LOAD==36.56(8.33)
3 32166 0 "1" 0 # GEN-DROP UC DAVIS 9.11 GEN==3.50(1.80)
1 31988 31976 "1" 1 #Transfer POST to alternate Deepwater tap
4 31976 0 "****" 1 #Restore load to POST
#
3 32156 0 "1" 0 # WOODLAND 9.11 PGEN=25.00 QGEN=5.00
0
#
#
# (99) Overlapping Outage (L-1/G-1)
# Rio Oso - Woodland #1 115 kV Line and Woodland
1 31960 31966 "1" 0 # line from MOBILCHE 115.00 (2) to (3) WODLNDJ1 115.00
1 31960 31970 "1" 0 # line from MOBILCHE 115.00 (2) to BRKR WOODLD 115.00
1 31966 31965 "1" 0 # line from WODLNDJ1 115.00 (3) to (3) KNIGHT1 115.00
1 31966 31971 "1" 0 # line from WODLNDJ1 115.00 (3) to (1) ZAMORA1 115.00
1 31965 31963 "1" 0 # line from KNIGHT1 115.00 (3) to (1) KNIGHTLD 115.00
1 31965 32214 "1" 0 # line from KNIGHT1 115.00 (3) to BRKR RIO OSO 115.00
4 31960 0 "1" 0 # LOAD-DROP MOBILCHE 115.00 LOAD==0.10(0.00)

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2013 SPRING CATEGORY "B" CONTINGENCY LIST

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4 31963 0 "1" 0 # LOAD-DROP KNIGHTLD 115.00 LOAD==8.57(0.38)
#
3 32156 0 "1" 0 # WOODLAND 9.11 PGEN=25.00 QGEN=5.00
0
#
#
# (100) Overlapping Outage (L-1/G-1)
# Vaca - Suisun - Jameson 115 kV Line and Wolfskill
1 31998 31997 "1" 0 # line from VACA-DIX 115.00 BRKR to (3) SCHMLBCH 115.00
1 31997 32008 "1" 0 # line from SCHMLBCH 115.00 (3) to BRKR SUISUN 115.00
1 31997 32009 "1" 0 # line from SCHMLBCH 115.00 (3) to (1) JAMESN-A 115.00
4 31997 0 "1" 0 # LOAD-DROP SCHMLBCH 115.00 LOAD==10.08(6.77)
#
3 32185 0 "1" 0 # WOLFSKIL 13.80 PGEN=50.00 QGEN=5.90
0
#
#
# 2013 spring category b contingency list
# Sierra Division Zone 305
#
#
# (101) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30261 30300 "1" 0 # line from BELDENTP 230.00 (2) to BRKR TBL MT D 230.00
1 30261 30250 "1" 0 # line from BELDENTP 230.00 (2) to BRKR CARIBOU 230.00
3 31808 0 "1" 0 # the RAS for Caribou-Table Mt 230 kV line loss will drop
3 31808 0 "2" 0 # Caribou Units 2 & 3
3 31782 0 "1" 0 # Caribou Units 4 & 5
3 31782 0 "2" 0 # Caribou Units 4 & 5
3 31810 0 "1" 0 # Caribou 1
3 31894 0 "1" 0 # Collins Pine
3 31892 0 "1" 0 # Lassen Power
3 31780 0 "1" 0 # Butt Valley
2 31780 31490 "1" 0 # Butt Valley transformer
1 31486 31490 "1" 0 # Caribou - Butt Valley line
0
#
#
# (102) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30275 30330 "1" 0 # line from CRESTA 230.00 BRKR to BRKR RIO OSO 230.00
0
#
#
# (103) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30280 30330 "1" 0 # line from POE 230.00 BRKR to BRKR RIO OSO 230.00
2 30280 31792 "1" 0 # Take the transformer out with Rio Oso-Poe 230 kV line outage
3 31792 0 "1" 0 # Take the generator out with Rio Oso-Poe 230 kV line outage
0
#
#
# (104) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30300 30330 "1" 0 # line from TBL MT D 230.00 BRKR to BRKR RIO OSO 230.00
0
#
#
# (105) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30325 30327 "1" 0 # line from PALERMO 230.00 BRKR to BRKR COLGATE 230.00
2 30327 32450 "1" 0 # Take one transformer out with Palermo-Colgate 230 kV line outage
3 32450 0 "1" 0 # Take one generator out with Palermo-Colgate 230 kV line outage
0
#
#
# (106) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30327 30330 "1" 0 # line from COLGATE 230.00 BRKR to BRKR RIO OSO 230.00
2 30327 32452 "1" 0 # Take one transformer out with Colgate-Rio Oso 230 kV line outage
3 32452 0 "1" 0 # Take one generator out with Colgate-Rio Oso 230 kV line outage
0
#
#

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2013 SPRING CATEGORY "B" CONTINGENCY LIST

(107) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30330 30335 "1 " 0 # line from RIO OSO 230.00 BRKR to BRKR ATLANTC 230.00
0

(108) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30330 30337 "1 " 0 # line from RIO OSO 230.00 BRKR to BRKR GOLDHILL 230.00
0

(109) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30330 30482 "1 " 0 # line from RIO OSO 230.00 BRKR to BRKR LOCKFORD 230.00
0

(110) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30331 30330 "1 " 0 # line from Q266 230.00 (3) to BRKR RIO OSO 230.00
2 30331 32517 "1 " 0 # TRAN from Q266 230.00 (3) to (1) Q266CT1 18.00
2 30331 32518 "1 " 0 # TRAN from Q266 230.00 (3) to (1) Q266ST1 18.00
4 32517 0 "ss" 0 # LOAD-DROP Q266CT1 18.00 LOAD==36.00(19.92)
3 32517 0 "1 " 0 # GEN-DROP Q266CT1 18.00 GEN==173.00(45.33)
3 32518 0 "1 " 0 # GEN-DROP Q266ST1 18.00 GEN==188.00(30.71)
0

(111) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30335 30337 "1 " 0 # line from ATLANTC 230.00 BRKR to BRKR GOLDHILL 230.00
0

(112) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30337 30340 "1 " 0 # line from GOLDHILL 230.00 BRKR to (3) RALSTON 230.00
1 30340 30345 "1 " 0 # line from RALSTON 230.00 (3) to BRKR MIDLFORK 230.00
2 30340 32458 "1 " 0 # TRAN from RALSTON 230.00 (3) to (1) RALSTON 13.80
3 32458 0 "1 " 0 # GEN-DROP RALSTON 13.80 GEN==83.00(15.12)
0

(113) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30337 30621 "1 " 0 # line from GOLDHILL 230.00 BRKR to BRKR Q260 230.00
0

(114) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30621 30622 "1 " 0 # line from Q260 230.00 BRKR to BRKR EIGHT MI 230.00
0

(115) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30337 37012 "1 " 0 # line from GOLDHILL 230.00 BRKR to BRKR LAKE 230.00
0

(116) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30337 38000 "1 " 0 # line from GOLDHILL 230.00 BRKR to BRKR LODI 230.00
0

(117) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30993 64109 "1 " 0 # line from SUMMIT 60.00 (2) to BRKR SUMMIT 3 60.00
1 30993 32365 "1 " 0 # line from SUMMIT 60.00 (2) to (2) TAMARACK 60.00
1 32365 32366 "1 " 0 # line from TAMARACK 60.00 (2) to (3) CISCO GR 60.00
1 32366 32363 "1 " 0 # line from CISCO GR 60.00 (3) to (1) CISCOTAP 60.00

2013 SPRING CATEGORY "B" CONTINGENCY LIST

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1 32366 32372 "1" 0 # line from CISCO GR 60.00 (3) to BRKR SPAULDNG 60.00
4 30993 0 "1" 0 # LOAD-DROP SUMMIT 60.00 LOAD==1.58(0.07)
4 32365 0 "1" 0 # LOAD-DROP TAMARACK 60.00 LOAD==1.05(0.04)
4 32363 0 "1" 0 # LOAD-DROP CISCOTAP 60.00 LOAD==1.00(0.47)
4 30993 0 "" 0 #Drop Summit 3 load with outage
0
#
#
# (118) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
# spring outage
1 31482 32280 "1" 0 # line from PALERMO 115.00 BRKR to (3) E.MRY J2 115.00
1 32280 32202 "1" 0 # line from E.MRY J2 115.00 (3) to (1) E.MRYSVE 115.00
1 32280 32212 "1" 0 # line from E.MRY J2 115.00 (3) to BRKR E.NICOLS 115.00
4 32202 0 "2" 0 # LOAD-DROP E.MRYSVE 115.00 LOAD==10.55(0.47)
4 32202 0 "3" 0 # LOAD-DROP E.MRYSVE 115.00 LOAD==9.73(0.44)
1 32288 32202 "1" 1 #Transfer load to E. Marysville Alt. 1 spring
4 32202 0 "" 1 #Restore load at E. Marysville spring
0
#
#
# (119) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31508 32286 "1" 0 # line from HONC JT3 115.00 (3) to (2) OLIVH J3 115.00
1 31508 31482 "1" 0 # line from HONC JT3 115.00 (3) to BRKR PALERMO 115.00
1 31508 31484 "1" 0 # line from HONC JT3 115.00 (3) to (1) HONCUT 115.00
1 32286 32206 "1" 0 # line from OLIVH J3 115.00 (2) to BRKR BOGUE 115.00
4 31484 0 "1" 0 # LOAD-DROP HONCUT 115.00 LOAD==16.18(0.73)
0
#
#
# (120) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31656 31658 "1" 0 # line from PALERMO 60.00 BRKR to (1) BANGOR 60.00
4 31658 0 "1" 0 # LOAD-DROP BANGOR 60.00 LOAD==6.68(0.30)
0
#
#
# (121) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 31660 32309 "1" 0 # line from DOBBINS 60.00 (2) to (2) CHLLNGEA 60.00
1 31660 32307 "1" 0 # line from DOBBINS 60.00 (2) to (2) COLGATEA 60.00
1 32309 31662 "1" 0 # line from CHLLNGEA 60.00 (2) to (1) CHALLNGE 60.00
1 32307 32308 "1" 0 # line from COLGATEA 60.00 (2) to BRKR COLGATE 60.00
4 31660 0 "1" 0 # LOAD-DROP DOBBINS 60.00 LOAD==2.90(0.13)
4 31662 0 "1" 0 # LOAD-DROP CHALLNGE 60.00 LOAD==2.58(0.12)
0
#
#
# (122) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32018 32229 "1" 0 # line from GOLDHILL 115.00 BRKR to (3) HORSHE1 115.00
1 32229 32230 "1" 0 # line from HORSHE1 115.00 (3) to (1) HORSESHE 115.00
1 32229 32233 "1" 0 # line from HORSHE1 115.00 (3) to (3) NEWCSTL1 115.00
1 32233 32234 "1" 0 # line from NEWCSTL1 115.00 (3) to (2) NEWCSTLE 115.00
1 32233 32236 "1" 0 # line from NEWCSTL1 115.00 (3) to (2) FLINT1 115.00
2 32234 32460 "1" 0 # TRAN from NEWCSTLE 115.00 (2) to (1) NEWCSTLE 13.20
1 32236 32228 "1" 0 # line from FLINT1 115.00 (2) to BRKR PLACER 115.00
4 32230 0 "1" 0 # LOAD-DROP HORSESHE 115.00 LOAD==15.79(0.71)
4 32230 0 "2" 0 # LOAD-DROP HORSESHE 115.00 LOAD==36.15(1.61)
1 32230 32231 "1" 1 #Transfer load to alternate
4 32230 0 "" 1 #Restore load at Horseshoe
0
#
#
# (123) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32018 32231 "2" 0 # line from GOLDHILL 115.00 BRKR to (2) HORSHE2 115.00
1 32231 32235 "2" 0 # line from HORSHE2 115.00 (2) to (2) NEWCSTL2 115.00
1 32235 32239 "2" 0 # line from NEWCSTL2 115.00 (2) to (3) FLINT2 115.00
1 32239 32228 "2" 0 # line from FLINT2 115.00 (3) to BRKR PLACER 115.00
1 32239 32237 "1" 0 # line from FLINT2 115.00 (3) to (1) FLINT 115.00
4 32237 0 "1" 0 # LOAD-DROP FLINT 115.00 LOAD==14.82(0.66)
0
#

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2013 SPRING CATEGORY "B" CONTINGENCY LIST

 # (124) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32018 32263 "1" 0 # line from GOLDHILL 115.00 BRKR to (1) CLRKSVLE 115.00
 4 32263 0 "1" 0 # LOAD-DROP CLRKSVLE 115.00 LOAD==44.58(2.00)
 4 32263 0 "2" 0 # LOAD-DROP CLRKSVLE 115.00 LOAD==47.39(2.12)
 4 32263 0 "3" 0 # LOAD-DROP CLRKSVLE 115.00 LOAD==45.28(2.03)
 1 32264 32263 "1" 1 #Transfer Clarksville to alternate
 4 32263 0 "****" 1 #Restore load at Clarksville
 0

 # (125) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32018 32268 "2" 0 # line from GOLDHILL 115.00 BRKR to (3) SHPRING2 115.00
 1 32268 32259 "2" 0 # line from SHPRING2 115.00 (3) to (3) DIMOND_2 115.00
 1 32268 32265 "2" 0 # line from SHPRING2 115.00 (3) to (1) SHPRING 115.00
 1 32259 32258 "2" 0 # line from DIMOND_2 115.00 (3) to (1) DMND SPR 115.00
 1 32259 32260 "2" 0 # line from DIMOND_2 115.00 (3) to BRKR MIZOU_T2 115.00
 4 32265 0 "1" 0 # LOAD-DROP SHPRING 115.00 LOAD==19.57(0.88)
 4 32265 0 "2" 0 # LOAD-DROP SHPRING 115.00 LOAD==21.49(0.96)
 4 32258 0 "1" 0 # LOAD-DROP DMND SPR 115.00 LOAD==9.86(0.44)
 4 32258 0 "2" 0 # LOAD-DROP DMND SPR 115.00 LOAD==28.07(1.25)
 1 32262 32265 "1" 1 #Transfer Shingle Springs to alternate
 4 32265 0 "****" 1 #Restore load at Shingle Springs
 1 32258 32267 "1" 1 #Transfer Diamond Springs to alternate
 4 32258 0 "****" 1 #Restore load at Diamond Springs
 0

 # (126) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32018 32275 "1" 0 # line from GOLDHILL 115.00 BRKR to (3) CPM TAP 115.00
 1 32275 32264 "1" 0 # line from CPM TAP 115.00 (3) to (2) CLRKSVLT 115.00
 1 32275 32276 "1" 0 # line from CPM TAP 115.00 (3) to (1) CPM 115.00
 1 32264 32262 "1" 0 # line from CLRKSVLT 115.00 (2) to (2) SHPRING1 115.00
 1 32262 32267 "1" 0 # line from SHPRING1 115.00 (2) to (2) DIMOND_1 115.00
 1 32267 32261 "1" 0 # line from DIMOND_1 115.00 (2) to BRKR MIZOU_T1 115.00
 0

 # (127) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32110 32396 "1" 0 # line from GOLD HLL 60.00 BRKR to (2) LIMESTNE 60.00
 1 32396 33618 "1" 0 # line from LIMESTNE 60.00 (2) to (1) OLETA 60.00
 4 32396 0 "1" 0 # LOAD-DROP LIMESTNE 60.00 LOAD==0.02(0.00)
 4 32396 0 "PW" 0 # LOAD-DROP LIMESTNE 60.00 LOAD==2.55(2.18)
 4 33618 0 "1" 0 # LOAD-DROP OLETA 60.00 LOAD==3.87(0.17)
 4 33618 0 "2" 0 # LOAD-DROP OLETA 60.00 LOAD==3.45(0.16)
 0

 # (128) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32200 31506 "1" 0 # line from PEASE 115.00 BRKR to (2) HONC JT1 115.00
 1 31506 31482 "1" 0 # line from HONC JT1 115.00 (2) to BRKR PALERMO 115.00
 0

 # (129) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 # spring outage
 1 32200 32288 "1" 0 # line from PEASE 115.00 BRKR to (3) E.MRY J1 115.00
 1 32288 32290 "1" 0 # line from E.MRY J1 115.00 (3) to (3) OLIVH J1 115.00
 1 32290 32204 "1" 0 # line from OLIVH J1 115.00 (3) to (1) OLIVHRST 115.00
 1 32290 32214 "1" 0 # line from OLIVH J1 115.00 (3) to BRKR RIO OSO 115.00
 4 32204 0 "1" 0 # LOAD-DROP OLIVHRST 115.00 LOAD==6.71(0.30)
 4 32204 0 "2" 0 # LOAD-DROP OLIVHRST 115.00 LOAD==21.33(0.95)
 1 32204 32286 "1" 1 #Transfer Olivehurst to alternate
 4 32204 0 "****" 1 #Restore load Olivehurst
 0

 # (130) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #

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1 32206 32208 "1" 0 # line from BOGUE 115.00 BRKR to (3) GLEAF TP 115.00
1 32208 32210 "1" 0 # line from GLEAF TP 115.00 (3) to (2) GLEAF 1 115.00
1 32208 32214 "1" 0 # line from GLEAF TP 115.00 (3) to BRKR RIO OSO 115.00
2 32210 32490 "1" 0 # TRAN from GLEAF 1 115.00 BRKR to (1) GRNLEAF1 13.80
4 32490 0 "ss" 0 # LOAD-DROP GRNLEAF1 13.80 LOAD==0.67(0.15)
3 32490 0 "1" 0 # GEN-DROP GRNLEAF1 13.80 GEN==40.00(-12.86)
3 32490 0 "2" 0 # GEN-DROP GRNLEAF1 13.80 GEN==9.50(-3.05)
0
#
#
# (131) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32206 32292 "1" 0 # line from BOGUE 115.00 BRKR to (2) FREC TAP 115.00
2 32292 32451 "1" 0 # TRAN from FREC TAP 115.00 (2) to (1) FREC 13.80
4 32451 0 "ss" 0 # LOAD-DROP FREC 13.80 LOAD==1.30(0.30)
3 32451 0 "1" 0 # GEN-DROP FREC 13.80 GEN==50.00(9.38)
0
#
#
# (132) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32212 32214 "1" 0 # line from E.NICOLS 115.00 BRKR to BRKR RIO OSO 115.00
0
#
#
# (133) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32214 31964 "2" 0 # line from RIO OSO 115.00 BRKR to (2) KNIGHT2 115.00
1 31964 31968 "2" 0 # line from KNIGHT2 115.00 (2) to (3) WODLNDJ2 115.00
1 31968 31970 "2" 0 # line from WODLNDJ2 115.00 (3) to BRKR WOODLD 115.00
1 31968 31973 "2" 0 # line from WODLNDJ2 115.00 (3) to (2) ZAMORA2 115.00
1 31973 31972 "2" 0 # line from ZAMORA2 115.00 (2) to (1) ZAMORA 115.00
4 31972 0 "1" 0 # LOAD-DROP ZAMORA 115.00 LOAD==8.47(0.38)
0
#
#
# (134) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32214 31965 "1" 0 # line from RIO OSO 115.00 BRKR to (3) KNIGHT1 115.00
1 31965 31963 "1" 0 # line from KNIGHT1 115.00 (3) to (1) KNIGHTLD 115.00
1 31965 31966 "1" 0 # line from KNIGHT1 115.00 (3) to (3) WODLNDJ1 115.00
1 31966 31960 "1" 0 # line from WODLNDJ1 115.00 (3) to (2) MOBILCHE 115.00
1 31966 31971 "1" 0 # line from WODLNDJ1 115.00 (3) to (1) ZAMORA1 115.00
1 31960 31970 "1" 0 # line from MOBILCHE 115.00 (2) to BRKR WOODLD 115.00
4 31963 0 "1" 0 # LOAD-DROP KNIGHTLD 115.00 LOAD==6.84(0.31)
4 31960 0 "1" 0 # LOAD-DROP MOBILCHE 115.00 LOAD==0.10(0.00)
0
#
#
# (135) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32214 32225 "1" 0 # line from RIO OSO 115.00 BRKR to (3) BRNSWKTP 115.00
1 32225 32222 "1" 0 # line from BRNSWKTP 115.00 (3) to (3) DTCH FL2 115.00
1 32225 32227 "2" 0 # line from BRNSWKTP 115.00 (3) to (1) BRNSWALT 115.00
1 32222 32218 "1" 0 # line from DTCH FL2 115.00 (3) to BRKR DRUM 115.00
2 32222 32502 "1" 0 # TRAN from DTCH FL2 115.00 BRKR to (1) DTCHFLT2 6.90
4 32227 0 "1" 0 # LOAD-DROP BRNSWALT 115.00 LOAD==24.08(1.08)
3 32502 0 "1" 0 # GEN-DROP DTCHFLT2 6.90 GEN==24.50(9.66)
0
#
#
# (136) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32214 32244 "2" 0 # line from RIO OSO 115.00 BRKR to (3) BRNSWCKP 115.00
1 32244 32218 "2" 0 # line from BRNSWCKP 115.00 (3) to BRKR DRUM 115.00
1 32244 32226 "2" 0 # line from BRNSWCKP 115.00 (3) to (1) BRUNSWCK 115.00
4 32226 0 "2" 0 # LOAD-DROP BRUNSWCK 115.00 LOAD==30.46(1.37)
4 32226 0 "3" 0 # LOAD-DROP BRUNSWCK 115.00 LOAD==8.00(0.36)
0
#
#
# (137) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32214 32356 "1" 0 # line from RIO OSO 115.00 BRKR to BRKR LINCOLN 115.00

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0
#
#
# (138) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32215 32214 "1" 0 # line from Q259 115.00 (3) to BRKR RIO OSO 115.00
2 32215 32515 "1" 0 # TRAN from Q259 115.00 (3) to (1) Q259CT1 18.00
2 32215 32516 "1" 0 # TRAN from Q259 115.00 (3) to (1) Q259ST1 18.00
4 32515 0 "ss" 0 # LOAD-DROP Q259CT1 18.00 LOAD==16.00(8.85)
3 32515 0 "1" 0 # GEN-DROP Q259CT1 18.00 GEN==173.00(33.36)
3 32516 0 "1" 0 # GEN-DROP Q259ST1 18.00 GEN==188.00(27.79)
0
#
#
# (139) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32218 32220 "1" 0 # line from DRUM 115.00 BRKR to (3) DTCH FL1 115.00
1 32220 32224 "1" 0 # line from DTCH FL1 115.00 (3) to (3) CHCGO PK 115.00
2 32220 32464 "1" 0 # TRAN from DTCH FL1 115.00 BRKR to (1) DTCHFLT1 11.00
1 32224 32232 "1" 0 # line from CHCGO PK 115.00 (3) to BRKR HIGGINS 115.00
2 32224 32462 "1" 0 # TRAN from CHCGO PK 115.00 BRKR to (1) CHI.PARK 11.50
3 32464 0 "1" 0 # GEN-DROP DTCHFLT1 11.00 GEN==22.00(12.70)
3 32462 0 "1" 0 # GEN-DROP CHI.PARK 11.50 GEN==37.90(14.75)
0
#
#
# (140) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32228 32238 "1" 0 # line from PLACER 115.00 BRKR to BRKR BELL PGE 115.00
0
#
#
# (141) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32232 32238 "1" 0 # line from HIGGINS 115.00 BRKR to BRKR BELL PGE 115.00
3 32464 0 "" 0 #Drop Dutch Flat No. 1 generator during Higgins-Bell 115 kV outage
3 32462 0 "" 0 #Drop Chicago Park generator during Higgins-Bell 115 kV outage
0
#
#
# (142) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32248 32266 "1" 0 # line from ROCKLIN 60.00 (1) to (2) TAYLOR 60.00
1 32266 32413 "1" 0 # line from TAYLOR 60.00 (2) to BRKR ATLANTI 60.00
4 32248 0 "1" 0 # LOAD-DROP ROCKLIN 60.00 LOAD==18.53(0.00)
4 32248 0 "2" 0 # LOAD-DROP ROCKLIN 60.00 LOAD==7.80(0.00)
4 32266 0 "1" 0 # LOAD-DROP TAYLOR 60.00 LOAD==1.74(1.12)
0
#
#
# (143) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32250 32481 "2" 0 # line from ELDORAD 115.00 BRKR to (2) APLHTAP2 115.00
1 32481 32257 "2" 0 # line from APLHTAP2 115.00 (2) to (4) PLCRVLT2 115.00
1 32257 32254 "2" 0 # line from PLCRVLT2 115.00 (4) to (2) PLCRVLB2 115.00
1 32257 32260 "2" 0 # line from PLCRVLT2 115.00 (4) to BRKR MIZOU_T2 115.00
2 32257 32510 "1" 0 # TRAN from PLCRVLT2 115.00 (4) to (1) CHILIBAR 4.16
1 32254 32256 "1" 0 # line from PLCRVLB2 115.00 (2) to (1) PLCRVLB3 115.00
4 32254 0 "2" 0 # LOAD-DROP PLCRVLB2 115.00 LOAD==9.02(0.41)
4 32256 0 "3" 0 # LOAD-DROP PLCRVLB3 115.00 LOAD==25.95(1.16)
3 32510 0 "1" 0 # GEN-DROP CHILIBAR 4.16 GEN==5.50(4.00)
1 32256 32255 "1" 1 #Transfer Placerville to alternate
4 32256 0 "" 1 #Restore load Bank 3 at Placerville
1 32254 32256 "1" 1 #Transfer Placerville to alternate
4 32254 0 "" 1 #Restore load Bank 2 at Placerville
0
#
#
# (144) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32250 32482 "1" 0 # line from ELDORAD 115.00 BRKR to (3) APLHTAP1 115.00
1 32482 32255 "1" 0 # line from APLHTAP1 115.00 (3) to (2) PLCRVLT1 115.00
1 32482 32278 "1" 0 # line from APLHTAP1 115.00 (3) to (2) SPICAMIN 115.00
1 32255 32261 "1" 0 # line from PLCRVLT1 115.00 (2) to BRKR MIZOU_T1 115.00

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1 32278 32252 "1" 0 # line from SPICAMIN 115.00 (2) to (1) APPLE HL 115.00
 4 32278 0 "1" 0 # LOAD-DROP SPICAMIN 115.00 LOAD==4.19(3.69)
 4 32252 0 "1" 0 # LOAD-DROP APPLE HL 115.00 LOAD==14.65(0.65)
 4 32252 0 "2" 0 # LOAD-DROP APPLE HL 115.00 LOAD==9.26(0.41)
 1 32252 32481 "1" 1 #Transfer Apple Hill to alternate
 4 32252 0 "" 1 #Restore load at Apple Hill
 0
 #
 #
 # (145) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32270 32274 "1" 0 # line from PENRYN 60.00 (2) to (1) SIERRAPI 60.00
 1 32270 32394 "1" 0 # line from PENRYN 60.00 (2) to BRKR PLACER 60.00
 4 32270 0 "1" 0 # LOAD-DROP PENRYN 60.00 LOAD==28.99(0.00)
 4 32274 0 "1" 0 # LOAD-DROP SIERRAPI 60.00 LOAD==16.53(9.37)
 0
 #
 #
 # (146) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32300 32301 "1" 0 # line from GLEAF2 60.00 (2) to (2) GLEAF2TP 60.00
 2 32300 32492 "1" 0 # TRAN from GLEAF2 60.00 BRKR to (1) GRNLEAF2 13.80
 1 32301 32328 "1" 0 # line from GLEAF2TP 60.00 (2) to (3) YBA CTYJ 60.00
 1 32328 32332 "1" 0 # line from YBA CTYJ 60.00 (3) to BRKR PEASE 60.00
 1 32328 32336 "1" 0 # line from YBA CTYJ 60.00 (3) to (1) ALMENDRA 60.00
 4 32492 0 "ss" 0 # LOAD-DROP GRNLEAF2 13.80 LOAD==0.50(0.11)
 3 32492 0 "1" 0 # GEN-DROP GRNLEAF2 13.80 GEN==49.00(20.05)
 0
 #
 #
 # (147) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32302 32324 "1" 0 # line from YUBACITY 60.00 (4) to (1) HARTER 60.00
 1 32302 32333 "1" 0 # line from YUBACITY 60.00 (4) to (3) PEASETP 60.00
 2 32302 32496 "1" 0 # TRAN from YUBACITY 60.00 (4) to (1) YCEC 13.80
 2 32302 32494 "1" 0 # TRAN from YUBACITY 60.00 BRKR to (1) YUBA CTY 9.11
 1 32333 32320 "1" 0 # line from PEASETP 60.00 (3) to BRKR MRYSVLE 60.00
 1 32333 32332 "1" 0 # line from PEASETP 60.00 (3) to BRKR PEASE 60.00
 4 32324 0 "1" 0 # LOAD-DROP HARTER 60.00 LOAD==22.66(1.01)
 4 32324 0 "2" 0 # LOAD-DROP HARTER 60.00 LOAD==26.96(1.21)
 4 32496 0 "ss" 0 # LOAD-DROP YCEC 13.80 LOAD==1.39(0.32)
 4 32494 0 "ss" 0 # LOAD-DROP YUBA CTY 9.11 LOAD==0.32(0.07)
 3 32496 0 "1" 0 # GEN-DROP YCEC 13.80 GEN==50.00(0.00)
 3 32494 0 "1" 0 # GEN-DROP YUBA CTY 9.11 GEN==41.30(15.86)
 0
 #
 #
 # (148) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32306 32342 "1" 0 # line from CATLETT 60.00 (1) to BRKR E.NICOLS 60.00
 4 32306 0 "1" 0 # LOAD-DROP CATLETT 60.00 LOAD==6.47(0.29)
 0
 #
 #
 # (149) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32308 32311 "1" 0 # line from COLGATE 60.00 BRKR to (3) NRRWS1TP 60.00
 1 32311 32310 "1" 0 # line from NRRWS1TP 60.00 (3) to (2) NARRWS 1 60.00
 1 32311 32314 "1" 0 # line from NRRWS1TP 60.00 (3) to BRKR SMRTSVLE 60.00
 2 32310 32466 "1" 0 # TRAN from NARRWS 1 60.00 (2) to (1) NARROWS1 9.11
 4 32310 0 "1" 0 # LOAD-DROP NARRWS 1 60.00 LOAD==16.50(2.35)
 3 32466 0 "1" 0 # GEN-DROP NARROWS1 9.11 GEN==10.00(5.30)
 0
 #
 #
 # (150) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 32308 32313 "2" 0 # line from COLGATE 60.00 BRKR to (3) NRRWS2TP 60.00
 1 32313 32312 "1" 0 # line from NRRWS2TP 60.00 (3) to (2) NARRWS 2 60.00
 1 32313 32314 "2" 0 # line from NRRWS2TP 60.00 (3) to BRKR SMRTSVLE 60.00
 2 32312 32468 "1" 0 # TRAN from NARRWS 2 60.00 BRKR to (1) NARROWS2 9.11
 4 32312 0 "2" 0 # LOAD-DROP NARRWS 2 60.00 LOAD==16.50(2.35)
 3 32468 0 "1" 0 # GEN-DROP NARROWS2 9.11 GEN==45.00(5.23)
 0

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#
#
# (151) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32308 32358 "1" 0 # line from COLGATE 60.00 BRKR to (2) CLMBA HL 60.00
1 32358 32360 "1" 0 # line from CLMBA HL 60.00 (2) to (2) PIKE CTY 60.00
1 32360 32362 "1" 0 # line from PIKE CTY 60.00 (2) to (1) ALLEGHNY 60.00
4 32358 0 "1" 0 # LOAD-DROP CLMBA HL 60.00 LOAD==2.01(0.09)
4 32360 0 "1" 0 # LOAD-DROP PIKE CTY 60.00 LOAD==0.62(0.03)
4 32362 0 "1" 0 # LOAD-DROP ALLEGHNY 60.00 LOAD==1.51(0.07)
0
#
#
# (152) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32308 32364 "1" 0 # line from COLGATE 60.00 BRKR to BRKR GRSS VLY 60.00
4 32364 0 "2" 0 # LOAD-DROP GRSS VLY 60.00 LOAD==14.20(0.64)
1 32377 32364 "1" 1 #Transfer Grass Valley load to alternate
4 32364 0 "" 1 #Restore load at Grass Valley
0
#
#
# (153) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32314 32316 "1" 0 # line from SMRTSVLE 60.00 BRKR to (1) YUBAGOLD 60.00
4 32316 0 "1" 0 # LOAD-DROP YUBAGOLD 60.00 LOAD==0.17(0.15)
0
#
#
# (154) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32314 32341 "2" 0 # line from SMRTSVLE 60.00 BRKR to (2) BEALE1J1 60.00
1 32341 32346 "2" 0 # line from BEALE1J1 60.00 (2) to (1) BEALE_1 60.00
4 32346 0 "1" 0 # LOAD-DROP BEALE_1 60.00 LOAD==5.75(3.01)
0
#
#
# (155) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32314 32348 "1" 0 # line from SMRTSVLE 60.00 BRKR to (2) BEALE2J2 60.00
1 32348 32352 "1" 0 # line from BEALE2J2 60.00 (2) to (2) WEST JCT 60.00
1 32352 32354 "1" 0 # line from WEST JCT 60.00 (2) to (2) CMP FRWT 60.00
2 32354 32470 "1" 0 # TRAN from CMP FRWT 60.00 (2) to (1) CMP.FARW 9.11
3 32470 0 "1" 0 # GEN-DROP CMP.FARW 9.11 GEN==4.60(-1.86)
0
#
#
# (156) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32314 32349 "1" 0 # line from SMRTSVLE 60.00 BRKR to (3) BEALE2J1 60.00
1 32349 32345 "1" 0 # line from BEALE2J1 60.00 (3) to (1) BEALE1J2 60.00
1 32349 32347 "1" 0 # line from BEALE2J1 60.00 (3) to (1) BEALE_2 60.00
4 32347 0 "1" 0 # LOAD-DROP BEALE_2 60.00 LOAD==17.25(3.93)
0
#
#
# (157) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32318 32320 "1" 0 # line from BRWNS VY 60.00 (1) to BRKR MRYSVLE 60.00
4 32318 0 "1" 0 # LOAD-DROP BRWNS VY 60.00 LOAD==3.29(0.15)
0
#
#
# (158) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32322 32326 "1" 0 # line from ENCINAL 60.00 (1) to (3) ENCL TAP 60.00
1 32326 32332 "1" 0 # line from ENCL TAP 60.00 (3) to BRKR PEASE 60.00
1 32326 32334 "1" 0 # line from ENCL TAP 60.00 (3) to (2) LIVE OAK 60.00
1 32334 38054 "1" 0 # line from LIVE OAK 60.00 (2) to (2) GRIDLEY 60.00
1 38054 31642 "1" 0 # line from GRIDLEY 60.00 (2) to BRKR PEACHTON 60.00
4 32322 0 "1" 0 # LOAD-DROP ENCINAL 60.00 LOAD==0.70(0.16)
4 32334 0 "1" 0 # LOAD-DROP LIVE OAK 60.00 LOAD==10.09(0.45)
4 38054 0 "1" 0 # LOAD-DROP GRIDLEY 60.00 LOAD==13.84(1.89)
0

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#
#
# (159) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32332 32320 "1" 0 # line from PEASE 60.00 BRKR to BRKR MRYSVLL 60.00
0
#
#
# (160) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32338 32340 "1" 0 # line from BARRY 60.00 (1) to (2) TUDOR 60.00
1 32340 32342 "1" 0 # line from TUDOR 60.00 (2) to BRKR E.NICOLS 60.00
4 32338 0 "1" 0 # LOAD-DROP BARRY 60.00 LOAD==4.12(0.19)
4 32340 0 "1" 0 # LOAD-DROP TUDOR 60.00 LOAD==3.28(0.15)
0
#
#
# (161) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32342 32079 "1" 0 # line from E.NICOLS 60.00 BRKR to (3) DST1001B 60.00
1 32079 32083 "1" 0 # line from DST1001B 60.00 (3) to (1) DIST1001 60.00
1 32079 32087 "1" 0 # line from DST1001B 60.00 (3) to (2) KNTJALT 60.00
1 32087 32085 "1" 0 # line from KNTJALT 60.00 (2) to (2) WOODJCT 60.00
1 32085 32084 "1" 0 # line from WOODJCT 60.00 (2) to (1) WLLW SLJ 60.00
0
#
#
# (162) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32342 32305 "2" 0 # line from E.NICOLS 60.00 BRKR to (2) CATLETJT 60.00
1 32305 32351 "2" 0 # line from CATLETJT 60.00 (2) to (1) WHTLNDAL 60.00
0
#
#
# (163) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32342 32344 "1" 0 # line from E.NICOLS 60.00 BRKR to (1) PLUMAS 60.00
4 32344 0 "1" 0 # LOAD-DROP PLUMAS 60.00 LOAD==24.70(1.10)
0
#
#
# (164) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32342 32353 "1" 0 # line from E.NICOLS 60.00 BRKR to (2) WHTLND1 60.00
1 32353 32350 "1" 0 # line from WHTLND1 60.00 (2) to (1) WHEATLND 60.00
4 32350 0 "1" 0 # LOAD-DROP WHEATLND 60.00 LOAD==16.08(0.72)
1 32351 32350 "1" 1 #Transfer Wheatland to alternate
4 32350 0 "****" 1 #Restore load at Wheatland
0
#
#
# (165) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32356 32404 "1" 0 # line from LINCOLN 115.00 BRKR to (3) SPI JCT 115.00
1 32404 32398 "1" 0 # line from SPI JCT 115.00 (3) to (3) ULTRA JT 115.00
1 32404 32400 "1" 0 # line from SPI JCT 115.00 (3) to BRKR SPI-LINC 115.00
1 32398 32402 "1" 0 # line from ULTRA JT 115.00 (3) to (2) ULTR-RCK 115.00
1 32398 32414 "1" 0 # line from ULTRA JT 115.00 (3) to (2) FORMICA 115.00
2 32402 32500 "1" 0 # TRAN from ULTR-RCK 115.00 BRKR to (1) ULTR RCK 9.11
1 32414 32408 "1" 0 # line from FORMICA 115.00 (2) to BRKR PLSNT GR 115.00
4 32500 0 "SG" 0 # LOAD-DROP ULTR RCK 9.11 LOAD==1.42(0.32)
3 32500 0 "1" 0 # GEN-DROP ULTR RCK 9.11 GEN==22.10(-8.00)
0
#
#
# (166) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32367 32369 "1" 0 # line from CPEHRNTP 60.00 (3) to (3) COLFAXJT 60.00
1 32367 32368 "1" 0 # line from CPEHRNTP 60.00 (3) to (1) CAPEHORN 60.00
1 32367 32376 "1" 0 # line from CPEHRNTP 60.00 (3) to (2) BONNIE N 60.00
1 32369 32380 "1" 0 # line from COLFAXJT 60.00 (3) to BRKR WEMR SWS 60.00
1 32369 32381 "1" 0 # line from COLFAXJT 60.00 (3) to (2) SHADYGLN 60.00
1 32376 32374 "1" 0 # line from BONNIE N 60.00 (2) to BRKR DRUM 60.00
1 32381 32377 "1" 0 # line from SHADYGLN 60.00 (2) to (2) ROLLNSTP 60.00

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2013 SPRING CATEGORY "B" CONTINGENCY LIST

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1 32377 32378 "1" 0 # line from ROLLNSTP 60.00 (2) to BRKR ROLLINS 60.00
4 32368 0 "1" 0 # LOAD-DROP CAPEHORN 60.00 LOAD==2.39(1.29)
4 32376 0 "1" 0 # LOAD-DROP BONNIE N 60.00 LOAD==1.48(0.07)
4 32381 0 "1" 0 # LOAD-DROP SHADYGLN 60.00 LOAD==8.18(0.37)
0
#
#
# (167) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32370 32382 "1" 0 # line from ENVRO_HY 60.00 (2) to (2) FORST HL 60.00
1 32370 32384 "1" 0 # line from ENVRO_HY 60.00 (2) to BRKR OXBOW 60.00
1 32382 32380 "1" 0 # line from FORST HL 60.00 (2) to BRKR WEMR SWS 60.00
4 32382 0 "1" 0 # LOAD-DROP FORST HL 60.00 LOAD==8.27(0.37)
1 32384 32386 "1" 1 #Transfer to alternate
2 32384 32484 "1" 1 #Restore transformer
3 32484 0 "1" 1 #Restore generator
0
#
#
# (168) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32372 32407 "1" 0 # line from SPAULDNG 60.00 BRKR to (3) BOWMN TP 60.00
1 32407 32374 "1" 0 # line from BOWMN TP 60.00 (3) to BRKR DRUM 60.00
1 32407 32406 "1" 0 # line from BOWMN TP 60.00 (3) to (3) BOWMN PH 60.00
1 32406 32416 "1" 0 # line from BOWMN PH 60.00 (3) to (2) HAYPRESS 60.00
2 32406 32480 "1" 0 # TRAN from BOWMN PH 60.00 BRKR to (1) BOWMAN 9.11
2 32416 32488 "1" 0 # TRAN from HAYPRESS 60.00 BRKR to (1) HAYPRES+ 9.11
3 32480 0 "1" 0 # GEN-DROP BOWMAN 9.11 GEN==2.50(-1.00)
3 32488 0 "2" 0 # GEN-DROP HAYPRES+ 9.11 GEN==1.90(-1.19)
0
#
#
# (169) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32386 32388 "1" 0 # line from MDDLE FK 60.00 BRKR to BRKR FRNCH MS 60.00
0
#
#
# (170) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32390 32410 "1" 0 # line from HALSEY 60.00 BRKR to (3) MTN_QJCT 60.00
1 32410 32392 "1" 0 # line from MTN_QJCT 60.00 (3) to (2) AUBURN 60.00
1 32410 32411 "1" 0 # line from MTN_QJCT 60.00 (3) to (1) MTN_QUAR 60.00
1 32392 32394 "1" 0 # line from AUBURN 60.00 (2) to BRKR PLACER 60.00
4 32392 0 "1" 0 # LOAD-DROP AUBURN 60.00 LOAD==5.14(0.23)
4 32411 0 "1" 0 # LOAD-DROP MTN_QUAR 60.00 LOAD==14.25(0.64)
0
#
#
# (171) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32412 32408 "1" 0 # line from ATLANTIC 115.00 BRKR to BRKR PLSNT GR 115.00
0
#
#
# (172) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32412 32408 "2" 0 # line from ATLANTIC 115.00 BRKR to BRKR PLSNT GR 115.00
0
#
#
# (173) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 32413 32272 "1" 0 # line from ATLANTI 60.00 BRKR to (1) DEL MAR 60.00
4 32272 0 "1" 0 # LOAD-DROP DEL MAR 60.00 LOAD==17.40(0.00)
4 32272 0 "2" 0 # LOAD-DROP DEL MAR 60.00 LOAD==34.13(0.00)
0
#
#
# (174) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33729 33736 "1" 0 # line from LODI AUX 60.00 BRKR to (2) LODI JCT 60.00
1 33736 33724 "1" 0 # line from LODI JCT 60.00 (2) to BRKR LOCKEFRD 60.00
0

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2013 SPRING CATEGORY "B" CONTINGENCY LIST

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#
#
# (175) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 64228 32218 "1" 0 # line from SUMMIT 1 115.00 (2) to BRKR DRUM 115.00
2 64228 64107 "1" 0 # TRAN from SUMMIT 1 115.00 (2) to BRKR SUMMIT 1 120.00
0
#
#
# (176) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 64229 32218 "1" 0 # line from SUMMIT 2 115.00 (2) to BRKR DRUM 115.00
2 64229 64108 "1" 0 # TRAN from SUMMIT 2 115.00 (2) to BRKR SUMMIT 2 120.00
0
#
#
# (177) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 30345 30346 "1" 0 # TRAN from MIDLFORK 230.00 BRKR to (3) MDDLFK M 230.00
2 30346 32386 "4" 0 # TRAN from MDDLFK M 230.00 (3) to BRKR MDDLE FK 60.00
2 30346 32456 "1" 0 # TRAN from MDDLFK M 230.00 (3) to (1) MIDLFORK 13.80
3 32456 0 "1" 0 # GEN-DROP MIDLFORK 13.80 GEN==64.50(14.66)
3 32456 0 "2" 0 # GEN-DROP MIDLFORK 13.80 GEN==64.50(14.66)
1 30340 30345 "1" 0 #Open Ralston-Middle Fork 230 kV section with outage
1 32386 32384 "1" 0 #Open Ralston-Middle Fork 60 kV section with outage
1 32386 32388 "1" 0 #Open French Meadows-Middle Fork 60 kV section with outage
0
#
#
# (178) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 32018 30337 "1" 0 # TRAN from GOLDHILL 115.00 BRKR to BRKR GOLDHILL 230.00
0
#
#
# (179) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 32018 30337 "2" 0 # TRAN from GOLDHILL 115.00 BRKR to BRKR GOLDHILL 230.00
0
#
#
# (180) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 32110 32018 "5" 0 # TRAN from GOLD HLL 60.00 BRKR to BRKR GOLDHILL 115.00
0
#
#
# (181) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 32214 30330 "1" 0 # TRAN from RIO OSO 115.00 BRKR to BRKR RIO OSO 230.00
0
#
#
# (182) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 32214 30330 "2" 0 # TRAN from RIO OSO 115.00 BRKR to BRKR RIO OSO 230.00
0
#
#
# (183) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 32218 32242 "1" 0 # TRAN from DRUM 115.00 BRKR to (3) DRUM 1M 115.00
2 32242 32374 "1" 0 # TRAN from DRUM 1M 115.00 (3) to BRKR DRUM 60.00
2 32242 32504 "1" 0 # TRAN from DRUM 1M 115.00 (3) to (1) DRUM 1-2 6.60
3 32504 0 "1" 0 # GEN-DROP DRUM 1-2 6.60 GEN==13.20(5.69)
3 32504 0 "2" 0 # GEN-DROP DRUM 1-2 6.60 GEN==12.60(5.43)
2 32218 32246 "1" 0 # TRAN from DRUM 115.00 BRKR to (3) DRUM 2M 115.00
2 32246 32374 "2" 0 # TRAN from DRUM 2M 115.00 (3) to BRKR DRUM 60.00
2 32246 32506 "1" 0 # TRAN from DRUM 2M 115.00 (3) to (1) DRUM 3-4 6.60
3 32506 0 "1" 0 # GEN-DROP DRUM 3-4 6.60 GEN==13.20(5.58)
3 32506 0 "2" 0 # GEN-DROP DRUM 3-4 6.60 GEN==13.20(5.58)
0
#
#

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2013 SPRING CATEGORY "B" CONTINGENCY LIST

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# (184) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 32308 30327 "3" 0 # TRAN from COLGATE 60.00 BRKR to BRKR COLGATE 230.00
0
#
#
# (185) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 32330 32200 "2" 0 # TRAN from PEAS RG 60.00 (2) to BRKR PEASE 115.00
2 32330 32332 "1" 0 # TRAN from PEAS RG 60.00 (2) to BRKR PEASE 60.00
1 32200 32288 "1" 0 #Open Pease-East Marysville Jct1 line section
4 32200 0 "3" 0 #Drop Pease Bank No. 3
0
#
#
# (186) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 32342 32212 "2" 0 # TRAN from E.NICOLS 60.00 BRKR to BRKR E.NICOLS 115.00
1 32212 32214 "1" 0 #Open East Nicolaus-Rio Oso 115 kV line section
1 32212 32214 "1" 0 #Open East Nicolaus-East Marysville Jct2 115 kV line section
0
#
#
# (187) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 32394 32228 "1" 0 # TRAN from PLACER 60.00 BRKR to BRKR PLACER 115.00
0
#
#
# (188) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 32412 30335 "3" 0 # TRAN from ATLANTIC 115.00 BRKR to BRKR ATLANTC 230.00
0
#
#
# (189) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 32412 30335 "4" 0 # TRAN from ATLANTIC 115.00 BRKR to BRKR ATLANTC 230.00
0
#
#
# (190) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 32413 30335 "1" 0 # TRAN from ATLANTI 60.00 BRKR to BRKR ATLANTC 230.00
0
#
#
# (191) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 32472 32372 "1" 0 # TRAN from SPAULDG 9.11 (1) to BRKR SPAULDNG 60.00
3 32472 0 "1" 0 # GEN-DROP SPAULDG 9.11 GEN==7.00(-0.72)
3 32472 0 "2" 0 # GEN-DROP SPAULDG 9.11 GEN==4.20(-0.43)
3 32472 0 "3" 0 # GEN-DROP SPAULDG 9.11 GEN==1.70(-0.18)
0
#
#
# (192) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 32486 32388 "1" 0 # TRAN from HELLHOLE 9.11 (1) to BRKR FRNCH MS 60.00
0
#
#
# (193) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 32490 32210 "1" 0 # TRAN from GRNLEAF1 13.80 (1) to BRKR GLEAF 1 115.00
4 32490 0 "ss" 0 # LOAD-DROP GRNLEAF1 13.80 LOAD==0.67(0.15)
3 32490 0 "1" 0 # GEN-DROP GRNLEAF1 13.80 GEN==40.00(-12.86)
3 32490 0 "2" 0 # GEN-DROP GRNLEAF1 13.80 GEN==9.50(-3.05)
0
#
#
# (194) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 32498 32400 "1" 0 # TRAN from SPILINCF 12.50 (1) to BRKR SPI-LINC 115.00

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2013 SPRING CATEGORY "B" CONTINGENCY LIST

4 32498 0 "1" 0 # LOAD-DROP SPILINCF 12.50 LOAD==7.50(7.65)
 4 32498 0 "SG" 0 # LOAD-DROP SPILINCF 12.50 LOAD==1.10(0.60)
 3 32498 0 "1" 0 # GEN-DROP SPILINCF 12.50 GEN==18.30(2.45)
 0
 #
 #
 # (195) B1 GENERATOR OUTAGE
 #
 3 32450 0 "1" 0 # COLGATE1 13.80 PGEN=147.00 QGEN=20.11
 0
 #
 #
 # (196) B1 GENERATOR OUTAGE
 #
 3 32451 0 "1" 0 # FREC 13.80 PGEN=50.00 QGEN=8.28
 0
 #
 #
 # (197) B1 GENERATOR OUTAGE
 #
 3 32452 0 "1" 0 # COLGATE2 13.80 PGEN=147.00 QGEN=20.11
 0
 #
 #
 # (198) B1 GENERATOR OUTAGE
 #
 3 32454 0 "1" 0 # DRUM 5 13.80 PGEN=42.50 QGEN=15.00
 0
 #
 #
 # (199) B1 GENERATOR OUTAGE
 #
 3 32456 0 "1" 0 # MIDLFORK 13.80 PGEN=64.50 QGEN=13.48
 0
 #
 #
 # (200) B1 GENERATOR OUTAGE
 #
 3 32456 0 "2" 0 # MIDLFORK 13.80 PGEN=64.50 QGEN=13.48
 0
 #
 #
 # (201) B1 GENERATOR OUTAGE
 #
 3 32458 0 "1" 0 # RALSTON 13.80 PGEN=83.00 QGEN=13.11
 0
 #
 #
 # (202) B1 GENERATOR OUTAGE
 #
 3 32462 0 "1" 0 # CHI.PARK 11.50 PGEN=37.88 QGEN=11.50
 0
 #
 #
 # (203) B1 GENERATOR OUTAGE
 #
 3 32464 0 "1" 0 # DTCHFLT1 11.00 PGEN=22.00 QGEN=11.45
 0
 #
 #
 # (204) B1 GENERATOR OUTAGE
 #
 3 32466 0 "1" 0 # NARROWS1 9.11 PGEN=10.00 QGEN=5.30
 0
 #
 #
 # (205) B1 GENERATOR OUTAGE
 #
 3 32468 0 "1" 0 # NARROWS2 9.11 PGEN=45.00 QGEN=1.30
 0
 #
 #
 # (206) B1 GENERATOR OUTAGE
 #

2013 SPRING CATEGORY "B" CONTINGENCY LIST

3 32470 0 "1" 0 # CMP.FARW 9.11 PGEN=4.60 QGEN=-2.29
 0
 #
 #
 # (207) B1 GENERATOR OUTAGE
 #
 3 32472 0 "1" 0 # SPAULDG 9.11 PGEN=7.00 QGEN=-2.90
 0
 #
 #
 # (208) B1 GENERATOR OUTAGE
 #
 3 32472 0 "2" 0 # SPAULDG 9.11 PGEN=4.16 QGEN=-1.00
 0
 #
 #
 # (209) B1 GENERATOR OUTAGE
 #
 3 32472 0 "3" 0 # SPAULDG 9.11 PGEN=1.70 QGEN=-1.04
 0
 #
 #
 # (210) B1 GENERATOR OUTAGE
 #
 3 32474 0 "1" 0 # DEER CRK 9.11 PGEN=3.07 QGEN=-2.20
 0
 #
 #
 # (211) B1 GENERATOR OUTAGE
 #
 3 32476 0 "1" 0 # ROLLINSF 9.11 PGEN=12.00 QGEN=-0.00
 0
 #
 #
 # (212) B1 GENERATOR OUTAGE
 #
 3 32478 0 "1" 0 # HALSEY F 9.11 PGEN=8.57 QGEN=1.34
 0
 #
 #
 # (213) B1 GENERATOR OUTAGE
 #
 3 32480 0 "1" 0 # BOWMAN 9.11 PGEN=2.46 QGEN=-1.00
 0
 #
 #
 # (214) B1 GENERATOR OUTAGE
 #
 3 32484 0 "1" 0 # OXBOW F 9.11 PGEN=5.40 QGEN=2.00
 0
 #
 #
 # (215) B1 GENERATOR OUTAGE
 #
 3 32488 0 "2" 0 # HAYPRES+ 9.11 PGEN=1.90 QGEN=-2.50
 0
 #
 #
 # (216) B1 GENERATOR OUTAGE
 #
 3 32490 0 "1" 0 # GRNLEAF1 13.80 PGEN=40.00 QGEN=-13.86
 0
 #
 #
 # (217) B1 GENERATOR OUTAGE
 #
 3 32490 0 "2" 0 # GRNLEAF1 13.80 PGEN=9.50 QGEN=-3.29
 0
 #
 #
 # (218) B1 GENERATOR OUTAGE
 #
 3 32492 0 "1" 0 # GRNLEAF2 13.80 PGEN=49.00 QGEN=16.68
 0

2013 SPRING CATEGORY "B" CONTINGENCY LIST

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#
#
# (219) B1 GENERATOR OUTAGE
#
3 32494 0 "1" 0 # YUBA CTY 9.11 PGEN=41.31 QGEN=9.01
0
#
#
# (220) B1 GENERATOR OUTAGE
#
3 32496 0 "1" 0 # YCEC 13.80 PGEN=50.00 QGEN=4.39
0
#
#
# (221) B1 GENERATOR OUTAGE
#
3 32498 0 "1" 0 # SPILINCF 12.50 PGEN=18.30 QGEN=4.66
0
#
#
# (222) B1 GENERATOR OUTAGE
#
3 32500 0 "1" 0 # ULTR RCK 9.11 PGEN=22.12 QGEN=12.00
0
#
#
# (223) B1 GENERATOR OUTAGE
#
3 32502 0 "1" 0 # DTCHFLT2 6.90 PGEN=24.50 QGEN=5.88
0
#
#
# (224) B1 GENERATOR OUTAGE
#
3 32504 0 "1" 0 # DRUM 1-2 6.60 PGEN=13.20 QGEN=5.15
0
#
#
# (225) B1 GENERATOR OUTAGE
#
3 32504 0 "2" 0 # DRUM 1-2 6.60 PGEN=12.60 QGEN=4.92
0
#
#
# (226) B1 GENERATOR OUTAGE
#
3 32506 0 "1" 0 # DRUM 3-4 6.60 PGEN=13.20 QGEN=5.06
0
#
#
# (227) B1 GENERATOR OUTAGE
#
3 32506 0 "2" 0 # DRUM 3-4 6.60 PGEN=13.20 QGEN=5.06
0
#
#
# (228) B1 GENERATOR OUTAGE
#
3 32508 0 "1" 0 # FRNCH MD 4.16 PGEN=16.40 QGEN=3.14
0
#
#
# (229) B1 GENERATOR OUTAGE
#
3 32510 0 "1" 0 # CHILIBAR 4.16 PGEN=5.50 QGEN=4.00
0
#
#
# (230) B1 GENERATOR OUTAGE
#
3 32512 0 "1" 0 # WISE 12.00 PGEN=11.15 QGEN=4.29
0
#
#

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2013 SPRING CATEGORY "B" CONTINGENCY LIST

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# (231) B1 GENERATOR OUTAGE
#
3 32513 0 "1" 0 # ELDRADO1 21.60 PGEN=9.96 QGEN=-0.77
0
#
#
# (232) B1 GENERATOR OUTAGE
#
3 32514 0 "1" 0 # ELDRADO2 21.60 PGEN=9.96 QGEN=-0.77
0
#
#
# (233) B1 GENERATOR OUTAGE
#
3 32515 0 "1" 0 # Q259CT1 18.00 PGEN=173.00 QGEN=33.36
0
#
#
# (234) B1 GENERATOR OUTAGE
#
3 32516 0 "1" 0 # Q259ST1 18.00 PGEN=188.00 QGEN=27.79
0
#
#
# (235) B1 GENERATOR OUTAGE
#
3 32517 0 "1" 0 # Q266CT1 18.00 PGEN=173.00 QGEN=45.33
0
#
#
# (236) B1 GENERATOR OUTAGE
#
3 32518 0 "1" 0 # Q266ST1 18.00 PGEN=188.00 QGEN=30.71
0
#
#
# (237) L-1/G-1 OVERLAPPING OUTAGE
# Pease - Marysville - Harter 60 kV Line and Greenleaf 2
1 32302 32324 "1" 0 # line from YUBACITY 60.00 (4) to (1) HARTER 60.00
1 32302 32333 "1" 0 # line from YUBACITY 60.00 (4) to (3) PEASETP 60.00
2 32302 32496 "1" 0 # TRAN from YUBACITY 60.00 (4) to (1) YCEC 13.80
2 32302 32494 "1" 0 # TRAN from YUBACITY 60.00 BRKR to (1) YUBA CTY 9.11
1 32333 32320 "1" 0 # line from PEASETP 60.00 (3) to BRKR MRYSVLLE 60.00
1 32333 32332 "1" 0 # line from PEASETP 60.00 (3) to BRKR PEASE 60.00
4 32324 0 "1" 0 # LOAD-DROP HARTER 60.00 LOAD==22.66(1.01)
4 32324 0 "2" 0 # LOAD-DROP HARTER 60.00 LOAD==26.96(1.21)
4 32496 0 "ss" 0 # LOAD-DROP YCEC 13.80 LOAD==1.39(0.32)
4 32494 0 "ss" 0 # LOAD-DROP YUBA CTY 9.11 LOAD==0.32(0.07)
3 32496 0 "1" 0 # GEN-DROP YCEC 13.80 GEN==50.00(0.00)
3 32494 0 "1" 0 # GEN-DROP YUBA CTY 9.11 GEN==41.30(15.86)
#
3 32492 0 "1" 0 # GRNLEAF2 13.80 PGEN=49.00 QGEN=16.68
0
#
#
# (238) L-1/G-1 OVERLAPPING OUTAGE
# Colgate - Smartville #2 60 kV Line and Narrows 2
1 32308 32311 "1" 0 # line from COLGATE 60.00 BRKR to (3) NRRWS1TP 60.00
1 32311 32310 "1" 0 # line from NRRWS1TP 60.00 (3) to (2) NARRWS 1 60.00
1 32311 32314 "1" 0 # line from NRRWS1TP 60.00 (3) to BRKR SMRTSVLE 60.00
2 32310 32466 "1" 0 # TRAN from NARRWS 1 60.00 (2) to (1) NARROWS1 9.11
4 32310 0 "1" 0 # LOAD-DROP NARRWS 1 60.00 LOAD==16.50(2.35)
3 32466 0 "1" 0 # GEN-DROP NARROWS1 9.11 GEN==10.00(5.30)
#
3 32468 0 "1" 0 # NARROWS2 9.11 PGEN=45.00 QGEN=1.30
0
#
#
# (239) L-1/G-1 OVERLAPPING OUTAGE
# Colgate - Smartville #2 60 kV Line and Camp Far West
1 32308 32311 "1" 0 # line from COLGATE 60.00 BRKR to (3) NRRWS1TP 60.00
1 32311 32310 "1" 0 # line from NRRWS1TP 60.00 (3) to (2) NARRWS 1 60.00
1 32311 32314 "1" 0 # line from NRRWS1TP 60.00 (3) to BRKR SMRTSVLE 60.00
2 32310 32466 "1" 0 # TRAN from NARRWS 1 60.00 (2) to (1) NARROWS1 9.11

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2013 SPRING CATEGORY "B" CONTINGENCY LIST

4 32310 0 "1" 0 # LOAD-DROP NARRWS 1 60.00 LOAD==16.50(2.35)
 3 32466 0 "1" 0 # GEN-DROP NARROWS1 9.11 GEN==10.00(5.30)
 #
 3 32470 0 "1" 0 # CMP.FARW 9.11 PGEN=4.60 QGEN=-2.29
 0
 #
 # (240) Overlapping Outage (L-1/G-1)
 # Palermo - Pease 115 kV Line and Greenleaf 2
 1 32200 31506 "1" 0 # line from PEASE 115.00 BRKR to (2) HONC JT1 115.00
 1 31506 31482 "1" 0 # line from HONC JT1 115.00 (2) to BRKR PALERMO 115.00
 #
 3 32492 0 "1" 0 # GRNLEAF2 13.80 PGEN=49.00 QGEN=16.68
 0
 #
 # (241) Overlapping Outage (L-1/G-1)
 # Drum - Rio Oso #2 115 kV Line and Drum 5
 1 32214 32244 "2" 0 # line from RIO OSO 115.00 BRKR to (3) BRNSWCKP 115.00
 1 32244 32218 "2" 0 # line from BRNSWCKP 115.00 (3) to BRKR DRUM 115.00
 1 32244 32226 "2" 0 # line from BRNSWCKP 115.00 (3) to (1) BRUNSWCK 115.00
 4 32226 0 "2" 0 # LOAD-DROP BRUNSWCK 115.00 LOAD==30.46(1.37)
 4 32226 0 "3" 0 # LOAD-DROP BRUNSWCK 115.00 LOAD==8.00(0.36)
 #
 3 32454 0 "1" 0 # DRUM 5 13.80 PGEN=42.50 QGEN=15.00
 0
 #
 # (242) Overlapping Outage (L-1/G-1)
 # Placer - Goldhill #1 115 kV Line and Wise PH
 1 32018 32229 "1" 0 # line from GOLDHILL 115.00 BRKR to (3) HORSHE1 115.00
 1 32229 32230 "1" 0 # line from HORSHE1 115.00 (3) to (1) HORSESHE 115.00
 1 32229 32233 "1" 0 # line from HORSHE1 115.00 (3) to (3) NEWCSTL1 115.00
 1 32233 32234 "1" 0 # line from NEWCSTL1 115.00 (3) to (2) NEWCSTLE 115.00
 1 32233 32236 "1" 0 # line from NEWCSTL1 115.00 (3) to (2) FLINT1 115.00
 2 32234 32460 "1" 0 # TRAN from NEWCSTLE 115.00 (2) to (1) NEWCSTLE 13.20
 1 32236 32228 "1" 0 # line from FLINT1 115.00 (2) to BRKR PLACER 115.00
 4 32230 0 "1" 0 # LOAD-DROP HORSESHE 115.00 LOAD==15.79(0.71)
 4 32230 0 "2" 0 # LOAD-DROP HORSESHE 115.00 LOAD==36.15(1.61)
 1 32230 32231 "1" 1 #Transfer load to alternate
 4 32230 0 "****" 1 #Restore load at Horseshoe
 #
 3 32512 0 "1" 0 # WISE 12.00 PGEN=11.15 QGEN=4.29
 0
 #
 # (243) Overlapping Outage (L-1/G-1)
 # Palermo - E. Nicolaus 115 kV Line and Greenleaf 1 Unit 1 spring outage
 1 31482 32280 "1" 0 # line from PALERMO 115.00 BRKR to (3) E.MRY J2 115.00
 1 32280 32202 "1" 0 # line from E.MRY J2 115.00 (3) to (1) E.MRYSVE 115.00
 1 32280 32212 "1" 0 # line from E.MRY J2 115.00 (3) to BRKR E.NICOLS 115.00
 4 32202 0 "2" 0 # LOAD-DROP E.MRYSVE 115.00 LOAD==10.55(0.47)
 4 32202 0 "3" 0 # LOAD-DROP E.MRYSVE 115.00 LOAD==9.73(0.44)
 1 32288 32202 "1" 1 #Transfer load to E. Marysville Alt. 1 spring
 4 32202 0 "****" 1 #Restore load at E. Marysville spring
 #
 3 32490 0 "1" 0 # GRNLEAF1 13.80 PGEN=40.00 QGEN=-13.86
 0
 #
 # (244) Overlapping Outage (L-1/G-1)
 # Rio Oso - Goldhill 230 kV Line and Ralston
 1 30330 30337 "1" 0 # line from RIO OSO 230.00 BRKR to BRKR GOLDHILL 230.00
 #
 3 32458 0 "1" 0 # RALSTON 13.80 PGEN=83.00 QGEN=13.11
 0
 #
 # (245) Overlapping Outage (L-1/G-1)
 # Colgate - Rio Oso 230 kV Line and Greenleaf 1 Unit 1
 1 30327 30330 "1" 0 # line from COLGATE 230.00 BRKR to BRKR RIO OSO 230.00
 2 30327 32452 "1" 0 #Take one transformer out with Colgate-Rio Oso 230 kV line outage
 3 32452 0 "1" 0 #Take one generator out with Colgate-Rio Oso 230 kV line outage
 #

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3 32490 0 "1" 0 # GRNLEAF1 13.80 PGEN=40.00 QGEN=-13.86
 0
 #
 #
 # (246) Overlapping Outage (L-1/G-1)
 # Table Mountain - Rio Oso 230 kV Line and Greanleaf 1 Unit 1
 1 30300 30330 "1" 0 # line from TBL MT D 230.00 BRKR to BRKR RIO OSO 230.00
 #
 3 32490 0 "1" 0 # GRNLEAF1 13.80 PGEN=40.00 QGEN=-13.86
 0
 #
 #
 # (247) Overlapping Outage (L-1/G-1)
 # Palermo - Colgate 230 kV Line and Greanleaf 1 Unit 1
 1 30325 30327 "1" 0 # line from PALERMO 230.00 BRKR to BRKR COLGATE 230.00
 2 30327 32450 "1" 0 # Take one transformer out with Palermo-Colgate 230 kV line outage
 3 32450 0 "1" 0 # Take one generator out with Palermo-Colgate 230 kV line outage
 #
 3 32490 0 "1" 0 # GRNLEAF1 13.80 PGEN=40.00 QGEN=-13.86
 0
 #
 #
 # (248) Overlapping Outage (L-1/G-1)
 # Palermo - Bogue 115 kV Line and Greanleaf 1 Unit 1
 1 31508 32286 "1" 0 # line from HONC JT3 115.00 (3) to (2) OLIVH J3 115.00
 1 31508 31482 "1" 0 # line from HONC JT3 115.00 (3) to BRKR PALERMO 115.00
 1 31508 31484 "1" 0 # line from HONC JT3 115.00 (3) to (1) HONCUT 115.00
 1 32286 32206 "1" 0 # line from OLIVH J3 115.00 (2) to BRKR BOGUE 115.00
 4 31484 0 "1" 0 # LOAD-DROP HONCUT 115.00 LOAD==16.18(0.73)
 #
 3 32490 0 "1" 0 # GRNLEAF1 13.80 PGEN=40.00 QGEN=-13.86
 0
 #
 #
 # (249) Overlapping Outage (L-1/G-1)
 # Pease - Rio Oso 115 kV Line and Greanleaf 1 Unit 1 spring outage
 1 32200 32288 "1" 0 # line from PEASE 115.00 BRKR to (3) E.MRY J1 115.00
 1 32288 32290 "1" 0 # line from E.MRY J1 115.00 (3) to (3) OLIVH J1 115.00
 1 32290 32204 "1" 0 # line from OLIVH J1 115.00 (3) to (1) OLIVHRST 115.00
 1 32290 32214 "1" 0 # line from OLIVH J1 115.00 (3) to BRKR RIO OSO 115.00
 4 32204 0 "1" 0 # LOAD-DROP OLIVHRST 115.00 LOAD==6.71(0.30)
 4 32204 0 "2" 0 # LOAD-DROP OLIVHRST 115.00 LOAD==21.33(0.95)
 1 32204 32286 "1" 1 # Transfer Olivehurst to alternate
 4 32204 0 "" 1 # Restore load Olivehurst
 #
 3 32490 0 "1" 0 # GRNLEAF1 13.80 PGEN=40.00 QGEN=-13.86
 0
 #
 #
 # (250) Overlapping Outage (L-1/G-1)
 # Rio Oso - E. Nicolaus 115 kV Line and Greanleaf 1 Unit 1
 1 32212 32214 "1" 0 # line from E.NICOLS 115.00 BRKR to BRKR RIO OSO 115.00
 #
 3 32490 0 "1" 0 # GRNLEAF1 13.80 PGEN=40.00 QGEN=-13.86
 0
 #
 #
 # (251) Overlapping Outage (L-1/G-1)
 # Drum - Higgins 115 kV Line and Wise PH
 1 32218 32220 "1" 0 # line from DRUM 115.00 BRKR to (3) DTCH FL1 115.00
 1 32220 32224 "1" 0 # line from DTCH FL1 115.00 (3) to (3) CHCGO PK 115.00
 2 32220 32464 "1" 0 # TRAN from DTCH FL1 115.00 BRKR to (1) DTCHFLT1 11.00
 1 32224 32232 "1" 0 # line from CHCGO PK 115.00 (3) to BRKR HIGGINS 115.00
 2 32224 32462 "1" 0 # TRAN from CHCGO PK 115.00 BRKR to (1) CHI.PARK 11.50
 3 32464 0 "1" 0 # GEN-DROP DTCHFLT1 11.00 GEN==22.00(12.70)
 3 32462 0 "1" 0 # GEN-DROP CHI.PARK 11.50 GEN==37.90(14.75)
 #
 3 32512 0 "1" 0 # WISE 12.00 PGEN=11.15 QGEN=4.29
 0
 #
 #
 # (252) Overlapping Outage (L-1/G-1)
 # Higgins - Bell 115 kV Line and Wise PH
 1 32232 32238 "1" 0 # line from HIGGINS 115.00 BRKR to BRKR BELL PGE 115.00

2013 SPRING CATEGORY "B" CONTINGENCY LIST

3 32464 0 "" 0 #Drop Dutch Flat No. 1 generator during Higgins-Bell 115 kV outage
 3 32462 0 "" 0 #Drop Chicago Park generator during Higgins-Bell 115 kV outage
 #
 3 32512 0 "1" 0 # WISE 12.00 PGEN=11.15 QGEN=4.29
 0
 #
 #
 # (253) Overlapping Outage (L-1/G-1)
 # Drum - Rio Oso #1 115 kV Line and Wise PH
 1 32214 32225 "1" 0 # line from RIO OSO 115.00 BRKR to (3) BRNSWKTP 115.00
 1 32225 32222 "1" 0 # line from BRNSWKTP 115.00 (3) to (3) DTCH FL2 115.00
 1 32225 32227 "2" 0 # line from BRNSWKTP 115.00 (3) to (1) BRNSWALT 115.00
 1 32222 32218 "1" 0 # line from DTCH FL2 115.00 (3) to BRKR DRUM 115.00
 2 32222 32502 "1" 0 # TRAN from DTCH FL2 115.00 BRKR to (1) DTCHFLT2 6.90
 4 32227 0 "1" 0 # LOAD-DROP BRNSWALT 115.00 LOAD==24.08(1.08)
 3 32502 0 "1" 0 # GEN-DROP DTCHFLT2 6.90 GEN==24.50(9.66)
 #
 3 32512 0 "1" 0 # WISE 12.00 PGEN=11.15 QGEN=4.29
 0
 #
 #
 # (254) Overlapping Outage (L-1/G-1)
 # Bogue - Rio Oso 115 kV Line and Greenleaf 2
 1 32206 32208 "1" 0 # line from BOGUE 115.00 BRKR to (3) GLEAF TP 115.00
 1 32208 32210 "1" 0 # line from GLEAF TP 115.00 (3) to (2) GLEAF 1 115.00
 1 32208 32214 "1" 0 # line from GLEAF TP 115.00 (3) to BRKR RIO OSO 115.00
 2 32210 32490 "1" 0 # TRAN from GLEAF 1 115.00 BRKR to (1) GRNLEAF1 13.80
 4 32490 0 "ss" 0 # LOAD-DROP GRNLEAF1 13.80 LOAD==0.67(0.15)
 3 32490 0 "1" 0 # GEN-DROP GRNLEAF1 13.80 GEN==40.00(-12.86)
 3 32490 0 "2" 0 # GEN-DROP GRNLEAF1 13.80 GEN==9.50(-3.05)
 #
 3 32492 0 "1" 0 # GRNLEAF2 13.80 PGEN=49.00 QGEN=16.68
 0
 #
 #
 # (255) Overlapping Outage (L-1/G-1)
 # Table Mountain - Pease 60 kV Line and Greenleaf 2
 1 31640 31644 "1" 0 # line from TRES VIS 60.00 (2) to (3) BIGGSJCT 60.00
 1 31640 31718 "1" 0 # line from TRES VIS 60.00 (2) to BRKR TBLE MTN 60.00
 1 31644 31642 "1" 0 # line from BIGGSJCT 60.00 (3) to BRKR PEACHTON 60.00
 1 31644 38052 "1" 0 # line from BIGGSJCT 60.00 (3) to (1) BIGGS 60.00
 4 31640 0 "1" 0 # LOAD-DROP TRES VIS 60.00 LOAD==8.30(0.37)
 4 38052 0 "1" 0 # LOAD-DROP BIGGS 60.00 LOAD==4.75(1.60)
 #
 3 32492 0 "1" 0 # GRNLEAF2 13.80 PGEN=49.00 QGEN=16.68
 0
 #
 #
 # (256) Overlapping Outage (L-1/G-1)
 # Pease - Marysville - Harter 60 kV Line and Narrows 2
 1 32302 32324 "1" 0 # line from YUBACITY 60.00 (4) to (1) HARTER 60.00
 1 32302 32333 "1" 0 # line from YUBACITY 60.00 (4) to (3) PEASETP 60.00
 2 32302 32496 "1" 0 # TRAN from YUBACITY 60.00 (4) to (1) YCEC 13.80
 2 32302 32494 "1" 0 # TRAN from YUBACITY 60.00 BRKR to (1) YUBA CTY 9.11
 1 32333 32320 "1" 0 # line from PEASETP 60.00 (3) to BRKR MRYSVLLE 60.00
 1 32333 32332 "1" 0 # line from PEASETP 60.00 (3) to BRKR PEASE 60.00
 4 32324 0 "1" 0 # LOAD-DROP HARTER 60.00 LOAD==22.66(1.01)
 4 32324 0 "2" 0 # LOAD-DROP HARTER 60.00 LOAD==26.96(1.21)
 4 32496 0 "ss" 0 # LOAD-DROP YCEC 13.80 LOAD==1.39(0.32)
 4 32494 0 "ss" 0 # LOAD-DROP YUBA CTY 9.11 LOAD==0.32(0.07)
 3 32496 0 "1" 0 # GEN-DROP YCEC 13.80 GEN==50.00(0.00)
 3 32494 0 "1" 0 # GEN-DROP YUBA CTY 9.11 GEN==41.30(15.86)
 #
 3 32468 0 "1" 0 # NARROWS2 9.11 PGEN=45.00 QGEN=1.30
 0
 #
 #
 # (257) Overlapping Outage (L-1/G-1)
 # Colgate - Rio Oso 230 kV Line and Belden
 1 30327 30330 "1" 0 # line from COLGATE 230.00 BRKR to BRKR RIO OSO 230.00
 2 30327 32452 "1" 0 #Take one transformer out with Colgate-Rio Oso 230 kV line outage
 3 32452 0 "1" 0 #Take one generator out with Colgate-Rio Oso 230 kV line outage
 #
 3 31784 0 "1" 0 # BELDEN 13.80 PGEN=107.00 QGEN=27.77

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0
#
#
# (258) Overlapping Outage (L-1/G-1)
# Bogue - Rio Oso 115 kV Line and FREC
1 32206 32208 "1" 0 # line from BOGUE 115.00 BRKR to (3) GLEAF TP 115.00
1 32208 32210 "1" 0 # line from GLEAF TP 115.00 (3) to (2) GLEAF 1 115.00
1 32208 32214 "1" 0 # line from GLEAF TP 115.00 (3) to BRKR RIO OSO 115.00
2 32210 32490 "1" 0 # TRAN from GLEAF 1 115.00 BRKR to (1) GRNLEAF1 13.80
4 32490 0 "ss" 0 # LOAD-DROP GRNLEAF1 13.80 LOAD==0.67(0.15)
3 32490 0 "1" 0 # GEN-DROP GRNLEAF1 13.80 GEN==40.00(-12.86)
3 32490 0 "2" 0 # GEN-DROP GRNLEAF1 13.80 GEN==9.50(-3.05)
#
3 32451 0 "1" 0 # FREC 13.80 PGEN=50.00 QGEN=8.28
0
#
#
# (259) Overlapping Outage (L-1/G-1)
# Woodleaf - Palermo 115 kV Line and Greenleaf 1 Unit 1
1 31470 31472 "1" 0 # line from SLYCREEK 115.00 (2) to (4) WODLF TP 115.00
2 31470 31832 "1" 0 # TRAN from SLYCREEK 115.00 BRKR to (1) SLY.CR. 9.11
1 31472 31474 "1" 0 # line from WODLF TP 115.00 (4) to (3) FRBSTNTP 115.00
2 31472 31794 "1" 0 # TRAN from WODLF TP 115.00 BRKR to (1) WOODLEAF 13.80
2 31472 31862 "1" 0 # TRAN from WODLF TP 115.00 BRKR to (1) DEADWOOD 9.11
1 31474 31476 "1" 0 # line from FRBSTNTP 115.00 (3) to (3) OWID 115.00
2 31474 31814 "1" 0 # TRAN from FRBSTNTP 115.00 BRKR to (1) FORBSTWN 11.50
1 31476 31475 "1" 0 # line from OWID 115.00 (3) to (1) KANAKAJT 115.00
1 31476 31482 "1" 0 # line from OWID 115.00 (3) to BRKR PALERMO 115.00
4 31475 0 "KK" 0 # LOAD-DROP KANAKAJT 115.00 LOAD==1.19(0.05)
3 31832 0 "1" 0 # GEN-DROP SLY.CR. 9.11 GEN==9.50(0.62)
3 31794 0 "1" 0 # GEN-DROP WOODLEAF 13.80 GEN==55.00(2.34)
3 31814 0 "1" 0 # GEN-DROP FORBSTWN 11.50 GEN==30.00(2.09)
#
3 32490 0 "1" 0 # GRNLEAF1 13.80 PGEN=40.00 QGEN=-13.86
0
#
#
# (260) Overlapping Outage (L-1/G-1)
# Rio Oso - Atlantic 230 kV Line and Ralston
1 30330 30335 "1" 0 # line from RIO OSO 230.00 BRKR to BRKR ATLANTC 230.00
#
3 32458 0 "1" 0 # RALSTON 13.80 PGEN=83.00 QGEN=13.11
0
#
#
# (261) Overlapping Outage (L-1/G-1)
# Atlantic - Pleasant Grove #1 115 kV Line and Rio Bravo
1 32412 32408 "1" 0 # line from ATLANTIC 115.00 BRKR to BRKR PLSNT GR 115.00
#
3 32500 0 "1" 0 # ULTR RCK 9.11 PGEN=22.12 QGEN=12.00
0
#
#
# (262) Overlapping Outage (L-1/G-1)
# Atlantic - Pleasant Grove #2 115 kV Line and Rio Bravo
1 32412 32408 "2" 0 # line from ATLANTIC 115.00 BRKR to BRKR PLSNT GR 115.00
#
3 32500 0 "1" 0 # ULTR RCK 9.11 PGEN=22.12 QGEN=12.00
0
#
#
# (263) Overlapping Outage (L-1/G-1)
# El Dorado - Missouri Flat #2 115 kV Line and El Dorado PH1
1 32250 32481 "2" 0 # line from ELDORAD 115.00 BRKR to (2) APLHTAP2 115.00
1 32481 32257 "2" 0 # line from APLHTAP2 115.00 (2) to (4) PLCRVLT2 115.00
1 32257 32254 "2" 0 # line from PLCRVLT2 115.00 (4) to (2) PLCRVLB2 115.00
1 32257 32260 "2" 0 # line from PLCRVLT2 115.00 (4) to BRKR MIZOU_T2 115.00
2 32257 32510 "1" 0 # TRAN from PLCRVLT2 115.00 (4) to (1) CHILIBAR 4.16
1 32254 32256 "1" 0 # line from PLCRVLB2 115.00 (2) to (1) PLCRVLB3 115.00
4 32254 0 "2" 0 # LOAD-DROP PLCRVLB2 115.00 LOAD==9.02(0.41)
4 32256 0 "3" 0 # LOAD-DROP PLCRVLB3 115.00 LOAD==25.95(1.16)
3 32510 0 "1" 0 # GEN-DROP CHILIBAR 4.16 GEN==5.50(4.00)
1 32256 32255 "1" 1 #Transfer Placerville to alternate
4 32256 0 "****" 1 #Restore load Bank 3 at Placerville

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1 32254 32256 "1 " 1 #Transfer Placerville to alternate
4 32254 0 "" 1 #Restore load Bank 2 at Placerville
#
3 32513 0 "1" 0 # ELDRADO1 21.60 PGEN=9.96 QGEN=-0.77
0
#
#
# (264) Overlapping Outage (L-1/G-1)
# Goldhill - Clarksville 115 kV Line and El Dorado PH1
1 32018 32263 "1 " 0 # line from GOLDHILL 115.00 BRKR to (1) CLRKSVLE 115.00
4 32263 0 "1 " 0 # LOAD-DROP CLRKSVLE 115.00 LOAD==44.58(2.00)
4 32263 0 "2 " 0 # LOAD-DROP CLRKSVLE 115.00 LOAD==47.39(2.12)
4 32263 0 "3 " 0 # LOAD-DROP CLRKSVLE 115.00 LOAD==45.28(2.03)
1 32264 32263 "1 " 1 #Transfer Clarksville to alternate
4 32263 0 "" 1 #Restore load at Clarksville
#
3 32513 0 "1" 0 # ELDRADO1 21.60 PGEN=9.96 QGEN=-0.77
0
#
#
# (265) Overlapping Outage (L-1/G-1)
# Placer - Gold Hill #2 115 kV Line and El Dorado PH1
1 32018 32231 "2 " 0 # line from GOLDHILL 115.00 BRKR to (2) HORSHE2 115.00
1 32231 32235 "2 " 0 # line from HORSHE2 115.00 (2) to (2) NEWCSTL2 115.00
1 32235 32239 "2 " 0 # line from NEWCSTL2 115.00 (2) to (3) FLINT2 115.00
1 32239 32228 "2 " 0 # line from FLINT2 115.00 (3) to BRKR PLACER 115.00
1 32239 32237 "1 " 0 # line from FLINT2 115.00 (3) to (1) FLINT 115.00
4 32237 0 "1 " 0 # LOAD-DROP FLINT 115.00 LOAD==14.82(0.66)
#
3 32513 0 "1" 0 # ELDRADO1 21.60 PGEN=9.96 QGEN=-0.77
0
#
#
# (266) Overlapping Outage (L-1/G-1)
# Table Mountain - Palermo 230 kV Line and Colgate 2
1 30300 30325 "1 " 0 # line from TBL MT D 230.00 BRKR to BRKR PALERMO 230.00
#
3 32452 0 "1" 0 # COLGATE2 13.80 PGEN=147.00 QGEN=20.11
0
#
#
# 2013 category b contingency list
# Stockton/Stanislaus Divisions Zones 311/312
#
# (267) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30482 30500 "1 " 0 # line from LOCKFORD 230.00 BRKR to BRKR BELLOTA 230.00
0
#
#
# (268) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30485 30487 "1 " 0 # line from TIGR CRK 230.00 BRKR to BRKR ELECTRA 230.00
0
#
#
# (269) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30485 30490 "1 " 0 # line from TIGR CRK 230.00 BRKR to BRKR VLLY SPS 230.00
0
#
#
# (270) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30487 30500 "1 " 0 # line from ELECTRA 230.00 BRKR to BRKR BELLOTA 230.00
0
#
#
# (271) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30489 30624 "1 " 0 # line from STAGG-J2 230.00 (2) to BRKR TESLA E 230.00
1 30489 30499 "1 " 0 # line from STAGG-J2 230.00 (2) to BRKR STAGG-E 230.00
0

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2013 SPRING CATEGORY "B" CONTINGENCY LIST

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#
#
# (272) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30490 30500 "1 " 0 # line from VLLY SPS 230.00 BRKR to BRKR BELLOTA 230.00
0
#
#
# (273) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30500 30503 "1 " 0 # line from BELLOTA 230.00 BRKR to BRKR COLLERVL 230.00
0
#
#
# (274) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30500 30503 "2 " 0 # line from BELLOTA 230.00 BRKR to BRKR COLLERVL 230.00
0
#
#
# (275) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30500 30505 "1 " 0 # line from BELLOTA 230.00 BRKR to BRKR WEBER 230.00
0
#
#
# (276) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30500 30888 "1 " 0 # line from BELLOTA 230.00 BRKR to BRKR P0703 230.00
0
#
#
# (277) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
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==27.63(1.24)
3 34604 0 "****" 0 # Drop unit#3 with a loss Bellota - Melones line
0
#
#
# (278) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30500 38208 "1 " 0 # line from BELLOTA 230.00 BRKR to (2) COTTLE B 230.00
1 38208 30515 "1 " 0 # line from COTTLE B 230.00 (2) to BRKR WARNERVL 230.00
4 38208 0 "2 " 0 # LOAD-DROP COTTLE B 230.00 LOAD==31.78(1.42)
3 34604 0 "****" 0 # Drop unit#3 with a loss Bellota - Warnerville line
0
#
#
# (279) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30505 30888 "1 " 0 # line from WEBER 230.00 BRKR to BRKR P0703 230.00
0
#
#
# (280) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30527 30595 "1 " 0 # line from PITSBG E 230.00 BRKR to (3) FLOWIND2 230.00
1 30595 30640 "1 " 0 # line from FLOWIND2 230.00 (3) to BRKR TESLA C 230.00
2 30595 33840 "1 " 0 # TRAN from FLOWIND2 230.00 (3) to (1) FLOWD3-6 9.11
4 33840 0 "SG" 0 # LOAD-DROP FLOWD3-6 9.11 LOAD==0.70(0.34)
3 33840 0 "1 " 0 # GEN-DROP FLOWD3-6 9.11 GEN==1.30(0.00)
3 33840 0 "4 " 0 # GEN-DROP FLOWD3-6 9.11 GEN==1.10(0.00)
0
#
#
# (281) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30565 30569 "1 " 0 # line from BRENTWOD 230.00 BRKR to BRKR KELSO 230.00
0
#
#
# (282) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

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2013 SPRING CATEGORY "B" CONTINGENCY LIST

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#
1 30569 30570 "1 " 0 # line from KELSO 230.00 BRKR to (4) USWP-RLF 230.00
1 30570 30571 "1 " 0 # line from USWP-RLF 230.00 (4) to (2) ALTALAND 230.00
1 30570 30625 "1 " 0 # line from USWP-RLF 230.00 (4) to BRKR TESLA D 230.00
2 30570 33836 "1 " 0 # TRAN from USWP-RLF 230.00 (4) to (1) USWP_#4 9.11
2 30571 33832 "1 " 0 # TRAN from ALTALAND 230.00 (2) to (1) COG.CAPT 9.11
4 33836 0 "SG" 0 # LOAD-DROP USWP_#4 9.11 LOAD==0.34(0.21)
3 33836 0 "3" 0 # GEN-DROP USWP_#4 9.11 GEN==4.50(0.00)
3 33832 0 "1" 0 # GEN-DROP COG.CAPT 9.11 GEN==4.30(6.60)
0
#
#
# (283) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30580 30625 "1 " 0 # line from ALTM MDW 230.00 (3) to BRKR TESLA D 230.00
1 30580 38610 "1 " 0 # line from ALTM MDW 230.00 (3) to BRKR DELTAPMP 230.00
2 30580 33175 "1 " 0 # TRAN from ALTM MDW 230.00 (3) to (1) ALTAMONT 9.11
0
#
#
# (284) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30600 30640 "2 " 0 # line from TRES VAQ 230.00 (3) to BRKR TESLA C 230.00
1 30600 30527 "2 " 0 # line from TRES VAQ 230.00 (3) to BRKR PITSBG E 230.00
2 30600 33171 "1 " 0 # TRAN from TRES VAQ 230.00 (3) to (1) TRSVQ+NW 9.11
0
#
#
# (285) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30622 30495 "1 " 0 # line from EIGHT MI 230.00 BRKR to BRKR STAGG 230.00
0
#
#
# (286) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30622 30624 "1 " 0 # line from EIGHT MI 230.00 BRKR to BRKR TESLA E 230.00
0
#
#
# (287) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30624 30630 "1 " 0 # line from TESLA E 230.00 BRKR to BRKR NEWARK D 230.00
0
#
#
# (288) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30624 30670 "1 " 0 # line from TESLA E 230.00 BRKR to BRKR WESTLEY 230.00
0
#
#
# (289) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30624 30888 "1 " 0 # line from TESLA E 230.00 BRKR to BRKR P0703 230.00
0
#
#
# (290) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30624 30888 "2 " 0 # line from TESLA E 230.00 BRKR to BRKR P0703 230.00
0
#
#
# (291) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30625 30636 "1 " 0 # line from TESLA D 230.00 BRKR to BRKR Q235SWST 230.00
0
#
#
# (292) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 30625 30636 "2 " 0 # line from TESLA D 230.00 BRKR to BRKR Q235SWST 230.00
0

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2013 SPRING CATEGORY "B" CONTINGENCY LIST

(293) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30636 37585 "1 " 0 # line from Q235SWST 230.00 BRKR to BRKR TRCY PMP 230.00
0

(294) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30636 37585 "2 " 0 # line from Q235SWST 230.00 BRKR to BRKR TRCY PMP 230.00
0

(295) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30640 30641 "1 " 0 # line from TESLA C 230.00 BRKR to BRKR Q236BS1 230.00
0

(296) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30640 30642 "1 " 0 # line from TESLA C 230.00 BRKR to BRKR Q236BS2 230.00
0

(297) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30632 30624 "1 " 0 # line from TESL_GEN 230.00 BRKR to BRKR TESLA E 230.00
0

(298) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30632 30624 "2 " 0 # line from TESL_GEN 230.00 BRKR to BRKR TESLA E 230.00
0

(299) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30636 30637 "1 " 0 # line from Q235SWST 230.00 BRKR to BRKR Q235 230.00
0

(300) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30636 30637 "2 " 0 # line from Q235SWST 230.00 BRKR to BRKR Q235 230.00
0

(301) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30640 30655 "2 " 0 # line from TESLA C 230.00 BRKR to (3) ADCC 230.00
1 30655 30631 "2 " 0 # line from ADCC 230.00 (3) to BRKR NEWARK E 230.00
2 30655 35310 "1 " 0 # TRAN from ADCC 230.00 (3) to (1) LFC FIN+ 9.11
0

(302) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30640 30703 "1 " 0 # line from TESLA C 230.00 BRKR to BRKR RAVENSWD 230.00
0

(303) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 30670 30765 "1 " 0 # line from WESTLEY 230.00 BRKR to BRKR LOSBANOS 230.00
0

(304) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

1 33083 33774 "1 " 0 # line from MDLRVRJT 60.00 (2) to (3) HRDLNJCT 60.00
1 33083 33084 "1 " 0 # line from MDLRVRJT 60.00 (2) to (3) BXLRTAP 60.00

2013 SPRING CATEGORY "B" CONTINGENCY LIST

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1 33774 33770 "1" 0 # line from HRDLNJCT 60.00 (3) to BRKR HERDLYN 60.00
1 33774 33782 "1" 0 # line from HRDLNJCT 60.00 (3) to (1) WEST SDE 60.00
1 33084 33055 "1" 0 # line from BXL_R_TAP 60.00 (3) to (1) BIXLER 60.00
1 33084 33778 "1" 0 # line from BXL_R_TAP 60.00 (3) to (2) MDL_RIVR 60.00
1 33778 33780 "1" 0 # line from MDL_RIVR 60.00 (2) to (1) MCD_ISLE 60.00
4 33782 0 "1" 0 # LOAD-DROP WEST SDE 60.00 LOAD==1.90(0.40)
4 33055 0 "1" 0 # LOAD-DROP BIXLER 60.00 LOAD==2.00(0.97)
4 33778 0 "1" 0 # LOAD-DROP MDL_RIVR 60.00 LOAD==4.98(0.22)
4 33780 0 "1" 0 # LOAD-DROP MCD_ISLE 60.00 LOAD==5.76(0.82)
0
#
#
# (305) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33500 33509 "1" 0 # line from MELNS JA 115.00 (3) to (3) AVENATP1 115.00
1 33500 33501 "1" 0 # line from MELNS JA 115.00 (3) to (3) FRGTNTP1 115.00
1 33500 33932 "1" 0 # line from MELNS JA 115.00 (3) to BRKR MELONES 115.00
1 33509 33510 "1" 0 # line from AVENATP1 115.00 (3) to (1) AVENA 115.00
1 33509 33514 "1" 0 # line from AVENATP1 115.00 (3) to BRKR MANTECA 115.00
1 33501 33502 "1" 0 # line from FRGTNTP1 115.00 (3) to (1) FROGTOWN 115.00
1 33501 33506 "1" 0 # line from FRGTNTP1 115.00 (3) to BRKR STANISLS 115.00
4 33510 0 "1" 0 # LOAD-DROP AVENA 115.00 LOAD==14.18(0.63)
4 33502 0 "1" 0 # LOAD-DROP FROGTOWN 115.00 LOAD==11.55(0.52)
4 33502 0 "2" 0 # LOAD-DROP FROGTOWN 115.00 LOAD==8.33(0.37)
1 33511 33510 "1" 1 # Switches in Avenan SW 145 to transfer load
4 33510 0 "1" 1 # Restores Load at Avena
0
#
#
# (306) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33503 33936 "1" 0 # line from FRGTNTP2 115.00 (2) to (3) MELNS JB 115.00
1 33503 33504 "1" 0 # line from FRGTNTP2 115.00 (2) to (2) CATARACT 115.00
1 33936 33932 "1" 0 # line from MELNS JB 115.00 (3) to BRKR MELONES 115.00
1 33936 33947 "1" 0 # line from MELNS JB 115.00 (3) to BRKR RIVRBKJT 115.00
1 33504 33506 "1" 0 # line from CATARACT 115.00 (2) to BRKR STANISLS 115.00
0
#
#
# (307) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33506 33948 "1" 0 # line from STANISLS 115.00 BRKR to (2) RVRBK J2 115.00
1 33948 33953 "1" 0 # line from RVRBK J2 115.00 (2) to (2) VLYHMTP2 115.00
1 33953 33511 "1" 0 # line from VLYHMTP2 115.00 (2) to (2) AVENATP2 115.00
1 33511 33514 "1" 0 # line from AVENATP2 115.00 (2) to BRKR MANTECA 115.00
0
#
#
# (308) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
# pre-project outage
1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33535 "1" 0 # line from OWENSTP2 115.00 (2) to (2) SFWY_TP2 115.00
1 33535 33543 "1" 0 # line from SFWY_TP2 115.00 (2) to (3) AEC_TP2 115.00
1 33543 33540 "1" 0 # line from AEC_TP2 115.00 (3) to BRKR TESLA 115.00
1 33543 33545 "1" 0 # line from AEC_TP2 115.00 (3) to (2) AEC_JCT 115.00
1 33545 33547 "1" 0 # line from AEC_JCT 115.00 (2) to (1) AEC_300 115.00
4 33547 0 "1" 0 # LOAD-DROP AEC_300 115.00 LOAD==3.00(9.54)
0
#
#
# (309) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
# post-project outage
1 33535 33549 "2" 0 # line from SFWY_TP2 115.00 (2) to BRKR SCHULTE 115.00
1 33535 33543 "1" 0 # line from SFWY_TP2 115.00 (2) to (3) AEC_TP2 115.00
1 33543 33540 "1" 0 # line from AEC_TP2 115.00 (3) to BRKR TESLA 115.00
1 33543 33545 "1" 0 # line from AEC_TP2 115.00 (3) to (2) AEC_JCT 115.00
1 33545 33547 "1" 0 # line from AEC_JCT 115.00 (2) to (1) AEC_300 115.00
4 33547 0 "1" 0 # LOAD-DROP AEC_300 115.00 LOAD==3.00(9.54)
0
#
#
# (310) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

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2013 SPRING CATEGORY "B" CONTINGENCY LIST

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# post-project outage
1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33549 "2" 0 # line from OWENSTP2 115.00 (2) to BRKR SCHULTE 115.00
0
#
#
# (311) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33514 33970 "1" 0 # line from MANTECA 115.00 BRKR to (3) INGRM C. 115.00
1 33970 33959 "1" 0 # line from INGRM C. 115.00 (3) to (2) TCHRT_T2 115.00
1 33970 33965 "1" 0 # line from INGRM C. 115.00 (3) to (2) SALADO J 115.00
1 33959 33540 "1" 0 # line from TCHRT_T2 115.00 (2) to BRKR TESLA 115.00
1 33965 33964 "1" 0 # line from SALADO J 115.00 (2) to BRKR SALADO 115.00
4 33970 0 "1" 0 # LOAD-DROP INGRM C. 115.00 LOAD==3.60(1.74)
0
#
#
# (312) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33516 33514 "1" 0 # line from RPN JNCN 115.00 (3) to BRKR MANTECA 115.00
1 33516 33520 "1" 0 # line from RPN JNCN 115.00 (3) to (1) RIPON 115.00
1 33516 33951 "1" 0 # line from RPN JNCN 115.00 (3) to (3) VLYHMTP1 115.00
1 33951 33947 "1" 0 # line from VLYHMTP1 115.00 (3) to BRKR RIVRBKJT 115.00
1 33951 33952 "1" 0 # line from VLYHMTP1 115.00 (3) to (1) VALLY HM 115.00
4 33520 0 "2" 0 # LOAD-DROP RIPON 115.00 LOAD==29.97(1.34)
4 33952 0 "1" 0 # LOAD-DROP VALLY HM 115.00 LOAD==5.36(0.24)
0
#
#
# (313) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33518 33514 "1" 0 # line from VIERRA 115.00 BRKR to BRKR MANTECA 115.00
0
#
#
# (314) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33518 33522 "1" 0 # line from VIERRA 115.00 BRKR to (3) CROSRDJT 115.00
1 33522 33524 "1" 0 # line from CROSRDJT 115.00 (3) to (1) CL AMMNA 115.00
1 33522 33530 "1" 0 # line from CROSRDJT 115.00 (3) to (3) KSSN-JC2 115.00
1 33530 33528 "1" 0 # line from KSSN-JC2 115.00 (3) to BRKR KASSON 115.00
1 33530 33550 "1" 0 # line from KSSN-JC2 115.00 (3) to (2) HJ HEINZ 115.00
1 33550 33548 "1" 0 # line from HJ HEINZ 115.00 (2) to BRKR TRACY 115.00
4 33524 0 "1" 0 # LOAD-DROP CL AMMNA 115.00 LOAD==1.68(1.22)
0
#
#
# (315) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33528 33529 "1" 0 # line from KASSON 115.00 BRKR to BRKR LAMMERS 115.00
0
#
#
# (316) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33529 33531 "1" 0 # line from LAMMERS 115.00 BRKR to (3) OWENSTP1 115.00
1 33531 33532 "1" 0 # line from OWENSTP1 115.00 (3) to (1) OI GLASS 115.00
1 33531 33549 "1" 0 # line from OWENSTP1 115.00 (3) to BRKR SCHULTE 115.00
4 33532 0 "1" 0 # LOAD-DROP OI GLASS 115.00 LOAD==11.34(7.03)
0
#
#
# (317) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33537 33534 "1" 0 # line from SFWY_TP1 115.00 (3) to (1) SAFEWAY 115.00
1 33537 33549 "1" 0 # line from SFWY_TP1 115.00 (3) to BRKR SCHULTE 115.00
1 33537 33541 "1" 0 # line from SFWY_TP1 115.00 (3) to (2) AEC_TP1 115.00
1 33541 33540 "1" 0 # line from AEC_TP1 115.00 (2) to BRKR TESLA 115.00
4 33534 0 "1" 0 # LOAD-DROP SAFEWAY 115.00 LOAD==5.38(2.76)
0
#
#

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2013 SPRING CATEGORY "B" CONTINGENCY LIST

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# (318) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33540 33544 "1" 0 # line from TESLA 115.00 BRKR to (2) ELLS GTY 115.00
1 33544 33546 "1" 0 # line from ELLS GTY 115.00 (2) to (2) TRACY JC 115.00
1 33546 33542 "1" 0 # line from TRACY JC 115.00 (2) to (2) LEPRINO 115.00
1 33542 33548 "1" 0 # line from LEPRINO 115.00 (2) to BRKR TRACY 115.00
4 33544 0 "1" 0 # LOAD-DROP ELLS GTY 115.00 LOAD==3.62(1.86)
4 33542 0 "1" 0 # LOAD-DROP LEPRINO 115.00 LOAD==3.67(2.37)
0
#
#
# (319) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33540 33568 "1" 0 # line from TESLA 115.00 BRKR to (3) TH.E.DV. 115.00
1 33568 33570 "1" 0 # line from TH.E.DV. 115.00 (3) to (3) SPC JCT. 115.00
2 33568 33806 "1" 0 # TRAN from TH.E.DV. 115.00 (3) to (1) TH.E.DV. 13.80
1 33570 33587 "1" 0 # line from SPC JCT. 115.00 (3) to (3) P0409TP2 115.00
1 33570 33956 "1" 0 # line from SPC JCT. 115.00 (3) to (2) SJ COGEN 115.00
1 33587 33572 "1" 0 # line from P0409TP2 115.00 (3) to (2) SP CMPNY 115.00
1 33587 33588 "1" 0 # line from P0409TP2 115.00 (3) to (2) P0409CG2 115.00
2 33572 33810 "1" 0 # TRAN from SP CMPNY 115.00 (2) to (1) SP CMPNY 13.80
2 33588 33858 "1" 0 # TRAN from P0409CG2 115.00 (2) to (1) P0409CG2 13.80
2 33956 33808 "1" 0 # TRAN from SJ COGEN 115.00 (2) to (1) SJ COGEN 13.80
4 33858 0 "ss" 0 # LOAD-DROP P0409CG2 13.80 LOAD==3.34(1.85)
3 33806 0 "1" 0 # GEN-DROP TH.E.DV. 13.80 GEN==19.60(6.00)
3 33810 0 "1" 0 # GEN-DROP SP CMPNY 13.80 GEN==37.70(0.52)
3 33858 0 "1" 0 # GEN-DROP P0409CG2 13.80 GEN==78.24(5.46)
3 33808 0 "1" 0 # GEN-DROP SJ COGEN 13.80 GEN==45.20(9.58)
0
#
#
# (320) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33540 33574 "1" 0 # line from TESLA 115.00 BRKR to (2) LLNL TAP 115.00
1 33574 37649 "1" 0 # line from LLNL TAP 115.00 (2) to BRKR LLNLAB 115.00
0
#
#
# (321) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33540 33576 "1" 0 # line from TESLA 115.00 BRKR to (3) USWP-PAT 115.00
1 33576 33578 "1" 0 # line from USWP-PAT 115.00 (3) to (2) FAYETTE 115.00
2 33576 33842 "1" 0 # TRAN from USWP-PAT 115.00 (3) to (1) PATTERSN 9.11
1 33578 33580 "1" 0 # line from FAYETTE 115.00 (2) to (2) ALTENRGY 115.00
2 33580 33834 "1" 0 # TRAN from ALTENRGY 115.00 (2) to (1) KALINA 9.11
0
#
#
# (322) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33540 33961 "1" 0 # line from TESLA 115.00 BRKR to (3) TCHRT_T1 115.00
1 33961 33960 "1" 0 # line from TCHRT_T1 115.00 (3) to (2) MDSTO CN 115.00
1 33961 33963 "1" 0 # line from TCHRT_T1 115.00 (3) to (2) TCHRTJCT 115.00
1 33960 33962 "1" 0 # line from MDSTO CN 115.00 (2) to (3) SALDO TP 115.00
1 33962 33964 "1" 0 # line from SALDO TP 115.00 (3) to BRKR SALADO 115.00
1 33962 33967 "1" 0 # line from SALDO TP 115.00 (3) to (2) MILLER TP 115.00
1 33967 33966 "1" 0 # line from MILLER TP 115.00 (2) to (1) MILLER 115.00
1 33963 33968 "1" 0 # line from TCHRTJCT 115.00 (2) to (1) TEICHERT 115.00
4 33966 0 "1" 0 # LOAD-DROP MILLER 115.00 LOAD==3.55(1.72)
4 33968 0 "1" 0 # LOAD-DROP TEICHERT 115.00 LOAD==7.44(6.56)
0
#
#
# (323) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33551 33549 "1" 0 # line from GWFTRACY 115.00 (4) to BRKR SCHULTE 115.00
2 33551 33805 "1" 0 # TRAN from GWFTRACY 115.00 (4) to (1) GWFTRCY1 13.80
2 33551 33807 "1" 0 # TRAN from GWFTRACY 115.00 (4) to (1) GWFTRCY2 13.80
2 33551 33809 "1" 0 # TRAN from GWFTRACY 115.00 (4) to (1) Q268ST1 13.80
4 33809 0 "ss" 0 # LOAD-DROP Q268ST1 13.80 LOAD==9.70(5.37)
3 33805 0 "1" 0 # GEN-DROP GWFTRCY1 13.80 GEN==85.90(18.01)
3 33807 0 "1" 0 # GEN-DROP GWFTRCY2 13.80 GEN==85.90(18.01)
3 33809 0 "1" 0 # GEN-DROP Q268ST1 13.80 GEN==154.70(14.72)
0

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2013 SPRING CATEGORY "B" CONTINGENCY LIST

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#
#
# (324) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33552 33553 "1" 0 # line from STCKTNJB 115.00 (2) to BRKR STKTON B 115.00
1 33552 33558 "1" 0 # line from STCKTNJB 115.00 (2) to (3) LCKFRDJB 115.00
1 33558 33562 "1" 0 # line from LCKFRDJB 115.00 (3) to BRKR BELLOTA 115.00
1 33558 33564 "1" 0 # line from LCKFRDJB 115.00 (3) to BRKR LOCKFORD 115.00
4 33553 0 "3" 0 # LOAD-DROP STKTON B 115.00 LOAD==30.08(1.34)
1 33555 33553 "1" 1 # Switches in Stockton 'A' SW 177 to transfer load
4 33553 0 "****" 1 # Restore Load at Stockton 'A' Bk 3
0
#
#
# (325) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33556 33555 "1" 0 # line from STN COGN 115.00 (3) to (1) STKTON A 115.00
1 33556 33560 "1" 0 # line from STN COGN 115.00 (3) to (2) LCKFRDJA 115.00
1 33556 33958 "1" 0 # line from STN COGN 115.00 (3) to (2) CPC STCN 115.00
1 33560 33562 "1" 0 # line from LCKFRDJA 115.00 (2) to BRKR BELLOTA 115.00
2 33958 33814 "1" 0 # TRAN from CPC STCN 115.00 (2) to (1) CPC STCN 12.47
4 33555 0 "4" 0 # LOAD-DROP STKTON A 115.00 LOAD==32.05(1.43)
4 33555 0 "5" 0 # LOAD-DROP STKTON A 115.00 LOAD==21.46(0.96)
4 33814 0 "SG" 0 # LOAD-DROP CPC STCN 12.47 LOAD==6.19(1.41)
3 33814 0 "1" 0 # GEN-DROP CPC STCN 12.47 GEN==49.00(2.53)
0
#
#
# (326) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33561 33562 "1" 0 # line from BLLTAJCT 115.00 (3) to BRKR BELLOTA 115.00
1 33561 33564 "1" 0 # line from BLLTAJCT 115.00 (3) to BRKR LOCKFORD 115.00
1 33561 33565 "1" 0 # line from BLLTAJCT 115.00 (3) to (2) CMNCHETP 115.00
1 33565 33566 "1" 0 # line from CMNCHETP 115.00 (2) to BRKR CAMANCHE 115.00
0
#
#
# (327) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33562 33946 "1" 0 # line from BELLOTA 115.00 BRKR to (2) RVRBK J1 115.00
1 33946 33944 "1" 0 # line from RVRBK J1 115.00 (2) to BRKR RVRBANK 115.00
0
#
#
# (328) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33562 33950 "1" 0 # line from BELLOTA 115.00 BRKR to (3) RVRBK TP 115.00
1 33950 33934 "1" 0 # line from RVRBK TP 115.00 (3) to (3) TULLOCH 115.00
1 33950 33944 "1" 0 # line from RVRBK TP 115.00 (3) to BRKR RVRBANK 115.00
1 33934 33932 "1" 0 # line from TULLOCH 115.00 (3) to BRKR MELONES 115.00
2 33934 34076 "1" 0 # TRAN from TULLOCH 115.00 (3) to (1) TULLOCH 6.90
3 34076 0 "1" 0 # GEN-DROP TULLOCH 6.90 GEN==8.30(1.00)
3 34076 0 "2" 0 # GEN-DROP TULLOCH 6.90 GEN==8.30(1.00)
0
#
#
# (329) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33582 33584 "1" 0 # line from SLT SPRG 115.00 BRKR to BRKR TIGR CRK 115.00
0
#
#
# (330) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33602 33670 "1" 0 # line from NEWARKS 60.00 (2) to BRKR STCKTN A 60.00
1 33602 33672 "1" 0 # line from NEWARKS 60.00 (2) to (2) CHRTRWYS 60.00
1 33672 33673 "1" 0 # line from CHRTRWYS 60.00 (2) to (2) CAL CEDA 60.00
1 33673 33688 "1" 0 # line from CAL CEDA 60.00 (2) to (3) ROB-LRNR 60.00
1 33688 33687 "1" 0 # line from ROB-LRNR 60.00 (3) to (2) STKTN WW 60.00
1 33688 33696 "1" 0 # line from ROB-LRNR 60.00 (3) to (3) Q199 60.00
1 33687 33689 "1" 0 # line from STKTN WW 60.00 (2) to (1) LEARNER 60.00
1 33696 33690 "1" 0 # line from Q199 60.00 (3) to (2) ROGH-RDY 60.00
2 33696 33818 "1" 0 # TRAN from Q199 60.00 (3) to (1) Q199 13.80
1 33690 33692 "1" 0 # line from ROGH-RDY 60.00 (2) to (2) CHANNEL 60.00

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2013 SPRING CATEGORY "B" CONTINGENCY LIST

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1 33692 33694 "1" 0 # line from CHANNEL 60.00 (2) to (1) CHNNL JT 60.00
4 33673 0 "1" 0 # LOAD-DROP CAL CEDA 60.00 LOAD==1.49(1.24)
4 33687 0 "1" 0 # LOAD-DROP STKTN WW 60.00 LOAD==3.61(0.90)
4 33690 0 "1" 0 # LOAD-DROP ROGH-RDY 60.00 LOAD==12.05(0.54)
4 33818 0 "ss" 0 # LOAD-DROP Q199 13.80 LOAD==11.00(6.09)
4 33692 0 "1" 0 # LOAD-DROP CHANNEL 60.00 LOAD==8.49(0.38)
3 33687 0 "1" 0 # GEN-DROP STKTN WW 60.00 GEN==1.50(0.15)
3 33818 0 "1" 0 # GEN-DROP Q199 13.80 GEN==60.50(4.13)
0
#
#
# (331) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33604 33606 "1" 0 # line from WEST PNT 60.00 (2) to (3) P.GRVEJ. 60.00
2 33604 33820 "1" 0 # TRAN from WEST PNT 60.00 (2) to (1) WEST PNT 11.50
1 33606 33607 "1" 0 # line from P.GRVEJ. 60.00 (3) to (2) ELECTRAJ 60.00
1 33606 33608 "1" 0 # line from P.GRVEJ. 60.00 (3) to (1) PNE GRVE 60.00
1 33607 33610 "1" 0 # line from ELECTRAJ 60.00 (2) to BRKR VLLY SPS 60.00
4 33604 0 "1" 0 # LOAD-DROP WEST PNT 60.00 LOAD==4.74(0.21)
4 33604 0 "3" 0 # LOAD-DROP WEST PNT 60.00 LOAD==4.45(0.20)
4 33607 0 "1" 0 # LOAD-DROP ELECTRAJ 60.00 LOAD==10.32(0.47)
4 33608 0 "1" 0 # LOAD-DROP PNE GRVE 60.00 LOAD==8.62(0.39)
4 33608 0 "2" 0 # LOAD-DROP PNE GRVE 60.00 LOAD==10.99(0.49)
3 33820 0 "1" 0 # GEN-DROP WEST PNT 11.50 GEN==13.60(7.00)
0
#
#
# (332) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33610 33612 "1" 0 # line from VLLY SPS 60.00 BRKR to (2) N BRANCH 60.00
1 33612 33614 "1" 0 # line from N BRANCH 60.00 (2) to BRKR CAL CMNT 60.00
4 33612 0 "1" 0 # LOAD-DROP N BRANCH 60.00 LOAD==5.79(0.25)
4 33614 0 "1" 0 # LOAD-DROP CAL CMNT 60.00 LOAD==13.07(0.59)
0
#
#
# (333) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33610 33619 "1" 0 # line from VLLY SPS 60.00 BRKR to (3) AMFOR_SW 60.00
1 33619 33616 "1" 0 # line from AMFOR_SW 60.00 (3) to BRKR MARTELL 60.00
1 33619 33620 "1" 0 # line from AMFOR_SW 60.00 (3) to (1) AM FORST 60.00
4 33616 0 "1" 0 # LOAD-DROP MARTELL 60.00 LOAD==19.52(0.87)
4 33620 0 "1" 0 # LOAD-DROP AM FORST 60.00 LOAD==1.90(1.52)
0
#
#
# (334) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33610 33630 "1" 0 # line from VLLY SPS 60.00 BRKR to (2) PARDEE A 60.00
2 33630 33848 "1" 0 # TRAN from PARDEE A 60.00 (2) to (1) PARDE 2 7.20
3 33848 0 "1" 0 # GEN-DROP PARDE 2 7.20 GEN==8.00(-1.28)
0
#
#
# (335) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33610 33634 "1" 0 # line from VLLY SPS 60.00 BRKR to (3) PRDE JCT 60.00
1 33634 33626 "1" 0 # line from PRDE JCT 60.00 (3) to (3) I.NRGYJT 60.00
2 33634 33846 "1" 0 # TRAN from PRDE JCT 60.00 (3) to (1) PRDE 1-3 7.20
1 33626 33622 "1" 0 # line from I.NRGYJT 60.00 (3) to (2) CLAY 60.00
1 33626 33628 "1" 0 # line from I.NRGYJT 60.00 (3) to (2) I.ENERGY 60.00
1 33622 33623 "1" 0 # line from CLAY 60.00 (2) to (3) INE_TP 60.00
1 33623 33617 "1" 0 # line from INE_TP 60.00 (3) to (1) MARTELTP 60.00
1 33623 33624 "1" 0 # line from INE_TP 60.00 (3) to (1) INE PRSN 60.00
2 33628 33816 "1" 0 # TRAN from I.ENERGY 60.00 (2) to (1) I.ENERGY 12.00
4 33622 0 "1" 0 # LOAD-DROP CLAY 60.00 LOAD==13.69(0.62)
4 33622 0 "2" 0 # LOAD-DROP CLAY 60.00 LOAD==4.09(0.18)
4 33624 0 "1" 0 # LOAD-DROP INE PRSN 60.00 LOAD==12.55(0.56)
3 33846 0 "2" 0 # GEN-DROP PRDE 1-3 7.20 GEN==8.00(2.00)
0
#
#
# (336) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#

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2013 SPRING CATEGORY "B" CONTINGENCY LIST

1 33610 33636 "1" 0 # line from VLLY SPS 60.00 BRKR to (3) N.HGN JT 60.00
 1 33636 33638 "1" 0 # line from N.HGN JT 60.00 (3) to (2) N.HOGAN 60.00
 1 33636 33640 "1" 0 # line from N.HGN JT 60.00 (3) to (1) CORRAL 60.00
 2 33638 38365 "1" 0 # TRAN from N.HOGAN 60.00 (2) to (1) N.HGN DM 12.00
 4 33640 0 "1" 0 # LOAD-DROP CORRAL 60.00 LOAD==12.60(0.56)
 4 33640 0 "2" 0 # LOAD-DROP CORRAL 60.00 LOAD==16.59(0.74)
 3 38365 0 "1" 0 # GEN-DROP N.HGN DM 12.00 GEN==1.50(0.68)
 3 38365 0 "2" 0 # GEN-DROP N.HGN DM 12.00 GEN==1.50(0.68)

0

#

#

(337) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

#

1 33642 33644 "1" 0 # line from LINDEN 60.00 (1) to (2) MRMN JCT 60.00
 1 33644 33646 "1" 0 # line from MRMN JCT 60.00 (2) to (2) MORMON 60.00
 1 33646 33650 "1" 0 # line from MORMON 60.00 (2) to BRKR WEBER 1 60.00
 4 33642 0 "1" 0 # LOAD-DROP LINDEN 60.00 LOAD==18.79(0.84)
 4 33646 0 "1" 0 # LOAD-DROP MORMON 60.00 LOAD==19.10(0.85)
 1 33642 33640 "1" 1 # Switches in Linden SW 27 to transfer load
 4 33642 0 "1" 1 # Restore Load and Linden

0

#

#

(338) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

#

1 33654 33664 "1" 0 # line from SNTA FEA 60.00 (3) to (2) LIPTON 60.00
 1 33654 33670 "1" 0 # line from SNTA FEA 60.00 (3) to BRKR STCKTN A 60.00
 1 33654 33662 "1" 0 # line from SNTA FEA 60.00 (3) to BRKR WEBER 2 60.00
 1 33664 33666 "1" 0 # line from LIPTON 60.00 (2) to (2) CHEROKEE 60.00
 1 33666 33668 "1" 0 # line from CHEROKEE 60.00 (2) to (1) WATERLOO 60.00
 4 33664 0 "1" 0 # LOAD-DROP LIPTON 60.00 LOAD==3.53(2.56)
 4 33666 0 "1" 0 # LOAD-DROP CHEROKEE 60.00 LOAD==10.46(0.47)
 4 33668 0 "2" 0 # LOAD-DROP WATERLOO 60.00 LOAD==11.35(0.51)

0

#

#

(339) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

#

1 33658 33670 "1" 0 # line from SNTA FEB 60.00 (3) to BRKR STCKTN A 60.00
 1 33658 33678 "1" 0 # line from SNTA FEB 60.00 (3) to (2) MONARCH 60.00
 1 33658 33662 "1" 0 # line from SNTA FEB 60.00 (3) to BRKR WEBER 2 60.00
 1 33678 33684 "1" 0 # line from MONARCH 60.00 (2) to (2) HARDING 60.00
 1 33684 33686 "1" 0 # line from HARDING 60.00 (2) to (1) STCKTNAR 60.00
 4 33678 0 "2" 0 # LOAD-DROP MONARCH 60.00 LOAD==4.13(0.18)
 4 33684 0 "1" 0 # LOAD-DROP HARDING 60.00 LOAD==4.75(0.21)
 4 33684 0 "2" 0 # LOAD-DROP HARDING 60.00 LOAD==5.28(0.24)
 4 33686 0 "1" 0 # LOAD-DROP STCKTNAR 60.00 LOAD==4.10(0.18)

0

#

#

(340) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

#

1 33662 33674 "1" 0 # line from WEBER 2 60.00 BRKR to (4) HAZLTN J 60.00
 1 33674 33670 "1" 0 # line from HAZLTN J 60.00 (4) to BRKR STCKTN A 60.00
 1 33674 33676 "1" 0 # line from HAZLTN J 60.00 (4) to (1) E.STCKTN 60.00
 1 33674 33681 "1" 0 # line from HAZLTN J 60.00 (4) to (2) N.ST_SW 60.00
 1 33681 33682 "1" 0 # line from N.ST_SW 60.00 (2) to (2) SUMIDEN 60.00
 1 33682 33680 "1" 0 # line from SUMIDEN 60.00 (2) to (2) OAK PARK 60.00
 1 33680 33712 "1" 0 # line from OAK PARK 60.00 (2) to (1) WESTLANE 60.00
 4 33676 0 "1" 0 # LOAD-DROP E.STCKTN 60.00 LOAD==6.33(0.28)
 4 33676 0 "3" 0 # LOAD-DROP E.STCKTN 60.00 LOAD==14.01(0.62)
 4 33682 0 "1" 0 # LOAD-DROP SUMIDEN 60.00 LOAD==3.71(2.59)
 4 33680 0 "1" 0 # LOAD-DROP OAK PARK 60.00 LOAD==2.44(0.11)
 4 33712 0 "1" 0 # LOAD-DROP WESTLANE 60.00 LOAD==18.08(0.81)

0

#

#

(341) B2 LINE OUTAGE (BREAKER-TO-BREAKER)

#

1 33693 33704 "1" 0 # line from STAGG JT 60.00 (2) to BRKR STAGG 60.00
 1 33693 33719 "1" 0 # line from STAGG JT 60.00 (2) to (3) TERMNS J 60.00
 1 33719 33720 "1" 0 # line from TERMNS J 60.00 (3) to (1) TERMNOUS 60.00
 1 33719 33721 "1" 0 # line from TERMNS J 60.00 (3) to (2) SEBASTIA 60.00
 1 33721 33722 "1" 0 # line from SEBASTIA 60.00 (2) to (2) NW HPE J 60.00

2013 SPRING CATEGORY "B" CONTINGENCY LIST

1 33722 33723 "1" 0 # line from NW HPE J 60.00 (2) to (1) NEW HOPE 60.00
 4 33720 0 "1" 0 # LOAD-DROP TERMNOUS 60.00 LOAD==4.85(0.22)
 4 33721 0 "1" 0 # LOAD-DROP SEBASTIA 60.00 LOAD==2.82(2.12)
 4 33723 0 "1" 0 # LOAD-DROP NEW HOPE 60.00 LOAD==2.74(0.12)
 0
 #
 #
 # (342) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33703 33702 "1" 0 # line from LOUISJCT 60.00 (3) to (1) GRONMYER 60.00
 1 33703 33746 "1" 0 # line from LOUISJCT 60.00 (3) to BRKR LOUISE 60.00
 1 33703 33742 "1" 0 # line from LOUISJCT 60.00 (3) to BRKR MANTECA 60.00
 4 33702 0 "1" 0 # LOAD-DROP GRONMYER 60.00 LOAD==4.20(0.96)
 0
 #
 #
 # (343) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33704 33706 "1" 0 # line from STAGG 60.00 BRKR to BRKR CNTRY CB 60.00
 0
 #
 #
 # (344) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33704 33706 "2" 0 # line from STAGG 60.00 BRKR to BRKR CNTRY CB 60.00
 0
 #
 #
 # (345) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33704 33714 "1" 0 # line from STAGG 60.00 BRKR to BRKR HAMMER 60.00
 0
 #
 #
 # (346) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33706 33708 "1" 0 # line from CNTRY CB 60.00 BRKR to (2) UOP 60.00
 1 33708 33710 "1" 0 # line from UOP 60.00 (2) to (2) WSTLINESW 60.00
 1 33710 33716 "1" 0 # line from WSTLINESW 60.00 (2) to (3) HMMR JCT 60.00
 1 33716 33714 "1" 0 # line from HMMR JCT 60.00 (3) to BRKR HAMMER 60.00
 1 33716 33717 "1" 0 # line from HMMR JCT 60.00 (3) to (3) MORADAJT 60.00
 1 33717 33718 "1" 0 # line from MORADAJT 60.00 (3) to (1) METTLER 60.00
 1 33717 33740 "1" 0 # line from MORADAJT 60.00 (3) to BRKR MSHR 60V 60.00
 4 33708 0 "1" 0 # LOAD-DROP UOP 60.00 LOAD==5.99(4.18)
 4 33718 0 "3" 0 # LOAD-DROP METTLER 60.00 LOAD==8.41(0.38)
 4 33740 0 "1" 0 # LOAD-DROP MSHR 60V 60.00 LOAD==20.34(0.91)
 4 33740 0 "2" 0 # LOAD-DROP MSHR 60V 60.00 LOAD==33.96(1.52)
 1 33738 33740 "1" 1 # Switch in Mosher SW 67 to transfer load
 4 33740 0 "2" 1 # Restore Mosher Bank 2 load
 0
 #
 #
 # (347) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33724 33726 "1" 0 # line from LOCKEFRD 60.00 BRKR to (2) VICTOR 60.00
 1 33726 33731 "1" 0 # line from VICTOR 60.00 (2) to (2) WODBRG J 60.00
 1 33731 33735 "1" 0 # line from WODBRG J 60.00 (2) to (2) INDSTR J 60.00
 1 33735 38060 "1" 0 # line from INDSTR J 60.00 (2) to BRKR INDUSTRIL 60.00
 4 33726 0 "1" 0 # LOAD-DROP VICTOR 60.00 LOAD==0.21(0.01)
 4 33726 0 "2" 0 # LOAD-DROP VICTOR 60.00 LOAD==3.54(0.16)
 0
 #
 #
 # (348) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33724 33738 "1" 0 # line from LOCKEFRD 60.00 BRKR to (1) WATRLJCT 60.00
 0
 #
 #
 # (349) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33724 38060 "1" 0 # line from LOCKEFRD 60.00 BRKR to BRKR INDUSTRIL 60.00
 0
 #

2013 SPRING CATEGORY "B" CONTINGENCY LIST

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#
# (350) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33725 33732 "1" 0 # line from LOCKFRD1 60.00 BRKR to (2) COLONY 60.00
1 33732 33734 "1" 0 # line from COLONY 60.00 (2) to (2) CLNY JCT 60.00
1 33734 33728 "1" 0 # line from CLNY JCT 60.00 (2) to BRKR LODI 60.00
4 33732 0 "2" 0 # LOAD-DROP COLONY 60.00 LOAD==4.67(0.21)
0
#
#
# (351) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33728 33729 "1" 0 # line from LODI 60.00 BRKR to BRKR LODI AUX 60.00
0
#
#
# (352) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33737 33727 "1" 0 # line from WINERY J 60.00 (2) to (1) MONDAVI 60.00
1 33737 33728 "1" 0 # line from WINERY J 60.00 (2) to BRKR LODI 60.00
4 33727 0 "1" 0 # LOAD-DROP MONDAVI 60.00 LOAD==2.48(2.06)
0
#
#
# (353) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33743 33742 "1" 0 # line from LEE_JCT 60.00 (2) to BRKR MANTECA 60.00
1 33743 33766 "1" 0 # line from LEE_JCT 60.00 (2) to (2) MNTCA JT 60.00
1 33766 33768 "1" 0 # line from MNTCA JT 60.00 (2) to (2) BNTA CRB 60.00
1 33768 34000 "1" 0 # line from BNTA CRB 60.00 (2) to (1) WESTLEY 60.00
4 33768 0 "1" 0 # LOAD-DROP BNTA CRB 60.00 LOAD==3.34(0.76)
4 34000 0 "1" 0 # LOAD-DROP WESTLEY 60.00 LOAD==12.45(0.55)
4 34000 0 "3" 0 # LOAD-DROP WESTLEY 60.00 LOAD==4.01(0.18)
1 33742 33752 "1" 0 # Must include Manteca - Lanthrop Jct in this outage
0
#
#
# (354) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33746 33748 "1" 0 # line from LOUISE 60.00 BRKR to (2) MSSDLESW 60.00
1 33748 33750 "1" 0 # line from MSSDLESW 60.00 (2) to (2) CALVO 60.00
1 33750 33756 "1" 0 # line from CALVO 60.00 (2) to BRKR KASSON 60.00
4 33750 0 "1" 0 # LOAD-DROP CALVO 60.00 LOAD==1.70(1.01)
0
#
#
# (355) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33756 33758 "1" 0 # line from KASSON 60.00 BRKR to BRKR BANTA 60.00
4 33758 0 "1" 0 # LOAD-DROP BANTA 60.00 LOAD==7.14(0.32)
0
#
#
# (356) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33756 33760 "1" 0 # line from KASSON 60.00 BRKR to (3) BNTA JCT 60.00
1 33760 33762 "1" 0 # line from BNTA JCT 60.00 (3) to (2) LYOTH-SP 60.00
1 33760 33764 "1" 0 # line from BNTA JCT 60.00 (3) to (1) CARBONA 60.00
1 33762 33763 "1" 0 # line from LYOTH-SP 60.00 (2) to (1) CRBNA JC 60.00
4 33762 0 "1" 0 # LOAD-DROP LYOTH-SP 60.00 LOAD==3.00(0.68)
4 33764 0 "1" 0 # LOAD-DROP CARBONA 60.00 LOAD==24.58(1.10)
4 33764 0 "2" 0 # LOAD-DROP CARBONA 60.00 LOAD==7.60(0.34)
0
#
#
# (357) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 33770 33772 "1" 0 # line from HERDLYN 60.00 BRKR to (2) B.BTHNY- 60.00
1 33772 33773 "1" 0 # line from B.BTHNY- 60.00 (2) to (2) ALTA-CGE 60.00
1 33773 33775 "1" 0 # line from ALTA-CGE 60.00 (2) to (2) TOSCO-PP 60.00
1 33775 33776 "1" 0 # line from TOSCO-PP 60.00 (2) to (2) SOUTH BY 60.00
1 33776 35202 "1" 0 # line from SOUTH BY 60.00 (2) to (3) USWP-WKR 60.00
1 35202 35211 "1" 0 # line from USWP-WKR 60.00 (3) to (1) ALTAMONT 60.00
2 35202 35314 "1" 0 # TRAN from USWP-WKR 60.00 (3) to (1) WALKER+ 9.11

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2013 SPRING CATEGORY "B" CONTINGENCY LIST

4 33772 0 "1" 0 # LOAD-DROP B.BTHNY- 60.00 LOAD==1.94(0.44)
 4 33775 0 "1" 0 # LOAD-DROP TOSCO-PP 60.00 LOAD==0.98(0.89)
 4 33776 0 "1" 0 # LOAD-DROP SOUTH BY 60.00 LOAD==23.00(0.00)
 3 33773 0 "1" 0 # GEN-DROP ALTA-CGE 60.00 GEN==4.00(-1.00)
 0
 #
 #
 # (358) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33900 33902 "1" 0 # line from DONNELLS 115.00 (2) to (3) BRDSLY J 115.00
 2 33900 34058 "1" 0 # TRAN from DONNELLS 115.00 (2) to (1) DONNELLS 13.80
 1 33902 33904 "1" 0 # line from BRDSLY J 115.00 (3) to (2) BEARDSLY 115.00
 1 33902 33912 "1" 0 # line from BRDSLY J 115.00 (3) to (3) SPRNG GJ 115.00
 2 33904 34074 "1" 0 # TRAN from BEARDSLY 115.00 (2) to (1) BEARDSLY 6.90
 1 33912 33910 "1" 0 # line from SPRNG GJ 115.00 (3) to (3) SNDBR JT 115.00
 1 33912 33914 "1" 0 # line from SPRNG GJ 115.00 (3) to (2) MI-WUK 115.00
 1 33910 33906 "1" 0 # line from SNDBR JT 115.00 (3) to BRKR SPRNG GP 115.00
 1 33910 33908 "1" 0 # line from SNDBR JT 115.00 (3) to (2) SANDBAR 115.00
 2 33908 34060 "1" 0 # TRAN from SANDBAR 115.00 (2) to (1) SANDBAR 13.80
 1 33914 33917 "1" 0 # line from MI-WUK 115.00 (2) to (2) FBERBORD 115.00
 1 33917 33916 "1" 0 # line from FBERBORD 115.00 (2) to BRKR CURTISS 115.00
 4 33914 0 "1" 0 # LOAD-DROP MI-WUK 115.00 LOAD==12.04(0.54)
 4 33917 0 "SG" 0 # LOAD-DROP FBERBORD 115.00 LOAD==2.25(0.51)
 3 34058 0 "1" 0 # GEN-DROP DONNELLS 13.80 GEN==64.20(-0.09)
 3 34074 0 "1" 0 # GEN-DROP BEARDSLY 6.90 GEN==10.60(2.00)
 3 34060 0 "1" 0 # GEN-DROP SANDBAR 13.80 GEN==14.70(7.50)
 3 33917 0 "1" 0 # GEN-DROP FBERBORD 115.00 GEN==3.20(-2.21)
 0
 #
 #
 # (359) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33916 33920 "1" 0 # line from CURTISS 115.00 BRKR to (2) RCTRK J. 115.00
 1 33920 33926 "1" 0 # line from RCTRK J. 115.00 (2) to (3) CH.STNJT 115.00
 1 33926 33928 "1" 0 # line from CH.STNJT 115.00 (3) to (2) CH.STN 115.00
 1 33926 33930 "1" 0 # line from CH.STNJT 115.00 (3) to (2) PEORIA 115.00
 2 33928 34050 "1" 0 # TRAN from CH.STN 115.00 (2) to (1) CH.STN. 13.80
 1 33930 33932 "1" 0 # line from PEORIA 115.00 (2) to BRKR MELONES 115.00
 4 33928 0 "SP" 0 # LOAD-DROP CH.STN 115.00 LOAD==2.81(0.64)
 4 33930 0 "1" 0 # LOAD-DROP PEORIA 115.00 LOAD==26.77(1.19)
 3 34050 0 "1" 0 # GEN-DROP CH.STN. 13.80 GEN==10.00(11.00)
 0
 #
 #
 # (360) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 33932 33922 "1" 0 # line from MELONES 115.00 BRKR to (1) R.TRACK 115.00
 4 33922 0 "1" 0 # LOAD-DROP R.TRACK 115.00 LOAD==17.06(0.76)
 0
 #
 #
 # (361) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 34002 34004 "1" 0 # line from SALADO 60.00 BRKR to (2) PTRSNFRZ 60.00
 1 34004 34006 "1" 0 # line from PTRSNFRZ 60.00 (2) to BRKR PATTERSN 60.00
 0
 #
 #
 # (362) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
 1 34002 34008 "1" 0 # line from SALADO 60.00 BRKR to (3) STNSLSRP 60.00
 1 34008 34016 "1" 0 # line from STNSLSRP 60.00 (3) to (2) MEDLIN J 60.00
 2 34008 34056 "1" 0 # TRAN from STNSLSRP 60.00 (3) to (1) STNSLSRP 13.80
 1 34016 34018 "1" 0 # line from MEDLIN J 60.00 (2) to (3) NWMN JCT 60.00
 1 34018 34014 "1" 0 # line from NWMN JCT 60.00 (3) to BRKR NEWMAN 60.00
 1 34018 34020 "1" 0 # line from NWMN JCT 60.00 (3) to (1) GUSTINE 60.00
 4 34020 0 "1" 0 # LOAD-DROP GUSTINE 60.00 LOAD==9.90(0.44)
 4 34020 0 "2" 0 # LOAD-DROP GUSTINE 60.00 LOAD==10.83(0.49)
 3 34056 0 "1" 0 # GEN-DROP STNSLSRP 13.80 GEN==16.30(6.29)
 1 34012 34020 "1" 1 # Switches in Gustine SW 19 to transfer load
 4 34020 0 "****" 1 # Restore Load at Gustine
 0
 #
 #

2013 SPRING CATEGORY "B" CONTINGENCY LIST

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# (363) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 34006 34010 "1" 0 # line from PATTERSN 60.00 BRKR to (3) CRWS LDJ 60.00
1 34010 34012 "1" 0 # line from CRWS LDJ 60.00 (3) to (2) GUSTN JT 60.00
1 34010 34017 "1" 0 # line from CRWS LDJ 60.00 (3) to (1) CRWS LDG 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==3.92(0.18)
1 34016 34017 "1" 1 # Switches in Crows Landing SW 57 to transfer load
4 34017 0 "" 1 # Restore Load at Crows Landing
0
#
#
# (364) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 37016 30500 "1" 0 # line from RNCHSECO 230.00 BRKR to BRKR BELLOTA 230.00
0
#
#
# (365) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 37016 30500 "2" 0 # line from RNCHSECO 230.00 BRKR to BRKR BELLOTA 230.00
0
#
#
# (366) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 38000 30622 "1" 0 # line from LODI 230.00 BRKR to BRKR EIGHT MI 230.00
0
#
#
# (367) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 38060 33729 "1" 0 # line from INDUSTRIAL 60.00 BRKR to BRKR LODI AUX 60.00
0
#
#
# (368) B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1 38060 33730 "1" 0 # line from INDUSTRIAL 60.00 BRKR to (2) GENMILLS 60.00
2 33730 33830 "1" 0 # TRAN from GENMILLS 60.00 (2) to (1) GEN.MILL 9.11
3 33830 0 "1" 0 # GEN-DROP GEN.MILL 9.11 GEN==2.50(1.50)
0
#
#
# (369) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 30485 30486 "1" 0 # TRAN from TIGR CRK 230.00 (3) to (3) TIGR CKM 230.00
1 30485 30487 "1" 0 # line from TIGR CRK 230.00 BRKR to BRKR ELECTRA 230.00
1 30485 30490 "1" 0 # line from TIGR CRK 230.00 BRKR to BRKR VLLY SPS 230.00
2 30486 33584 "1" 0 # TRAN from TIGR CKM 230.00 (3) to (2) TIGR CRK 115.00
2 30486 33822 "1" 0 # TRAN from TIGR CKM 230.00 (3) to (1) TIGR CRK 11.00
1 33584 33582 "1" 0 # line from TIGR CRK 115.00 BRKR to BRKR SLT SPRG 115.00
4 33822 0 "1" 0 # LOAD-DROP TIGR CRK 11.00 LOAD==0.20(0.00)
3 33822 0 "1" 0 # GEN-DROP TIGR CRK 11.00 GEN==26.70(8.10)
3 33822 0 "2" 0 # GEN-DROP TIGR CRK 11.00 GEN==27.00(8.19)
0
#
#
# (370) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 30487 33812 "1" 0 # TRAN from ELECTRA 230.00 (3) to (1) ELECTRA 13.80
1 30487 30485 "1" 0 # line from ELECTRA 230.00 BRKR to BRKR TIGR CRK 230.00
1 30487 30500 "1" 0 # line from ELECTRA 230.00 BRKR to BRKR BELLOTA 230.00
4 33812 0 "1" 0 # LOAD-DROP ELECTRA 13.80 LOAD==14.20(2.49)
3 33812 0 "1" 0 # GEN-DROP ELECTRA 13.80 GEN==29.00(12.37)
3 33812 0 "2" 0 # GEN-DROP ELECTRA 13.80 GEN==29.00(12.37)
3 33812 0 "3" 0 # GEN-DROP ELECTRA 13.80 GEN==29.00(12.37)
0
#
#
# (371) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 30500 30501 "1" 0 # TRAN from BELLOTA 230.00 BRKR to (3) BLLTA 1M 230.00
2 30501 33562 "1" 0 # TRAN from BLLTA 1M 230.00 (3) to BRKR BELLOTA 115.00

```

2013 SPRING CATEGORY "B" CONTINGENCY LIST

2 30501 33804 "1 " 0 # TRAN from BLLTA 1M 230.00 (3) to (1) BELLTA T 13.80
0

(372) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

**** 3-WINDING TRANSFORMER 30624 (33852) 30040 33802 :
2 30624 30040 "2 " 0 # TRAN from TESLA E 230.00 BRKR to (1) TESLA 500.00
0

(373) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 30625 30040 "4 " 0 # TRAN from TESLA D 230.00 BRKR to BRKR TESLA 500.00
0

(374) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 30640 30040 "6 " 0 # TRAN from TESLA C 230.00 BRKR to BRKR TESLA 500.00
0

(375) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 33540 30625 "1 " 0 # TRAN from TESLA 115.00 BRKR to BRKR TESLA D 230.00
0

(376) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 33540 30625 "3 " 0 # TRAN from TESLA 115.00 BRKR to BRKR TESLA D 230.00
0

(377) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 33562 30500 "2 " 0 # TRAN from BELLOTA 115.00 BRKR to BRKR BELLOTA 230.00
0

(378) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 33610 30490 "1 " 0 # TRAN from VLLY SPS 60.00 BRKR to (3) VLLY SPS 230.00
1 30490 30485 "1 " 0 # line from VLLY SPS 230.00 BRKR to BRKR TIGR CRK 230.00
1 30490 30500 "1 " 0 # line from VLLY SPS 230.00 BRKR to BRKR BELLOTA 230.00
0

(379) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 33650 30505 "1 " 0 # TRAN from WEBER 1 60.00 BRKR to BRKR WEBER 230.00
0

(380) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 33662 30505 "2 " 0 # TRAN from WEBER 2 60.00 BRKR to BRKR WEBER 230.00
2 33662 30505 "2a" 0 # Bank 2 or 2a are tied to same breaker (CB 242,202&82)
0

(381) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 33704 30498 "1 " 0 # TRAN from STAGG 60.00 BRKR to BRKR STAGG-D 230.00
0

(382) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)

2 33704 30499 "4 " 0 # TRAN from STAGG 60.00 BRKR to BRKR STAGG-E 230.00
1 30499 30489 "1 " 0 #Open Stagg-E-Stagg Jct2 line section
0
#

2013 SPRING CATEGORY "B" CONTINGENCY LIST

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#
# (383) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 33724 30482 "2" 0 # TRAN from LOCKEFRD 60.00 BRKR to BRKR LOCKFORD 230.00
0
#
#
# (384) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 33724 30482 "3" 0 # TRAN from LOCKEFRD 60.00 BRKR to BRKR LOCKFORD 230.00
0
#
#
# (385) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 33742 33514 "3" 0 # TRAN from MANTECA 60.00 BRKR to BRKR MANTECA 115.00
0
#
#
# (386) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 33756 33528 "1" 0 # TRAN from KASSON 60.00 (4) to BRKR KASSON 115.00
1 33756 33750 "1" 0 # line from KASSON 60.00 BRKR to (1) CALVO 60.00
1 33756 33758 "1" 0 # line from KASSON 60.00 BRKR to BRKR BANTA 60.00
1 33756 33760 "1" 0 # line from KASSON 60.00 BRKR to (1) BNTA JCT 60.00
4 33758 0 "1" 0 # LOAD-DROP BANTA 60.00 LOAD==7.14(0.32)
0
#
#
# (387) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 33770 33600 "2" 0 # TRAN from HERDLYN 60.00 BRKR to BRKR HERDLYN 70.00
1 33770 33772 "1" 0 #Open Herdlyn-Byron Bethany line section
1 33770 33774 "1" 0 #Open Herdlyn-Herdlyn Jct line section
4 33770 0 "****" 0 #Drop Herdlyn 60 kV load with outage
1 33600 37582 "1" 0 #Open Herdlyn-Tracy 70 kV Line section
0
#
#
# (388) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 33800 33582 "1" 0 # TRAN from SALT SPS 21.00 (2) to (2) SLT SPRG 115.00
1 33800 38100 "1" 0 # line from SALT SPS 21.00 BRKR to (1) SPICER 21.00
1 33582 33584 "1" 0 # line from SLT SPRG 115.00 BRKR to BRKR TIGR CRK 115.00
4 33800 0 "1" 0 # LOAD-DROP SALT SPS 21.00 LOAD==12.04(0.54)
3 33800 0 "1" 0 # GEN-DROP SALT SPS 21.00 GEN==10.20(3.00)
3 33800 0 "2" 0 # GEN-DROP SALT SPS 21.00 GEN==32.00(12.40)
0
#
#
# (389) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 33850 33566 "1" 0 # TRAN from CAMANCHE 4.16 (1) to BRKR CAMANCHE 115.00
3 33850 0 "1" 0 # GEN-DROP CAMANCHE 4.16 GEN==3.50(1.41)
3 33850 0 "2" 0 # GEN-DROP CAMANCHE 4.16 GEN==3.50(0.00)
3 33850 0 "3" 0 # GEN-DROP CAMANCHE 4.16 GEN==3.50(0.00)
0
#
#
# (390) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 33906 34078 "1" 0 # TRAN from SPRNG GP 115.00 BRKR to (1) SPRNG GP 6.00
3 34078 0 "1" 0 # GEN-DROP SPRNG GP 6.00 GEN==3.90(3.70)
4 33906 0 "****" 0 # This outage will also drop distribution load Bk1
0
#
#
# (391) B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
#
2 34002 33964 "1" 0 # TRAN from SALADO 60.00 BRKR to (3) SALADO 115.00
1 33964 33962 "1" 0 # line from SALADO 115.00 BRKR to (1) SALDO TP 115.00
1 33964 33965 "1" 0 # line from SALADO 115.00 BRKR to (1) SALADO J 115.00
0
#

```

2013 SPRING CATEGORY "B" CONTINGENCY LIST

```

#
# (392) B1 GENERATOR OUTAGE
#
3 33687 0 "1" 0 # STKTN WW 60.00  PGEN=1.50 QGEN=0.15
0
#
#
# (393) B1 GENERATOR OUTAGE
#
3 33773 0 "1" 0 # ALTA-CGE 60.00  PGEN=4.03 QGEN=-1.00
0
#
#
# (394) B1 GENERATOR OUTAGE
#
3 33800 0 "1" 0 # SALT SPS 21.00  PGEN=10.18 QGEN=3.00
0
#
#
# (395) B1 GENERATOR OUTAGE
#
3 33800 0 "2" 0 # SALT SPS 21.00  PGEN=32.00 QGEN=12.40
0
#
#
# (396) B1 GENERATOR OUTAGE
#
3 33804 0 "1" 0 # BELLTA T 13.80  PGEN=0.00 QGEN=39.35
0
#
#
# (397) B1 GENERATOR OUTAGE
#
3 33805 0 "1" 0 # GWFTRCY1 13.80  PGEN=85.90 QGEN=17.66
0
#
#
# (398) B1 GENERATOR OUTAGE
#
3 33806 0 "1" 0 # TH.E.DV. 13.80  PGEN=19.65 QGEN=6.00
0
#
#
# (399) B1 GENERATOR OUTAGE
#
3 33807 0 "1" 0 # GWFTRCY2 13.80  PGEN=85.90 QGEN=17.66
0
#
#
# (400) B1 GENERATOR OUTAGE
#
3 33808 0 "1" 0 # SJ COGEN 13.80  PGEN=45.24 QGEN=27.41
0
#
#
# (401) B1 GENERATOR OUTAGE
#
3 33810 0 "1" 0 # SP CMPNY 13.80  PGEN=37.70 QGEN=16.07
0
#
#
# (402) B1 GENERATOR OUTAGE
#
3 33812 0 "1" 0 # ELECTRA 13.80  PGEN=29.00 QGEN=8.65
0
#
#
# (403) B1 GENERATOR OUTAGE
#
3 33812 0 "2" 0 # ELECTRA 13.80  PGEN=29.00 QGEN=8.65
0
#
#
# (404) B1 GENERATOR OUTAGE

```

2013 SPRING CATEGORY "B" CONTINGENCY LIST

```

#
3 33812 0 "3" 0 # ELECTRA 13.80 PGEN=29.00 QGEN=8.65
0
#
#
# (405) B1 GENERATOR OUTAGE
#
3 33814 0 "1" 0 # CPC STCN 12.47 PGEN=49.00 QGEN=15.30
0
#
#
# (406) B1 GENERATOR OUTAGE
#
3 33820 0 "1" 0 # WEST PNT 11.50 PGEN=13.60 QGEN=7.00
0
#
#
# (407) B1 GENERATOR OUTAGE
#
3 33822 0 "1" 0 # TIGR CRK 11.00 PGEN=26.70 QGEN=4.18
0
#
#
# (408) B1 GENERATOR OUTAGE
#
3 33822 0 "2" 0 # TIGR CRK 11.00 PGEN=27.00 QGEN=4.23
0
#
#
# (409) B1 GENERATOR OUTAGE
#
3 33830 0 "1" 0 # GEN.MILL 9.11 PGEN=2.50 QGEN=1.50
0
#
#
# (410) B1 GENERATOR OUTAGE
#
3 33832 0 "1" 0 # COG.CAPT 9.11 PGEN=4.30 QGEN=6.60
0
#
#
# (411) B1 GENERATOR OUTAGE
#
3 33836 0 "3" 0 # USWP_#4 9.11 PGEN=4.50 QGEN=0.00
0
#
#
# (412) B1 GENERATOR OUTAGE
#
3 33840 0 "1" 0 # FLOWD3-6 9.11 PGEN=1.25 QGEN=0.00
0
#
#
# (413) B1 GENERATOR OUTAGE
#
3 33840 0 "4" 0 # FLOWD3-6 9.11 PGEN=1.13 QGEN=0.00
0
#
#
# (414) B1 GENERATOR OUTAGE
#
3 33846 0 "2" 0 # PRDE 1-3 7.20 PGEN=8.00 QGEN=2.00
0
#
#
# (415) B1 GENERATOR OUTAGE
#
3 33848 0 "1" 0 # PARDE 2 7.20 PGEN=8.00 QGEN=-1.50
0
#
#
# (416) B1 GENERATOR OUTAGE
#
3 33850 0 "1" 0 # CAMANCHE 4.16 PGEN=3.50 QGEN=-2.00

```


2013 SPRING CATEGORY "B" CONTINGENCY LIST

```

0
#
#
# (417) B1 GENERATOR OUTAGE
#
3 33850 0 "2" 0 # CAMANCHE 4.16 PGEN=3.50 QGEN=0.00
0
#
#
# (418) B1 GENERATOR OUTAGE
#
3 33850 0 "3" 0 # CAMANCHE 4.16 PGEN=3.50 QGEN=0.00
0
#
#
# (419) B1 GENERATOR OUTAGE
#
3 34050 0 "1" 0 # CH.STN. 13.80 PGEN=10.02 QGEN=10.00
0
#
#
# (420) B1 GENERATOR OUTAGE
#
3 34056 0 "1" 0 # STNSLSRP 13.80 PGEN=16.27 QGEN=7.52
0
#
#
# (421) B1 GENERATOR OUTAGE
#
3 34058 0 "1" 0 # DONNELLS 13.80 PGEN=64.15 QGEN=10.63
0
#
#
# (422) B1 GENERATOR OUTAGE
#
3 34060 0 "1" 0 # SANDBAR 13.80 PGEN=14.68 QGEN=0.96
0
#
#
# (423) B1 GENERATOR OUTAGE
#
3 34062 0 "1" 0 # STANISLS 13.80 PGEN=63.92 QGEN=15.00
0
#
#
# (424) B1 GENERATOR OUTAGE
#
3 34074 0 "1" 0 # BEARDSLY 6.90 PGEN=10.58 QGEN=0.58
0
#
#
# (425) B1 GENERATOR OUTAGE
#
3 34076 0 "1" 0 # TULLOCH 6.90 PGEN=8.25 QGEN=0.64
0
#
#
# (426) B1 GENERATOR OUTAGE
#
3 34076 0 "2" 0 # TULLOCH 6.90 PGEN=8.25 QGEN=0.64
0
#
#
# (427) B1 GENERATOR OUTAGE
#
3 34078 0 "1" 0 # SPRNG GP 6.00 PGEN=3.93 QGEN=1.41
0
#
#
# (428) B1 GENERATOR OUTAGE
#
3 38102 0 "1" 0 # COLLRVL1 13.80 PGEN=89.35 QGEN=58.46
0
#

```

2013 SPRING CATEGORY "B" CONTINGENCY LIST

```

#
# (429) B1 GENERATOR OUTAGE
#
3 38104 0 "1" 0 # COLLRVL2 13.80 PGEN=89.35 QGEN=58.46
0
#
#
# (430) B1 GENERATOR OUTAGE
#
3 38365 0 "1" 0 # N.HGN DM 12.00 PGEN=1.50 QGEN=0.10
0
#
#
# (431) B1 GENERATOR OUTAGE
#
3 38365 0 "2" 0 # N.HGN DM 12.00 PGEN=1.50 QGEN=0.10
0
#
#
# (432) B1 GENERATOR OUTAGE
#
3 33818 0 "1" 0 # Q199 13.80 PGEN=60.50 QGEN=4.13
0
#
#
# (433) B1 GENERATOR OUTAGE
#
3 33858 0 "1" 0 # P0409CG2 13.80 PGEN=78.24 QGEN=5.46
0
#
#
# (434) B1 GENERATOR OUTAGE
#
3 33859 0 "2" 0 # P0703ST2 13.80 PGEN=65.28 QGEN=3.31
0
#
#
# (435) B1 GENERATOR OUTAGE
#
3 33863 0 "1" 0 # Q235GT1 13.80 PGEN=109.00 QGEN=14.62
0
#
#
# (436) B1 GENERATOR OUTAGE
#
3 33871 0 "1" 0 # Q236GT1 13.80 PGEN=109.00 QGEN=12.29
0
#
#
# (437) B1 GENERATOR OUTAGE
#
3 33877 0 "1" 0 # Q260CT1 18.00 PGEN=174.00 QGEN=26.16
0
#
#
# (438) B1 GENERATOR OUTAGE
#
3 33878 0 "1" 0 # Q260ST1 13.80 PGEN=94.00 QGEN=12.26
0
#
#
# (439) B1 GENERATOR OUTAGE
#
3 33888 0 "1" 0 # P0703GT1 16.50 PGEN=184.50 QGEN=10.94
0
#
#
# (440) B1 GENERATOR OUTAGE
#
3 33891 0 "1" 0 # TESL_GT1 18.00 PGEN=173.00 QGEN=59.83
0
#
#
# (441) B1 GENERATOR OUTAGE

```

2013 SPRING CATEGORY "B" CONTINGENCY LIST

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#
3 33895 0 "1" 0 # TESL_ST1 18.00 PGEN=232.00 QGEN=79.95
0
#
#
# (442) B1 GENERATOR OUTAGE
#
3 33809 0 "1" 0 # Q268ST1 13.80 PGEN=154.70 QGEN=14.72
0
#
#
# (443) L-1/G-1 OVERLAPPING OUTAGE
# Melones - Race Track 115 kV Line and Chinese Station
1 33932 33922 "1" 0 # line from MELONES 115.00 BRKR to (1) R.TRACK 115.00
4 33922 0 "1" 0 # LOAD-DROP R.TRACK 115.00 LOAD==17.06(0.76)
#
3 34050 0 "1" 0 # CH.STN. 13.80 PGEN=10.02 QGEN=10.00
0
#
#
# (444) L-1/G-1 OVERLAPPING OUTAGE
# Tesla - Tracy 115 kV Line and Stanislaus Powerhouse
1 33540 33544 "1" 0 # line from TESLA 115.00 BRKR to (2) ELLS GTY 115.00
1 33544 33546 "1" 0 # line from ELLS GTY 115.00 (2) to (2) TRACY JC 115.00
1 33546 33542 "1" 0 # line from TRACY JC 115.00 (2) to (2) LEPRINO 115.00
1 33542 33548 "1" 0 # line from LEPRINO 115.00 (2) to BRKR TRACY 115.00
4 33544 0 "1" 0 # LOAD-DROP ELLS GTY 115.00 LOAD==3.62(1.86)
4 33542 0 "1" 0 # LOAD-DROP LEPRINO 115.00 LOAD==3.67(2.37)
#
3 34062 0 "1" 0 # STANISLS 13.80 PGEN=63.92 QGEN=15.00
0
#
#
# (445) L-1/G-1 OVERLAPPING OUTAGE
# Tesla - Manteca 115 kV Line and Stanislaus Powerhouse pre-project outage
1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33535 "1" 0 # line from OWENSTP2 115.00 (2) to (2) SFWY_TP2 115.00
1 33535 33543 "1" 0 # line from SFWY_TP2 115.00 (2) to (3) AEC_TP2 115.00
1 33543 33540 "1" 0 # line from AEC_TP2 115.00 (3) to BRKR TESLA 115.00
1 33543 33545 "1" 0 # line from AEC_TP2 115.00 (3) to (2) AEC_JCT 115.00
1 33545 33547 "1" 0 # line from AEC_JCT 115.00 (2) to (1) AEC_300 115.00
4 33547 0 "1" 0 # LOAD-DROP AEC_300 115.00 LOAD==3.00(9.54)
#
3 34062 0 "1" 0 # STANISLS 13.80 PGEN=63.92 QGEN=15.00
0
#
#
# (446) L-1/G-1 OVERLAPPING OUTAGE
# Tesla - Schulte #2 115 kV Line and Stanislaus Powerhouse post-project outage
1 33535 33549 "2" 0 # line from SFWY_TP2 115.00 (2) to BRKR SCHULTE 115.00
1 33535 33543 "1" 0 # line from SFWY_TP2 115.00 (2) to (3) AEC_TP2 115.00
1 33543 33540 "1" 0 # line from AEC_TP2 115.00 (3) to BRKR TESLA 115.00
1 33543 33545 "1" 0 # line from AEC_TP2 115.00 (3) to (2) AEC_JCT 115.00
1 33545 33547 "1" 0 # line from AEC_JCT 115.00 (2) to (1) AEC_300 115.00
4 33547 0 "1" 0 # LOAD-DROP AEC_300 115.00 LOAD==3.00(9.54)
#
3 34062 0 "1" 0 # STANISLS 13.80 PGEN=63.92 QGEN=15.00
0
#
#
# (447) L-1/G-1 OVERLAPPING OUTAGE
# Schulte - Manteca 115 kV Line and Stanislaus Powerhouse post-project outage
1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33549 "2" 0 # line from OWENSTP2 115.00 (2) to BRKR SCHULTE 115.00
#
3 34062 0 "1" 0 # STANISLS 13.80 PGEN=63.92 QGEN=15.00
0
#
#
# (448) L-1/G-1 OVERLAPPING OUTAGE

```

2013 SPRING CATEGORY "B" CONTINGENCY LIST

```

# Bellota - Riverbank - Melones 115 kV Line and Stanislaus Powerhouse
1 33562 33950 "1" 0 # line from BELLOTA 115.00 BRKR to (3) RVRBK TP 115.00
1 33950 33934 "1" 0 # line from RVRBK TP 115.00 (3) to (3) TULLOCH 115.00
1 33950 33944 "1" 0 # line from RVRBK TP 115.00 (3) to BRKR RVRBANK 115.00
1 33934 33932 "1" 0 # line from TULLOCH 115.00 (3) to BRKR MELONES 115.00
2 33934 34076 "1" 0 # TRAN from TULLOCH 115.00 (3) to (1) TULLOCH 6.90
3 34076 0 "1" 0 # GEN-DROP TULLOCH 6.90 GEN==8.30(1.00)
3 34076 0 "2" 0 # GEN-DROP TULLOCH 6.90 GEN==8.30(1.00)
#
3 34062 0 "1" 0 # STANISLS 13.80 PGEN=63.92 QGEN=15.00
0
#
#
# (449) L-1/G-1 OVERLAPPING OUTAGE
# Stanislaus - Manteca #2 115 kV Line and Stanislaus Powerhouse
1 33506 33948 "1" 0 # line from STANISLS 115.00 BRKR to (2) RVRBK J2 115.00
1 33948 33953 "1" 0 # line from RVRBK J2 115.00 (2) to (2) VLYHMTP2 115.00
1 33953 33511 "1" 0 # line from VLYHMTP2 115.00 (2) to (2) AVENATP2 115.00
1 33511 33514 "1" 0 # line from AVENATP2 115.00 (2) to BRKR MANTECA 115.00
#
3 34062 0 "1" 0 # STANISLS 13.80 PGEN=63.92 QGEN=15.00
0
#
#
# (450) L-1/G-1 OVERLAPPING OUTAGE
# Riverbank Jct Sw Sta - Manteca 115 kV Line and Stanislaus Powerhouse
1 33516 33514 "1" 0 # line from RPN JNCN 115.00 (3) to BRKR MANTECA 115.00
1 33516 33520 "1" 0 # line from RPN JNCN 115.00 (3) to (1) RIPON 115.00
1 33516 33951 "1" 0 # line from RPN JNCN 115.00 (3) to (3) VLYHMTP1 115.00
1 33951 33947 "1" 0 # line from VLYHMTP1 115.00 (3) to BRKR RIVRBKJT 115.00
1 33951 33952 "1" 0 # line from VLYHMTP1 115.00 (3) to (1) VALLY HM 115.00
4 33520 0 "2" 0 # LOAD-DROP RIPON 115.00 LOAD==29.97(1.34)
4 33952 0 "1" 0 # LOAD-DROP VALLY HM 115.00 LOAD==5.36(0.24)
#
3 34062 0 "1" 0 # STANISLS 13.80 PGEN=63.92 QGEN=15.00
0
#
#
# (451) L-1/G-1 OVERLAPPING OUTAGE
# Stanislaus - Melones - Manteca #1 115 kV Line and Stanislaus Powerhouse
1 33500 33509 "1" 0 # line from MELNS JA 115.00 (3) to (3) AVENATP1 115.00
1 33500 33501 "1" 0 # line from MELNS JA 115.00 (3) to (3) FRGTNTP1 115.00
1 33500 33932 "1" 0 # line from MELNS JA 115.00 (3) to BRKR MELONES 115.00
1 33509 33510 "1" 0 # line from AVENATP1 115.00 (3) to (1) AVENA 115.00
1 33509 33514 "1" 0 # line from AVENATP1 115.00 (3) to BRKR MANTECA 115.00
1 33501 33502 "1" 0 # line from FRGTNTP1 115.00 (3) to (1) FROGTOWN 115.00
1 33501 33506 "1" 0 # line from FRGTNTP1 115.00 (3) to BRKR STANISLS 115.00
4 33510 0 "1" 0 # LOAD-DROP AVENA 115.00 LOAD==13.67(0.61)
4 33502 0 "1" 0 # LOAD-DROP FROGTOWN 115.00 LOAD==11.14(0.50)
4 33502 0 "2" 0 # LOAD-DROP FROGTOWN 115.00 LOAD==8.04(0.36)
1 33511 33510 "1" 1 # Switches in Avenan SW 145 to transfer load
4 33510 0 "" 1 # Restores Load at Avena
#
3 34062 0 "1" 0 # STANISLS 13.80 PGEN=63.92 QGEN=15.00
0
#
#
# (452) L-1/G-1 OVERLAPPING OUTAGE
# Tesla - Stockton Cogen 115 kV Line and Stanislaus Powerhouse
1 33540 33568 "1" 0 # line from TESLA 115.00 BRKR to (3) TH.E.DV. 115.00
1 33568 33570 "1" 0 # line from TH.E.DV. 115.00 (3) to (3) SPC JCT. 115.00
2 33568 33806 "1" 0 # TRAN from TH.E.DV. 115.00 (3) to (1) TH.E.DV. 13.80
1 33570 33587 "1" 0 # line from SPC JCT. 115.00 (3) to (3) P0409TP2 115.00
1 33570 33956 "1" 0 # line from SPC JCT. 115.00 (3) to (2) SJ COGEN 115.00
1 33587 33572 "1" 0 # line from P0409TP2 115.00 (3) to (2) SP CMPNY 115.00
1 33587 33588 "1" 0 # line from P0409TP2 115.00 (3) to (2) P0409CG2 115.00
2 33572 33810 "1" 0 # TRAN from SP CMPNY 115.00 (2) to (1) SP CMPNY 13.80
2 33588 33858 "1" 0 # TRAN from P0409CG2 115.00 (2) to (1) P0409CG2 13.80
2 33956 33808 "1" 0 # TRAN from SJ COGEN 115.00 (2) to (1) SJ COGEN 13.80
4 33858 0 "ss" 0 # LOAD-DROP P0409CG2 13.80 LOAD==3.34(1.85)
3 33806 0 "1" 0 # GEN-DROP TH.E.DV. 13.80 GEN==19.60(6.00)
3 33810 0 "1" 0 # GEN-DROP SP CMPNY 13.80 GEN==37.70(0.52)
3 33858 0 "1" 0 # GEN-DROP P0409CG2 13.80 GEN==78.24(5.46)
3 33808 0 "1" 0 # GEN-DROP SJ COGEN 13.80 GEN==45.20(9.58)

```

2013 SPRING CATEGORY "B" CONTINGENCY LIST

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#
3 34062 0 "1" 0 # STANISLS 13.80 PGEN=63.92 QGEN=15.00
0
#
#
# (453) L-1/G-1 OVERLAPPING OUTAGE
# Stockton A - Weber #2 60 kV Line and POSDEF
1 33658 33670 "1" 0 # line from SNTA FEB 60.00 (3) to BRKR STCKTN A 60.00
1 33658 33678 "1" 0 # line from SNTA FEB 60.00 (3) to (2) MONARCH 60.00
1 33658 33662 "1" 0 # line from SNTA FEB 60.00 (3) to BRKR WEBER 2 60.00
1 33678 33684 "1" 0 # line from MONARCH 60.00 (2) to (2) HARDING 60.00
1 33684 33686 "1" 0 # line from HARDING 60.00 (2) to (1) STCKTNAR 60.00
4 33678 0 "2" 0 # LOAD-DROP MONARCH 60.00 LOAD==4.13(0.18)
4 33684 0 "1" 0 # LOAD-DROP HARDING 60.00 LOAD==4.75(0.21)
4 33684 0 "2" 0 # LOAD-DROP HARDING 60.00 LOAD==5.28(0.24)
4 33686 0 "1" 0 # LOAD-DROP STCKTNAR 60.00 LOAD==4.10(0.18)
#
3 33818 0 "1" 0 # Q199 13.80 PGEN=60.50 QGEN=4.13
0
#
#
# (454) L-1/G-1 OVERLAPPING OUTAGE
# Salado - Patterson 60 kV Line and Stanislaus Waste Cogen
1 34002 34004 "1" 0 # line from SALADO 60.00 BRKR to (2) PTRSNFRZ 60.00
1 34004 34006 "1" 0 # line from PTRSNFRZ 60.00 (2) to BRKR PATTERSN 60.00
#
3 34056 0 "1" 0 # STNSLSRP 13.80 PGEN=16.27 QGEN=7.52
0
#
#
# (455) L-1/G-1 OVERLAPPING OUTAGE
# Salado - Newman #2 60 kV Line and Stanislaus Waste Cogen
1 34002 34008 "1" 0 # line from SALADO 60.00 BRKR to (3) STNSLSRP 60.00
1 34008 34016 "1" 0 # line from STNSLSRP 60.00 (3) to (2) MEDLIN J 60.00
2 34008 34056 "1" 0 # TRAN from STNSLSRP 60.00 (3) to (1) STNSLSRP 13.80
1 34016 34018 "1" 0 # line from MEDLIN J 60.00 (2) to (3) NWMN JCT 60.00
1 34018 34014 "1" 0 # line from NWMN JCT 60.00 (3) to BRKR NEWMAN 60.00
1 34018 34020 "1" 0 # line from NWMN JCT 60.00 (3) to (1) GUSTINE 60.00
4 34020 0 "1" 0 # LOAD-DROP GUSTINE 60.00 LOAD==9.90(0.44)
4 34020 0 "2" 0 # LOAD-DROP GUSTINE 60.00 LOAD==10.83(0.49)
3 34056 0 "1" 0 # GEN-DROP STNSLSRP 13.80 GEN==16.30(6.29)
1 34012 34020 "1" 1 # Switches in Gustine SW 19 to transfer load
4 34020 0 "1" 1 # Restore Load at Gustine
#
3 34056 0 "1" 0 # STNSLSRP 13.80 PGEN=16.27 QGEN=7.52
0
#
#
# (456) L-1/G-1 OVERLAPPING OUTAGE
# Tesla - Salado #1 115 kV Line and Stanislaus Waste Cogen
1 33540 33961 "1" 0 # line from TESLA 115.00 BRKR to (3) TCHRT_T1 115.00
1 33961 33960 "1" 0 # line from TCHRT_T1 115.00 (3) to (2) MDSTO CN 115.00
1 33961 33963 "1" 0 # line from TCHRT_T1 115.00 (3) to (2) TCHRTJCT 115.00
1 33960 33962 "1" 0 # line from MDSTO CN 115.00 (2) to (3) SALDO TP 115.00
1 33962 33964 "1" 0 # line from SALDO TP 115.00 (3) to BRKR SALADO 115.00
1 33962 33967 "1" 0 # line from SALDO TP 115.00 (3) to (2) MILLER TP 115.00
1 33967 33966 "1" 0 # line from MILLER TP 115.00 (2) to (1) MILLER 115.00
1 33963 33968 "1" 0 # line from TCHRTJCT 115.00 (2) to (1) TEICHERT 115.00
4 33966 0 "1" 0 # LOAD-DROP MILLER 115.00 LOAD==3.55(1.72)
4 33968 0 "1" 0 # LOAD-DROP TEICHERT 115.00 LOAD==7.44(6.56)
#
3 34056 0 "1" 0 # STNSLSRP 13.80 PGEN=16.27 QGEN=7.52
0
#
#
# (457) L-1/G-1 OVERLAPPING OUTAGE
# Tesla - Salado - Manteca 115 kV Line and Stanislaus Waste Cogen
1 33514 33970 "1" 0 # line from MANTECA 115.00 BRKR to (3) INGRM C. 115.00
1 33970 33959 "1" 0 # line from INGRM C. 115.00 (3) to (2) TCHRT_T2 115.00
1 33970 33965 "1" 0 # line from INGRM C. 115.00 (3) to (2) SALADO J 115.00
1 33959 33540 "1" 0 # line from TCHRT_T2 115.00 (2) to BRKR TESLA 115.00
1 33965 33964 "1" 0 # line from SALADO J 115.00 (2) to BRKR SALADO 115.00
4 33970 0 "1" 0 # LOAD-DROP INGRM C. 115.00 LOAD==3.60(1.74)
#

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2013 SPRING CATEGORY "B" CONTINGENCY LIST

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3 34056 0 "1" 0 # STNSLSRP 13.80 PGEN=16.27 QGEN=7.52
0
#
#
# (458) L-1/G-1 OVERLAPPING OUTAGE
# Tesla - Schulte #1 115 kV Line and GWF Tracy 1
1 33537 33534 "1" 0 # line from SFWY_TP1 115.00 (3) to (1) SAFEWAY 115.00
1 33537 33549 "1" 0 # line from SFWY_TP1 115.00 (3) to BRKR SCHULTE 115.00
1 33537 33541 "1" 0 # line from SFWY_TP1 115.00 (3) to (2) AEC_TP1 115.00
1 33541 33540 "1" 0 # line from AEC_TP1 115.00 (2) to BRKR TESLA 115.00
4 33534 0 "1" 0 # LOAD-DROP SAFEWAY 115.00 LOAD==5.38(2.76)
#
3 33805 0 "1" 0 # GWFTRCY1 13.80 PGEN=85.90 QGEN=17.66
0
#
#
# (459) L-1/G-1 OVERLAPPING OUTAGE
# Tesla - Manteca 115 kV Line and GWF Tracy 1 pre-project outage
1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33535 "1" 0 # line from OWENSTP2 115.00 (2) to (2) SFWY_TP2 115.00
1 33535 33543 "1" 0 # line from SFWY_TP2 115.00 (2) to (3) AEC_TP2 115.00
1 33543 33540 "1" 0 # line from AEC_TP2 115.00 (3) to BRKR TESLA 115.00
1 33543 33545 "1" 0 # line from AEC_TP2 115.00 (3) to (2) AEC_JCT 115.00
1 33545 33547 "1" 0 # line from AEC_JCT 115.00 (2) to (1) AEC_300 115.00
4 33547 0 "1" 0 # LOAD-DROP AEC_300 115.00 LOAD==3.00(9.54)
#
3 33805 0 "1" 0 # GWFTRCY1 13.80 PGEN=85.90 QGEN=17.66
0
#
#
# (460) L-1/G-1 OVERLAPPING OUTAGE
# Tesla - Schulte #2 115 kV Line and GWF Tracy 1 post-project outage
1 33535 33549 "2" 0 # line from SFWY_TP2 115.00 (2) to BRKR SCHULTE 115.00
1 33535 33543 "1" 0 # line from SFWY_TP2 115.00 (2) to (3) AEC_TP2 115.00
1 33543 33540 "1" 0 # line from AEC_TP2 115.00 (3) to BRKR TESLA 115.00
1 33543 33545 "1" 0 # line from AEC_TP2 115.00 (3) to (2) AEC_JCT 115.00
1 33545 33547 "1" 0 # line from AEC_JCT 115.00 (2) to (1) AEC_300 115.00
4 33547 0 "1" 0 # LOAD-DROP AEC_300 115.00 LOAD==3.00(9.54)
#
3 33805 0 "1" 0 # GWFTRCY1 13.80 PGEN=85.90 QGEN=17.66
0
#
#
# (461) L-1/G-1 OVERLAPPING OUTAGE
# Schulte - Manteca 115 kV Line and GWF Tracy 1 post-project outage
1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33549 "2" 0 # line from OWENSTP2 115.00 (2) to BRKR SCHULTE 115.00
#
3 33805 0 "1" 0 # GWFTRCY1 13.80 PGEN=85.90 QGEN=17.66
0
#
#
# (462) L-1/G-1 OVERLAPPING OUTAGE
# Lockeford - Lodi #2 60 kV Line and Lodi CT
1 33724 33726 "1" 0 # line from LOCKEFRD 60.00 BRKR to (2) VICTOR 60.00
1 33726 33731 "1" 0 # line from VICTOR 60.00 (2) to (2) WODBRG J 60.00
1 33731 33735 "1" 0 # line from WODBRG J 60.00 (2) to (2) INDSTR J 60.00
1 33735 38060 "1" 0 # line from INDSTR J 60.00 (2) to BRKR INDUSTRIL 60.00
4 33726 0 "1" 0 # LOAD-DROP VICTOR 60.00 LOAD==0.21(0.01)
4 33726 0 "2" 0 # LOAD-DROP VICTOR 60.00 LOAD==3.54(0.16)
#
3 38120 0 "1" 0 # LODI CT 13.80 PGEN=21.01 QGEN=0.10
0
#
#
# (463) L-1/G-1 OVERLAPPING OUTAGE
# Lockeford - Lodi #3 60 kV Line and Lodi CT
1 33724 33736 "1" 0 # line from LOCKEFRD 60.00 BRKR to (2) LODI JCT 60.00
1 33736 33729 "1" 0 # line from LODI JCT 60.00 (2) to BRKR LODI AUX 60.00
#

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2013 SPRING CATEGORY "B" CONTINGENCY LIST

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3 38120 0 "1" 0 # LODI CT 13.80 PGEN=21.01 QGEN=0.10
0
#
#
# (464) L-1/G-1 OVERLAPPING OUTAGE
# Lockeford #1 60 kV Line and Lodi CT
1 33724 33738 "1" 0 # line from LOCKEFRD 60.00 BRKR to (1) WATRLJCT 60.00
#
3 38120 0 "1" 0 # LODI CT 13.80 PGEN=21.01 QGEN=0.10
0
#
#
# (465) L-1/G-1 OVERLAPPING OUTAGE
# Lockeford - Industrial 60 kV Line and Lodi CT
1 33724 38060 "1" 0 # line from LOCKEFRD 60.00 BRKR to BRKR INDUSTRIAL 60.00
#
3 38120 0 "1" 0 # LODI CT 13.80 PGEN=21.01 QGEN=0.10
0
#
#
# (466) L-1/G-1 OVERLAPPING OUTAGE
# Stockton Jct Sw Sta - Lockeford - Bellota #2 115 kV Line and Stockton Cogen
1 33552 33553 "1" 0 # line from STCKTNJB 115.00 (2) to BRKR STKTON B 115.00
1 33552 33558 "1" 0 # line from STCKTNJB 115.00 (2) to (3) LCKFRDJB 115.00
1 33558 33562 "1" 0 # line from LCKFRDJB 115.00 (3) to BRKR BELLOTA 115.00
1 33558 33564 "1" 0 # line from LCKFRDJB 115.00 (3) to BRKR LOCKFORD 115.00
4 33553 0 "3" 0 # LOAD-DROP STKTON B 115.00 LOAD==30.08(1.34)
1 33555 33553 "1" 1 # Switches in Stockton 'A' SW 177 to transfer load
4 33553 0 "****" 1 # Restore Load at Stockton 'A' Bk 3
#
3 33814 0 "1" 0 # CPC STCN 12.47 PGEN=49.00 QGEN=13.80
0
#
#
# (467) L-1/G-1 OVERLAPPING OUTAGE
# Bellota - Melones 230 kV Line and Melones 1
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==27.63(1.24)
3 34604 0 "****" 0 # Drop unit#3 with a loss Bellota - Melones line
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.0 QGEN=53.00
0
#
#
# (468) L-1/G-1 OVERLAPPING OUTAGE
# Bellota - Warnerville 230 kV Line and Melones 1
1 30500 38208 "1" 0 # line from BELLOTA 230.00 BRKR to (2) COTTLE B 230.00
1 38208 30515 "1" 0 # line from COTTLE B 230.00 (2) to BRKR WARNERVL 230.00
4 38208 0 "2" 0 # LOAD-DROP COTTLE B 230.00 LOAD==31.78(1.42)
3 34604 0 "****" 0 # Drop unit#3 with a loss Bellota - Warnerville line
#
3 37561 0 "1" 0 # MELONE1 13.80 PGEN=119.0 QGEN=53.00
0
#
#
-1
# EOF

```

2013 SPRING CATEGORY "C" CONTINGENCY LIST

Q268 2013 spring category c contingency list (dctl and bus outages)
Sacramento, Sierra and Stockton-Stanislaus Divisions Zones 304, 305 and 311-312

2013 category c contingency list (dctl and bus outages)
Sacramento Division Zone 304

(1) C5 DCTL OUTAGE
Vaca-Dixon - Peabody and Vaca-Dixon - Lambie 230 kV Lines
1 30460 30472 "1 " 0 # line from VACA-DIX 230.00 BRKR to BRKR PEABODY 230.00

1 30460 30478 "1 " 0 # line from VACA-DIX 230.00 BRKR to BRKR LAMBIE 230.00
0

(2) C5 DCTL OUTAGE
Vaca-Dixon - Peabody and Peabody - Birds Landing 230 kV Lines
1 30460 30472 "1 " 0 # line from VACA-DIX 230.00 BRKR to BRKR PEABODY 230.00

1 30472 30479 "1 " 0 # line from PEABODY 230.00 BRKR to BRKR BDLSWSTA 230.00
0

(3) C5 DCTL OUTAGE
Vaca-Dixon - Lambie and Peabody - Birds Landing 230 kV Lines
1 30460 30478 "1 " 0 # line from VACA-DIX 230.00 BRKR to BRKR LAMBIE 230.00

1 30472 30479 "1 " 0 # line from PEABODY 230.00 BRKR to BRKR BDLSWSTA 230.00
0

(4) C5 DCTL OUTAGE
Lambie - Birds Landing and Peabody - Birds Landing 230 kV Lines
1 30478 30479 "1 " 0 # line from LAMBIE 230.00 BRKR to BRKR BDLSWSTA 230.00

1 30472 30479 "1 " 0 # line from PEABODY 230.00 BRKR to BRKR BDLSWSTA 230.00
0

(5) C5 DCTL OUTAGE
Birds Landing - Q262 #1 and #2 230 kV Lines
1 30479 30471 "1 " 0 # line from BDLSWSTA 230.00 BRKR to BRKR Q262SWST 230.00

1 30479 30471 "2 " 0 # line from BDLSWSTA 230.00 BRKR to BRKR Q262SWST 230.00
0

(6) C5 DCTL OUTAGE
Q262 - Contra Costa PP and Q262 - Contra Costa Sub 230 kV Lines
1 30471 30525 "1 " 0 # line from Q262SWST 230.00 BRKR to BRKR C.COSTA 230.00

1 30471 30523 "1 " 0 # line from Q262SWST 230.00 BRKR to BRKR CC SUB 230.00
0

(7) C5 DCTL OUTAGE
Q171 - Tesla 500 kV and Peabody - Birds Landing 230 kV Lines
1 30070 30040 "1 " 0 # line from Q171 500.00 BRKR to BRKR TESLA 500.00

1 30472 30479 "1 " 0 # line from PEABODY 230.00 BRKR to BRKR BDLSWSTA 230.00
0

(8) C5 DCTL OUTAGE
Vaca-Dixon - Q257 #1 and #2 230 kV Lines
1 30460 30468 "1 " 0 # line from VACA-DIX 230.00 BRKR to BRKR Q257SWST 230.00

1 30460 30468 "2 " 0 # line from VACA-DIX 230.00 BRKR to BRKR Q257SWST 230.00
0

(9) C5 DCTL OUTAGE
Q257 - Bahia and Q257 - Parkway 230 kV Lines
1 30468 30465 "1 " 0 # line from Q257SWST 230.00 BRKR to BRKR BAHIA 230.00

2013 SPRING CATEGORY "C" CONTINGENCY LIST

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#
1 30468 30467 "1 " 0 # line from Q257SWST 230.00 BRKR to BRKR PARKWAY 230.00
0
#
#
# (10) C5 DCTL OUTAGE
# Tulucay - Vaca-Dixon and Lakeville - Vaca-Dixon 230 kV Lines
1 30440 30460 "1 " 0 # line from TULUCAY 230.00 BRKR to BRKR VACA-DIX 230.00
#
1 30435 30460 "1 " 0 # line from LAKEVILLE 230.00 BRKR to BRKR VACA-DIX 230.00
0
#
#
# (11) C5 DCTL OUTAGE
# Glenn - CPV Colusa and Cottonwood - CPV Colusa #2 230 kV Lines
1 30110 30114 "4 " 0 # line from GLENN 230.00 BRKR to BRKR CPVSTA 230.00
#
1 30106 30114 "2 " 0 # line from COTWD_F 230.00 BRKR to BRKR CPVSTA 230.00
0
#
#
# (12) C5 DCTL OUTAGE
# CPV Colusa - Vaca-Dixon #2 and #3 230 kV Lines
1 30114 30460 "2 " 0 # line from CPVSTA 230.00 BRKR to BRKR VACA-DIX 230.00
#
1 30114 30460 "3 " 0 # line from CPVSTA 230.00 BRKR to BRKR VACA-DIX 230.00
0
#
#
# (13) C5 DCTL OUTAGE
# Cottonwood - CPV Colusa #1 and Cottonwood - Logan Creek 230 kV Lines
1 30105 30114 "1 " 0 # line from COTWD_E 230.00 BRKR to BRKR CPVSTA 230.00
#
1 30105 30111 "1 " 0 # line from COTWD_E 230.00 BRKR to BRKR LOGAN CR 230.00
0
#
#
# (14) C5 DCTL OUTAGE
# CPV Colusa - Cortina and CPV Colusa - Vaca-Dixon #4 230 kV Lines
1 30114 30450 "1 " 0 # line from CPVSTA 230.00 BRKR to BRKR CORTINA 230.00
#
1 30114 30460 "4 " 0 # line from CPVSTA 230.00 BRKR to BRKR VACA-DIX 230.00
0
#
#
# (15) C5 DCTL OUTAGE
# Brighton - Bellota and Rio Oso - Lockeford 230 kV Lines
1 30348 30500 "1 " 0 # line from BRIGHTON 230.00 BRKR to BRKR BELLOTA 230.00
#
1 30330 30482 "1 " 0 # line from RIO OSO 230.00 BRKR to BRKR LOCKFORD 230.00
0
#
#
# (16) C5 DCTL OUTAGE
# Rio Oso - Brighton and Rio Oso - Lockeford 230 kV Lines
1 30330 30348 "1 " 0 # line from RIO OSO 230.00 BRKR to BRKR BRIGHTON 230.00
#
1 30330 30482 "1 " 0 # line from RIO OSO 230.00 BRKR to BRKR LOCKFORD 230.00
0
#
#
# (17) C5 DCTL OUTAGE
# Fulton Jct - Vaca-Dixon and Madison - Vaca-Dixon 115 kV Lines
1 31953 31256 "1 " 0 # line from AMEGTAP 115.00 (3) to (1) FLTN JCT 115.00
1 31953 31954 "1 " 0 # line from AMEGTAP 115.00 (3) to (1) AMERIGAS 115.00
1 31953 31998 "1 " 0 # line from AMEGTAP 115.00 (3) to BRKR VACA-DIX 115.00
4 31954 0 "1 " 0 # LOAD-DROP AMERIGAS 115.00 LOAD==6.73(1.37)
#
1 31253 31974 "1 " 0 # line from FLTN JT2 115.00 (2) to (1) MADISON 115.00
1 31253 31952 "1 " 0 # line from FLTN JT2 115.00 (2) to (2) PUTH CRK 115.00
1 31952 31998 "1 " 0 # line from PUTH CRK 115.00 (2) to BRKR VACA-DIX 115.00
4 31974 0 "1 " 0 # LOAD-DROP MADISON 115.00 LOAD==8.25(0.37)
4 31974 0 "2 " 0 # LOAD-DROP MADISON 115.00 LOAD==5.33(0.23)
4 31974 0 "3 " 0 # LOAD-DROP MADISON 115.00 LOAD==15.02(0.68)

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2013 SPRING CATEGORY "C" CONTINGENCY LIST

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4 31952 0 "1" 0 # LOAD-DROP PUTH CRK 115.00 LOAD==16.83(0.75)
0
#
#
# (18) C5 DCTL OUTAGE
# Vaca-Vacaville-Jameson-North Tower and Vaca-Vacaville-Cordelia 115 kV Lines
1 31995 32013 "1" 0 # line from HALE 115.00 (2) to (1) HALE2 115.00
1 31995 31996 "1" 0 # line from HALE 115.00 (2) to (3) HALE J1 115.00
1 31996 32006 "1" 0 # line from HALE J1 115.00 (3) to (3) VCVLLE1J 115.00
1 31996 32020 "1" 0 # line from HALE J1 115.00 (3) to (3) JMSN JCT 115.00
1 32006 31998 "1" 0 # line from VCVLLE1J 115.00 (3) to BRKR VACA-DIX 115.00
1 32006 32000 "1" 0 # line from VCVLLE1J 115.00 (3) to BRKR VACAVLL1 115.00
1 32020 32010 "1" 0 # line from JMSN JCT 115.00 (3) to BRKR JAMESON 115.00
1 32020 32618 "1" 0 # line from JMSN JCT 115.00 (3) to (1) NTRWJCT1 115.00
4 31995 0 "1" 0 # LOAD-DROP HALE 115.00 LOAD==2.39(1.42)
4 32000 0 "1" 0 # LOAD-DROP VACAVLL1 115.00 LOAD==30.49(1.36)
4 32010 0 "1" 0 # LOAD-DROP JAMESON 115.00 LOAD==38.91(1.74)
1 32002 32000 "1" 1 #Line transfer VACAVLL1 115kV TO VACAVLL2 115kV
4 32000 0 "1" 1 #Restore VACAVLL1 load
1 31995 32013 "1" 1 #Transfer load to HALE alternate
1 32012 32013 "1" 1 #Transfer load to HALE alternate
4 31995 0 "1" 1 #Restore load at HALE
1 32010 32009 "1" 1 # LINE-TRANSFER JMSN JCT 115.00 to JAMESN-A 115.00
4 32010 0 "1" 1 # RESTORE JAMESON load
#
1 31958 32012 "1" 0 # line from CORDELIA 115.00 (1) to (2) HALE J2 115.00
1 32012 32004 "1" 0 # line from HALE J2 115.00 (2) to (3) VCVLLE2J 115.00
1 32004 31998 "1" 0 # line from VCVLLE2J 115.00 (3) to BRKR VACA-DIX 115.00
1 32004 32002 "1" 0 # line from VCVLLE2J 115.00 (3) to BRKR VACAVLL2 115.00
4 31958 0 "2" 0 # LOAD-DROP CORDELIA 115.00 LOAD==17.61(0.79)
4 32002 0 "2" 0 # LOAD-DROP VACAVLL2 115.00 LOAD==44.68(2.00)
4 32002 0 "3" 0 # LOAD-DROP VACAVLL2 115.00 LOAD==43.87(1.96)
1 32000 32002 "1" 1 #Transfer VACAVLL2 load to alternate
4 32002 0 "1" 1 #Restore VACAVLL2 load
0
#
#
# (19) C5 DCTL OUTAGE
# Rio Oso - Woodland #1 and #2 115 kV Lines
1 31960 31966 "1" 0 # line from MOBILCHE 115.00 (2) to (3) WODLNDJ1 115.00
1 31960 31970 "1" 0 # line from MOBILCHE 115.00 (2) to BRKR WOODLD 115.00
1 31966 31965 "1" 0 # line from WODLNDJ1 115.00 (3) to (3) KNIGHT1 115.00
1 31966 31971 "1" 0 # line from WODLNDJ1 115.00 (3) to (1) ZAMORA1 115.00
1 31965 31963 "1" 0 # line from KNIGHT1 115.00 (3) to (1) KNIGHTLD 115.00
1 31965 32214 "1" 0 # line from KNIGHT1 115.00 (3) to BRKR RIO OSO 115.00
4 31960 0 "1" 0 # LOAD-DROP MOBILCHE 115.00 LOAD==0.10(0.00)
4 31963 0 "1" 0 # LOAD-DROP KNIGHTLD 115.00 LOAD==8.57(0.38)
#
1 31964 31968 "2" 0 # line from KNIGHT2 115.00 (2) to (3) WODLNDJ2 115.00
1 31964 32214 "2" 0 # line from KNIGHT2 115.00 (2) to BRKR RIO OSO 115.00
1 31968 31970 "2" 0 # line from WODLNDJ2 115.00 (3) to BRKR WOODLD 115.00
1 31968 31973 "2" 0 # line from WODLNDJ2 115.00 (3) to (2) ZAMORA2 115.00
1 31973 31972 "2" 0 # line from ZAMORA2 115.00 (2) to (1) ZAMORA 115.00
4 31972 0 "1" 0 # LOAD-DROP ZAMORA 115.00 LOAD==10.62(0.48)
0
#
#
# (20) C5 DCTL OUTAGE
# Rio Oso - West Sacramento and West Sacramento - Brighton 115 kV Lines
1 32214 31986 "1" 0 # line from RIO OSO 115.00 BRKR to BRKR W.SCRMNO 115.00
#
1 31978 31984 "1" 0 # line from DPWT_TP2 115.00 (3) to BRKR BRIGHTN 115.00
1 31978 31986 "1" 0 # line from DPWT_TP2 115.00 (3) to BRKR W.SCRMNO 115.00
1 31978 31988 "1" 0 # line from DPWT_TP2 115.00 (3) to (1) DEEPWATR 115.00
4 31988 0 "2" 0 # LOAD-DROP DEEPWATR 115.00 LOAD==22.90(1.02)
4 31988 0 "3" 0 # LOAD-DROP DEEPWATR 115.00 LOAD==15.82(0.70)
1 31976 31988 "1" 1 #Transfer load to alternate Deepwater tap
4 31988 0 "1" 1 #Restore load at Deepwater
0
#
#
# (21) BUS FAULT 30460 "VACA-DIX" bus section 1F
#

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2013 SPRING CATEGORY "C" CONTINGENCY LIST

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1 30460 30468 "1" 0 # LINE from VACA-DIX 230.00 to Q257SWST 230.00
1 30460 30435 "1" 0 # LINE from VACA-DIX 230.00 to LAKEVILLE 230.00
1 30460 30450 "1" 0 # LINE from VACA-DIX 230.00 to CORTINA 230.00
6 30460 0 "v" 0 # SVD-DROP VACA-DIX 230.00
0
#
#
# (22) BUS FAULT 30460 "VACA-DIX" bus section 1E
#
1 30460 30114 "2" 0 # LINE from VACA-DIX 230.00 to CPVSTA 230.00
1 30460 30478 "1" 0 # LINE from VACA-DIX 230.00 to LAMBIE 230.00
2 30460 31998 "3" 0 # TRAN from VACA-DIX 230.00 to VACA-DIX 115.00
0
#
#
# (23) BUS FAULT 30460 "VACA-DIX" bus section 2F
#
1 30460 30468 "2" 0 # LINE from VACA-DIX 230.00 to Q257SWST 230.00
1 30460 30440 "1" 0 # LINE from VACA-DIX 230.00 to TULUCAY 230.00
1 30460 30114 "3" 0 # LINE from VACA-DIX 230.00 to CPVSTA 230.00
0
#
#
# (24) BUS FAULT 30460 "VACA-DIX" bus section 2E
#
1 30460 30114 "4" 0 # LINE from VACA-DIX 230.00 to CPVSTA 230.00
1 30460 30472 "1" 0 # LINE from VACA-DIX 230.00 to PEABODY 230.00
2 30460 31998 "4" 0 # TRAN from VACA-DIX 230.00 to VACA-DIX 115.00
2 30460 31999 "2" 0 # TRAN from VACA-DIX 230.00 to VACA-CB 115.00
2 30460 31999 "2A" 0 # TRAN from VACA-DIX 230.00 to VACA-CB 115.00
0
#
#
# (25) BUS FAULT 30461 "Q171"
#
1 30461 30462 "1" 0 # LINE from Q171 230.00 to Q171CL1 230.00
1 30461 30463 "1" 0 # LINE from Q171 230.00 to Q171CL2 230.00
2 30461 30070 "1" 0 # TRAN from Q171 230.00 to Q171 500.00
0
#
#
# (26) BUS FAULT 30472 "PEABODY"
#
1 30472 30460 "1" 0 # LINE from PEABODY 230.00 to VACA-DIX 230.00
1 30472 30479 "1" 0 # LINE from PEABODY 230.00 to BDLNWSTA 230.00
4 30472 0 "1" 0 # LOAD-DROP PEABODY 230.00 LOAD==51.80(2.32)
4 30472 0 "2" 0 # LOAD-DROP PEABODY 230.00 LOAD==64.49(2.88)
4 30472 0 "3" 0 # LOAD-DROP PEABODY 230.00 LOAD==42.16(1.89)
0
#
#
# (27) BUS FAULT 31970 "WOODLD"
#
1 31970 31960 "1" 0 # LINE from WOODLD 115.00 to MOBILCHE 115.00
1 31970 31962 "1" 0 # LINE from WOODLD 115.00 to WDLND_BM 115.00
1 31970 31968 "2" 0 # LINE from WOODLD 115.00 to WODLNDJ2 115.00
4 31970 0 "1" 0 # LOAD-DROP WOODLD 115.00 LOAD==51.29(2.29)
4 31970 0 "2" 0 # LOAD-DROP WOODLD 115.00 LOAD==41.79(1.87)
4 31970 0 "3" 0 # LOAD-DROP WOODLD 115.00 LOAD==33.16(1.48)
0
#
#
# (28) BUS FAULT 31984 "BRIGHTN"
#
1 31984 31978 "1" 0 # LINE from BRIGHTN 115.00 to DPWT_TP2 115.00
1 31984 31993 "1" 0 # LINE from BRIGHTN 115.00 to BRKRJCT 115.00
1 31984 31994 "1" 0 # LINE from BRIGHTN 115.00 to GRAND IS 115.00
1 31984 31994 "2" 0 # LINE from BRIGHTN 115.00 to GRAND IS 115.00
2 31984 30348 "10" 0 # TRAN from BRIGHTN 115.00 to BRIGHTON 230.00
2 31984 30348 "9" 0 # TRAN from BRIGHTN 115.00 to BRIGHTON 230.00
0
#
#
# (29) BUS FAULT 31986 "W.SCRMNO"

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2013 SPRING CATEGORY "C" CONTINGENCY LIST

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#
1 31986 31978 "1" 0 # LINE from W.SCRMNO 115.00 to DPWT_TP2 115.00
1 31986 31980 "1" 0 # LINE from W.SCRMNO 115.00 to DPWTR_TP 115.00
1 31986 32214 "1" 0 # LINE from W.SCRMNO 115.00 to RIO OSO 115.00
4 31986 0 "1" 0 # LOAD-DROP W.SCRMNO 115.00 LOAD==27.70(1.24)
4 31986 0 "2" 0 # LOAD-DROP W.SCRMNO 115.00 LOAD==21.98(0.99)
4 31986 0 "3" 0 # LOAD-DROP W.SCRMNO 115.00 LOAD==38.46(1.72)
0
#
#
# (30) BUS FAULT 31989 "BRKR SLG"
#
1 31989 31991 "1" 0 # LINE from BRKR SLG 115.00 to BRKR TP 115.00
4 31989 0 "1" 0 # LOAD-DROP BRKR SLG 115.00 LOAD==1.75(0.00)
0
#
#
# (31) BUS FAULT 31990 "DAVIS"
#
1 31990 31992 "1" 0 # LINE from DAVIS 115.00 to HUNT 115.00
1 31990 32001 "1" 0 # LINE from DAVIS 115.00 to UCD_TP2 115.00
1 31990 32003 "1" 0 # LINE from DAVIS 115.00 to UCD_TP1 115.00
4 31990 0 "1" 0 # LOAD-DROP DAVIS 115.00 LOAD==33.77(1.51)
4 31990 0 "2" 0 # LOAD-DROP DAVIS 115.00 LOAD==36.35(1.63)
4 31990 0 "3" 0 # LOAD-DROP DAVIS 115.00 LOAD==43.58(1.95)
0
#
#
# (32) BUS FAULT 31994 "GRAND IS"
#
1 31994 31984 "1" 0 # LINE from GRAND IS 115.00 to BRIGHTN 115.00
1 31994 31984 "2" 0 # LINE from GRAND IS 115.00 to BRIGHTN 115.00
1 31994 33046 "1" 0 # LINE from GRAND IS 115.00 to FIBRJCT2 115.00
1 31994 33048 "1" 0 # LINE from GRAND IS 115.00 to RVECTP 115.00
2 31994 32162 "1" 0 # TRAN from GRAND IS 115.00 to RIV.DLTA 9.11
4 31994 0 "1" 0 # LOAD-DROP GRAND IS 115.00 LOAD==21.34(0.96)
4 31994 0 "2" 0 # LOAD-DROP GRAND IS 115.00 LOAD==16.67(0.74)
0
#
#
# (33) BUS FAULT 31998 "VACA-DIX" bus section 1
#
1 31998 31953 "1" 0 # LINE from VACA-DIX 115.00 to AMEGTAP 115.00
1 31998 31952 "1" 0 # LINE from VACA-DIX 115.00 to PUTH CRK 115.00
1 31998 32006 "1" 0 # LINE from VACA-DIX 115.00 to VCVLLE1J 115.00
1 31998 32011 "1" 0 # LINE from VACA-DIX 115.00 to WEC 115.00
2 31998 30460 "3" 0 # TRAN from VACA-DIX 115.00 to VACA-DIX 230.00
2 31998 32088 "5" 0 # TRAN from VACA-DIX 115.00 to VACA-DXN 60.00
4 31998 0 "8" 0 # LOAD-DROP VACA-DIX 115.00 LOAD==27.77(1.24)
0
#
#
# (34) BUS FAULT 31998 "VACA-DIX" bus section 2
#
1 31998 32004 "1" 0 # LINE from VACA-DIX 115.00 to VCVLLE2J 115.00
1 31998 31997 "1" 0 # LINE from VACA-DIX 115.00 to SCHMLBCH 115.00
1 31998 31999 "1" 0 # LINE from VACA-DIX 115.00 to VACA-CB 115.00
2 31998 30460 "4" 0 # TRAN from VACA-DIX 115.00 to VACA-DIX 230.00
2 31998 32150 "1" 0 # TRAN from VACA-DIX 115.00 to DG_VADIX 13.80
2 31998 32088 "9" 0 # TRAN from VACA-DIX 115.00 to VACA-DXN 60.00
4 31998 0 "6" 0 # LOAD-DROP VACA-DIX 115.00 LOAD==16.53(0.74)
4 31998 0 "7" 0 # LOAD-DROP VACA-DIX 115.00 LOAD==26.06(1.16)
0
#
#
# (35) BUS FAULT 32000 "VACAVLL1"
#
1 32000 32002 "1" 0 # LINE from VACAVLL1 115.00 to VACAVLL2 115.00
1 32000 32006 "1" 0 # LINE from VACAVLL1 115.00 to VCVLLE1J 115.00
4 32000 0 "1" 0 # LOAD-DROP VACAVLL1 115.00 LOAD==30.49(1.36)
0
#
#
# (36) BUS FAULT 32002 "VACAVLL2"

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2013 SPRING CATEGORY "C" CONTINGENCY LIST

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#
1 32002 32000 "1" 0 # LINE from VACAVLL2 115.00 to VACAVLL1 115.00
1 32002 32004 "1" 0 # LINE from VACAVLL2 115.00 to VCVLLE2J 115.00
4 32002 0 "2" 0 # LOAD-DROP VACAVLL2 115.00 LOAD==44.68(2.00)
4 32002 0 "3" 0 # LOAD-DROP VACAVLL2 115.00 LOAD==43.87(1.96)
0
#
#
# (37) BUS FAULT 32008 "SUISUN"
#
1 32008 31997 "1" 0 # LINE from SUISUN 115.00 to SCHMLBCH 115.00
1 32008 32011 "1" 0 # LINE from SUISUN 115.00 to WEC 115.00
2 32008 32164 "1" 0 # TRAN from SUISUN 115.00 to CTY FAIR 9.11
4 32008 0 "1" 0 # LOAD-DROP SUISUN 115.00 LOAD==29.64(1.32)
4 32008 0 "2" 0 # LOAD-DROP SUISUN 115.00 LOAD==32.19(1.44)
4 32008 0 "3" 0 # LOAD-DROP SUISUN 115.00 LOAD==26.23(1.17)
0
#
#
# (38) BUS FAULT 32010 "JAMESON"
#
1 32010 32009 "1" 0 # LINE from JAMESON 115.00 to JAMESN-A 115.00
1 32010 32020 "1" 0 # LINE from JAMESON 115.00 to JMSN JCT 115.00
4 32010 0 "1" 0 # LOAD-DROP JAMESON 115.00 LOAD==38.91(1.74)
0
#
#
# (39) BUS FAULT 32056 "CORTINA"
#
1 32056 32060 "1" 0 # LINE from CORTINA 60.00 to ARBUCKLE 60.00
1 32056 32065 "4" 0 # LINE from CORTINA 60.00 to WILL JCT 60.00
1 32056 32057 "2" 0 # LINE from CORTINA 60.00 to HUSTD 60.00
1 32056 32155 "3" 0 # LINE from CORTINA 60.00 to WADHMJCT 60.00
2 32056 30451 "1" 0 # TRAN from CORTINA 60.00 to CRTNA M 230.00
0
#
#
# (40) BUS FAULT 32070 "CLSA JCT"
#
1 32070 32068 "1" 0 # LINE from CLSA JCT 60.00 to COLUSA 60.00
1 32070 32071 "1" 0 # LINE from CLSA JCT 60.00 to MERIDJCT 60.00
1 32070 32073 "3" 0 # LINE from CLSA JCT 60.00 to WESCOT1 60.00
4 32070 0 "1" 0 # LOAD-DROP CLSA JCT 60.00 LOAD==3.55(0.16)
0
#
#
# (41) BUS FAULT 32088 "VACA-DXN"
#
1 32088 32090 "1" 0 # LINE from VACA-DXN 60.00 to WINTERS 60.00
1 32088 32094 "2" 0 # LINE from VACA-DXN 60.00 to VACA-JT2 60.00
1 32088 32096 "1" 0 # LINE from VACA-DXN 60.00 to VACA-JT1 60.00
2 32088 31998 "5" 0 # TRAN from VACA-DXN 60.00 to VACA-DIX 115.00
2 32088 31998 "9" 0 # TRAN from VACA-DXN 60.00 to VACA-DIX 115.00
0
#
#
# (42) BUS FAULT 32100 "DIXON"
#
1 32100 32101 "2" 0 # LINE from DIXON 60.00 to DIXON-J2 60.00
1 32100 32105 "1" 0 # LINE from DIXON 60.00 to DIXON-J1 60.00
4 32100 0 "1" 0 # LOAD-DROP DIXON 60.00 LOAD==18.52(0.83)
4 32100 0 "2" 0 # LOAD-DROP DIXON 60.00 LOAD==15.49(0.69)
0
#
#
# 2013 spring category c contingency list (dctl and bus outages)
# Sierra Division Zone 305
#
#
# (43) C5 DCTL OUTAGE
# Palermo - Colgate and Colgate - Rio Oso 230 kV Lines
1 30325 30327 "1" 0 # line from PALERMO 230.00 BRKR to BRKR COLGATE 230.00
2 30327 32450 "1" 0 #Take one transformer out with Palermo-Colgate 230 kV line outage
3 32450 0 "1" 0 #Take one generator out with Palermo-Colgate 230 kV line outage

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2013 SPRING CATEGORY "C" CONTINGENCY LIST

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#
1 30327 30330 "1 " 0 # line from COLGATE 230.00 BRKR to BRKR RIO OSO 230.00
2 30327 32452 "1 " 0 #Take one transformer out with Colgate-Rio Oso 230 kV line outage
3 32452 0 "1 " 0 #Take one generator out with Colgate-Rio Oso 230 kV line outage
0
#
#
# (44) C5 DCTL OUTAGE
# Rio Oso - Atlantic and Rio Oso - Gold Hill 230 kV Lines
1 30330 30335 "1 " 0 # line from RIO OSO 230.00 BRKR to BRKR ATLANTC 230.00
#
1 30330 30337 "1 " 0 # line from RIO OSO 230.00 BRKR to BRKR GOLDHILL 230.00
0
#
#
# (45) C5 DCTL OUTAGE
# Poe - Rio Oso and Cresta - Rio Oso 230 kV Lines
1 30280 30330 "1 " 0 # line from POE 230.00 BRKR to BRKR RIO OSO 230.00
2 30280 31792 "1 " 0 # Take the transformer out with Rio Oso-Poe 230 kV line outage
3 31792 0 "1 " 0 # Take the generator out with Rio Oso-Poe 230 kV line outage
#
1 30275 30330 "1 " 0 # line from CRESTA 230.00 BRKR to BRKR RIO OSO 230.00
0
#
#
# (46) C5 DCTL OUTAGE
# Colgate - Rio Oso and Table Mountain - Rio Oso 230 kV Lines
1 30327 30330 "1 " 0 # line from COLGATE 230.00 BRKR to BRKR RIO OSO 230.00
2 30327 32452 "1 " 0 #Take one transformer out with Colgate-Rio Oso 230 kV line outage
3 32452 0 "1 " 0 #Take one generator out with Colgate-Rio Oso 230 kV line outage
#
1 30300 30330 "1 " 0 # line from TBL MT D 230.00 BRKR to BRKR RIO OSO 230.00
0
#
#
# (47) C5 DCTL OUTAGE
# Palermo - Colgate and Table Mountain - Rio Oso 230 kV Lines
1 30325 30327 "1 " 0 # line from PALERMO 230.00 BRKR to BRKR COLGATE 230.00
2 30327 32450 "1 " 0 #Take one transformer out with Palermo-Colgate 230 kV line outage
3 32450 0 "1 " 0 #Take one generator out with Palermo-Colgate 230 kV line outage
#
1 30300 30330 "1 " 0 # line from TBL MT D 230.00 BRKR to BRKR RIO OSO 230.00
0
#
#
# (48) C5 DCTL OUTAGE
# Atlantic - Gold Hill and Rio Oso - Gold Hill 230 kV Lines
1 30335 30337 "1 " 0 # line from ATLANTC 230.00 BRKR to BRKR GOLDHILL 230.00
#
1 30330 30337 "1 " 0 # line from RIO OSO 230.00 BRKR to BRKR GOLDHILL 230.00
0
#
#
# (49) C5 DCTL OUTAGE
# Middle Fork - Gold Hill 230 kV and Placer - Gold Hill #1 115 kV Lines
1 30337 30340 "1 " 0 # line from GOLDHILL 230.00 BRKR to (3) RALSTON 230.00
1 30340 30345 "1 " 0 # line from RALSTON 230.00 (3) to BRKR MIDLFORK 230.00
2 30340 32458 "1 " 0 # TRAN from RALSTON 230.00 (3) to (1) RALSTON 13.80
3 32458 0 "1 " 0 # GEN-DROP RALSTON 13.80 GEN==83.00(15.12)
#
1 32018 32229 "1 " 0 # line from GOLDHILL 115.00 BRKR to (3) HORSHE1 115.00
1 32229 32230 "1 " 0 # line from HORSHE1 115.00 (3) to (1) HORSESHE 115.00
1 32229 32233 "1 " 0 # line from HORSHE1 115.00 (3) to (3) NEWCSTL1 115.00
1 32233 32234 "1 " 0 # line from NEWCSTL1 115.00 (3) to (2) NEWCSTLE 115.00
1 32233 32236 "1 " 0 # line from NEWCSTL1 115.00 (3) to (2) FLINT1 115.00
2 32234 32460 "1 " 0 # TRAN from NEWCSTLE 115.00 (2) to (1) NEWCSTLE 13.20
1 32236 32228 "1 " 0 # line from FLINT1 115.00 (2) to BRKR PLACER 115.00
4 32230 0 "1 " 0 # LOAD-DROP HORSESHE 115.00 LOAD==15.79(0.71)
4 32230 0 "2 " 0 # LOAD-DROP HORSESHE 115.00 LOAD==36.15(1.61)
1 32230 32231 "1 " 1 #Transfer load to alternate
4 32230 0 "1 " 1 #Restore load at Horseshoe
0
#
#

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2013 SPRING CATEGORY "C" CONTINGENCY LIST

(50) C5 DCTL OUTAGE

Caribou - Palermo and Palermo - Pease 115 kV Lines

1 31482 31516 "2" 0 # line from PALERMO 115.00 BRKR to (2) WYANDJT2 115.00
 1 31516 31512 "2" 0 # line from WYANDJT2 115.00 (2) to (2) BIG BEND 115.00
 1 31512 31488 "1" 0 # line from BIG BEND 115.00 (2) to (3) GRIZ JCT 115.00
 1 31488 31486 "1" 0 # line from GRIZ JCT 115.00 (3) to BRKR CARIBOU 115.00
 1 31488 31492 "1" 0 # line from GRIZ JCT 115.00 (3) to (2) GRIZZLY1 115.00
 2 31492 31900 "1" 0 # TRAN from GRIZZLY1 115.00 BRKR to (1) GRIZZLYG 6.90
 3 31900 0 "1" 0 # GEN-DROP GRIZZLYG 6.90 GEN==16.80(-4.00)

#

1 32200 31506 "1" 0 # line from PEASE 115.00 BRKR to (2) HONC JT1 115.00
 1 31506 31482 "1" 0 # line from HONC JT1 115.00 (2) to BRKR PALERMO 115.00

0

#

#

(51) C5 DCTL OUTAGE

Palermo - Wyandotte and Palermo - Pease 115 kV Lines

1 31480 31518 "1" 0 # line from WYANDTTE 115.00 (1) to (2) WYANDJT1 115.00
 1 31518 31482 "1" 0 # line from WYANDJT1 115.00 (2) to BRKR PALERMO 115.00
 4 31480 0 "1" 0 # LOAD-DROP WYANDTTE 115.00 LOAD==10.93(0.49)
 4 31480 0 "2" 0 # LOAD-DROP WYANDTTE 115.00 LOAD==20.57(0.92)
 4 31480 0 "3" 0 # LOAD-DROP WYANDTTE 115.00 LOAD==31.49(1.41)
 1 31480 31516 "1" 1 #Transfer load from PALERMO-WYANDOTTE to CARIBOU-PALERMO 115kV
 4 31480 0 "****" 1 #Restore loads at Wyandotte

#

1 32200 31506 "1" 0 # line from PEASE 115.00 BRKR to (2) HONC JT1 115.00
 1 31506 31482 "1" 0 # line from HONC JT1 115.00 (2) to BRKR PALERMO 115.00

0

#

#

(52) C5 DCTL OUTAGE

Drum - Rio Oso #1 and #2 115 kV Lines

1 32214 32225 "1" 0 # line from RIO OSO 115.00 BRKR to (3) BRNSWKTP 115.00
 1 32225 32222 "1" 0 # line from BRNSWKTP 115.00 (3) to (3) DTCH FL2 115.00
 1 32225 32227 "2" 0 # line from BRNSWKTP 115.00 (3) to (1) BRNSWALT 115.00
 1 32222 32218 "1" 0 # line from DTCH FL2 115.00 (3) to BRKR DRUM 115.00
 2 32222 32502 "1" 0 # TRAN from DTCH FL2 115.00 BRKR to (1) DTCHFLT2 6.90
 4 32227 0 "1" 0 # LOAD-DROP BRNSWALT 115.00 LOAD==24.08(1.08)
 3 32502 0 "1" 0 # GEN-DROP DTCHFLT2 6.90 GEN==24.50(9.66)

#

1 32214 32244 "2" 0 # line from RIO OSO 115.00 BRKR to (3) BRNSWCKP 115.00
 1 32244 32218 "2" 0 # line from BRNSWCKP 115.00 (3) to BRKR DRUM 115.00
 1 32244 32226 "2" 0 # line from BRNSWCKP 115.00 (3) to (1) BRUNSWCK 115.00
 4 32226 0 "2" 0 # LOAD-DROP BRUNSWCK 115.00 LOAD==30.46(1.37)
 4 32226 0 "3" 0 # LOAD-DROP BRUNSWCK 115.00 LOAD==8.00(0.36)

0

#

#

(53) C5 DCTL OUTAGE

Rio Oso - E. Nicolaus and Bogue - Rio Oso 115 kV Lines

1 32212 32214 "1" 0 # line from E.NICOLS 115.00 BRKR to BRKR RIO OSO 115.00
 #
 1 32206 32208 "1" 0 # line from BOGUE 115.00 BRKR to (3) GLEAF TP 115.00
 1 32208 32210 "1" 0 # line from GLEAF TP 115.00 (3) to (2) GLEAF 1 115.00
 1 32208 32214 "1" 0 # line from GLEAF TP 115.00 (3) to BRKR RIO OSO 115.00
 2 32210 32490 "1" 0 # TRAN from GLEAF 1 115.00 BRKR to (1) GRNLEAF1 13.80
 4 32490 0 "ss" 0 # LOAD-DROP GRNLEAF1 13.80 LOAD==0.67(0.15)
 3 32490 0 "1" 0 # GEN-DROP GRNLEAF1 13.80 GEN==40.00(-12.86)
 3 32490 0 "2" 0 # GEN-DROP GRNLEAF1 13.80 GEN==9.50(-3.05)

0

#

#

(54) C5 DCTL OUTAGE

Palermo - E. Nicolaus and Bogue - Rio Oso 115 kV Lines spring outage

1 31482 32280 "1" 0 # line from PALERMO 115.00 BRKR to (3) E.MRY J2 115.00
 1 32280 32202 "1" 0 # line from E.MRY J2 115.00 (3) to (1) E.MRYSVE 115.00
 1 32280 32212 "1" 0 # line from E.MRY J2 115.00 (3) to BRKR E.NICOLS 115.00
 4 32202 0 "2" 0 # LOAD-DROP E.MRYSVE 115.00 LOAD==10.55(0.47)
 4 32202 0 "3" 0 # LOAD-DROP E.MRYSVE 115.00 LOAD==9.73(0.44)
 1 32288 32202 "1" 1 #Transfer load to E. Marysville Alt. 1 spring
 4 32202 0 "****" 1 #Restore load at E. Marysville spring

#

1 32206 32208 "1" 0 # line from BOGUE 115.00 BRKR to (3) GLEAF TP 115.00
 1 32208 32210 "1" 0 # line from GLEAF TP 115.00 (3) to (2) GLEAF 1 115.00

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1 32208 32214 "1" 0 # line from GLEAF TP 115.00 (3) to BRKR RIO OSO 115.00
2 32210 32490 "1" 0 # TRAN from GLEAF 1 115.00 BRKR to (1) GRNLEAF1 13.80
4 32490 0 "ss" 0 # LOAD-DROP GRNLEAF1 13.80 LOAD==0.67(0.15)
3 32490 0 "1" 0 # GEN-DROP GRNLEAF1 13.80 GEN==40.00(-12.86)
3 32490 0 "2" 0 # GEN-DROP GRNLEAF1 13.80 GEN==9.50(-3.05)
0
#
#
# (55) C5 DCTL OUTAGE
# Palermo - E. Nicolaus and Palermo - Bogue 115 kV Lines spring outage
1 31482 32280 "1" 0 # line from PALERMO 115.00 BRKR to (3) E.MRY J2 115.00
1 32280 32202 "1" 0 # line from E.MRY J2 115.00 (3) to (1) E.MRYSVE 115.00
1 32280 32212 "1" 0 # line from E.MRY J2 115.00 (3) to BRKR E.NICOLS 115.00
4 32202 0 "2" 0 # LOAD-DROP E.MRYSVE 115.00 LOAD==10.55(0.47)
4 32202 0 "3" 0 # LOAD-DROP E.MRYSVE 115.00 LOAD==9.73(0.44)
1 32288 32202 "1" 1 #Transfer load to E. Marysville Alt. 1 spring
4 32202 0 "****" 1 #Restore load at E. Marysville spring
#
1 31508 32286 "1" 0 # line from HONC JT3 115.00 (3) to (2) OLIVH J3 115.00
1 31508 31482 "1" 0 # line from HONC JT3 115.00 (3) to BRKR PALERMO 115.00
1 31508 31484 "1" 0 # line from HONC JT3 115.00 (3) to (1) HONCUT 115.00
1 32286 32206 "1" 0 # line from OLIVH J3 115.00 (2) to BRKR BOGUE 115.00
4 31484 0 "1" 0 # LOAD-DROP HONCUT 115.00 LOAD==16.18(0.73)
0
#
#
# (56) C5 DCTL OUTAGE
# Rio Oso - Woodland #1 and #2 115 kV Lines
1 32214 31965 "1" 0 # line from RIO OSO 115.00 BRKR to (3) KNIGHT1 115.00
1 31965 31963 "1" 0 # line from KNIGHT1 115.00 (3) to (1) KNIGHTLD 115.00
1 31965 31966 "1" 0 # line from KNIGHT1 115.00 (3) to (3) WODLNDJ1 115.00
1 31966 31960 "1" 0 # line from WODLNDJ1 115.00 (3) to (2) MOBILCHE 115.00
1 31966 31971 "1" 0 # line from WODLNDJ1 115.00 (3) to (1) ZAMORA1 115.00
1 31960 31970 "1" 0 # line from MOBILCHE 115.00 (2) to BRKR WOODLD 115.00
4 31963 0 "1" 0 # LOAD-DROP KNIGHTLD 115.00 LOAD==6.84(0.31)
4 31960 0 "1" 0 # LOAD-DROP MOBILCHE 115.00 LOAD==0.10(0.00)
#
1 32214 31964 "2" 0 # line from RIO OSO 115.00 BRKR to (2) KNIGHT2 115.00
1 31964 31968 "2" 0 # line from KNIGHT2 115.00 (2) to (3) WODLNDJ2 115.00
1 31968 31970 "2" 0 # line from WODLNDJ2 115.00 (3) to BRKR WOODLD 115.00
1 31968 31973 "2" 0 # line from WODLNDJ2 115.00 (3) to (2) ZAMORA2 115.00
1 31973 31972 "2" 0 # line from ZAMORA2 115.00 (2) to (1) ZAMORA 115.00
4 31972 0 "1" 0 # LOAD-DROP ZAMORA 115.00 LOAD==8.47(0.38)
0
#
#
# (57) C5 DCTL OUTAGE
# Rio Oso - West Sacramento and Pease - Rio Oso 115 kV Lines spring outage
1 32214 31986 "1" 0 # line from RIO OSO 115.00 BRKR to BRKR W.SCRMNO 115.00
#
1 32200 32288 "1" 0 # line from PEASE 115.00 BRKR to (3) E.MRY J1 115.00
1 32288 32290 "1" 0 # line from E.MRY J1 115.00 (3) to (3) OLIVH J1 115.00
1 32290 32204 "1" 0 # line from OLIVH J1 115.00 (3) to (1) OLIVHRST 115.00
1 32290 32214 "1" 0 # line from OLIVH J1 115.00 (3) to BRKR RIO OSO 115.00
4 32204 0 "1" 0 # LOAD-DROP OLIVHRST 115.00 LOAD==6.71(0.30)
4 32204 0 "2" 0 # LOAD-DROP OLIVHRST 115.00 LOAD==21.33(0.95)
1 32204 32286 "1" 1 #Transfer Olivehurst to alternate
4 32204 0 "****" 1 #Restore load Olivehurst
0
#
#
# (58) C5 DCTL OUTAGE
# Missouri Flat - Gold Hill #1 and #2 115 kV Lines
1 32018 32275 "1" 0 # line from GOLDHILL 115.00 BRKR to (3) CPM TAP 115.00
1 32275 32264 "1" 0 # line from CPM TAP 115.00 (3) to (2) CLRKSVLT 115.00
1 32275 32276 "1" 0 # line from CPM TAP 115.00 (3) to (1) CPM 115.00
1 32264 32262 "1" 0 # line from CLRKSVLT 115.00 (2) to (2) SHPRING1 115.00
1 32262 32267 "1" 0 # line from SHPRING1 115.00 (2) to (2) DIMOND_1 115.00
1 32267 32261 "1" 0 # line from DIMOND_1 115.00 (2) to BRKR MIZOU_T1 115.00
#
1 32018 32268 "2" 0 # line from GOLDHILL 115.00 BRKR to (3) SHPRING2 115.00
1 32268 32259 "2" 0 # line from SHPRING2 115.00 (3) to (3) DIMOND_2 115.00
1 32268 32265 "2" 0 # line from SHPRING2 115.00 (3) to (1) SHPRING 115.00
1 32259 32258 "2" 0 # line from DIMOND_2 115.00 (3) to (1) DMND SPR 115.00

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2013 SPRING CATEGORY "C" CONTINGENCY LIST

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1 32259 32260 "2" 0 # line from DIMOND_2 115.00 (3) to BRKR MIZOU_T2 115.00
4 32265 0 "1" 0 # LOAD-DROP SHPRING 115.00 LOAD==19.57(0.88)
4 32265 0 "2" 0 # LOAD-DROP SHPRING 115.00 LOAD==21.49(0.96)
4 32258 0 "1" 0 # LOAD-DROP DMND SPR 115.00 LOAD==9.86(0.44)
4 32258 0 "2" 0 # LOAD-DROP DMND SPR 115.00 LOAD==28.07(1.25)
1 32262 32265 "1" 1 #Transfer Shingle Springs to alternate
4 32265 0 "****" 1 #Restore load at Shingle Springs
1 32258 32267 "1" 1 #Transfer Diamond Springs to alternate
4 32258 0 "****" 1 #Restore load at Diamond Springs
0
#
#
# (59) C5 DCTL OUTAGE
# El Dorado - Missouri Flat #1 and #2 115 kV Lines
1 32250 32482 "1" 0 # line from ELDORAD 115.00 BRKR to (3) APLHTAP1 115.00
1 32482 32255 "1" 0 # line from APLHTAP1 115.00 (3) to (2) PLCRVLT1 115.00
1 32482 32278 "1" 0 # line from APLHTAP1 115.00 (3) to (2) SPICAMIN 115.00
1 32255 32261 "1" 0 # line from PLCRVLT1 115.00 (2) to BRKR MIZOU_T1 115.00
1 32278 32252 "1" 0 # line from SPICAMIN 115.00 (2) to (1) APPLE HL 115.00
4 32278 0 "1" 0 # LOAD-DROP SPICAMIN 115.00 LOAD==4.19(3.69)
4 32252 0 "1" 0 # LOAD-DROP APPLE HL 115.00 LOAD==14.65(0.65)
4 32252 0 "2" 0 # LOAD-DROP APPLE HL 115.00 LOAD==9.26(0.41)
1 32252 32481 "1" 1 #Transfer Apple Hill to alternate
4 32252 0 "****" 1 #Restore load at Apple Hill
#
1 32250 32481 "2" 0 # line from ELDORAD 115.00 BRKR to (2) APLHTAP2 115.00
1 32481 32257 "2" 0 # line from APLHTAP2 115.00 (2) to (4) PLCRVLT2 115.00
1 32257 32254 "2" 0 # line from PLCRVLT2 115.00 (4) to (2) PLCRVLB2 115.00
1 32257 32260 "2" 0 # line from PLCRVLT2 115.00 (4) to BRKR MIZOU_T2 115.00
2 32257 32510 "1" 0 # TRAN from PLCRVLT2 115.00 (4) to (1) CHILIBAR 4.16
1 32254 32256 "1" 0 # line from PLCRVLB2 115.00 (2) to (1) PLCRVLB3 115.00
4 32254 0 "2" 0 # LOAD-DROP PLCRVLB2 115.00 LOAD==9.02(0.41)
4 32256 0 "3" 0 # LOAD-DROP PLCRVLB3 115.00 LOAD==25.95(1.16)
3 32510 0 "1" 0 # GEN-DROP CHILIBAR 4.16 GEN==5.50(4.00)
1 32256 32255 "1" 1 #Transfer Placerville to alternate
4 32256 0 "****" 1 #Restore load Bank 3 at Placerville
1 32254 32256 "1" 1 #Transfer Placerville to alternate
4 32254 0 "****" 1 #Restore load Bank 2 at Placerville
0
#
#
# (60) C5 DCTL OUTAGE
# Placer - Gold Hill #1 and #2 115 kV Lines
1 32018 32229 "1" 0 # line from GOLDHILL 115.00 BRKR to (3) HORSHE1 115.00
1 32229 32230 "1" 0 # line from HORSHE1 115.00 (3) to (1) HORSESHE 115.00
1 32229 32233 "1" 0 # line from HORSHE1 115.00 (3) to (3) NEWCSTL1 115.00
1 32233 32234 "1" 0 # line from NEWCSTL1 115.00 (3) to (2) NEWCSTLE 115.00
1 32233 32236 "1" 0 # line from NEWCSTL1 115.00 (3) to (2) FLINT1 115.00
2 32234 32460 "1" 0 # TRAN from NEWCSTLE 115.00 (2) to (1) NEWCSTLE 13.20
1 32236 32228 "1" 0 # line from FLINT1 115.00 (2) to BRKR PLACER 115.00
4 32230 0 "1" 0 # LOAD-DROP HORSESHE 115.00 LOAD==15.79(0.71)
4 32230 0 "2" 0 # LOAD-DROP HORSESHE 115.00 LOAD==36.15(1.61)
1 32230 32231 "1" 1 #Transfer load to alternate
4 32230 0 "****" 1 #Restore load at Horseshoe
#
1 32018 32231 "2" 0 # line from GOLDHILL 115.00 BRKR to (2) HORSHE2 115.00
1 32231 32235 "2" 0 # line from HORSHE2 115.00 (2) to (2) NEWCSTL2 115.00
1 32235 32239 "2" 0 # line from NEWCSTL2 115.00 (2) to (3) FLINT2 115.00
1 32239 32228 "2" 0 # line from FLINT2 115.00 (3) to BRKR PLACER 115.00
1 32239 32237 "1" 0 # line from FLINT2 115.00 (3) to (1) FLINT 115.00
4 32237 0 "1" 0 # LOAD-DROP FLINT 115.00 LOAD==14.82(0.66)
0
#
#
# (61) C5 DCTL OUTAGE
# Palermo - Pease and Pease - Rio Oso 115 kV Lines spring outage
1 32200 31506 "1" 0 # line from PEASE 115.00 BRKR to (2) HONC JT1 115.00
1 31506 31482 "1" 0 # line from HONC JT1 115.00 (2) to BRKR PALERMO 115.00
#
1 32200 32288 "1" 0 # line from PEASE 115.00 BRKR to (3) E.MRY J1 115.00
1 32288 32290 "1" 0 # line from E.MRY J1 115.00 (3) to (3) OLIVH J1 115.00
1 32290 32204 "1" 0 # line from OLIVH J1 115.00 (3) to (1) OLIVHRST 115.00
1 32290 32214 "1" 0 # line from OLIVH J1 115.00 (3) to BRKR RIO OSO 115.00
4 32204 0 "1" 0 # LOAD-DROP OLIVHRST 115.00 LOAD==6.71(0.30)

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2013 SPRING CATEGORY "C" CONTINGENCY LIST

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4 32204 0 "2" 0 # LOAD-DROP OLIVHRST 115.00 LOAD==21.33(0.95)
1 32204 32286 "1" 1 #Transfer Olivehurst to alternate
4 32204 0 "" 1 #Restore load Olivehurst
0
#
#
# (62) BUS FAULT 30335 "ATLANTC"
#
1 30335 30330 "1" 0 # LINE from ATLANTC 230.00 to RIO OSO 230.00
1 30335 30337 "1" 0 # LINE from ATLANTC 230.00 to GOLDHILL 230.00
2 30335 32412 "3" 0 # TRAN from ATLANTC 230.00 to ATLANTIC 115.00
2 30335 32412 "4" 0 # TRAN from ATLANTC 230.00 to ATLANTIC 115.00
2 30335 32413 "1" 0 # TRAN from ATLANTC 230.00 to ATLANTI 60.00
0
#
#
# (63) BUS FAULT 30337 "GOLDHILL" 230 kV bus section 1
#
1 30337 30335 "1" 0 # LINE from GOLDHILL 230.00 to ATLANTC 230.00
1 30337 37012 "1" 0 # LINE from GOLDHILL 230.00 to LAKE 230.00
1 30337 38000 "1" 0 # LINE from GOLDHILL 230.00 to LODI 230.00
2 30337 32018 "1" 0 # TRAN from GOLDHILL 230.00 to GOLDHILL 115.00
0
#
#
# (64) BUS FAULT 30337 "GOLDHILL" 230 kV bus section 2
#
1 30337 30330 "1" 0 # LINE from GOLDHILL 230.00 to RIO OSO 230.00
1 30337 30340 "1" 0 # LINE from GOLDHILL 230.00 to RALSTON 230.00
1 30337 30621 "1" 0 # LINE from GOLDHILL 230.00 to Q260 230.00
2 30337 32018 "2" 0 # TRAN from GOLDHILL 230.00 to GOLDHILL 115.00
0
#
#
# (65) BUS FAULT 30345 "MIDLFORK"
#
1 30345 30340 "1" 0 # LINE from MIDLFORK 230.00 to RALSTON 230.00
2 30345 30346 "1" 0 # TRAN from MIDLFORK 230.00 to MDDLFK M 230.00
0
#
#
# (66) BUS FAULT 32018 "GOLDHILL" 115 kV bus section 1
#
1 32018 32229 "1" 0 # LINE from GOLDHILL 115.00 to HORSHE1 115.00
1 32018 32263 "1" 0 # LINE from GOLDHILL 115.00 to CLRKSVLE 115.00
1 32018 32275 "1" 0 # LINE from GOLDHILL 115.00 to CPM TAP 115.00
2 32018 30337 "1" 0 # TRAN from GOLDHILL 115.00 to GOLDHILL 230.00
0
#
#
# (67) BUS FAULT 32018 "GOLDHILL" 115 kV bus section 2
#
1 32018 32231 "2" 0 # LINE from GOLDHILL 115.00 to HORSHE2 115.00
1 32018 32268 "2" 0 # LINE from GOLDHILL 115.00 to SHPRING2 115.00
1 32018 33565 "1" 0 # LINE from GOLDHILL 115.00 to CMNCHETP 115.00
2 32018 30337 "2" 0 # TRAN from GOLDHILL 115.00 to GOLDHILL 230.00
2 32018 32110 "5" 0 # TRAN from GOLDHILL 115.00 to GOLD HLL 60.00
6 32018 0 "v" 0 # SVD-DROP GOLDHILL 115
0
#
#
# (68) BUS FAULT 32110 "GOLD HLL"
#
1 32110 32396 "1" 0 # LINE from GOLD HLL 60.00 to LIMESTNE 60.00
2 32110 32018 "5" 0 # TRAN from GOLD HLL 60.00 to GOLDHILL 115.00
0
#
#
# (69) BUS FAULT 32200 "PEASE" 115 kV Bus Section 1
#
1 32200 31506 "1" 0 # LINE from PEASE 115.00 to HONC JT1 115.00
4 32200 0 "1" 0 # LOAD-DROP PEASE 115.00 LOAD==10.30(0.46)
4 32200 0 "4" 0 # LOAD-DROP PEASE 115.00 LOAD==10.47(0.47)
0

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2013 SPRING CATEGORY "C" CONTINGENCY LIST

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#
#
# (70) BUS FAULT 32200 "PEASE" 115 kV Bus Section 2
#
1 32200 32288 "1" 0 # LINE from PEASE 115.00 to E.MRY J1 115.00
2 32200 32330 "2" 0 # TRAN from PEASE 115.00 to PEAS RG 60.00
4 32200 0 "3" 0 # LOAD-DROP PEASE 115.00 LOAD==9.78(0.44)
0
#
#
# (71) BUS FAULT 32212 "E.NICOLS"
#
1 32212 32214 "1" 0 # LINE from E.NICOLS 115.00 to RIO OSO 115.00
1 32212 32280 "1" 0 # LINE from E.NICOLS 115.00 to E.MRY J2 115.00
2 32212 32342 "2" 0 # TRAN from E.NICOLS 115.00 to E.NICOLS 60.00
0
#
#
# (72) BUS FAULT 32228 "PLACER"
#
1 32228 32238 "1" 0 # LINE from PLACER 115.00 to BELL PGE 115.00
1 32228 32239 "2" 0 # LINE from PLACER 115.00 to FLINT2 115.00
1 32228 32236 "1" 0 # LINE from PLACER 115.00 to FLINT1 115.00
2 32228 32512 "1" 0 # TRAN from PLACER 115.00 to WISE 12.00
2 32228 32394 "1" 0 # TRAN from PLACER 115.00 to PLACER 60.00
4 32228 0 "2" 0 # LOAD-DROP PLACER 115.00 LOAD==23.05(1.03)
4 32228 0 "3" 0 # LOAD-DROP PLACER 115.00 LOAD==10.02(0.45)
0
#
#
# (73) BUS FAULT 32232 "HIGGINS"
#
1 32232 32224 "1" 0 # LINE from HIGGINS 115.00 to CHCGO PK 115.00
1 32232 32238 "1" 0 # LINE from HIGGINS 115.00 to BELL PGE 115.00
4 32232 0 "2" 0 # LOAD-DROP HIGGINS 115.00 LOAD==14.63(0.65)
4 32232 0 "3" 0 # LOAD-DROP HIGGINS 115.00 LOAD==17.29(0.77)
0
#
#
# (74) BUS FAULT 32238 "BELL PGE"
#
1 32238 32228 "1" 0 # LINE from BELL PGE 115.00 to PLACER 115.00
1 32238 32232 "1" 0 # LINE from BELL PGE 115.00 to HIGGINS 115.00
4 32238 0 "2" 0 # LOAD-DROP BELL PGE 115.00 LOAD==22.61(1.01)
4 32238 0 "3" 0 # LOAD-DROP BELL PGE 115.00 LOAD==15.50(0.69)
0
#
#
# (75) BUS FAULT 32250 "ELDORAD"
#
1 32250 32481 "2" 0 # LINE from ELDORAD 115.00 to APLHTAP2 115.00
1 32250 32482 "1" 0 # LINE from ELDORAD 115.00 to APLHTAP1 115.00
2 32250 32513 "1" 0 # TRAN from ELDORAD 115.00 to ELDRADO1 21.60
2 32250 32514 "1" 0 # TRAN from ELDORAD 115.00 to ELDRADO2 21.60
4 32250 0 "1" 0 # LOAD-DROP ELDORAD 115.00 LOAD==9.35(0.42)
0
#
#
# (76) BUS FAULT 32260 "MIZOU_T2"
#
1 32260 32257 "2" 0 # LINE from MIZOU_T2 115.00 to PLCRVLT2 115.00
1 32260 32259 "2" 0 # LINE from MIZOU_T2 115.00 to DIMOND_2 115.00
0
#
#
# (77) BUS FAULT 32261 "MIZOU_T1"
#
1 32261 32255 "1" 0 # LINE from MIZOU_T1 115.00 to PLCRVLT1 115.00
1 32261 32267 "1" 0 # LINE from MIZOU_T1 115.00 to DIMOND_1 115.00
0
#
#
# (78) BUS FAULT 32308 "COLGATE"
#

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2013 SPRING CATEGORY "C" CONTINGENCY LIST

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1 32308 31658 "1" 0 # LINE from COLGATE 60.00 to BANGOR 60.00
1 32308 32307 "1" 0 # LINE from COLGATE 60.00 to COLGATEA 60.00
1 32308 32311 "1" 0 # LINE from COLGATE 60.00 to NRRWS1TP 60.00
1 32308 32313 "2" 0 # LINE from COLGATE 60.00 to NRRWS2TP 60.00
1 32308 32358 "1" 0 # LINE from COLGATE 60.00 to CLMBA HL 60.00
1 32308 32364 "1" 0 # LINE from COLGATE 60.00 to GRSS VLY 60.00
2 32308 30327 "3" 0 # TRAN from COLGATE 60.00 to COLGATE 230.00
0
#
#
# (79) BUS FAULT 32314 "SMRTSVLE"
#
1 32314 32311 "1" 0 # LINE from SMRTSVLE 60.00 to NRRWS1TP 60.00
1 32314 32313 "2" 0 # LINE from SMRTSVLE 60.00 to NRRWS2TP 60.00
1 32314 32316 "1" 0 # LINE from SMRTSVLE 60.00 to YUBAGOLD 60.00
1 32314 32341 "2" 0 # LINE from SMRTSVLE 60.00 to BEALE1J1 60.00
1 32314 32348 "1" 0 # LINE from SMRTSVLE 60.00 to BEALE2J2 60.00
1 32314 32349 "1" 0 # LINE from SMRTSVLE 60.00 to BEALE2J1 60.00
4 32314 0 "1" 0 # LOAD-DROP SMRTSVLE 60.00 LOAD==2.61(0.12)
0
#
#
# (80) BUS FAULT 32320 "MRYSVLLE"
#
1 32320 32318 "1" 0 # LINE from MRYSVLLE 60.00 to BRWNS VY 60.00
1 32320 32333 "1" 0 # LINE from MRYSVLLE 60.00 to PEASETP 60.00
1 32320 32344 "1" 0 # LINE from MRYSVLLE 60.00 to PLUMAS 60.00
1 32320 32332 "1" 0 # LINE from MRYSVLLE 60.00 to PEASE 60.00
4 32320 0 "1" 0 # LOAD-DROP MRYSVLLE 60.00 LOAD==18.85(0.84)
4 32320 0 "3" 0 # LOAD-DROP MRYSVLLE 60.00 LOAD==14.52(0.65)
0
#
#
# (81) BUS FAULT 32332 "PEASE"
#
1 32332 32326 "1" 0 # LINE from PEASE 60.00 to ENCL TAP 60.00
1 32332 32328 "1" 0 # LINE from PEASE 60.00 to YBA CTYJ 60.00
1 32332 32320 "1" 0 # LINE from PEASE 60.00 to MRYSVLLE 60.00
1 32332 32333 "1" 0 # LINE from PEASE 60.00 to PEASETP 60.00
2 32332 32330 "1" 0 # TRAN from PEASE 60.00 to PEAS RG 60.00
0
#
#
# (82) BUS FAULT 32342 "E.NICOLS"
#
1 32342 32306 "1" 0 # LINE from E.NICOLS 60.00 to CATLETT 60.00
1 32342 32340 "1" 0 # LINE from E.NICOLS 60.00 to TUDOR 60.00
1 32342 32079 "1" 0 # LINE from E.NICOLS 60.00 to DST1001B 60.00
1 32342 32089 "1" 0 # LINE from E.NICOLS 60.00 to DST1001A 60.00
1 32342 32305 "2" 0 # LINE from E.NICOLS 60.00 to CATLETJT 60.00
1 32342 32344 "1" 0 # LINE from E.NICOLS 60.00 to PLUMAS 60.00
1 32342 32353 "1" 0 # LINE from E.NICOLS 60.00 to WHTLND1 60.00
2 32342 32212 "2" 0 # TRAN from E.NICOLS 60.00 to E.NICOLS 115.00
4 32342 0 "1" 0 # LOAD-DROP E.NICOLS 60.00 LOAD==5.47(0.25)
0
#
#
# (83) BUS FAULT 32356 "LINCOLN"
#
1 32356 32214 "1" 0 # LINE from LINCOLN 115.00 to RIO OSO 115.00
1 32356 32404 "1" 0 # LINE from LINCOLN 115.00 to SPI JCT 115.00
4 32356 0 "1" 0 # LOAD-DROP LINCOLN 115.00 LOAD==34.00(0.00)
4 32356 0 "2" 0 # LOAD-DROP LINCOLN 115.00 LOAD==8.02(0.00)
4 32356 0 "3" 0 # LOAD-DROP LINCOLN 115.00 LOAD==18.77(0.00)
0
#
#
# (84) BUS FAULT 32364 "GRSS VLY"
#
1 32364 32308 "1" 0 # LINE from GRSS VLY 60.00 to COLGATE 60.00
1 32364 32377 "1" 0 # LINE from GRSS VLY 60.00 to ROLLNSTP 60.00
4 32364 0 "2" 0 # LOAD-DROP GRSS VLY 60.00 LOAD==14.20(0.64)
0
#

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2013 SPRING CATEGORY "C" CONTINGENCY LIST

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#
# (85) BUS FAULT 32372 "SPAULDNG"
#
1 32372 32366 "1" 0 # LINE from SPAULDNG 60.00 to CISCO GR 60.00
1 32372 32407 "1" 0 # LINE from SPAULDNG 60.00 to BOWMN TP 60.00
2 32372 32472 "1" 0 # TRAN from SPAULDNG 60.00 to SPAULDG 9.11
4 32372 0 "1" 0 # LOAD-DROP SPAULDNG 60.00 LOAD==0.53(0.02)
0
#
#
# (86) BUS FAULT 32374 "DRUM"
#
1 32374 32376 "1" 0 # LINE from DRUM 60.00 to BONNIE N 60.00
1 32374 32407 "1" 0 # LINE from DRUM 60.00 to BOWMN TP 60.00
2 32374 32242 "1" 0 # TRAN from DRUM 60.00 to DRUM 1M 115.00
2 32374 32246 "2" 0 # TRAN from DRUM 60.00 to DRUM 2M 115.00
2 32374 32474 "1" 0 # TRAN from DRUM 60.00 to DEER CRK 9.11
4 32374 0 "1" 0 # LOAD-DROP DRUM 60.00 LOAD==0.35(0.01)
0
#
#
# (87) BUS FAULT 32378 "ROLLINS"
#
1 32378 32377 "1" 0 # LINE from ROLLINS 60.00 to ROLLNSTP 60.00
2 32378 32476 "1" 0 # TRAN from ROLLINS 60.00 to ROLLINSF 9.11
0
#
#
# (88) BUS FAULT 32380 "WEMR SWS"
#
1 32380 32369 "1" 0 # LINE from WEMR SWS 60.00 to COLFAXJT 60.00
1 32380 32382 "1" 0 # LINE from WEMR SWS 60.00 to FORST HL 60.00
1 32380 32390 "1" 0 # LINE from WEMR SWS 60.00 to HALSEY 60.00
4 32380 0 "1" 0 # LOAD-DROP WEMR SWS 60.00 LOAD==8.05(0.36)
0
#
#
# (89) BUS FAULT 32384 "OXBOW"
#
1 32384 32370 "1" 0 # LINE from OXBOW 60.00 to ENVRO_HY 60.00
1 32384 32386 "1" 0 # LINE from OXBOW 60.00 to MDDLE FK 60.00
2 32384 32484 "1" 0 # TRAN from OXBOW 60.00 to OXBOW F 9.11
0
#
#
# (90) BUS FAULT 32386 "MDDLE FK"
#
1 32386 32384 "1" 0 # LINE from MDDLE FK 60.00 to OXBOW 60.00
1 32386 32388 "1" 0 # LINE from MDDLE FK 60.00 to FRNCH MS 60.00
2 32386 30346 "4" 0 # TRAN from MDDLE FK 60.00 to MDDLFK M 230.00
0
#
#
# (91) BUS FAULT 32388 "FRNCH MS"
#
1 32388 32386 "1" 0 # LINE from FRNCH MS 60.00 to MDDLE FK 60.00
2 32388 32486 "1" 0 # TRAN from FRNCH MS 60.00 to HELLHOLE 9.11
2 32388 32508 "1" 0 # TRAN from FRNCH MS 60.00 to FRNCH MD 4.16
0
#
#
# (92) BUS FAULT 32390 "HALSEY"
#
1 32390 32380 "1" 0 # LINE from HALSEY 60.00 to WEMR SWS 60.00
1 32390 32410 "1" 0 # LINE from HALSEY 60.00 to MTN_QJCT 60.00
2 32390 32478 "1" 0 # TRAN from HALSEY 60.00 to HALSEY F 9.11
4 32390 0 "1" 0 # LOAD-DROP HALSEY 60.00 LOAD==17.90(0.80)
0
#
#
# (93) BUS FAULT 32394 "PLACER"
#
1 32394 32392 "1" 0 # LINE from PLACER 60.00 to AUBURN 60.00
1 32394 32270 "1" 0 # LINE from PLACER 60.00 to PENRYN 60.00

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2013 SPRING CATEGORY "C" CONTINGENCY LIST

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2 32394 32228 "1" 0 # TRAN from PLACER 60.00 to PLACER 115.00
0
#
#
# (94) BUS FAULT 32400 "SPI-LINC"
#
1 32400 32404 "1" 0 # LINE from SPI-LINC 115.00 to SPI JCT 115.00
2 32400 32498 "1" 0 # TRAN from SPI-LINC 115.00 to SPILINCF 12.50
0
#
#
# (95) BUS FAULT 32408 "PLSNT GR"
#
1 32408 32414 "1" 0 # LINE from PLSNT GR 115.00 to FORMICA 115.00
1 32408 32412 "1" 0 # LINE from PLSNT GR 115.00 to ATLANTIC 115.00
1 32408 32412 "2" 0 # LINE from PLSNT GR 115.00 to ATLANTIC 115.00
4 32408 0 "1" 0 # LOAD-DROP PLSNT GR 115.00 LOAD==43.07(0.00)
4 32408 0 "2" 0 # LOAD-DROP PLSNT GR 115.00 LOAD==41.19(0.00)
4 32408 0 "3" 0 # LOAD-DROP PLSNT GR 115.00 LOAD==34.23(0.00)
0
#
#
# (96) BUS FAULT 32412 "ATLANTIC"
#
1 32412 32408 "1" 0 # LINE from ATLANTIC 115.00 to PLSNT GR 115.00
1 32412 32408 "2" 0 # LINE from ATLANTIC 115.00 to PLSNT GR 115.00
2 32412 30335 "3" 0 # TRAN from ATLANTIC 115.00 to ATLANTC 230.00
2 32412 30335 "4" 0 # TRAN from ATLANTIC 115.00 to ATLANTC 230.00
0
#
#
# (97) BUS FAULT 32413 "ATLANTI"
#
1 32413 32266 "1" 0 # LINE from ATLANTI 60.00 to TAYLOR 60.00
1 32413 32272 "1" 0 # LINE from ATLANTI 60.00 to DEL MAR 60.00
2 32413 30335 "1" 0 # TRAN from ATLANTI 60.00 to ATLANTC 230.00
0
#
#
# 2013 category c contingency list (dctl and bus outages)
# Stockton/Stanslaus Divisions Zones 311-312
#
#
# (98) C5 DCTL OUTAGE
# Valley Springs - Martell #1 and #2 60 kV Lines
1 33610 33619 "1" 0 # line from VLLY SPS 60.00 BRKR to (3) AMFOR_SW 60.00
1 33619 33616 "1" 0 # line from AMFOR_SW 60.00 (3) to BRKR MARTELL 60.00
1 33619 33620 "1" 0 # line from AMFOR_SW 60.00 (3) to (1) AM FORST 60.00
4 33616 0 "1" 0 # LOAD-DROP MARTELL 60.00 LOAD==19.52(0.87)
4 33620 0 "1" 0 # LOAD-DROP AM FORST 60.00 LOAD==1.90(1.52)
#
1 33610 33634 "1" 0 # line from VLLY SPS 60.00 BRKR to (3) PRDE JCT 60.00
1 33634 33626 "1" 0 # line from PRDE JCT 60.00 (3) to (3) I.NRGYJT 60.00
2 33634 33846 "1" 0 # TRAN from PRDE JCT 60.00 (3) to (1) PRDE 1-3 7.20
1 33626 33622 "1" 0 # line from I.NRGYJT 60.00 (3) to (2) CLAY 60.00
1 33626 33628 "1" 0 # line from I.NRGYJT 60.00 (3) to (2) I.ENERGY 60.00
1 33622 33623 "1" 0 # line from CLAY 60.00 (2) to (3) INE_TP 60.00
1 33623 33617 "1" 0 # line from INE_TP 60.00 (3) to (1) MARTELTP 60.00
1 33623 33624 "1" 0 # line from INE_TP 60.00 (3) to (1) INE PRSN 60.00
2 33628 33816 "1" 0 # TRAN from I.ENERGY 60.00 (2) to (1) I.ENERGY 12.00
4 33622 0 "1" 0 # LOAD-DROP CLAY 60.00 LOAD==13.69(0.62)
4 33622 0 "2" 0 # LOAD-DROP CLAY 60.00 LOAD==4.09(0.18)
4 33624 0 "1" 0 # LOAD-DROP INE PRSN 60.00 LOAD==12.55(0.56)
3 33846 0 "2" 0 # GEN-DROP PRDE 1-3 7.20 GEN==8.00(2.00)
0
#
#
# (99) C5 DCTL OUTAGE
# Bellota - Riverbank - Melones and Bellota - Riverbank 115 kV Lines
1 33562 33950 "1" 0 # line from BELLOTA 115.00 BRKR to (3) RVRBK TP 115.00
1 33950 33934 "1" 0 # line from RVRBK TP 115.00 (3) to (3) TULLOCH 115.00
1 33950 33944 "1" 0 # line from RVRBK TP 115.00 (3) to BRKR RVRBANK 115.00
1 33934 33932 "1" 0 # line from TULLOCH 115.00 (3) to BRKR MELONES 115.00
2 33934 34076 "1" 0 # TRAN from TULLOCH 115.00 (3) to (1) TULLOCH 6.90

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2013 SPRING CATEGORY "C" CONTINGENCY LIST

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3 34076 0 "1" 0 # GEN-DROP TULLOCH 6.90 GEN==8.30(1.00)
3 34076 0 "2" 0 # GEN-DROP TULLOCH 6.90 GEN==8.30(1.00)
#
1 33562 33946 "1" 0 # line from BELLOTA 115.00 BRKR to (2) RVRBK J1 115.00
1 33946 33944 "1" 0 # line from RVRBK J1 115.00 (2) to BRKR RVRBANK 115.00
0
#
#
# (100) C5 DCTL OUTAGE
# Stanislaus - Manteca #2 and Riverbank Jct Sw Sta - Manteca 115 kV Lines
1 33506 33948 "1" 0 # line from STANISLS 115.00 BRKR to (2) RVRBK J2 115.00
1 33948 33953 "1" 0 # line from RVRBK J2 115.00 (2) to (2) VLYHMTP2 115.00
1 33953 33511 "1" 0 # line from VLYHMTP2 115.00 (2) to (2) AVENATP2 115.00
1 33511 33514 "1" 0 # line from AVENATP2 115.00 (2) to BRKR MANTECA 115.00
#
1 33516 33514 "1" 0 # line from RPN JNCN 115.00 (3) to BRKR MANTECA 115.00
1 33516 33520 "1" 0 # line from RPN JNCN 115.00 (3) to (1) RIPON 115.00
1 33516 33951 "1" 0 # line from RPN JNCN 115.00 (3) to (3) VLYHMTP1 115.00
1 33951 33947 "1" 0 # line from VLYHMTP1 115.00 (3) to BRKR RIVRBKJT 115.00
1 33951 33952 "1" 0 # line from VLYHMTP1 115.00 (3) to (1) VALLY HM 115.00
4 33520 0 "2" 0 # LOAD-DROP RIPON 115.00 LOAD==29.97(1.34)
4 33952 0 "1" 0 # LOAD-DROP VALLY HM 115.00 LOAD==5.36(0.24)
0
#
#
# (101) C5 DCTL OUTAGE
# Stanislaus - Melones - Manteca #1 and Stanislaus - Manteca #2 115 kV Lines
1 33500 33509 "1" 0 # line from MELNS JA 115.00 (3) to (3) AVENATP1 115.00
1 33500 33501 "1" 0 # line from MELNS JA 115.00 (3) to (3) FRGTNTP1 115.00
1 33500 33932 "1" 0 # line from MELNS JA 115.00 (3) to BRKR MELONES 115.00
1 33509 33510 "1" 0 # line from AVENATP1 115.00 (3) to (1) AVENA 115.00
1 33509 33514 "1" 0 # line from AVENATP1 115.00 (3) to BRKR MANTECA 115.00
1 33501 33502 "1" 0 # line from FRGTNTP1 115.00 (3) to (1) FROGTOWN 115.00
1 33501 33506 "1" 0 # line from FRGTNTP1 115.00 (3) to BRKR STANISLS 115.00
4 33510 0 "1" 0 # LOAD-DROP AVENA 115.00 LOAD==13.67(0.61)
4 33502 0 "1" 0 # LOAD-DROP FROGTOWN 115.00 LOAD==11.14(0.50)
4 33502 0 "2" 0 # LOAD-DROP FROGTOWN 115.00 LOAD==8.04(0.36)
1 33511 33510 "1" 1 # Switches in Avenan SW 145 to transfer load
4 33510 0 "" 1 # Restores Load at Avena
#
1 33506 33948 "1" 0 # line from STANISLS 115.00 BRKR to (2) RVRBK J2 115.00
1 33948 33953 "1" 0 # line from RVRBK J2 115.00 (2) to (2) VLYHMTP2 115.00
1 33953 33511 "1" 0 # line from VLYHMTP2 115.00 (2) to (2) AVENATP2 115.00
1 33511 33514 "1" 0 # line from AVENATP2 115.00 (2) to BRKR MANTECA 115.00
0
#
#
# (102) C5 DCTL OUTAGE
# Tesla - Manteca and Tesla - Schulte 115 kV Lines pre-project outage
1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33535 "1" 0 # line from OWENSTP2 115.00 (2) to (2) SFWY_TP2 115.00
1 33535 33543 "1" 0 # line from SFWY_TP2 115.00 (2) to (3) AEC_TP2 115.00
1 33543 33540 "1" 0 # line from AEC_TP2 115.00 (3) to BRKR TESLA 115.00
1 33543 33545 "1" 0 # line from AEC_TP2 115.00 (3) to (2) AEC_JCT 115.00
1 33545 33547 "1" 0 # line from AEC_JCT 115.00 (2) to (1) AEC_300 115.00
4 33547 0 "1" 0 # LOAD-DROP AEC_300 115.00 LOAD==3.00(9.54)
#
1 33537 33534 "1" 0 # line from SFWY_TP1 115.00 (3) to (1) SAFEWAY 115.00
1 33537 33549 "1" 0 # line from SFWY_TP1 115.00 (3) to BRKR GWFTRACY 115.00
1 33537 33541 "1" 0 # line from SFWY_TP1 115.00 (3) to (2) AEC_TP1 115.00
1 33541 33540 "1" 0 # line from AEC_TP1 115.00 (2) to BRKR TESLA 115.00
4 33534 0 "1" 0 # LOAD-DROP SAFEWAY 115.00 LOAD==5.38(2.76)
0
#
#
# (103) C5 DCTL OUTAGE
# Tesla - Manteca and Schulte - Lammers 115 kV Lines pre-project outage
1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33535 "1" 0 # line from OWENSTP2 115.00 (2) to (2) SFWY_TP2 115.00
1 33535 33543 "1" 0 # line from SFWY_TP2 115.00 (2) to (3) AEC_TP2 115.00

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2013 SPRING CATEGORY "C" CONTINGENCY LIST

1 33543 33540 "1" 0 # line from AEC_TP2 115.00 (3) to BRKR TESLA 115.00
 1 33543 33545 "1" 0 # line from AEC_TP2 115.00 (3) to (2) AEC_JCT 115.00
 1 33545 33547 "1" 0 # line from AEC_JCT 115.00 (2) to (1) AEC_300 115.00
 4 33547 0 "1" 0 # LOAD-DROP AEC_300 115.00 LOAD==3.00(9.54)
 #
 1 33529 33531 "1" 0 # line from LAMMERS 115.00 BRKR to (3) OWENSTP1 115.00
 1 33531 33532 "1" 0 # line from OWENSTP1 115.00 (3) to (1) OI GLASS 115.00
 1 33531 33549 "1" 0 # line from OWENSTP1 115.00 (3) to BRKR GWFTRACY 115.00
 4 33532 0 "1" 0 # LOAD-DROP OI GLASS 115.00 LOAD==11.34(7.03)
 0
 #
 #
 # (104) C5 DCTL OUTAGE
 # Tesla - Schulte #1 and #2 115 kV Lines post-project outage
 1 33537 33534 "1" 0 # line from SFWY_TP1 115.00 (3) to (1) SAFEWAY 115.00
 1 33537 33549 "1" 0 # line from SFWY_TP1 115.00 (3) to BRKR SCHULTE 115.00
 1 33537 33541 "1" 0 # line from SFWY_TP1 115.00 (3) to (2) AEC_TP1 115.00
 1 33541 33540 "1" 0 # line from AEC_TP1 115.00 (2) to BRKR TESLA 115.00
 4 33534 0 "1" 0 # LOAD-DROP SAFEWAY 115.00 LOAD==5.38(2.76)
 #
 1 33535 33549 "2" 0 # line from SFWY_TP2 115.00 (2) to BRKR SCHULTE 115.00
 1 33535 33543 "1" 0 # line from SFWY_TP2 115.00 (2) to (3) AEC_TP2 115.00
 1 33543 33540 "1" 0 # line from AEC_TP2 115.00 (3) to BRKR TESLA 115.00
 1 33543 33545 "1" 0 # line from AEC_TP2 115.00 (3) to (2) AEC_JCT 115.00
 1 33545 33547 "1" 0 # line from AEC_JCT 115.00 (2) to (1) AEC_300 115.00
 4 33547 0 "1" 0 # LOAD-DROP AEC_300 115.00 LOAD==3.00(9.54)
 0
 #
 #
 # (105) C5 DCTL OUTAGE
 # Schulte - Lammers and Schulte - Manteca 115 kV Lines post-project outage
 1 33529 33531 "1" 0 # line from LAMMERS 115.00 BRKR to (3) OWENSTP1 115.00
 1 33531 33532 "1" 0 # line from OWENSTP1 115.00 (3) to (1) OI GLASS 115.00
 1 33531 33549 "1" 0 # line from OWENSTP1 115.00 (3) to BRKR SCHULTE 115.00
 4 33532 0 "1" 0 # LOAD-DROP OI GLASS 115.00 LOAD==11.34(7.03)
 #
 1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
 1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
 1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
 1 33533 33549 "2" 0 # line from OWENSTP2 115.00 (2) to BRKR SCHULTE 115.00
 0
 #
 #
 # (106) C5 DCTL OUTAGE
 # Tesla - Manteca and Manteca - Vierra 115 kV Lines pre-project outage
 1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
 1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
 1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
 1 33533 33535 "1" 0 # line from OWENSTP2 115.00 (2) to (2) SFWY_TP2 115.00
 1 33535 33543 "1" 0 # line from SFWY_TP2 115.00 (2) to (3) AEC_TP2 115.00
 1 33543 33540 "1" 0 # line from AEC_TP2 115.00 (3) to BRKR TESLA 115.00
 1 33543 33545 "1" 0 # line from AEC_TP2 115.00 (3) to (2) AEC_JCT 115.00
 1 33545 33547 "1" 0 # line from AEC_JCT 115.00 (2) to (1) AEC_300 115.00
 4 33547 0 "1" 0 # LOAD-DROP AEC_300 115.00 LOAD==3.00(9.54)
 #
 1 33518 33514 "1" 0 # line from VIERRA 115.00 BRKR to BRKR MANTECA 115.00
 0
 #
 #
 # (107) C5 DCTL OUTAGE
 # Schulte - Manteca and Manteca - Vierra 115 kV Lines post-project outage
 1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
 1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
 1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
 1 33533 33549 "2" 0 # line from OWENSTP2 115.00 (2) to BRKR SCHULTE 115.00
 #
 1 33518 33514 "1" 0 # line from VIERRA 115.00 BRKR to BRKR MANTECA 115.00
 0
 #
 #
 # (108) C5 DCTL OUTAGE
 # Tesla - Manteca and Tesla - Salado - Manteca 115 kV Lines pre-project outage
 1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
 1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00

2013 SPRING CATEGORY "C" CONTINGENCY LIST

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1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33535 "1" 0 # line from OWENSTP2 115.00 (2) to (2) SFWY_TP2 115.00
1 33535 33543 "1" 0 # line from SFWY_TP2 115.00 (2) to (3) AEC_TP2 115.00
1 33543 33540 "1" 0 # line from AEC_TP2 115.00 (3) to BRKR TESLA 115.00
1 33543 33545 "1" 0 # line from AEC_TP2 115.00 (3) to (2) AEC_JCT 115.00
1 33545 33547 "1" 0 # line from AEC_JCT 115.00 (2) to (1) AEC_300 115.00
4 33547 0 "1" 0 # LOAD-DROP AEC_300 115.00 LOAD==3.00(9.54)
#
1 33514 33970 "1" 0 # line from MANTECA 115.00 BRKR to (3) INGRM C. 115.00
1 33970 33959 "1" 0 # line from INGRM C. 115.00 (3) to (2) TCHRT_T2 115.00
1 33970 33965 "1" 0 # line from INGRM C. 115.00 (3) to (2) SALADO J 115.00
1 33959 33540 "1" 0 # line from TCHRT_T2 115.00 (2) to BRKR TESLA 115.00
1 33965 33964 "1" 0 # line from SALADO J 115.00 (2) to BRKR SALADO 115.00
4 33970 0 "1" 0 # LOAD-DROP INGRM C. 115.00 LOAD==3.59(1.74)
0
#
#
# (109) C5 DCTL OUTAGE
# Schulte - Manteca and Tesla - Salado - Manteca 115 kV Lines post-project outage
1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33549 "2" 0 # line from OWENSTP2 115.00 (2) to BRKR SCHULTE 115.00
#
1 33514 33970 "1" 0 # line from MANTECA 115.00 BRKR to (3) INGRM C. 115.00
1 33970 33959 "1" 0 # line from INGRM C. 115.00 (3) to (2) TCHRT_T2 115.00
1 33970 33965 "1" 0 # line from INGRM C. 115.00 (3) to (2) SALADO J 115.00
1 33959 33540 "1" 0 # line from TCHRT_T2 115.00 (2) to BRKR TESLA 115.00
1 33965 33964 "1" 0 # line from SALADO J 115.00 (2) to BRKR SALADO 115.00
4 33970 0 "1" 0 # LOAD-DROP INGRM C. 115.00 LOAD==3.59(1.74)
0
#
#
# (110) C5 DCTL OUTAGE
# Tesla - Salado #1 and Tesla - Salado - Manteca 115 kV Lines
1 33540 33961 "1" 0 # line from TESLA 115.00 BRKR to (3) TCHRT_T1 115.00
1 33961 33960 "1" 0 # line from TCHRT_T1 115.00 (3) to (2) MDSTO CN 115.00
1 33961 33963 "1" 0 # line from TCHRT_T1 115.00 (3) to (2) TCHRTJCT 115.00
1 33960 33962 "1" 0 # line from MDSTO CN 115.00 (2) to (3) SALDO TP 115.00
1 33962 33964 "1" 0 # line from SALDO TP 115.00 (3) to BRKR SALADO 115.00
1 33962 33967 "1" 0 # line from SALDO TP 115.00 (3) to (2) MILLER TP 115.00
1 33967 33966 "1" 0 # line from MILLER TP 115.00 (2) to (1) MILLER 115.00
1 33963 33968 "1" 0 # line from TCHRTJCT 115.00 (2) to (1) TEICHERT 115.00
4 33966 0 "1" 0 # LOAD-DROP MILLER 115.00 LOAD==3.54(1.71)
4 33968 0 "1" 0 # LOAD-DROP TEICHERT 115.00 LOAD==7.42(6.54)
#
1 33514 33970 "1" 0 # line from MANTECA 115.00 BRKR to (3) INGRM C. 115.00
1 33970 33959 "1" 0 # line from INGRM C. 115.00 (3) to (2) TCHRT_T2 115.00
1 33970 33965 "1" 0 # line from INGRM C. 115.00 (3) to (2) SALADO J 115.00
1 33959 33540 "1" 0 # line from TCHRT_T2 115.00 (2) to BRKR TESLA 115.00
1 33965 33964 "1" 0 # line from SALADO J 115.00 (2) to BRKR SALADO 115.00
4 33970 0 "1" 0 # LOAD-DROP INGRM C. 115.00 LOAD==3.59(1.74)
0
#
#
# (111) C5 DCTL OUTAGE
# Stockton Jct Sw Sta - Lockeford - Bellota #1 and #2 115 kV Lines
1 33556 33555 "1" 0 # line from STN COGN 115.00 (3) to (1) STKTON A 115.00
1 33556 33560 "1" 0 # line from STN COGN 115.00 (3) to (2) LCKFRDJA 115.00
1 33556 33958 "1" 0 # line from STN COGN 115.00 (3) to (2) CPC STCN 115.00
1 33560 33562 "1" 0 # line from LCKFRDJA 115.00 (2) to BRKR BELLOTA 115.00
2 33958 33814 "1" 0 # TRAN from CPC STCN 115.00 (2) to (1) CPC STCN 12.47
4 33555 0 "4" 0 # LOAD-DROP STKTON A 115.00 LOAD==32.05(1.43)
4 33555 0 "5" 0 # LOAD-DROP STKTON A 115.00 LOAD==21.46(0.96)
4 33814 0 "SG" 0 # LOAD-DROP CPC STCN 12.47 LOAD==6.19(1.41)
3 33814 0 "1" 0 # GEN-DROP CPC STCN 12.47 GEN==49.00(2.53)
#
1 33552 33553 "1" 0 # line from STCKTNJB 115.00 (2) to BRKR STKTON B 115.00
1 33552 33558 "1" 0 # line from STCKTNJB 115.00 (2) to (3) LCKFRDJB 115.00
1 33558 33562 "1" 0 # line from LCKFRDJB 115.00 (3) to BRKR BELLOTA 115.00
1 33558 33564 "1" 0 # line from LCKFRDJB 115.00 (3) to BRKR LOCKFORD 115.00
4 33553 0 "3" 0 # LOAD-DROP STKTON B 115.00 LOAD==30.08(1.34)
1 33555 33553 "1" 1 # Switches in Stockton 'A' SW 177 to transfer load
4 33553 0 "3" 1 # Restore Load at Stockton 'A' Bk 3

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2013 SPRING CATEGORY "C" CONTINGENCY LIST

0

(112) C5 DCTL OUTAGE
Stanislaus - Manteca #2 and Stanislaus - Melones - Riverbank Jct Sw Sta 115 kV Lines
1 33506 33948 "1" 0 # line from STANISLS 115.00 BRKR to (2) RVRBK J2 115.00
1 33948 33953 "1" 0 # line from RVRBK J2 115.00 (2) to (2) VLYHMTP2 115.00
1 33953 33511 "1" 0 # line from VLYHMTP2 115.00 (2) to (2) AVENATP2 115.00
1 33511 33514 "1" 0 # line from AVENATP2 115.00 (2) to BRKR MANTECA 115.00

1 33503 33936 "1" 0 # line from FRGTNTP2 115.00 (2) to (3) MELNS JB 115.00
1 33503 33504 "1" 0 # line from FRGTNTP2 115.00 (2) to (2) CATARACT 115.00
1 33936 33932 "1" 0 # line from MELNS JB 115.00 (3) to BRKR MELONES 115.00
1 33936 33947 "1" 0 # line from MELNS JB 115.00 (3) to BRKR RIVRBKJT 115.00
1 33504 33506 "1" 0 # line from CATARACT 115.00 (2) to BRKR STANISLS 115.00
0

(113) C5 DCTL OUTAGE
Kasson - Lammers 115 kV Line and Tesla - Manteca 115 kV Line pre-project outage
1 33528 33529 "1" 0 # line from KASSON 115.00 BRKR to BRKR LAMMERS 115.00

1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33535 "1" 0 # line from OWENSTP2 115.00 (2) to (2) SFWY_TP2 115.00
1 33535 33543 "1" 0 # line from SFWY_TP2 115.00 (2) to (3) AEC_TP2 115.00
1 33543 33540 "1" 0 # line from AEC_TP2 115.00 (3) to BRKR TESLA 115.00
1 33543 33545 "1" 0 # line from AEC_TP2 115.00 (3) to (2) AEC_JCT 115.00
1 33545 33547 "1" 0 # line from AEC_JCT 115.00 (2) to (1) AEC_300 115.00
4 33547 0 "1" 0 # LOAD-DROP AEC_300 115.00 LOAD==3.00(9.54)
0

(114) C5 DCTL OUTAGE
Kasson - Lammers 115 kV Line and Schulte - Manteca 115 kV Line post-project outage
1 33528 33529 "1" 0 # line from KASSON 115.00 BRKR to BRKR LAMMERS 115.00

1 33514 33526 "1" 0 # line from MANTECA 115.00 BRKR to (3) KSSN-JC1 115.00
1 33526 33528 "1" 0 # line from KSSN-JC1 115.00 (3) to BRKR KASSON 115.00
1 33526 33533 "1" 0 # line from KSSN-JC1 115.00 (3) to (2) OWENSTP2 115.00
1 33533 33549 "2" 0 # line from OWENSTP2 115.00 (2) to BRKR SCHULTE 115.00
0

(115) C5 DCTL OUTAGE
Tesla - Stagg and Tesla - Eight Mile 230 kV Lines
1 30489 30624 "1" 0 # line from STAGG-J2 230.00 (2) to BRKR TESLA E 230.00
1 30489 30499 "1" 0 # line from STAGG-J2 230.00 (2) to BRKR STAGG-E 230.00

1 30622 30624 "1" 0 # line from EIGHT MI 230.00 BRKR to BRKR TESLA E 230.00
0

(116) C5 DCTL OUTAGE
Stagg - Eight Mile and Tesla - Eight Mile 230 kV Lines
1 30622 30495 "1" 0 # line from EIGHT MI 230.00 BRKR to BRKR STAGG 230.00

1 30622 30624 "1" 0 # line from EIGHT MI 230.00 BRKR to BRKR TESLA E 230.00
0

(117) C5 DCTL OUTAGE
Q260 - Eight Mile and Eight Mile - Lodi Stig 230 kV Lines
1 30621 30622 "1" 0 # line from Q260 230.00 BRKR to BRKR EIGHT MI 230.00

1 38000 30622 "1" 0 # line from LODI 230.00 BRKR to BRKR EIGHT MI 230.00
0

(118) C5 DCTL OUTAGE
Gold Hill - Q260 and Lodi Stig - Gold Hill 230 kV Lines
1 30337 30621 "1" 0 # line from GOLDHILL 230.00 BRKR to BRKR Q260 230.00
#

2013 SPRING CATEGORY "C" CONTINGENCY LIST

1 30337 38000 "1 " 0 # line from GOLDHILL 230.00 BRKR to BRKR LODI 230.00
 0
 #
 #
 # (119) C5 DCTL OUTAGE
 # Q260 - Eight Mile and Lodi Stig - Gold Hill 230 kV Lines
 1 30621 30622 "1 " 0 # line from Q260 230.00 BRKR to BRKR EIGHT MI 230.00
 #
 1 30337 38000 "1 " 0 # line from GOLDHILL 230.00 BRKR to BRKR LODI 230.00
 0
 #
 #
 # (120) C5 DCTL OUTAGE
 # Bellota - P0703 and Bellota - Weber 230 kV Lines
 1 30500 30888 "1 " 0 # line from BELLOTA 230.00 BRKR to BRKR P0703 230.00
 #
 1 30500 30505 "1 " 0 # line from BELLOTA 230.00 BRKR to BRKR WEBER 230.00
 0
 #
 #
 # (121) C5 DCTL OUTAGE
 # Bellota - P0703 and Weber - P0703 230 kV Lines
 1 30500 30888 "1 " 0 # line from BELLOTA 230.00 BRKR to BRKR P0703 230.00
 #
 1 30505 30888 "1 " 0 # line from WEBER 230.00 BRKR to BRKR P0703 230.00
 0
 #
 #
 # (122) C5 DCTL OUTAGE
 # P0703 - Tesla #1 and #2 230 kV Lines
 1 30624 30888 "1 " 0 # line from TESLA E 230.00 BRKR to BRKR P0703 230.00
 #
 1 30624 30888 "2 " 0 # line from TESLA E 230.00 BRKR to BRKR P0703 230.00
 0
 #
 #
 # (123) C5 DCTL OUTAGE
 # Tesla - Newark #1 and Tesla - Ravenswood 230 kV Lines
 1 30624 30630 "1 " 0 # line from TESLA E 230.00 BRKR to BRKR NEWARK D 230.00
 #
 1 30640 30703 "1 " 0 # line from TESLA C 230.00 BRKR to BRKR RAVENSWD 230.00
 0
 #
 #
 # (124) C5 DCTL OUTAGE
 # Delta Switching Yard - Telsa and Kelso - Telsa 230 kV Lines
 1 30580 30625 "1 " 0 # line from ALTM MDW 230.00 (3) to BRKR TESLA D 230.00
 1 30580 38610 "1 " 0 # line from ALTM MDW 230.00 (3) to BRKR DELTAPMP 230.00
 2 30580 33175 "1 " 0 # TRAN from ALTM MDW 230.00 (3) to (1) ALTAMONT 9.11
 #
 1 30569 30570 "1 " 0 # line from KELSO 230.00 BRKR to (4) USWP-RLF 230.00
 1 30570 30571 "1 " 0 # line from USWP-RLF 230.00 (4) to (2) ALTALAND 230.00
 1 30570 30625 "1 " 0 # line from USWP-RLF 230.00 (4) to BRKR TESLA D 230.00
 2 30570 33836 "1 " 0 # TRAN from USWP-RLF 230.00 (4) to (1) USWP_#4 9.11
 2 30571 33832 "1 " 0 # TRAN from ALTALAND 230.00 (2) to (1) COG.CAPT 9.11
 4 33836 0 "SG" 0 # LOAD-DROP USWP_#4 9.11 LOAD==0.34(0.21)
 3 33836 0 "3" 0 # GEN-DROP USWP_#4 9.11 GEN==4.50(0.00)
 3 33832 0 "1" 0 # GEN-DROP COG.CAPT 9.11 GEN==4.30(6.60)
 0
 #
 #
 # (125) C5 DCTL OUTAGE
 # Tesla - Q235 Sw Station #1 and #2 230 kV Lines
 1 30625 30636 "1 " 0 # line from TESLA D 230.00 BRKR to BRKR Q235SWST 230.00
 #
 1 30625 30636 "2 " 0 # line from TESLA D 230.00 BRKR to BRKR Q235SWST 230.00
 0
 #
 #
 # (126) C5 DCTL OUTAGE
 # Q235 Sw Station - Tracy #1 and #2 230 kV Lines
 1 30636 37585 "1 " 0 # line from Q235SWST 230.00 BRKR to BRKR TRCY PMP 230.00
 #
 1 30636 37585 "2 " 0 # line from Q235SWST 230.00 BRKR to BRKR TRCY PMP 230.00

2013 SPRING CATEGORY "C" CONTINGENCY LIST

0

(127) C5 DCTL OUTAGE
Bellota - Rancho Seco PP #1 and #2 230 kV Lines
1 37016 30500 "1" 0 # line from RNCHSECO 230.00 BRKR to BRKR BELLOTA 230.00

1 37016 30500 "2" 0 # line from RNCHSECO 230.00 BRKR to BRKR BELLOTA 230.00
0

(128) C5 DCTL OUTAGE
Lockeford - Bellota and Brighton - Bellota 230 kV Lines
1 30482 30500 "1" 0 # line from LOCKFORD 230.00 BRKR to BRKR BELLOTA 230.00

1 30348 30500 "1" 0 # line from BRIGHTON 230.00 BRKR to BRKR BELLOTA 230.00
0

(129) BUS FAULT 30495 "STAGG"

1 30495 30489 "1" 0 # LINE from STAGG 230.00 to STAGG-J2 230.00
1 30495 30496 "1" 0 # LINE from STAGG 230.00 to STAGG-H 230.00
1 30495 30622 "1" 0 # LINE from STAGG 230.00 to EIGHT MI 230.00
0

(130) BUS FAULT 30498 "STAGG-D"

1 30498 30497 "1" 0 # LINE from STAGG-D 230.00 to STAGG-F 230.00
1 30498 30499 "1" 0 # LINE from STAGG-D 230.00 to STAGG-E 230.00
2 30498 33704 "1" 0 # TRAN from STAGG-D 230.00 to STAGG 60.00
0

(131) BUS FAULT 30499 "STAGG-E"

1 30499 30498 "1" 0 # LINE from STAGG-E 230.00 to STAGG-D 230.00
1 30499 30489 "1" 0 # LINE from STAGG-E 230.00 to STAGG-J2 230.00
2 30499 33704 "4" 0 # TRAN from STAGG-E 230.00 to STAGG 60.00
0

(132) BUS FAULT 30500 "BELLOTA" 230 kV Bus Section 1

1 30500 30348 "1" 0 # LINE from BELLOTA 230.00 to BRIGHTON 230.00
1 30500 30505 "1" 0 # LINE from BELLOTA 230.00 to WEBER 230.00
1 30500 38206 "1" 0 # LINE from BELLOTA 230.00 to COTTLE A 230.00
1 30500 37016 "1" 0 # LINE from BELLOTA 230.00 to RNCHSECO 230.00
1 30500 30487 "1" 0 # LINE from BELLOTA 230.00 to ELECTRA 230.00
1 30500 30503 "2" 0 # LINE from BELLOTA 230.00 to COLLERVL 230.00
2 30500 30501 "1" 0 # TRAN from BELLOTA 230.00 to BLLTA 1M 230.00
0

(133) BUS FAULT 30500 "BELLOTA" 230 kV Bus Section 2

1 30500 30482 "1" 0 # LINE from BELLOTA 230.00 to LOCKFORD 230.00
1 30500 30490 "1" 0 # LINE from BELLOTA 230.00 to VLLY SPS 230.00
1 30500 30503 "1" 0 # LINE from BELLOTA 230.00 to COLLERVL 230.00
1 30500 30888 "1" 0 # LINE from BELLOTA 230.00 to P0703 230.00
1 30500 38208 "1" 0 # LINE from BELLOTA 230.00 to COTTLE B 230.00
1 30500 37016 "2" 0 # LINE from BELLOTA 230.00 to RNCHSECO 230.00
2 30500 33562 "2" 0 # TRAN from BELLOTA 230.00 to BELLOTA 115.00
0

(134) BUS FAULT 30503 "COLLERVL"

1 30503 30500 "1" 0 # LINE from COLLERVL 230.00 to BELLOTA 230.00
1 30503 30500 "2" 0 # LINE from COLLERVL 230.00 to BELLOTA 230.00
2 30503 38102 "1" 0 # TRAN from COLLERVL 230.00 to COLLRVL1 13.80
2 30503 38104 "1" 0 # TRAN from COLLERVL 230.00 to COLLRVL2 13.80
0

2013 SPRING CATEGORY "C" CONTINGENCY LIST

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#
#
# (135) BUS FAULT 30569 "KELSO"
#
1 30569 30565 "1" 0 # LINE from KELSO 230.00 to BRENTWOD 230.00
1 30569 30570 "1" 0 # LINE from KELSO 230.00 to USWP-RLF 230.00
4 30569 0 "1" 0 # LOAD-DROP KELSO 230.00 LOAD==11.86(7.35)
0
#
#
# (136) BUS FAULT 30624 "TESLA E" 230 kV Bus Section 1E
#
1 30624 30630 "1" 0 # LINE from TESLA E 230.00 to NEWARK D 230.00
1 30624 30622 "1" 0 # LINE from TESLA E 230.00 to EIGHT MI 230.00
1 30624 30888 "1" 0 # LINE from TESLA E 230.00 to P0703 230.00
1 30624 30632 "1" 0 # LINE from TESLA E 230.00 to TESL_GEN 230.00
0
#
#
# (137) BUS FAULT 30624 "TESLA E" 230 kV Bus Section 1E
#
1 30624 30489 "1" 0 # LINE from TESLA E 230.00 to STAGG-J2 230.00
1 30624 30670 "1" 0 # LINE from TESLA E 230.00 to WESTLEY 230.00
1 30624 30632 "2" 0 # LINE from TESLA E 230.00 to TESL_GEN 230.00
1 30624 30888 "2" 0 # LINE from TESLA E 230.00 to P0703 230.00
0
#
#
# (138) BUS FAULT 30625 "TESLA D" 230 kV Bus Section 1D
#
1 30625 30570 "1" 0 # LINE from TESLA D 230.00 to USWP-RLF 230.00
1 30625 37585 "1" 0 # LINE from TESLA D 230.00 to TRCY PMP 230.00
1 30625 30636 "1" 0 # LINE from TESLA D 230.00 to Q235SWST 230.00
2 30625 33540 "1" 0 # TRAN from TESLA D 230.00 to TESLA 115.00
0
#
#
# (139) BUS FAULT 30625 "TESLA D" 230 kV Bus Section 2D
#
1 30625 30580 "1" 0 # LINE from TESLA D 230.00 to ALTM MDW 230.00
1 30625 37585 "2" 0 # LINE from TESLA D 230.00 to TRCY PMP 230.00
1 30625 30636 "2" 0 # LINE from TESLA D 230.00 to Q235SWST 230.00
2 30625 33540 "3" 0 # TRAN from TESLA D 230.00 to TESLA 115.00
6 30625 0 "v" 0 # SVD-DROP TESLA D 230.00
0
#
#
# (140) BUS FAULT 30637 "Q235"
#
1 30637 30636 "1" 0 # LINE from Q235 230.00 to Q235SWST 230.00
1 30637 30636 "2" 0 # LINE from Q235 230.00 to Q235SWST 230.00
2 30637 33863 "1" 0 # TRAN from Q235 230.00 to Q235GT1 13.80
2 30637 33864 "1" 0 # TRAN from Q235 230.00 to Q235GT2 13.80
2 30637 33865 "1" 0 # TRAN from Q235 230.00 to Q235GT3 13.80
2 30637 33866 "1" 0 # TRAN from Q235 230.00 to Q235GT4 13.80
2 30637 33867 "1" 0 # TRAN from Q235 230.00 to Q235GT5 13.80
2 30637 33868 "1" 0 # TRAN from Q235 230.00 to Q235GT6 13.80
0
#
#
# (141) BUS FAULT 30641 "Q236BS1"
#
1 30641 30640 "1" 0 # LINE from Q236BS1 230.00 to TESLA C 230.00
1 30641 30642 "1" 0 # LINE from Q236BS1 230.00 to Q236BS2 230.00
2 30641 33871 "1" 0 # TRAN from Q236BS1 230.00 to Q236GT1 13.80
2 30641 33872 "1" 0 # TRAN from Q236BS1 230.00 to Q236GT2 13.80
2 30641 33873 "1" 0 # TRAN from Q236BS1 230.00 to Q236GT3 13.80
0
#
#
# (142) BUS FAULT 30642 "Q236BS2"
#
1 30642 30640 "1" 0 # LINE from Q236BS2 230.00 to TESLA C 230.00
1 30642 30641 "1" 0 # LINE from Q236BS2 230.00 to Q236BS1 230.00

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2013 SPRING CATEGORY "C" CONTINGENCY LIST

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2 30642 33874 "1" 0 # TRAN from Q236BS2 230.00 to Q236GT4 13.80
2 30642 33875 "1" 0 # TRAN from Q236BS2 230.00 to Q236GT5 13.80
2 30642 33876 "1" 0 # TRAN from Q236BS2 230.00 to Q236GT6 13.80
0
#
#
# (143) BUS FAULT 33506 "STANISLS"
#
1 33506 33501 "1" 0 # LINE from STANISLS 115.00 to FRGTNTP1 115.00
1 33506 33504 "1" 0 # LINE from STANISLS 115.00 to CATARACT 115.00
1 33506 33948 "1" 0 # LINE from STANISLS 115.00 to RVRBK J2 115.00
2 33506 34062 "1" 0 # TRAN from STANISLS 115.00 to STANISLS 13.80
4 33506 0 "1" 0 # LOAD-DROP STANISLS 115.00 LOAD==8.71(0.39)
0
#
#
# (144) BUS FAULT 33518 "VIERRA"
#
1 33518 33514 "1" 0 # LINE from VIERRA 115.00 to MANTECA 115.00
1 33518 33522 "1" 0 # LINE from VIERRA 115.00 to CROSRDJT 115.00
4 33518 0 "1" 0 # LOAD-DROP VIERRA 115.00 LOAD==34.06(1.52)
0
#
#
# (145) BUS FAULT 33528 "KASSON"
#
1 33528 33526 "1" 0 # LINE from KASSON 115.00 to KSSN-JC1 115.00
1 33528 33529 "1" 0 # LINE from KASSON 115.00 to LAMMERS 115.00
1 33528 33530 "1" 0 # LINE from KASSON 115.00 to KSSN-JC2 115.00
2 33528 33756 "1" 0 # TRAN from KASSON 115.00 to KASSON 60.00
0
#
#
# (146) BUS FAULT 33529 "LAMMERS"
#
1 33529 33528 "1" 0 # LINE from LAMMERS 115.00 to KASSON 115.00
1 33529 33531 "1" 0 # LINE from LAMMERS 115.00 to OWENSTP1 115.00
4 33529 0 "1" 0 # LOAD-DROP LAMMERS 115.00 LOAD==28.19(1.26)
4 33529 0 "2" 0 # LOAD-DROP LAMMERS 115.00 LOAD==9.54(0.43)
0
#
#
# (147) BUS FAULT 33540 "TESLA" 115 kV Bus Section 1
#
1 33540 33543 "1" 0 # LINE from TESLA 115.00 to AEC_TP2 115.00
2 33540 30625 "1" 0 # TRAN from TESLA 115.00 to TESLA D 230.00
1 33540 33961 "1" 0 # LINE from TESLA 115.00 to TCHRT_T1 115.00
0
#
#
# (148) BUS FAULT 33540 "TESLA" 115 kV Bus Section 2
#
1 33540 33541 "1" 0 # LINE from TESLA 115.00 to AEC_TP1 115.00
1 33540 33544 "1" 0 # LINE from TESLA 115.00 to ELLS_GTY 115.00
1 33540 33574 "1" 0 # LINE from TESLA 115.00 to LLNL TAP 115.00
1 33540 33568 "1" 0 # LINE from TESLA 115.00 to TH.E.DV. 115.00
1 33540 33959 "1" 0 # LINE from TESLA 115.00 to TCHRT_T2 115.00
1 33540 33576 "1" 0 # LINE from TESLA 115.00 to USWP-PAT 115.00
2 33540 30625 "3" 0 # TRAN from TESLA 115.00 to TESLA D 230.00
0
#
#
# (149) BUS FAULT 33562 "BELLOTA" 115 kV Bus Section 1
#
1 33562 33561 "1" 0 # LINE from BELLOTA 115.00 to BLLTAJCT 115.00
1 33562 33558 "1" 0 # LINE from BELLOTA 115.00 to LCKFRDJB 115.00
1 33562 33946 "1" 0 # LINE from BELLOTA 115.00 to RVRBK J1 115.00
2 33562 30501 "1" 0 # TRAN from BELLOTA 115.00 to BLLTA 1M 230.00
0
#
#
# (150) BUS FAULT 33562 "BELLOTA" 115 kV Bus Section 2
#
1 33562 33560 "1" 0 # LINE from BELLOTA 115.00 to LCKFRDJA 115.00

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2013 SPRING CATEGORY "C" CONTINGENCY LIST

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1 33562 33950 "1" 0 # LINE from BELLOTA 115.00 to RVRBK TP 115.00
2 33562 30500 "2" 0 # TRAN from BELLOTA 115.00 to BELLOTA 230.00
0
#
#
# (151) BUS FAULT 33564 "LOCKFORD"
#
1 33564 33558 "1" 0 # LINE from LOCKFORD 115.00 to LCKFRDJB 115.00
1 33564 33560 "1" 0 # LINE from LOCKFORD 115.00 to LCKFRDJA 115.00
1 33564 33561 "1" 0 # LINE from LOCKFORD 115.00 to BLLTAJCT 115.00
2 33564 33725 "1" 0 # TRAN from LOCKFORD 115.00 to LOCKFRD1 60.00
4 33564 0 "4" 0 # LOAD-DROP LOCKFORD 115.00 LOAD==21.90(0.98)
0
#
#
# (152) BUS FAULT 33566 "CAMANCHE"
#
1 33566 33565 "1" 0 # LINE from CAMANCHE 115.00 to CMNCHETP 115.00
2 33566 33850 "1" 0 # TRAN from CAMANCHE 115.00 to CAMANCHE 4.16
0
#
#
# (153) BUS FAULT 33600 "HERDLYN"
#
1 33600 37582 "1" 0 # LINE from HERDLYN 70.00 to TRACY YG 69.00
2 33600 33770 "2" 0 # TRAN from HERDLYN 70.00 to HERDLYN 60.00
0
#
#
# (154) BUS FAULT 33610 "VLLY SPS"
#
1 33610 33607 "1" 0 # LINE from VLLY SPS 60.00 to ELECTRAJ 60.00
1 33610 33612 "1" 0 # LINE from VLLY SPS 60.00 to N BRANCH 60.00
1 33610 33619 "1" 0 # LINE from VLLY SPS 60.00 to AMFOR_SW 60.00
1 33610 33630 "1" 0 # LINE from VLLY SPS 60.00 to PARDEE A 60.00
1 33610 33634 "1" 0 # LINE from VLLY SPS 60.00 to PRDE JCT 60.00
1 33610 33636 "1" 0 # LINE from VLLY SPS 60.00 to N.HGN JT 60.00
2 33610 30490 "1" 0 # TRAN from VLLY SPS 60.00 to VLLY SPS 230.00
0
#
#
# (155) BUS FAULT 33616 "MARTELL"
#
1 33616 33617 "1" 0 # LINE from MARTELL 60.00 to MARTELTP 60.00
1 33616 33619 "1" 0 # LINE from MARTELL 60.00 to AMFOR_SW 60.00
4 33616 0 "1" 0 # LOAD-DROP MARTELL 60.00 LOAD==14.75(0.66)
0
#
#
# (156) BUS FAULT 33650 "WEBER 1"
#
1 33650 33646 "1" 0 # LINE from WEBER 1 60.00 to MORMON 60.00
1 33650 33647 "1" 0 # LINE from WEBER 1 60.00 to WEBER016 60.00
1 33650 33662 "1" 0 # LINE from WEBER 1 60.00 to WEBER 2 60.00
1 33650 33672 "1" 0 # LINE from WEBER 1 60.00 to CHRTRWYS 60.00
1 33650 33698 "1" 0 # LINE from WEBER 1 60.00 to FRNCH CP 60.00
2 33650 30505 "1" 0 # TRAN from WEBER 1 60.00 to WEBER 230.00
4 33650 0 "3" 0 # LOAD-DROP WEBER 1 60.00 LOAD==16.37(0.73)
4 33650 0 "4" 0 # LOAD-DROP WEBER 1 60.00 LOAD==8.45(0.38)
0
#
#
# (157) BUS FAULT 33662 "WEBER 2"
#
1 33662 33650 "1" 0 # LINE from WEBER 2 60.00 to WEBER 1 60.00
1 33662 33654 "1" 0 # LINE from WEBER 2 60.00 to SNTA FEA 60.00
1 33662 33658 "1" 0 # LINE from WEBER 2 60.00 to SNTA FEB 60.00
1 33662 33674 "1" 0 # LINE from WEBER 2 60.00 to HAZLTN J 60.00
2 33662 30505 "2" 0 # TRAN from WEBER 2 60.00 to WEBER 230.00
2 33662 30505 "2a" 0 # TRAN from WEBER 2 60.00 to WEBER 230.00
0
#
#
# (158) BUS FAULT 33670 "STCKTN A"

```

2013 SPRING CATEGORY "C" CONTINGENCY LIST

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#
1 33670 33602 "1" 0 # LINE from STCKTN A 60.00 to NEWARKS 60.00
1 33670 33654 "1" 0 # LINE from STCKTN A 60.00 to SNNTA FEA 60.00
1 33670 33658 "1" 0 # LINE from STCKTN A 60.00 to SNNTA FEB 60.00
1 33670 33674 "1" 0 # LINE from STCKTN A 60.00 to HAZLTN J 60.00
4 33670 0 "1" 0 # LOAD-DROP STCKTN A 60.00 LOAD==1.40(0.06)
4 33670 0 "2" 0 # LOAD-DROP STCKTN A 60.00 LOAD==0.93(0.04)
0
#
#
# (159) BUS FAULT 33704 "STAGG"
#
1 33704 33693 "1" 0 # LINE from STAGG 60.00 to STAGG JT 60.00
1 33704 33706 "1" 0 # LINE from STAGG 60.00 to CNTRY CB 60.00
1 33704 33706 "2" 0 # LINE from STAGG 60.00 to CNTRY CB 60.00
1 33704 33714 "1" 0 # LINE from STAGG 60.00 to HAMMER 60.00
2 33704 30498 "1" 0 # TRAN from STAGG 60.00 to STAGG-D 230.00
2 33704 30499 "4" 0 # TRAN from STAGG 60.00 to STAGG-E 230.00
4 33704 0 "2" 0 # LOAD-DROP STAGG 60.00 LOAD==14.47(0.64)
4 33704 0 "3" 0 # LOAD-DROP STAGG 60.00 LOAD==14.47(0.64)
0
#
#
# (160) BUS FAULT 33706 "CNTRY CB"
#
1 33706 33704 "1" 0 # LINE from CNTRY CB 60.00 to STAGG 60.00
1 33706 33704 "2" 0 # LINE from CNTRY CB 60.00 to STAGG 60.00
1 33706 33708 "1" 0 # LINE from CNTRY CB 60.00 to UOP 60.00
4 33706 0 "1" 0 # LOAD-DROP CNTRY CB 60.00 LOAD==4.55(0.21)
4 33706 0 "2" 0 # LOAD-DROP CNTRY CB 60.00 LOAD==7.46(0.33)
4 33706 0 "3" 0 # LOAD-DROP CNTRY CB 60.00 LOAD==8.28(0.37)
4 33706 0 "4" 0 # LOAD-DROP CNTRY CB 60.00 LOAD==12.69(0.56)
0
#
#
# (161) BUS FAULT 33714 "HAMMER"
#
1 33714 33704 "1" 0 # LINE from HAMMER 60.00 to STAGG 60.00
1 33714 33716 "1" 0 # LINE from HAMMER 60.00 to HMMR JCT 60.00
4 33714 0 "1" 0 # LOAD-DROP HAMMER 60.00 LOAD==14.55(0.65)
4 33714 0 "2" 0 # LOAD-DROP HAMMER 60.00 LOAD==13.96(0.62)
4 33714 0 "3" 0 # LOAD-DROP HAMMER 60.00 LOAD==15.23(0.68)
0
#
#
# (162) BUS FAULT 33724 "LOCKEFRD"
#
1 33724 33630 "1" 0 # LINE from LOCKEFRD 60.00 to PARDEE A 60.00
1 33724 33725 "1" 0 # LINE from LOCKEFRD 60.00 to LOCKFRD1 60.00
1 33724 33726 "1" 0 # LINE from LOCKEFRD 60.00 to VICTOR 60.00
1 33724 33736 "1" 0 # LINE from LOCKEFRD 60.00 to LODI JCT 60.00
1 33724 33738 "1" 0 # LINE from LOCKEFRD 60.00 to WATRLJCT 60.00
1 33724 38060 "1" 0 # LINE from LOCKEFRD 60.00 to INDUSTRIAL 60.00
2 33724 30482 "2" 0 # TRAN from LOCKEFRD 60.00 to LOCKFORD 230.00
2 33724 30482 "3" 0 # TRAN from LOCKEFRD 60.00 to LOCKFORD 230.00
0
#
#
# (163) BUS FAULT 33725 "LOCKFRD1"
#
1 33725 33724 "1" 0 # LINE from LOCKFRD1 60.00 to LOCKEFRD 60.00
1 33725 33732 "1" 0 # LINE from LOCKFRD1 60.00 to COLONY 60.00
2 33725 33564 "1" 0 # TRAN from LOCKFRD1 60.00 to LOCKFORD 115.00
0
#
#
# (164) BUS FAULT 33728 "LODI"
#
1 33728 33729 "1" 0 # LINE from LODI 60.00 to LODI AUX 60.00
1 33728 33734 "1" 0 # LINE from LODI 60.00 to CLNY JCT 60.00
1 33728 33737 "1" 0 # LINE from LODI 60.00 to WINERY J 60.00
4 33728 0 "1" 0 # LOAD-DROP LODI 60.00 LOAD==0.31(0.01)
4 33728 0 "2" 0 # LOAD-DROP LODI 60.00 LOAD==14.72(0.66)
0

```


2013 SPRING CATEGORY "C" CONTINGENCY LIST

```

#
#
# (165) BUS FAULT 33729 "LODI AUX"
#
1 33729 33728 "1" 0 # LINE from LODI AUX 60.00 to LODI 60.00
1 33729 33736 "1" 0 # LINE from LODI AUX 60.00 to LODI JCT 60.00
1 33729 38060 "1" 0 # LINE from LODI AUX 60.00 to INDUSTRL 60.00
0
#
#
# (166) BUS FAULT 33740 "MSHR 60V"
#
1 33740 33717 "1" 0 # LINE from MSHR 60V 60.00 to MORADAJT 60.00
1 33740 33738 "1" 0 # LINE from MSHR 60V 60.00 to WATRLJCT 60.00
4 33740 0 "1" 0 # LOAD-DROP MSHR 60V 60.00 LOAD==15.38(0.69)
4 33740 0 "2" 0 # LOAD-DROP MSHR 60V 60.00 LOAD==25.67(1.15)
0
#
#
# (167) BUS FAULT 33742 "MANTECA"
#
1 33742 33703 "1" 0 # LINE from MANTECA 60.00 to LOUISJCT 60.00
1 33742 33752 "1" 0 # LINE from MANTECA 60.00 to LTHRP JT 60.00
1 33742 33743 "1" 0 # LINE from MANTECA 60.00 to LEE_JCT 60.00
2 33742 33514 "3" 0 # TRAN from MANTECA 60.00 to MANTECA 115.00
0
#
#
# (168) BUS FAULT 33746 "LOUISE"
#
1 33746 33703 "1" 0 # LINE from LOUISE 60.00 to LOUISJCT 60.00
1 33746 33748 "1" 0 # LINE from LOUISE 60.00 to MSSDLESW 60.00
4 33746 0 "1" 0 # LOAD-DROP LOUISE 60.00 LOAD==1.27(1.02)
0
#
#
# (169) BUS FAULT 33770 "HERDLYN"
#
1 33770 33772 "1" 0 # LINE from HERDLYN 60.00 to B.BTHNY- 60.00
1 33770 33774 "1" 0 # LINE from HERDLYN 60.00 to HRDLNJCT 60.00
2 33770 33600 "2" 0 # TRAN from HERDLYN 60.00 to HERDLYN 70.00
4 33770 0 "1" 0 # LOAD-DROP HERDLYN 60.00 LOAD==4.67(0.21)
0
#
#
# (170) BUS FAULT 33906 "SPRNG GP"
#
1 33906 33910 "1" 0 # LINE from SPRNG GP 115.00 to SNDBR JT 115.00
2 33906 34078 "1" 0 # TRAN from SPRNG GP 115.00 to SPRNG GP 6.00
4 33906 0 "1" 0 # LOAD-DROP SPRNG GP 115.00 LOAD==2.01(0.09)
0
#
#
# (171) BUS FAULT 33916 "CURTISS"
#
1 33916 33917 "1" 0 # LINE from CURTISS 115.00 to FBERBORD 115.00
1 33916 33920 "1" 0 # LINE from CURTISS 115.00 to RCTRK J. 115.00
4 33916 0 "1" 0 # LOAD-DROP CURTISS 115.00 LOAD==36.54(1.63)
4 33916 0 "2" 0 # LOAD-DROP CURTISS 115.00 LOAD==17.25(0.77)
0
#
#
# (172) BUS FAULT 33932 "MELONES"
#
1 33932 33930 "1" 0 # LINE from MELONES 115.00 to PEORIA 115.00
1 33932 33500 "1" 0 # LINE from MELONES 115.00 to MELNS JA 115.00
1 33932 33922 "1" 0 # LINE from MELONES 115.00 to R.TRACK 115.00
1 33932 33934 "1" 0 # LINE from MELONES 115.00 to TULLOCH 115.00
1 33932 33936 "1" 0 # LINE from MELONES 115.00 to MELNS JB 115.00
0
#
#
# (173) BUS FAULT 33944 "RVRBANK"
#

```

2013 SPRING CATEGORY "C" CONTINGENCY LIST

```
1 33944 33946 "1" 0 # LINE from RVRBANK 115.00 to RVRBK J1 115.00
1 33944 33950 "1" 0 # LINE from RVRBANK 115.00 to RVRBK TP 115.00
4 33944 0 "1" 0 # LOAD-DROP RVRBANK 115.00 LOAD==24.45(1.10)
4 33944 0 "2" 0 # LOAD-DROP RVRBANK 115.00 LOAD==21.90(0.98)
0
#
#
# (174) BUS FAULT 33947 "RIVRBKJT"
#
1 33947 33936 "1" 0 # LINE from RIVRBKJT 115.00 to MELNS JB 115.00
1 33947 33951 "1" 0 # LINE from RIVRBKJT 115.00 to VLYHMTP1 115.00
0
#
#
# (175) BUS FAULT 34002 "SALADO"
#
1 34002 34004 "1" 0 # LINE from SALADO 60.00 to PTRSNFRZ 60.00
1 34002 34008 "1" 0 # LINE from SALADO 60.00 to STNSLSRP 60.00
2 34002 33964 "1" 0 # TRAN from SALADO 60.00 to SALADO 115.00
0
#
#
# (176) BUS FAULT 34006 "PATTERSN"
#
1 34006 34000 "1" 0 # LINE from PATTERSN 60.00 to WESTLEY 60.00
1 34006 34004 "1" 0 # LINE from PATTERSN 60.00 to PTRSNFRZ 60.00
1 34006 34010 "1" 0 # LINE from PATTERSN 60.00 to CRWS LDJ 60.00
0
#
#
# (177) BUS FAULT 34014 "NEWMAN"
#
1 34014 34012 "1" 0 # LINE from NEWMAN 60.00 to GUSTN JT 60.00
1 34014 34018 "1" 0 # LINE from NEWMAN 60.00 to NWMN JCT 60.00
4 34014 0 "1" 0 # LOAD-DROP NEWMAN 60.00 LOAD==9.08(0.41)
4 34014 0 "2" 0 # LOAD-DROP NEWMAN 60.00 LOAD==6.32(0.28)
6 34014 0 "v" 0 # SVD-DROP NEWMAN 60.0
0
#
#
-1
# EOF
```

Appendix C

Steady State Power Flow Results

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR 2013 SUMMER PEAK NORMAL OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				---BASE---		LOADING		FLOW	RATING	-----CASE-----	
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	MW	MVAR	P.U.					
"CARIBOU "	230 30	30261	"BELDENTP"	230 30	"1 "	342	12	1.10**	816	AMPS	743.03	AMPS	2013sumpk_q268_pre_catb	
30250	"CARIBOU "	230 30	30261	"BELDENTP"	230 30	"1 "	342	12	1.10**	816	AMPS	743.03	AMPS	2013sumpk_q268_pst_catb
30261	"BELDENTP"	230 30	30300	"TBL MT D"	230 30	"1 "	339	2	1.10**	816	AMPS	743.03	AMPS	2013sumpk_q268_pre_catb
30261	"BELDENTP"	230 30	30300	"TBL MT D"	230 30	"1 "	339	2	1.10**	816	AMPS	743.03	AMPS	2013sumpk_q268_pst_catb
30330	"RIO OSO "	230 30	30335	"ATLANTC "	230 30	"1 "	316	58	1.00	823	AMPS	825.86	AMPS	2013sumpk_q268_pre_catb
30330	"RIO OSO "	230 30	30335	"ATLANTC "	230 30	"1 "	316	58	0.99	822	AMPS	825.86	AMPS	2013sumpk_q268_pst_catb
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	327	-15	0.95	838	AMPS	886.11	AMPS	2013sumpk_q268_pre_catb
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	327	-15	0.94	837	AMPS	886.11	AMPS	2013sumpk_q268_pst_catb
30345	"MIDLFORK"	230 30	30346	"MDDLFLK M"	230 30	"1 "	144	25	0.92**	146	MVA	159.90	MVA	2013sumpk_q268_pre_catb
30345	"MIDLFORK"	230 30	30346	"MDDLFLK M"	230 30	"1 "	144	25	0.92**	146	MVA	159.90	MVA	2013sumpk_q268_pst_catb
30495	"STAGG "	230 30	30622	"EIGHT MI"	230 30	"1 "	304	-5	0.93	770	AMPS	825.86	AMPS	2013sumpk_q268_pre_catb
30495	"STAGG "	230 30	30622	"EIGHT MI"	230 30	"1 "	304	-5	0.93	768	AMPS	825.86	AMPS	2013sumpk_q268_pst_catb
=1=														
30500	"BELLOTA "	230 30	38208	"COTTLE B"	230 30	"1 "	243	-30	0.92	618	AMPS	675.25	AMPS	2013sumpk_q268_pst_catb
30505	"WEBER "	230 30	30888	"P0703 "	230 30	"1 "	-471	-16	0.99**	1187	AMPS	1199.89	AMPS	2013sumpk_q268_pre_catb
30505	"WEBER "	230 30	30888	"P0703 "	230 30	"1 "	-471	-16	0.99**	1189	AMPS	1199.89	AMPS	2013sumpk_q268_pst_catb
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	351	0	1.32**	888	AMPS	675.25	AMPS	2013sumpk_q268_pre_catb
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	360	2	1.35**	910	AMPS	675.25	AMPS	2013sumpk_q268_pst_catb
30526	"PITSBG D"	230 30	38950	"VSC_PTSB"	181 30	"1 "	415	149	1.03**	441	MVA	430.00	MVA	2013sumpk_q268_pre_catb
30526	"PITSBG D"	230 30	38950	"VSC_PTSB"	181 30	"1 "	415	149	1.03**	441	MVA	430.00	MVA	2013sumpk_q268_pst_catb
30624	"TESLA E "	230 30	30670	"WESTLEY "	230 30	"1 "	605	-22	1.01**	1501	AMPS	1484.04	AMPS	2013sumpk_q268_pre_catb
30624	"TESLA E "	230 30	30670	"WESTLEY "	230 30	"1 "	614	-19	1.03**	1523	AMPS	1484.04	AMPS	2013sumpk_q268_pst_catb
31468	"CASCADE "	115 30	45087	"DELTA "	115 40	"1 "	81	-25	0.98	410	AMPS	416.70	AMPS	2013sumpk_q268_pre_catb
31468	"CASCADE "	115 30	45087	"DELTA "	115 40	"1 "	81	-25	0.98	410	AMPS	416.70	AMPS	2013sumpk_q268_pst_catb
32212	"E.NICOLS"	115 30	32342	"E.NICOLS"	60 30	"2 "	76	38	1.46**	85	MVA	58.50	MVA	2013sumpk_q268_pre_catb
32212	"E.NICOLS"	115 30	32342	"E.NICOLS"	60 30	"2 "	76	38	1.46**	85	MVA	58.50	MVA	2013sumpk_q268_pst_catb
32224	"CHCGO PK"	115 30	32232	"HIGGINS "	115 30	"1 "	142	8	1.05	682	AMPS	652.66	AMPS	2013sumpk_q268_pre_catb
32224	"CHCGO PK"	115 30	32232	"HIGGINS "	115 30	"1 "	141	8	1.04	680	AMPS	652.66	AMPS	2013sumpk_q268_pst_catb
32228	"PLACER "	115 30	32394	"PLACER "	60 30	"1 "	89	18	1.18**	90	MVA	77.00	MVA	2013sumpk_q268_pre_catb
32228	"PLACER "	115 30	32394	"PLACER "	60 30	"1 "	89	18	1.18**	90	MVA	77.00	MVA	2013sumpk_q268_pst_catb
32229	"HORSHEL "	115 30	32230	"HORSESHE"	115 30	"1 "	62	3	0.97	312	AMPS	321.31	AMPS	2013sumpk_q268_pre_catb
32229	"HORSHEL "	115 30	32230	"HORSESHE"	115 30	"1 "	62	3	0.97	312	AMPS	321.31	AMPS	2013sumpk_q268_pst_catb

APPENDIX C - STEADY STATE POWER FLOW RESULTS
 AUTCON OUTPUT FILES FOR 2013 SUMMER PEAK **NORMAL** OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				---BASE---		LOADING			-----CASE-----	
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	MW	MVAR	P.U.	FLOW	RATING		
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	31	3	1.04	309 AMPS	296.37 AMPS	2013sumpk_q268_pre_catb	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	31	3	1.04	309 AMPS	296.37 AMPS	2013sumpk_q268_pst_catb	
33204	"POTRERO "	115 30	38951	"VSC_POTR"	181 30	"1 "	-400	122	0.97**	418 MVA	430.00 MVA	2013sumpk_q268_pre_catb	
33204	"POTRERO "	115 30	38951	"VSC_POTR"	181 30	"1 "	-400	121	0.97**	418 MVA	430.00 MVA	2013sumpk_q268_pst_catb	
33646	"MORMON "	60 30	33650	"WEBER 1 "	60 30	"1 "	-39	-2	0.96	378 AMPS	394.52 AMPS	2013sumpk_q268_pre_catb	
33646	"MORMON "	60 30	33650	"WEBER 1 "	60 30	"1 "	-39	-2	0.96	378 AMPS	394.52 AMPS	2013sumpk_q268_pst_catb	
33704	"STAGG "	60 30	33714	"HAMMER "	60 30	"1 "	77	7	0.95	722 AMPS	760.18 AMPS	2013sumpk_q268_pre_catb	
33704	"STAGG "	60 30	33714	"HAMMER "	60 30	"1 "	77	7	0.95	722 AMPS	760.18 AMPS	2013sumpk_q268_pst_catb	
34126	"CORSGOLD"	115 30	34128	"OAKH_JCT"	115 30	"1 "	-54	-11	0.96	285 AMPS	296.21 AMPS	2013sumpk_q268_pre_catb	
34126	"CORSGOLD"	115 30	34128	"OAKH_JCT"	115 30	"1 "	-54	-11	0.96	286 AMPS	296.21 AMPS	2013sumpk_q268_pst_catb	
34176	"EXCHQRTP"	115 30	34306	"EXCHQUER"	14 30	"1 "	94	18	0.96**	96 MVA	100.00 MVA	2013sumpk_q268_pre_catb	
34176	"EXCHQRTP"	115 30	34306	"EXCHQUER"	14 30	"1 "	95	18	0.96**	96 MVA	100.00 MVA	2013sumpk_q268_pst_catb	
34208	"CHEVPIPE"	70 30	34210	"SNTA NLA"	70 30	"1 "	72	13	0.93	582 AMPS	626.84 AMPS	2013sumpk_q268_pre_catb	
34208	"CHEVPIPE"	70 30	34210	"SNTA NLA"	70 30	"1 "	72	13	0.93	585 AMPS	626.84 AMPS	2013sumpk_q268_pst_catb	
34208	"CHEVPIPE"	70 30	34214	"LOS BANS"	70 30	"1 "	-73	-14	0.94	587 AMPS	627.66 AMPS	2013sumpk_q268_pre_catb	
34208	"CHEVPIPE"	70 30	34214	"LOS BANS"	70 30	"1 "	-73	-14	0.94	590 AMPS	627.66 AMPS	2013sumpk_q268_pst_catb	
37010	"HURLEY S"	230 30	37109	"HURLEY 2"	69 30	"2 "	195	75	0.93**	209 MVA	224.00 MVA	2013sumpk_q268_pre_catb	
37010	"HURLEY S"	230 30	37109	"HURLEY 2"	69 30	"2 "	195	75	0.93**	209 MVA	224.00 MVA	2013sumpk_q268_pst_catb	
37012	"LAKE "	230 30	37122	"LAKE 2 "	69 30	"1 "	171	23	1.08**	173 MVA	160.00 MVA	2013sumpk_q268_pre_catb	
37012	"LAKE "	230 30	37122	"LAKE 2 "	69 30	"1 "	171	23	1.08**	173 MVA	160.00 MVA	2013sumpk_q268_pst_catb	
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	46	-12	1.07**	396 AMPS	370.68 AMPS	2013sumpk_q268_pre_catb	
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	46	-12	1.07**	398 AMPS	370.68 AMPS	2013sumpk_q268_pst_catb	

**APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY B 2013 SUMMER PEAK OPERATING CONDITIONS**

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----				(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING			
30330	"RIO OSO "	230 30	30335	"ATLANTC "	230 30	"1 "	1.00	1.07	446.26	77.00	1157.38	AMPS 1076.88	AMPS	2013sumpk_q268_pre_catb	108
30330	"RIO OSO "	230 30	30335	"ATLANTC "	230 30	"1 "	0.99	1.07	445.63	76.99	1155.79	AMPS 1076.88	AMPS	2013sumpk_q268_pst_catb	108
30330	"RIO OSO "	230 30	30335	"ATLANTC "	230 30	"1 "	1.00	0.91	381.40	39.82	981.20	AMPS 1076.88	AMPS	2013sumpk_q268_pre_catb	137
30330	"RIO OSO "	230 30	30335	"ATLANTC "	230 30	"1 "	0.99	0.91	380.93	39.85	980.03	AMPS 1076.88	AMPS	2013sumpk_q268_pst_catb	137
30330	"RIO OSO "	230 30	30335	"ATLANTC "	230 30	"1 "	1.00	1.13	470.63	78.92	1220.17	AMPS 1076.88	AMPS	2013sumpk_q268_pre_catb	244
30330	"RIO OSO "	230 30	30335	"ATLANTC "	230 30	"1 "	0.99	1.13	470.00	78.91	1218.59	AMPS 1076.88	AMPS	2013sumpk_q268_pst_catb	244
30330	"RIO OSO "	230 30	30337	"GOLDHILL"	230 30	"1 "	0.78	0.94	395.15	52.96	1017.23	AMPS 1076.88	AMPS	2013sumpk_q268_pre_catb	107
30330	"RIO OSO "	230 30	30337	"GOLDHILL"	230 30	"1 "	0.78	0.94	394.51	52.97	1015.63	AMPS 1076.88	AMPS	2013sumpk_q268_pst_catb	107
30330	"RIO OSO "	230 30	30337	"GOLDHILL"	230 30	"1 "	0.78	1.00	419.40	55.03	1079.81	AMPS 1076.88	AMPS	2013sumpk_q268_pre_catb	260
30330	"RIO OSO "	230 30	30337	"GOLDHILL"	230 30	"1 "	0.78	1.00	418.76	55.04	1078.22	AMPS 1076.88	AMPS	2013sumpk_q268_pst_catb	260
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.95	0.98	383.85	-8.67	983.39	AMPS 1004.09	AMPS	2013sumpk_q268_pre_catb	109
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.94	0.98	383.32	-8.44	982.01	AMPS 1004.09	AMPS	2013sumpk_q268_pst_catb	109
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.95	0.92	361.32	-4.79	921.42	AMPS 1004.09	AMPS	2013sumpk_q268_pre_catb	115
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.94	0.92	360.87	-4.59	920.28	AMPS 1004.09	AMPS	2013sumpk_q268_pst_catb	115
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.95	0.90	354.36	-4.77	907.48	AMPS 1004.09	AMPS	2013sumpk_q268_pre_catb	133
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.94	0.90	353.93	-4.53	906.39	AMPS 1004.09	AMPS	2013sumpk_q268_pst_catb	133
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.95	0.90	354.52	-4.74	907.94	AMPS 1004.09	AMPS	2013sumpk_q268_pre_catb	134
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.94	0.90	354.09	-4.50	906.84	AMPS 1004.09	AMPS	2013sumpk_q268_pst_catb	134
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.95	0.90	352.42	-6.78	904.20	AMPS 1004.09	AMPS	2013sumpk_q268_pre_catb	279
=2=															
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.95	0.90	354.52	-4.74	907.94	AMPS 1004.09	AMPS	2013sumpk_q268_pre_catb	33
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.94	0.90	354.09	-4.50	906.84	AMPS 1004.09	AMPS	2013sumpk_q268_pst_catb	33
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.95	0.95	373.83	-0.34	957.42	AMPS 1004.09	AMPS	2013sumpk_q268_pre_catb	34
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.94	0.95	373.38	-0.09	956.28	AMPS 1004.09	AMPS	2013sumpk_q268_pst_catb	34
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.95	0.90	354.36	-4.77	907.48	AMPS 1004.09	AMPS	2013sumpk_q268_pre_catb	35
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.94	0.90	353.93	-4.53	906.39	AMPS 1004.09	AMPS	2013sumpk_q268_pst_catb	35
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.95	0.92	361.82	-13.13	926.80	AMPS 1004.09	AMPS	2013sumpk_q268_pre_catb	56
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.94	0.92	361.39	-12.88	925.70	AMPS 1004.09	AMPS	2013sumpk_q268_pst_catb	56
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.95	0.93	364.96	-10.24	935.48	AMPS 1004.09	AMPS	2013sumpk_q268_pre_catb	97
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.94	0.93	364.53	-9.99	934.37	AMPS 1004.09	AMPS	2013sumpk_q268_pst_catb	97
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.95	0.92	358.95	-0.33	920.26	AMPS 1004.09	AMPS	2013sumpk_q268_pre_catb	99

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY B 2013 SUMMER PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING		
31960	"MOBILCHE"	115 30	31966	"WODLNDJ1"	115 30	"1 "	0.78	0.92	-146.51	9.23	756.69 AMPS	818.33 AMPS	2013sumpk_q268_pre_catb	133
31960	"MOBILCHE"	115 30	31966	"WODLNDJ1"	115 30	"1 "	0.78	0.92	-146.45	9.18	756.42 AMPS	818.33 AMPS	2013sumpk_q268_pst_catb	133
31960	"MOBILCHE"	115 30	31966	"WODLNDJ1"	115 30	"1 "	0.78	0.92	-146.51	9.23	756.69 AMPS	818.33 AMPS	2013sumpk_q268_pre_catb	35
31960	"MOBILCHE"	115 30	31966	"WODLNDJ1"	115 30	"1 "	0.78	0.92	-146.45	9.18	756.42 AMPS	818.33 AMPS	2013sumpk_q268_pst_catb	35
31960	"MOBILCHE"	115 30	31970	"WOODLD "	115 30	"1 "	0.78	0.92	146.41	-9.23	756.17 AMPS	818.33 AMPS	2013sumpk_q268_pre_catb	133
31960	"MOBILCHE"	115 30	31970	"WOODLD "	115 30	"1 "	0.78	0.92	146.35	-9.18	755.91 AMPS	818.33 AMPS	2013sumpk_q268_pst_catb	133
31960	"MOBILCHE"	115 30	31970	"WOODLD "	115 30	"1 "	0.78	0.92	146.41	-9.23	756.17 AMPS	818.33 AMPS	2013sumpk_q268_pre_catb	35
31960	"MOBILCHE"	115 30	31970	"WOODLD "	115 30	"1 "	0.78	0.92	146.35	-9.18	755.91 AMPS	818.33 AMPS	2013sumpk_q268_pst_catb	35
31962	"WDLND_BM"	115 30	31970	"WOODLD "	115 30	"1 "	0.55	0.96	-135.79	25.43	708.45 AMPS	739.01 AMPS	2013sumpk_q268_pre_catb	5
31962	"WDLND_BM"	115 30	31970	"WOODLD "	115 30	"1 "	0.55	0.96	-135.63	25.30	707.59 AMPS	739.01 AMPS	2013sumpk_q268_pst_catb	5
31962	"WDLND_BM"	115 30	31970	"WOODLD "	115 30	"1 "	0.55	1.06	-149.99	24.07	785.93 AMPS	739.01 AMPS	2013sumpk_q268_pre_catb	95
31962	"WDLND_BM"	115 30	31970	"WOODLD "	115 30	"1 "	0.55	1.06	-149.85	23.95	785.12 AMPS	739.01 AMPS	2013sumpk_q268_pst_catb	95
31962	"WDLND_BM"	115 30	31992	"HUNT "	115 30	"1 "	0.73	1.12	159.30	-21.71	824.46 AMPS	738.00 AMPS	2013sumpk_q268_pre_catb	5
31962	"WDLND_BM"	115 30	31992	"HUNT "	115 30	"1 "	0.73	1.12	159.14	-21.59	823.64 AMPS	738.00 AMPS	2013sumpk_q268_pst_catb	5
31962	"WDLND_BM"	115 30	31992	"HUNT "	115 30	"1 "	0.73	1.06	148.50	-24.41	778.60 AMPS	738.00 AMPS	2013sumpk_q268_pre_catb	95
31962	"WDLND_BM"	115 30	31992	"HUNT "	115 30	"1 "	0.73	1.05	148.36	-24.29	777.79 AMPS	738.00 AMPS	2013sumpk_q268_pst_catb	95
31964	"KNIGHT2 "	115 30	31968	"WODLNDJ2"	115 30	"2 "	0.86	0.99	159.31	2.58	807.39 AMPS	818.33 AMPS	2013sumpk_q268_pre_catb	134
31964	"KNIGHT2 "	115 30	31968	"WODLNDJ2"	115 30	"2 "	0.86	0.99	159.25	2.62	807.12 AMPS	818.33 AMPS	2013sumpk_q268_pst_catb	134
31964	"KNIGHT2 "	115 30	31968	"WODLNDJ2"	115 30	"2 "	0.86	0.99	159.31	2.58	807.39 AMPS	818.33 AMPS	2013sumpk_q268_pre_catb	33
31964	"KNIGHT2 "	115 30	31968	"WODLNDJ2"	115 30	"2 "	0.86	0.99	159.25	2.62	807.12 AMPS	818.33 AMPS	2013sumpk_q268_pst_catb	33
31964	"KNIGHT2 "	115 30	31968	"WODLNDJ2"	115 30	"2 "	0.86	0.92	116.29	2.59	581.66 AMPS	632.58 AMPS	2013sumpk_q268_pre_catb	73
31964	"KNIGHT2 "	115 30	31968	"WODLNDJ2"	115 30	"2 "	0.86	0.92	116.25	2.61	581.48 AMPS	632.58 AMPS	2013sumpk_q268_pst_catb	73
31964	"KNIGHT2 "	115 30	31968	"WODLNDJ2"	115 30	"2 "	0.86	0.94	151.95	3.89	772.24 AMPS	818.33 AMPS	2013sumpk_q268_pre_catb	95
31964	"KNIGHT2 "	115 30	31968	"WODLNDJ2"	115 30	"2 "	0.86	0.94	151.87	3.94	771.87 AMPS	818.33 AMPS	2013sumpk_q268_pst_catb	95
31964	"KNIGHT2 "	115 30	31968	"WODLNDJ2"	115 30	"2 "	0.86	1.07	170.40	6.40	872.09 AMPS	818.33 AMPS	2013sumpk_q268_pre_catb	99
31964	"KNIGHT2 "	115 30	31968	"WODLNDJ2"	115 30	"2 "	0.86	1.07	170.35	6.44	871.84 AMPS	818.33 AMPS	2013sumpk_q268_pst_catb	99
31964	"KNIGHT2 "	115 30	32214	"RIO OSO "	115 30	"2 "	0.86	0.99	164.10	23.96	806.80 AMPS	818.33 AMPS	2013sumpk_q268_pre_catb	134
31964	"KNIGHT2 "	115 30	32214	"RIO OSO "	115 30	"2 "	0.86	0.99	164.04	23.99	806.53 AMPS	818.33 AMPS	2013sumpk_q268_pst_catb	134
31964	"KNIGHT2 "	115 30	32214	"RIO OSO "	115 30	"2 "	0.86	0.99	164.10	23.96	806.80 AMPS	818.33 AMPS	2013sumpk_q268_pre_catb	33
31964	"KNIGHT2 "	115 30	32214	"RIO OSO "	115 30	"2 "	0.86	0.99	164.04	23.99	806.53 AMPS	818.33 AMPS	2013sumpk_q268_pst_catb	33
31964	"KNIGHT2 "	115 30	32214	"RIO OSO "	115 30	"2 "	0.86	0.92	118.78	12.97	581.18 AMPS	632.58 AMPS	2013sumpk_q268_pre_catb	73

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY B 2013 SUMMER PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----				(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING			
31964	"KNIGHT2 "	115 30	32214	"RIO OSO "	115 30	"2 "	0.86	0.92	118.74	12.99	581.00 AMPS	632.58 AMPS	2013sumpk_q268_pst_catb	73	
31964	"KNIGHT2 "	115 30	32214	"RIO OSO "	115 30	"2 "	0.86	0.94	156.33	23.33	771.61 AMPS	818.33 AMPS	2013sumpk_q268_pre_catb	95	
31964	"KNIGHT2 "	115 30	32214	"RIO OSO "	115 30	"2 "	0.86	0.94	156.25	23.36	771.24 AMPS	818.33 AMPS	2013sumpk_q268_pst_catb	95	
31964	"KNIGHT2 "	115 30	32214	"RIO OSO "	115 30	"2 "	0.86	1.06	176.00	31.60	871.31 AMPS	818.33 AMPS	2013sumpk_q268_pre_catb	99	
31964	"KNIGHT2 "	115 30	32214	"RIO OSO "	115 30	"2 "	0.86	1.06	175.94	31.62	871.07 AMPS	818.33 AMPS	2013sumpk_q268_pst_catb	99	
31965	"KNIGHT1 "	115 30	31966	"WODLNDJ1 "	115 30	"1 "	0.78	0.92	149.46	1.86	756.78 AMPS	818.33 AMPS	2013sumpk_q268_pre_catb	133	
31965	"KNIGHT1 "	115 30	31966	"WODLNDJ1 "	115 30	"1 "	0.78	0.92	149.40	1.90	756.51 AMPS	818.33 AMPS	2013sumpk_q268_pst_catb	133	
31965	"KNIGHT1 "	115 30	31966	"WODLNDJ1 "	115 30	"1 "	0.78	0.92	149.46	1.86	756.78 AMPS	818.33 AMPS	2013sumpk_q268_pre_catb	35	
31965	"KNIGHT1 "	115 30	31966	"WODLNDJ1 "	115 30	"1 "	0.78	0.92	149.40	1.90	756.51 AMPS	818.33 AMPS	2013sumpk_q268_pst_catb	35	
31965	"KNIGHT1 "	115 30	32214	"RIO OSO "	115 30	"1 "	0.85	0.98	162.85	23.27	800.20 AMPS	818.33 AMPS	2013sumpk_q268_pre_catb	133	
31965	"KNIGHT1 "	115 30	32214	"RIO OSO "	115 30	"1 "	0.85	0.98	162.79	23.30	799.93 AMPS	818.33 AMPS	2013sumpk_q268_pst_catb	133	
31965	"KNIGHT1 "	115 30	32214	"RIO OSO "	115 30	"1 "	0.85	0.98	162.85	23.27	800.20 AMPS	818.33 AMPS	2013sumpk_q268_pre_catb	35	
31965	"KNIGHT1 "	115 30	32214	"RIO OSO "	115 30	"1 "	0.85	0.98	162.79	23.30	799.93 AMPS	818.33 AMPS	2013sumpk_q268_pst_catb	35	
31965	"KNIGHT1 "	115 30	32214	"RIO OSO "	115 30	"1 "	0.85	0.91	118.21	12.50	578.16 AMPS	632.58 AMPS	2013sumpk_q268_pre_catb	73	
31965	"KNIGHT1 "	115 30	32214	"RIO OSO "	115 30	"1 "	0.85	0.91	118.17	12.52	577.98 AMPS	632.58 AMPS	2013sumpk_q268_pst_catb	73	
31965	"KNIGHT1 "	115 30	32214	"RIO OSO "	115 30	"1 "	0.85	0.94	155.74	22.71	768.33 AMPS	818.33 AMPS	2013sumpk_q268_pre_catb	95	
31965	"KNIGHT1 "	115 30	32214	"RIO OSO "	115 30	"1 "	0.85	0.94	155.66	22.74	767.96 AMPS	818.33 AMPS	2013sumpk_q268_pst_catb	95	
31968	"WODLNDJ2 "	115 30	31970	"WOODLD "	115 30	"2 "	0.77	0.92	148.23	1.30	752.62 AMPS	818.33 AMPS	2013sumpk_q268_pre_catb	134	
31968	"WODLNDJ2 "	115 30	31970	"WOODLD "	115 30	"2 "	0.77	0.92	148.18	1.34	752.36 AMPS	818.33 AMPS	2013sumpk_q268_pst_catb	134	
31968	"WODLNDJ2 "	115 30	31970	"WOODLD "	115 30	"2 "	0.77	0.92	148.23	1.30	752.62 AMPS	818.33 AMPS	2013sumpk_q268_pre_catb	33	
31968	"WODLNDJ2 "	115 30	31970	"WOODLD "	115 30	"2 "	0.77	0.92	148.18	1.34	752.36 AMPS	818.33 AMPS	2013sumpk_q268_pst_catb	33	
31968	"WODLNDJ2 "	115 30	31970	"WOODLD "	115 30	"2 "	0.77	1.00	159.28	4.87	816.83 AMPS	818.33 AMPS	2013sumpk_q268_pre_catb	99	
31968	"WODLNDJ2 "	115 30	31970	"WOODLD "	115 30	"2 "	0.77	1.00	159.23	4.91	816.59 AMPS	818.33 AMPS	2013sumpk_q268_pst_catb	99	
31978	"DPWT_TP2 "	115 30	31984	"BRIGHTN "	115 30	"1 "	0.84	0.92	-81.71	2.63	406.12 AMPS	441.80 AMPS	2013sumpk_q268_pre_catb	233	
31978	"DPWT_TP2 "	115 30	31984	"BRIGHTN "	115 30	"1 "	0.84	0.92	-81.78	2.69	406.52 AMPS	441.80 AMPS	2013sumpk_q268_pst_catb	233	
31978	"DPWT_TP2 "	115 30	31984	"BRIGHTN "	115 30	"1 "	0.84	0.92	-82.19	3.18	408.07 AMPS	441.80 AMPS	2013sumpk_q268_pre_catb	234	
31978	"DPWT_TP2 "	115 30	31984	"BRIGHTN "	115 30	"1 "	0.84	0.92	-82.26	3.24	408.47 AMPS	441.80 AMPS	2013sumpk_q268_pst_catb	234	
31978	"DPWT_TP2 "	115 30	31984	"BRIGHTN "	115 30	"1 "	0.84	0.94	-114.27	14.64	573.10 AMPS	607.47 AMPS	2013sumpk_q268_pre_catb	56	
31978	"DPWT_TP2 "	115 30	31984	"BRIGHTN "	115 30	"1 "	0.84	0.94	-114.31	14.67	573.41 AMPS	607.47 AMPS	2013sumpk_q268_pst_catb	56	
31978	"DPWT_TP2 "	115 30	31984	"BRIGHTN "	115 30	"1 "	0.84	0.99	-119.51	13.09	601.22 AMPS	607.47 AMPS	2013sumpk_q268_pre_catb	97	
31978	"DPWT_TP2 "	115 30	31984	"BRIGHTN "	115 30	"1 "	0.84	0.99	-119.56	13.13	601.53 AMPS	607.47 AMPS	2013sumpk_q268_pst_catb	97	

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY B 2013 SUMMER PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING		
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.86	0.97	100.93	-5.59	491.55 AMPS	507.06 AMPS	2013sumpk_q268_pre_catb	34
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.86	0.97	100.86	-5.55	491.23 AMPS	507.06 AMPS	2013sumpk_q268_pst_catb	34
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.86	0.98	102.25	-4.03	498.53 AMPS	507.06 AMPS	2013sumpk_q268_pre_catb	37
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.86	0.98	102.23	-4.01	498.43 AMPS	507.06 AMPS	2013sumpk_q268_pst_catb	37
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.86	1.18	122.75	-8.99	599.91 AMPS	507.06 AMPS	2013sumpk_q268_pre_catb	5
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.86	1.18	122.65	-8.94	599.40 AMPS	507.06 AMPS	2013sumpk_q268_pst_catb	5
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.86	1.20	124.73	-7.50	610.00 AMPS	507.06 AMPS	2013sumpk_q268_pre_catb	95
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.86	1.20	124.64	-7.45	609.51 AMPS	507.06 AMPS	2013sumpk_q268_pst_catb	95
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.86	1.02	105.56	-1.73	515.23 AMPS	507.06 AMPS	2013sumpk_q268_pre_catb	96
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.86	1.02	105.54	-1.71	515.13 AMPS	507.06 AMPS	2013sumpk_q268_pst_catb	96
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.86	0.90	93.61	-5.17	456.82 AMPS	507.06 AMPS	2013sumpk_q268_pre_catb	99
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.86	0.90	93.56	-5.13	456.57 AMPS	507.06 AMPS	2013sumpk_q268_pst_catb	99
31990	"DAVIS "	115 30	31992	"HUNT "	115 30	"1 "	0.73	1.11	-156.28	34.63	822.50 AMPS	738.00 AMPS	2013sumpk_q268_pre_catb	5
31990	"DAVIS "	115 30	31992	"HUNT "	115 30	"1 "	0.73	1.11	-156.13	34.48	821.67 AMPS	738.00 AMPS	2013sumpk_q268_pst_catb	5
31990	"DAVIS "	115 30	31992	"HUNT "	115 30	"1 "	0.73	1.05	-145.78	35.87	776.55 AMPS	738.00 AMPS	2013sumpk_q268_pre_catb	95
31990	"DAVIS "	115 30	31992	"HUNT "	115 30	"1 "	0.73	1.05	-145.64	35.72	775.74 AMPS	738.00 AMPS	2013sumpk_q268_pst_catb	95
31998	"VACA-DIX"	115 30	32004	"VCVLE2J"	115 30	"1 "	0.81	0.90	141.95	10.28	667.92 AMPS	739.01 AMPS	2013sumpk_q268_pre_catb	40
31998	"VACA-DIX"	115 30	32004	"VCVLE2J"	115 30	"1 "	0.81	0.90	141.95	10.29	668.06 AMPS	739.01 AMPS	2013sumpk_q268_pst_catb	40
31998	"VACA-DIX"	115 30	32088	"VACA-DXN"	60 30	"5 "	0.34	0.94	82.31	21.18	84.99 MVA	90.80 MVA	2013sumpk_q268_pre_catb	68
31998	"VACA-DIX"	115 30	32088	"VACA-DXN"	60 30	"5 "	0.34	0.94	82.31	21.19	84.99 MVA	90.80 MVA	2013sumpk_q268_pst_catb	68
32018	"GOLDHILL"	115 30	32229	"HORSHE1 "	115 30	"1 "	0.72	1.11	161.17	27.86	818.99 AMPS	738.00 AMPS	2013sumpk_q268_pre_catb	139
32018	"GOLDHILL"	115 30	32229	"HORSHE1 "	115 30	"1 "	0.72	1.11	161.17	27.86	819.02 AMPS	738.00 AMPS	2013sumpk_q268_pst_catb	139
32018	"GOLDHILL"	115 30	32229	"HORSHE1 "	115 30	"1 "	0.72	0.96	141.04	21.14	709.64 AMPS	738.00 AMPS	2013sumpk_q268_pre_catb	141
32018	"GOLDHILL"	115 30	32229	"HORSHE1 "	115 30	"1 "	0.72	0.96	141.04	21.14	709.67 AMPS	738.00 AMPS	2013sumpk_q268_pst_catb	141
32018	"GOLDHILL"	115 30	32229	"HORSHE1 "	115 30	"1 "	0.72	1.16	167.07	34.49	857.93 AMPS	738.00 AMPS	2013sumpk_q268_pre_catb	251
32018	"GOLDHILL"	115 30	32229	"HORSHE1 "	115 30	"1 "	0.72	1.16	167.07	34.50	857.96 AMPS	738.00 AMPS	2013sumpk_q268_pst_catb	251
32018	"GOLDHILL"	115 30	32229	"HORSHE1 "	115 30	"1 "	0.72	1.01	146.85	27.17	746.01 AMPS	738.00 AMPS	2013sumpk_q268_pre_catb	252
32018	"GOLDHILL"	115 30	32229	"HORSHE1 "	115 30	"1 "	0.72	1.01	146.85	27.17	746.04 AMPS	738.00 AMPS	2013sumpk_q268_pst_catb	252
32018	"GOLDHILL"	115 30	32231	"HORSHE2 "	115 30	"2 "	0.45	0.92	133.58	33.91	680.37 AMPS	738.00 AMPS	2013sumpk_q268_pre_catb	122
32018	"GOLDHILL"	115 30	32231	"HORSHE2 "	115 30	"2 "	0.45	0.92	133.91	33.83	681.88 AMPS	738.00 AMPS	2013sumpk_q268_pst_catb	122
32018	"GOLDHILL"	115 30	32231	"HORSHE2 "	115 30	"2 "	0.45	0.99	141.44	42.63	731.26 AMPS	738.00 AMPS	2013sumpk_q268_pre_catb	242
32018	"GOLDHILL"	115 30	32231	"HORSHE2 "	115 30	"2 "	0.45	0.99	141.76	42.55	732.68 AMPS	738.00 AMPS	2013sumpk_q268_pst_catb	242

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY B 2013 SUMMER PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING		
32018	"GOLDHILL"	115 30	32231	"HORSHE2 "	115 30	"2 "	0.45	0.92	131.22	32.17	679.45 AMPS	738.00 AMPS	2013sumpk_q268_pre_catb	251
32018	"GOLDHILL"	115 30	32231	"HORSHE2 "	115 30	"2 "	0.45	0.92	131.22	32.17	679.48 AMPS	738.00 AMPS	2013sumpk_q268_pst_catb	251
32018	"GOLDHILL"	115 30	32268	"SHPRING2"	115 30	"2 "	0.72	0.90	159.82	20.07	795.48 AMPS	881.09 AMPS	2013sumpk_q268_pre_catb	126
32018	"GOLDHILL"	115 30	32268	"SHPRING2"	115 30	"2 "	0.72	0.90	159.82	20.07	795.50 AMPS	881.09 AMPS	2013sumpk_q268_pst_catb	126
32018	"GOLDHILL"	115 30	32275	"CPM TAP "	115 30	"1 "	0.31	1.14	202.26	18.77	1002.56 AMPS	881.09 AMPS	2013sumpk_q268_pre_catb	124
32018	"GOLDHILL"	115 30	32275	"CPM TAP "	115 30	"1 "	0.31	1.14	202.26	18.76	1002.59 AMPS	881.09 AMPS	2013sumpk_q268_pst_catb	124
32018	"GOLDHILL"	115 30	32275	"CPM TAP "	115 30	"1 "	0.31	0.91	161.23	22.61	804.58 AMPS	881.09 AMPS	2013sumpk_q268_pre_catb	125
32018	"GOLDHILL"	115 30	32275	"CPM TAP "	115 30	"1 "	0.31	0.91	161.23	22.61	804.61 AMPS	881.09 AMPS	2013sumpk_q268_pst_catb	125
32018	"GOLDHILL"	115 30	32275	"CPM TAP "	115 30	"1 "	0.31	1.17	207.53	20.05	1030.26 AMPS	881.09 AMPS	2013sumpk_q268_pre_catb	264
32018	"GOLDHILL"	115 30	32275	"CPM TAP "	115 30	"1 "	0.31	1.17	207.53	20.05	1030.29 AMPS	881.09 AMPS	2013sumpk_q268_pst_catb	264
32212	"E.NICOLS"	115 30	32214	"RIO OSO "	115 30	"1 "	0.64	1.03	-76.51	-40.00	430.50 AMPS	416.70 AMPS	2013sumpk_q268_pre_catb	118
32212	"E.NICOLS"	115 30	32214	"RIO OSO "	115 30	"1 "	0.64	1.03	-76.51	-40.00	430.51 AMPS	416.70 AMPS	2013sumpk_q268_pst_catb	118
32212	"E.NICOLS"	115 30	32214	"RIO OSO "	115 30	"1 "	0.64	1.03	-76.48	-39.80	429.39 AMPS	416.70 AMPS	2013sumpk_q268_pre_catb	243
32212	"E.NICOLS"	115 30	32214	"RIO OSO "	115 30	"1 "	0.64	1.03	-76.48	-39.80	429.40 AMPS	416.70 AMPS	2013sumpk_q268_pst_catb	243
32214	"RIO OSO "	115 30	32290	"OLIVH J1"	115 30	"1 "	0.20	0.97	-96.31	-10.33	493.70 AMPS	507.06 AMPS	2013sumpk_q268_pre_catb	240
32214	"RIO OSO "	115 30	32290	"OLIVH J1"	115 30	"1 "	0.20	0.97	-96.36	-10.33	493.94 AMPS	507.06 AMPS	2013sumpk_q268_pst_catb	240
32218	"DRUM "	115 30	32220	"DTCH FL1"	115 30	"1 "	0.82	1.01	103.24	-3.24	495.77 AMPS	491.00 AMPS	2013sumpk_q268_pre_catb	202
32218	"DRUM "	115 30	32220	"DTCH FL1"	115 30	"1 "	0.81	1.01	102.82	-3.21	493.80 AMPS	491.00 AMPS	2013sumpk_q268_pst_catb	202
32218	"DRUM "	115 30	32220	"DTCH FL1"	115 30	"1 "	0.82	0.94	96.63	-3.86	463.25 AMPS	491.00 AMPS	2013sumpk_q268_pre_catb	203
32218	"DRUM "	115 30	32220	"DTCH FL1"	115 30	"1 "	0.81	0.94	96.21	-3.83	461.27 AMPS	491.00 AMPS	2013sumpk_q268_pst_catb	203
32220	"DTCH FL1"	115 30	32224	"CHCGO PK"	115 30	"1 "	0.80	0.96	124.06	5.06	601.32 AMPS	628.06 AMPS	2013sumpk_q268_pre_catb	202
32220	"DTCH FL1"	115 30	32224	"CHCGO PK"	115 30	"1 "	0.79	0.95	123.65	5.12	599.36 AMPS	628.06 AMPS	2013sumpk_q268_pst_catb	202
32228	"PLACER "	115 30	32394	"PLACER "	60 30	"1 "	1.18	1.31	97.52	24.67	100.59 MVA	77.00 MVA	2013sumpk_q268_pre_catb	212
32228	"PLACER "	115 30	32394	"PLACER "	60 30	"1 "	1.18	1.31	97.52	24.67	100.59 MVA	77.00 MVA	2013sumpk_q268_pst_catb	212
32262	"SHPRING1"	115 30	32264	"CLRKSFLT"	115 30	"1 "	0.31	0.91	-156.86	-2.34	805.07 AMPS	881.09 AMPS	2013sumpk_q268_pre_catb	125
32262	"SHPRING1"	115 30	32264	"CLRKSFLT"	115 30	"1 "	0.31	0.91	-156.86	-2.33	805.10 AMPS	881.09 AMPS	2013sumpk_q268_pst_catb	125
32264	"CLRKSFLT"	115 30	32275	"CPM TAP "	115 30	"1 "	0.31	1.14	200.45	10.18	1002.68 AMPS	881.09 AMPS	2013sumpk_q268_pre_catb	124
32264	"CLRKSFLT"	115 30	32275	"CPM TAP "	115 30	"1 "	0.31	1.14	200.45	10.18	1002.71 AMPS	881.09 AMPS	2013sumpk_q268_pst_catb	124
32264	"CLRKSFLT"	115 30	32275	"CPM TAP "	115 30	"1 "	0.31	0.91	160.06	17.21	804.79 AMPS	881.09 AMPS	2013sumpk_q268_pre_catb	125
32264	"CLRKSFLT"	115 30	32275	"CPM TAP "	115 30	"1 "	0.31	0.91	160.06	17.20	804.82 AMPS	881.09 AMPS	2013sumpk_q268_pst_catb	125
32264	"CLRKSFLT"	115 30	32275	"CPM TAP "	115 30	"1 "	0.31	1.17	205.62	10.97	1030.38 AMPS	881.09 AMPS	2013sumpk_q268_pre_catb	264

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY B 2013 SUMMER PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING		
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.69	310.85 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	141
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.69	310.86 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	141
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.72 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	161
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.73 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	161
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.45 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	164
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.47 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	164
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.69	310.89 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	165
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.69	310.90 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	165
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.28 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	237
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.29 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	237
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.92	30.63	2.74	315.63 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	243
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.92	30.63	2.74	315.63 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	243
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.91	30.61	2.71	312.32 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	251
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.91	30.61	2.71	312.31 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	251
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.70	311.22 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	252
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.70	311.22 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	252
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.32 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	253
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.34 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	253
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.69	310.87 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	255
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.69	310.88 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	255
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.69	310.80 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	266
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.69	310.81 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	266
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.70	311.56 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	267
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.70	311.57 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	267
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.34 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	276
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.35 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	276
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.69	310.77 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	279
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.69	310.79 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	279
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.68	310.15 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	33
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.68	310.16 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	33
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.68	310.09 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	35
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.68	310.10 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	35

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY B 2013 SUMMER PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING		
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.69	310.86 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	37
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.69	310.88 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	37
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.68	310.06 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	38
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.68	310.07 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	38
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.70	311.40 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	5
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.70	311.40 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	5
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.72 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	51
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.73 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	51
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.68	310.25 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	52
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.27 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	52
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.68	310.26 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	56
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.27 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	56
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.91	30.61	2.71	312.28 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	95
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.91	30.61	2.71	312.28 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	95
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.91	30.60	2.70	311.89 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	96
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.91	30.60	2.70	311.90 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	96
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.69	311.06 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	97
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.69	311.07 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	97
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.69	311.10 AMPS	344.49 AMPS	2013sumpk_q268_pre_catb	99
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.69	311.11 AMPS	344.49 AMPS	2013sumpk_q268_pst_catb	99
32367	"CPEHRNTP"	60 30	32376	"BONNIE N"	60 30	"1 "	0.50	0.95	33.21	-1.65	309.77 AMPS	327.17 AMPS	2013sumpk_q268_pre_catb	152
32367	"CPEHRNTP"	60 30	32376	"BONNIE N"	60 30	"1 "	0.50	0.95	33.21	-1.65	309.77 AMPS	327.17 AMPS	2013sumpk_q268_pst_catb	152
32367	"CPEHRNTP"	60 30	32376	"BONNIE N"	60 30	"1 "	0.50	0.92	27.43	1.73	256.24 AMPS	279.05 AMPS	2013sumpk_q268_pre_catb	211
32367	"CPEHRNTP"	60 30	32376	"BONNIE N"	60 30	"1 "	0.50	0.92	27.43	1.73	256.24 AMPS	279.05 AMPS	2013sumpk_q268_pst_catb	211
32374	"DRUM "	60 30	32376	"BONNIE N"	60 30	"1 "	0.55	1.00	35.66	-0.56	326.25 AMPS	326.20 AMPS	2013sumpk_q268_pre_catb	152
32374	"DRUM "	60 30	32376	"BONNIE N"	60 30	"1 "	0.55	1.00	35.66	-0.56	326.25 AMPS	326.20 AMPS	2013sumpk_q268_pst_catb	152
32374	"DRUM "	60 30	32376	"BONNIE N"	60 30	"1 "	0.55	0.97	29.67	2.49	272.70 AMPS	280.98 AMPS	2013sumpk_q268_pre_catb	211
32374	"DRUM "	60 30	32376	"BONNIE N"	60 30	"1 "	0.55	0.97	29.67	2.49	272.70 AMPS	280.98 AMPS	2013sumpk_q268_pst_catb	211
32392	"AUBURN "	60 30	32394	"PLACER "	60 30	"1 "	0.78	0.97	-44.88	-2.46	426.85 AMPS	437.82 AMPS	2013sumpk_q268_pre_catb	212
32392	"AUBURN "	60 30	32394	"PLACER "	60 30	"1 "	0.78	0.97	-44.88	-2.46	426.84 AMPS	437.82 AMPS	2013sumpk_q268_pst_catb	212

=1=

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY B 2013 SUMMER PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #	
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING			
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.86	1.02	229.46	35.01	1142.29	AMPS 1124.58	AMPS	2013sumpk_q268_pre_catb	309
=2=															
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.86	0.97	218.83	37.77	1094.37	AMPS 1124.58	AMPS	2013sumpk_q268_pre_catb	310
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.83	1.10	248.28	43.40	1232.09	AMPS 1124.58	AMPS	2013sumpk_q268_pst_catb	310
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.86	0.92	207.73	30.64	1032.05	AMPS 1124.58	AMPS	2013sumpk_q268_pre_catb	311
=2=															
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.86	1.08	241.29	42.05	1209.58	AMPS 1124.58	AMPS	2013sumpk_q268_pre_catb	318
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.83	1.02	231.01	44.18	1152.46	AMPS 1124.58	AMPS	2013sumpk_q268_pst_catb	318
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.86	0.92	207.89	34.36	1037.77	AMPS 1124.58	AMPS	2013sumpk_q268_pre_catb	358
=2=															
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.86	0.91	205.35	30.22	1019.71	AMPS 1124.58	AMPS	2013sumpk_q268_pre_catb	421
=2=															
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.86	0.92	207.13	34.80	1034.58	AMPS 1124.58	AMPS	2013sumpk_q268_pre_catb	423
=2=															
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.86	1.16	258.49	50.82	1308.19	AMPS 1124.58	AMPS	2013sumpk_q268_pre_catb	444
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.83	1.11	248.39	52.97	1248.80	AMPS 1124.58	AMPS	2013sumpk_q268_pst_catb	444
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.86	1.05	233.65	46.07	1178.55	AMPS 1124.58	AMPS	2013sumpk_q268_pre_catb	445
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.83	1.20	270.67	51.55	1351.55	AMPS 1124.58	AMPS	2013sumpk_q268_pst_catb	445
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.86	1.10	246.46	43.05	1237.57	AMPS 1124.58	AMPS	2013sumpk_q268_pre_catb	446
=2=															
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.86	1.05	233.57	46.16	1179.41	AMPS 1124.58	AMPS	2013sumpk_q268_pre_catb	447
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.83	1.18	264.99	53.68	1325.47	AMPS 1124.58	AMPS	2013sumpk_q268_pst_catb	447
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.86	0.98	217.80	42.10	1098.01	AMPS 1124.58	AMPS	2013sumpk_q268_pre_catb	448
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.83	0.93	209.01	43.45	1047.91	AMPS 1124.58	AMPS	2013sumpk_q268_pst_catb	448
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.86	0.91	205.67	35.30	1028.08	AMPS 1124.58	AMPS	2013sumpk_q268_pre_catb	449
=2=															
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.86	0.91	204.55	35.20	1024.86	AMPS 1124.58	AMPS	2013sumpk_q268_pre_catb	452
=2=															
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.86	0.92	207.40	30.88	1031.86	AMPS 1124.58	AMPS	2013sumpk_q268_pre_catb	457
=2=															
=1=															

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY B 2013 SUMMER PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING		
33610	"VLLY SPS"	60 30	33634	"PRDE JCT"	60 30	"1 "	0.67	0.93	32.51	4.61	311.97 AMPS	336.79 AMPS	2013sumpk_q268_pre_catb	414
33610	"VLLY SPS"	60 30	33634	"PRDE JCT"	60 30	"1 "	0.67	0.93	32.51	4.61	312.08 AMPS	336.79 AMPS	2013sumpk_q268_pst_catb	414
33610	"VLLY SPS"	60 30	33636	"N.HGN JT"	60 30	"1 "	0.68	1.09	49.89	8.97	485.84 AMPS	447.45 AMPS	2013sumpk_q268_pre_catb	337
33610	"VLLY SPS"	60 30	33636	"N.HGN JT"	60 30	"1 "	0.68	1.09	49.89	8.98	486.04 AMPS	447.45 AMPS	2013sumpk_q268_pst_catb	337
33636	"N.HGN JT"	60 30	33640	"CORRAL "	60 30	"1 "	0.75	1.16	51.33	7.23	517.92 AMPS	447.45 AMPS	2013sumpk_q268_pre_catb	337
33636	"N.HGN JT"	60 30	33640	"CORRAL "	60 30	"1 "	0.75	1.16	51.33	7.23	518.14 AMPS	447.45 AMPS	2013sumpk_q268_pst_catb	337
33650	"WEBER 1 "	60 30	33662	"WEBER 2 "	60 30	"1 "	0.53	0.93	-115.57	-12.62	1116.30 AMPS	1199.93 AMPS	2013sumpk_q268_pre_catb	379
33650	"WEBER 1 "	60 30	33662	"WEBER 2 "	60 30	"1 "	0.53	0.93	-115.56	-12.58	1111.18 AMPS	1199.93 AMPS	2013sumpk_q268_pst_catb	379
33654	"SNTA FEA"	60 30	33662	"WEBER 2 "	60 30	"1 "	0.60	1.10	45.28	5.75	435.81 AMPS	394.52 AMPS	2013sumpk_q268_pre_catb	432
33654	"SNTA FEA"	60 30	33662	"WEBER 2 "	60 30	"1 "	0.60	1.11	45.28	5.75	435.96 AMPS	394.52 AMPS	2013sumpk_q268_pst_catb	432
33654	"SNTA FEA"	60 30	33662	"WEBER 2 "	60 30	"1 "	0.60	1.19	57.17	6.42	548.58 AMPS	461.88 AMPS	2013sumpk_q268_pre_catb	453
33654	"SNTA FEA"	60 30	33662	"WEBER 2 "	60 30	"1 "	0.60	1.19	57.17	6.42	548.77 AMPS	461.88 AMPS	2013sumpk_q268_pst_catb	453
33654	"SNTA FEA"	60 30	33670	"STCKTN A"	60 30	"1 "	0.06	0.90	30.44	0.86	295.03 AMPS	326.20 AMPS	2013sumpk_q268_pre_catb	453
33654	"SNTA FEA"	60 30	33670	"STCKTN A"	60 30	"1 "	0.06	0.90	30.44	0.86	295.13 AMPS	326.20 AMPS	2013sumpk_q268_pst_catb	453
33658	"SNTA FEB"	60 30	33662	"WEBER 2 "	60 30	"1 "	0.52	1.03	42.16	4.14	404.52 AMPS	394.52 AMPS	2013sumpk_q268_pre_catb	432
33658	"SNTA FEB"	60 30	33662	"WEBER 2 "	60 30	"1 "	0.52	1.03	42.17	4.15	404.65 AMPS	394.52 AMPS	2013sumpk_q268_pst_catb	432
33704	"STAGG "	60 30	33706	"CNTRY CB"	60 30	"1 "	0.62	0.96	88.49	16.29	844.86 AMPS	875.65 AMPS	2013sumpk_q268_pre_catb	344
33704	"STAGG "	60 30	33706	"CNTRY CB"	60 30	"1 "	0.62	0.96	88.49	16.29	844.99 AMPS	875.65 AMPS	2013sumpk_q268_pst_catb	344
33704	"STAGG "	60 30	33706	"CNTRY CB"	60 30	"1 "	0.62	0.97	88.28	18.62	850.19 AMPS	875.65 AMPS	2013sumpk_q268_pre_catb	345
33704	"STAGG "	60 30	33706	"CNTRY CB"	60 30	"1 "	0.62	0.97	88.28	18.63	850.33 AMPS	875.65 AMPS	2013sumpk_q268_pst_catb	345
33704	"STAGG "	60 30	33706	"CNTRY CB"	60 30	"2 "	0.62	0.96	88.49	16.29	844.86 AMPS	875.65 AMPS	2013sumpk_q268_pre_catb	343
33704	"STAGG "	60 30	33706	"CNTRY CB"	60 30	"2 "	0.62	0.96	88.49	16.29	844.99 AMPS	875.65 AMPS	2013sumpk_q268_pst_catb	343
33704	"STAGG "	60 30	33706	"CNTRY CB"	60 30	"2 "	0.62	0.97	88.28	18.62	850.19 AMPS	875.65 AMPS	2013sumpk_q268_pre_catb	345
33704	"STAGG "	60 30	33706	"CNTRY CB"	60 30	"2 "	0.62	0.97	88.28	18.63	850.33 AMPS	875.65 AMPS	2013sumpk_q268_pst_catb	345
33704	"STAGG "	60 30	33714	"HAMMER "	60 30	"1 "	0.95	0.94	87.64	10.19	828.53 AMPS	885.27 AMPS	2013sumpk_q268_pre_catb	343
33704	"STAGG "	60 30	33714	"HAMMER "	60 30	"1 "	0.95	0.94	87.64	10.19	828.65 AMPS	885.27 AMPS	2013sumpk_q268_pst_catb	343
33704	"STAGG "	60 30	33714	"HAMMER "	60 30	"1 "	0.95	0.94	87.64	10.19	828.53 AMPS	885.27 AMPS	2013sumpk_q268_pre_catb	344
33704	"STAGG "	60 30	33714	"HAMMER "	60 30	"1 "	0.95	0.94	87.64	10.19	828.65 AMPS	885.27 AMPS	2013sumpk_q268_pst_catb	344
33706	"CNTRY CB"	60 30	33708	"UOP "	60 30	"1 "	0.47	1.14	130.66	27.46	1278.75 AMPS	1125.83 AMPS	2013sumpk_q268_pre_catb	345
33706	"CNTRY CB"	60 30	33708	"UOP "	60 30	"1 "	0.47	1.14	130.66	27.47	1278.97 AMPS	1125.83 AMPS	2013sumpk_q268_pst_catb	345
33708	"UOP "	60 30	33710	"WSTLNESW"	60 30	"1 "	0.41	1.08	124.59	22.40	1214.76 AMPS	1125.83 AMPS	2013sumpk_q268_pre_catb	345
33708	"UOP "	60 30	33710	"WSTLNESW"	60 30	"1 "	0.41	1.08	124.59	22.41	1214.96 AMPS	1125.83 AMPS	2013sumpk_q268_pst_catb	345

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY B 2013 SUMMER PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING		
33710	"WSTLNESW"	60 30	33716	"HMMR JCT"	60 30	"1 "	0.41	1.08	124.24	16.50	1214.83 AMPS	1125.83 AMPS	2013sumpk_q268_pre_catb	345
33710	"WSTLNESW"	60 30	33716	"HMMR JCT"	60 30	"1 "	0.41	1.08	124.24	16.51	1215.03 AMPS	1125.83 AMPS	2013sumpk_q268_pst_catb	345
33724	"LOCKEFRD"	60 30	33726	"VICTOR "	60 30	"1 "	0.73	1.00	93.16	17.26	883.26 AMPS	885.27 AMPS	2013sumpk_q268_pre_catb	349
33724	"LOCKEFRD"	60 30	33726	"VICTOR "	60 30	"1 "	0.73	1.00	93.16	17.27	883.57 AMPS	885.27 AMPS	2013sumpk_q268_pst_catb	349
33724	"LOCKEFRD"	60 30	33726	"VICTOR "	60 30	"1 "	0.73	1.00	93.16	17.26	883.26 AMPS	885.27 AMPS	2013sumpk_q268_pre_catb	465
33724	"LOCKEFRD"	60 30	33726	"VICTOR "	60 30	"1 "	0.73	1.00	93.16	17.27	883.57 AMPS	885.27 AMPS	2013sumpk_q268_pst_catb	465
33724	"LOCKEFRD"	60 30	33736	"LODI JCT"	60 30	"1 "	0.70	0.90	57.36	7.78	538.75 AMPS	596.60 AMPS	2013sumpk_q268_pre_catb	347
33724	"LOCKEFRD"	60 30	33736	"LODI JCT"	60 30	"1 "	0.70	0.90	57.36	7.79	538.94 AMPS	596.60 AMPS	2013sumpk_q268_pst_catb	347
33724	"LOCKEFRD"	60 30	33736	"LODI JCT"	60 30	"1 "	0.70	0.99	62.47	9.68	589.34 AMPS	596.60 AMPS	2013sumpk_q268_pre_catb	349
33724	"LOCKEFRD"	60 30	33736	"LODI JCT"	60 30	"1 "	0.70	0.99	62.47	9.68	589.54 AMPS	596.60 AMPS	2013sumpk_q268_pst_catb	349
33724	"LOCKEFRD"	60 30	33736	"LODI JCT"	60 30	"1 "	0.70	0.90	57.36	7.78	538.75 AMPS	596.60 AMPS	2013sumpk_q268_pre_catb	462
33724	"LOCKEFRD"	60 30	33736	"LODI JCT"	60 30	"1 "	0.70	0.90	57.36	7.79	538.94 AMPS	596.60 AMPS	2013sumpk_q268_pst_catb	462
33724	"LOCKEFRD"	60 30	33736	"LODI JCT"	60 30	"1 "	0.70	0.99	62.47	9.68	589.34 AMPS	596.60 AMPS	2013sumpk_q268_pre_catb	465
33724	"LOCKEFRD"	60 30	33736	"LODI JCT"	60 30	"1 "	0.70	0.99	62.47	9.68	589.54 AMPS	596.60 AMPS	2013sumpk_q268_pst_catb	465
33724	"LOCKEFRD"	60 30	33738	"WATRLJCT"	60 30	"1 "	0.01	1.04	36.17	4.42	340.34 AMPS	327.17 AMPS	2013sumpk_q268_pre_catb	346
33724	"LOCKEFRD"	60 30	33738	"WATRLJCT"	60 30	"1 "	0.01	1.03	36.15	4.38	338.07 AMPS	327.17 AMPS	2013sumpk_q268_pst_catb	346
33724	"LOCKEFRD"	60 30	38060	"INDUSTRL"	60 30	"1 "	0.81	1.03	96.53	17.21	912.58 AMPS	885.27 AMPS	2013sumpk_q268_pre_catb	347
33724	"LOCKEFRD"	60 30	38060	"INDUSTRL"	60 30	"1 "	0.81	1.03	96.53	17.22	912.89 AMPS	885.27 AMPS	2013sumpk_q268_pst_catb	347
33724	"LOCKEFRD"	60 30	38060	"INDUSTRL"	60 30	"1 "	0.81	1.03	96.53	17.21	912.58 AMPS	885.27 AMPS	2013sumpk_q268_pre_catb	462
33724	"LOCKEFRD"	60 30	38060	"INDUSTRL"	60 30	"1 "	0.81	1.03	96.53	17.22	912.89 AMPS	885.27 AMPS	2013sumpk_q268_pst_catb	462
33725	"LOCKFRD1"	60 30	33732	"COLONY "	60 30	"1 "	0.75	0.90	33.27	-5.14	313.30 AMPS	346.41 AMPS	2013sumpk_q268_pre_catb	347
33725	"LOCKFRD1"	60 30	33732	"COLONY "	60 30	"1 "	0.75	0.90	33.27	-5.14	313.40 AMPS	346.41 AMPS	2013sumpk_q268_pst_catb	347
33725	"LOCKFRD1"	60 30	33732	"COLONY "	60 30	"1 "	0.75	0.98	36.17	-4.99	340.36 AMPS	346.41 AMPS	2013sumpk_q268_pre_catb	349
33725	"LOCKFRD1"	60 30	33732	"COLONY "	60 30	"1 "	0.75	0.98	36.17	-4.99	340.48 AMPS	346.41 AMPS	2013sumpk_q268_pst_catb	349
33725	"LOCKFRD1"	60 30	33732	"COLONY "	60 30	"1 "	0.75	0.90	33.27	-5.14	313.30 AMPS	346.41 AMPS	2013sumpk_q268_pre_catb	462
33725	"LOCKFRD1"	60 30	33732	"COLONY "	60 30	"1 "	0.75	0.90	33.27	-5.14	313.40 AMPS	346.41 AMPS	2013sumpk_q268_pst_catb	462
33725	"LOCKFRD1"	60 30	33732	"COLONY "	60 30	"1 "	0.75	0.98	36.17	-4.99	340.36 AMPS	346.41 AMPS	2013sumpk_q268_pre_catb	465
33725	"LOCKFRD1"	60 30	33732	"COLONY "	60 30	"1 "	0.75	0.98	36.17	-4.99	340.48 AMPS	346.41 AMPS	2013sumpk_q268_pst_catb	465
33726	"VICTOR "	60 30	33731	"WODBRG J"	60 30	"1 "	0.68	0.96	88.60	13.77	847.39 AMPS	885.27 AMPS	2013sumpk_q268_pre_catb	349
33726	"VICTOR "	60 30	33731	"WODBRG J"	60 30	"1 "	0.68	0.96	88.60	13.77	847.68 AMPS	885.27 AMPS	2013sumpk_q268_pst_catb	349
33726	"VICTOR "	60 30	33731	"WODBRG J"	60 30	"1 "	0.68	0.96	88.60	13.77	847.39 AMPS	885.27 AMPS	2013sumpk_q268_pre_catb	465

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY B 2013 SUMMER PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING		
33726	"VICTOR "	60 30	33731	"WODBRG J"	60 30	"1 "	0.68	0.96	88.60	13.77	847.68 AMPS	885.27 AMPS	2013sumpk_q268_pst_catb	465
33728	"LODI "	60 30	33734	"CLNY JCT"	60 30	"1 "	0.64	0.91	-29.47	7.82	295.81 AMPS	326.20 AMPS	2013sumpk_q268_pre_catb	349
33728	"LODI "	60 30	33734	"CLNY JCT"	60 30	"1 "	0.64	0.91	-29.47	7.82	295.91 AMPS	326.20 AMPS	2013sumpk_q268_pst_catb	349
33728	"LODI "	60 30	33734	"CLNY JCT"	60 30	"1 "	0.64	0.91	-29.47	7.82	295.81 AMPS	326.20 AMPS	2013sumpk_q268_pre_catb	465
33728	"LODI "	60 30	33734	"CLNY JCT"	60 30	"1 "	0.64	0.91	-29.47	7.82	295.91 AMPS	326.20 AMPS	2013sumpk_q268_pst_catb	465
33731	"WODBRG J"	60 30	33735	"INDSTR J"	60 30	"1 "	0.68	0.96	87.47	8.75	847.49 AMPS	885.27 AMPS	2013sumpk_q268_pre_catb	349
33731	"WODBRG J"	60 30	33735	"INDSTR J"	60 30	"1 "	0.68	0.96	87.47	8.75	847.78 AMPS	885.27 AMPS	2013sumpk_q268_pst_catb	349
33731	"WODBRG J"	60 30	33735	"INDSTR J"	60 30	"1 "	0.68	0.96	87.47	8.75	847.49 AMPS	885.27 AMPS	2013sumpk_q268_pre_catb	465
33731	"WODBRG J"	60 30	33735	"INDSTR J"	60 30	"1 "	0.68	0.96	87.47	8.75	847.78 AMPS	885.27 AMPS	2013sumpk_q268_pst_catb	465
33735	"INDSTR J"	60 30	38060	"INDUSTR L"	60 30	"1 "	0.68	0.96	87.31	8.05	847.50 AMPS	885.27 AMPS	2013sumpk_q268_pre_catb	349
33735	"INDSTR J"	60 30	38060	"INDUSTR L"	60 30	"1 "	0.68	0.96	87.31	8.05	847.79 AMPS	885.27 AMPS	2013sumpk_q268_pst_catb	349
33735	"INDSTR J"	60 30	38060	"INDUSTR L"	60 30	"1 "	0.68	0.96	87.31	8.05	847.50 AMPS	885.27 AMPS	2013sumpk_q268_pre_catb	465
33735	"INDSTR J"	60 30	38060	"INDUSTR L"	60 30	"1 "	0.68	0.96	87.31	8.05	847.79 AMPS	885.27 AMPS	2013sumpk_q268_pst_catb	465
34002	"SALADO "	60 30	34008	"STNSLSRP"	60 30	"1 "	0.29	1.03	50.77	0.16	484.02 AMPS	471.50 AMPS	2013sumpk_q268_pre_catb	454
34002	"SALADO "	60 30	34008	"STNSLSRP"	60 30	"1 "	0.29	1.02	50.73	0.03	482.58 AMPS	471.50 AMPS	2013sumpk_q268_pst_catb	454
34006	"PATTERSN"	60 30	34010	"CRWS LDJ"	60 30	"1 "	0.46	0.91	48.20	-3.09	463.83 AMPS	511.92 AMPS	2013sumpk_q268_pre_catb	362
34006	"PATTERSN"	60 30	34010	"CRWS LDJ"	60 30	"1 "	0.46	0.90	48.19	-3.20	462.63 AMPS	511.92 AMPS	2013sumpk_q268_pst_catb	362
34006	"PATTERSN"	60 30	34010	"CRWS LDJ"	60 30	"1 "	0.46	0.91	48.20	-3.09	463.83 AMPS	511.92 AMPS	2013sumpk_q268_pre_catb	455
34006	"PATTERSN"	60 30	34010	"CRWS LDJ"	60 30	"1 "	0.46	0.90	48.19	-3.20	462.63 AMPS	511.92 AMPS	2013sumpk_q268_pst_catb	455
34008	"STNSLSRP"	60 30	34016	"MEDLIN J"	60 30	"1 "	0.58	0.98	49.68	-1.78	463.87 AMPS	471.50 AMPS	2013sumpk_q268_pre_catb	361
34008	"STNSLSRP"	60 30	34016	"MEDLIN J"	60 30	"1 "	0.58	0.98	49.67	-1.82	463.45 AMPS	471.50 AMPS	2013sumpk_q268_pst_catb	361
34008	"STNSLSRP"	60 30	34016	"MEDLIN J"	60 30	"1 "	0.58	0.97	49.16	-1.20	459.00 AMPS	471.50 AMPS	2013sumpk_q268_pre_catb	363
34008	"STNSLSRP"	60 30	34016	"MEDLIN J"	60 30	"1 "	0.58	0.97	49.15	-1.23	458.59 AMPS	471.50 AMPS	2013sumpk_q268_pst_catb	363
34008	"STNSLSRP"	60 30	34016	"MEDLIN J"	60 30	"1 "	0.58	1.03	50.03	-1.30	484.02 AMPS	471.50 AMPS	2013sumpk_q268_pre_catb	454
34008	"STNSLSRP"	60 30	34016	"MEDLIN J"	60 30	"1 "	0.58	1.02	50.01	-1.42	482.57 AMPS	471.50 AMPS	2013sumpk_q268_pst_catb	454
34016	"MEDLIN J"	60 30	34018	"NWMN JCT"	60 30	"1 "	0.58	0.98	48.68	-3.76	463.83 AMPS	471.50 AMPS	2013sumpk_q268_pre_catb	361
34016	"MEDLIN J"	60 30	34018	"NWMN JCT"	60 30	"1 "	0.58	0.98	48.68	-3.79	463.40 AMPS	471.50 AMPS	2013sumpk_q268_pst_catb	361
34016	"MEDLIN J"	60 30	34018	"NWMN JCT"	60 30	"1 "	0.58	1.03	48.95	-3.46	483.98 AMPS	471.50 AMPS	2013sumpk_q268_pre_catb	454
34016	"MEDLIN J"	60 30	34018	"NWMN JCT"	60 30	"1 "	0.58	1.02	48.93	-3.57	482.53 AMPS	471.50 AMPS	2013sumpk_q268_pst_catb	454
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	0.99	48.38	-13.00	417.07 AMPS	422.55 AMPS	2013sumpk_q268_pre_catb	275
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	0.99	48.59	-12.97	418.84 AMPS	422.55 AMPS	2013sumpk_q268_pst_catb	275

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY B 2013 SUMMER PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING		
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	1.00	49.28	-12.87	424.33 AMPS	422.55 AMPS	2013sumpk_q268_pre_catb	276
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	1.01	49.48	-12.84	426.10 AMPS	422.55 AMPS	2013sumpk_q268_pst_catb	276
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	1.22	59.64	-17.52	517.56 AMPS	422.55 AMPS	2013sumpk_q268_pre_catb	278
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	1.24	60.34	-17.60	523.70 AMPS	422.55 AMPS	2013sumpk_q268_pst_catb	278
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	1.04	50.89	-13.22	438.08 AMPS	422.55 AMPS	2013sumpk_q268_pre_catb	279
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	1.04	51.10	-13.19	439.87 AMPS	422.55 AMPS	2013sumpk_q268_pst_catb	279
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	1.01	49.40	-13.34	426.79 AMPS	422.55 AMPS	2013sumpk_q268_pre_catb	303
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	1.02	50.19	-12.02	430.48 AMPS	422.55 AMPS	2013sumpk_q268_pst_catb	303
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	0.99	48.63	-11.74	417.16 AMPS	422.55 AMPS	2013sumpk_q268_pre_catb	467
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	0.99	48.86	-11.69	419.12 AMPS	422.55 AMPS	2013sumpk_q268_pst_catb	467
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	1.26	61.24	-17.34	530.39 AMPS	422.55 AMPS	2013sumpk_q268_pre_catb	468
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	1.27	61.93	-17.43	536.45 AMPS	422.55 AMPS	2013sumpk_q268_pst_catb	468
38264	"ENSLEN "	69 30	38266	"WOODROW "	69 30	"1 "	0.59	0.91	47.61	-16.54	420.68 AMPS	460.21 AMPS	2013sumpk_q268_pre_catb	468
38264	"ENSLEN "	69 30	38266	"WOODROW "	69 30	"1 "	0.60	0.93	48.51	-16.69	428.42 AMPS	460.21 AMPS	2013sumpk_q268_pst_catb	468

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR 2013 SPRING PEAK **NORMAL** OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				---BASE---		LOADING			-----CASE-----	
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	MW	MVAR	P.U.	FLOW	RATING		
30495	"STAGG "	230 30	30622	"EIGHT MI"	230 30	"1 "	377	-15	1.15**	949 AMPS	825.86 AMPS	2013sprpk_q268_pre_catb	
30495	"STAGG "	230 30	30622	"EIGHT MI"	230 30	"1 "	376	-15	1.15**	948 AMPS	825.86 AMPS	2013sprpk_q268_pst_catb	
30500	"BELLOTA "	230 30	38208	"COTTLE B"	230 30	"1 "	258	17	0.96	645 AMPS	675.25 AMPS	2013sprpk_q268_pre_catb	
30500	"BELLOTA "	230 30	38208	"COTTLE B"	230 30	"1 "	266	18	0.98	664 AMPS	675.25 AMPS	2013sprpk_q268_pst_catb	
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	273	-44	1.04	700 AMPS	675.25 AMPS	2013sprpk_q268_pre_catb	
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	281	-43	1.07**	721 AMPS	675.25 AMPS	2013sprpk_q268_pst_catb	
30526	"PITSBG D"	230 30	38950	"VSC_PTSB"	181 30	"1 "	-413	208	1.08**	462 MVA	430.00 MVA	2013sprpk_q268_pre_catb	
30526	"PITSBG D"	230 30	38950	"VSC_PTSB"	181 30	"1 "	-413	208	1.08**	462 MVA	430.00 MVA	2013sprpk_q268_pst_catb	
30621	"Q260 "	230 30	30622	"EIGHT MI"	230 30	"1 "	303	-29	0.93	766 AMPS	825.86 AMPS	2013sprpk_q268_pre_catb	
30621	"Q260 "	230 30	30622	"EIGHT MI"	230 30	"1 "	302	-28	0.93	765 AMPS	825.86 AMPS	2013sprpk_q268_pst_catb	
30622	"EIGHT MI"	230 30	38000	"LODI "	230 30	"1 "	355	-32	1.09**	897 AMPS	825.86 AMPS	2013sprpk_q268_pre_catb	
30622	"EIGHT MI"	230 30	38000	"LODI "	230 30	"1 "	354	-32	1.08**	896 AMPS	825.86 AMPS	2013sprpk_q268_pst_catb	
30624	"TESLA E "	230 30	30670	"WESTLEY "	230 30	"1 "	645	-28	1.08**	1610 AMPS	1484.04 AMPS	2013sprpk_q268_pre_catb	
30624	"TESLA E "	230 30	30670	"WESTLEY "	230 30	"1 "	654	-25	1.10**	1631 AMPS	1484.04 AMPS	2013sprpk_q268_pst_catb	
31636	"BURNEY "	60 30	31638	"BURNEYQF"	60 30	"1 "	-10	3	0.96**	97 AMPS	101.04 AMPS	2013sprpk_q268_pre_catb	
31636	"BURNEY "	60 30	31638	"BURNEYQF"	60 30	"1 "	-10	3	0.96**	97 AMPS	101.04 AMPS	2013sprpk_q268_pst_catb	
32224	"CHCGO PK"	115 30	32232	"HIGGINS "	115 30	"1 "	124	-6	0.91	593 AMPS	652.66 AMPS	2013sprpk_q268_pre_catb	
32224	"CHCGO PK"	115 30	32232	"HIGGINS "	115 30	"1 "	124	-6	0.91	591 AMPS	652.66 AMPS	2013sprpk_q268_pst_catb	
33204	"POTRERO "	115 30	38951	"VSC_POTR"	181 30	"1 "	-400	71	0.94**	406 MVA	430.00 MVA	2013sprpk_q268_pre_catb	
33204	"POTRERO "	115 30	38951	"VSC_POTR"	181 30	"1 "	-400	70	0.94**	406 MVA	430.00 MVA	2013sprpk_q268_pst_catb	
33602	"NEWARKS "	60 30	33672	"CHRTRWYS"	60 30	"1 "	-28	7	0.92	274 AMPS	298.30 AMPS	2013sprpk_q268_pre_catb	
33602	"NEWARKS "	60 30	33672	"CHRTRWYS"	60 30	"1 "	-28	7	0.92	274 AMPS	298.30 AMPS	2013sprpk_q268_pst_catb	
34176	"EXCHQ RTP"	115 30	34306	"EXCHQUER"	14 30	"1 "	90	9	0.90**	90 MVA	100.00 MVA	2013sprpk_q268_pre_catb	
34176	"EXCHQ RTP"	115 30	34306	"EXCHQUER"	14 30	"1 "	90	9	0.90**	90 MVA	100.00 MVA	2013sprpk_q268_pst_catb	
35907	"PAUL SWT"	115 30	36218	"M "	115 30	"1 "	0	-40	0.92**	199 AMPS	215.88 AMPS	2013sprpk_q268_pre_catb	
35907	"PAUL SWT"	115 30	36218	"M "	115 30	"1 "	0	-40	0.92**	199 AMPS	215.88 AMPS	2013sprpk_q268_pst_catb	

APPENDIX C - STEADY STATE POWER FLOW RESULTS
 AUTCON OUTPUT FILES FOR ISO CATEGORY B 2013 SPRING PEAK OPERATING CONDITIONS

-----FROM BUS-----	-----TO BUS-----	(RATE 1)	(RATE 2)	-----OUTAGE-----	(RATE 2)											
Bus #	NAME	KV	AREA	Bus #	NAME	KV	AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING	FILE	OUTAGE #
30330	"RIO OSO "	230	30	30335	"ATLANTC "	230	30	"1 "	0.81	0.91	386.58	29.20	975.65	AMPS 1076.88	AMPS 2013sprpk_q268_pre_catb	108
30330	"RIO OSO "	230	30	30335	"ATLANTC "	230	30	"1 "	0.81	0.90	385.96	29.22	974.14	AMPS 1076.88	AMPS 2013sprpk_q268_pst_catb	108
30330	"RIO OSO "	230	30	30335	"ATLANTC "	230	30	"1 "	0.81	0.96	410.57	27.29	1035.33	AMPS 1076.88	AMPS 2013sprpk_q268_pre_catb	244
30330	"RIO OSO "	230	30	30335	"ATLANTC "	230	30	"1 "	0.81	0.96	409.95	27.31	1033.80	AMPS 1076.88	AMPS 2013sprpk_q268_pst_catb	244
30495	"STAGG "	230	30	30622	"EIGHT MI"	230	30	"1 "	1.15	1.03	396.72	-19.11	1002.12	AMPS 976.48	AMPS 2013sprpk_q268_pre_catb	109
30495	"STAGG "	230	30	30622	"EIGHT MI"	230	30	"1 "	1.15	1.03	396.26	-18.56	1001.07	AMPS 976.48	AMPS 2013sprpk_q268_pst_catb	109
30495	"STAGG "	230	30	30622	"EIGHT MI"	230	30	"1 "	1.15	1.05	407.83	-16.79	1028.50	AMPS 976.48	AMPS 2013sprpk_q268_pre_catb	115
30495	"STAGG "	230	30	30622	"EIGHT MI"	230	30	"1 "	1.15	1.05	407.36	-16.24	1027.44	AMPS 976.48	AMPS 2013sprpk_q268_pst_catb	115
30495	"STAGG "	230	30	30622	"EIGHT MI"	230	30	"1 "	1.15	1.35	521.93	-29.58	1322.89	AMPS 976.48	AMPS 2013sprpk_q268_pre_catb	286
30495	"STAGG "	230	30	30622	"EIGHT MI"	230	30	"1 "	1.15	1.35	521.13	-28.88	1320.91	AMPS 976.48	AMPS 2013sprpk_q268_pst_catb	286
30496	"STAGG-H "	230	30	30497	"STAGG-F "	230	30	"1 "	0.70	1.01	474.59	-62.99	1217.59	AMPS 1199.89	AMPS 2013sprpk_q268_pre_catb	286
30496	"STAGG-H "	230	30	30497	"STAGG-F "	230	30	"1 "	0.70	1.01	473.81	-62.22	1215.57	AMPS 1199.89	AMPS 2013sprpk_q268_pst_catb	286
30497	"STAGG-F "	230	30	30498	"STAGG-D "	230	30	"1 "	0.60	0.92	425.06	-73.90	1099.20	AMPS 1199.89	AMPS 2013sprpk_q268_pre_catb	286
30497	"STAGG-F "	230	30	30498	"STAGG-D "	230	30	"1 "	0.60	0.91	424.28	-73.12	1097.09	AMPS 1199.89	AMPS 2013sprpk_q268_pst_catb	286
=1=																
30500	"BELLOTA "	230	30	38208	"COTTLE B"	230	30	"1 "	0.98	0.91	287.08	11.65	718.03	AMPS 793.23	AMPS 2013sprpk_q268_pst_catb	277
30500	"BELLOTA "	230	30	38208	"COTTLE B"	230	30	"1 "	0.96	0.97	308.64	20.50	772.16	AMPS 793.23	AMPS 2013sprpk_q268_pre_catb	288
30500	"BELLOTA "	230	30	38208	"COTTLE B"	230	30	"1 "	0.98	1.00	315.82	26.17	791.62	AMPS 793.23	AMPS 2013sprpk_q268_pst_catb	288
30500	"BELLOTA "	230	30	38208	"COTTLE B"	230	30	"1 "	0.96	1.01	319.14	16.04	799.16	AMPS 793.23	AMPS 2013sprpk_q268_pre_catb	467
30500	"BELLOTA "	230	30	38208	"COTTLE B"	230	30	"1 "	0.98	1.04	328.18	17.18	822.06	AMPS 793.23	AMPS 2013sprpk_q268_pst_catb	467
30515	"WARNERVL"	230	30	30800	"WILSON "	230	30	"1 "	1.04	0.95	292.27	-51.19	753.03	AMPS 793.23	AMPS 2013sprpk_q268_pre_catb	277
30515	"WARNERVL"	230	30	30800	"WILSON "	230	30	"1 "	1.07	0.98	302.43	-50.99	778.93	AMPS 793.23	AMPS 2013sprpk_q268_pst_catb	277
30515	"WARNERVL"	230	30	30800	"WILSON "	230	30	"1 "	1.04	0.91	282.21	-43.69	724.51	AMPS 793.23	AMPS 2013sprpk_q268_pre_catb	287
=2=																
30515	"WARNERVL"	230	30	30800	"WILSON "	230	30	"1 "	1.04	0.96	297.85	-45.02	764.08	AMPS 793.23	AMPS 2013sprpk_q268_pre_catb	303
30515	"WARNERVL"	230	30	30800	"WILSON "	230	30	"1 "	1.07	1.00	307.85	-44.12	789.45	AMPS 793.23	AMPS 2013sprpk_q268_pst_catb	303
30515	"WARNERVL"	230	30	30800	"WILSON "	230	30	"1 "	1.04	0.91	281.36	-44.02	722.62	AMPS 793.23	AMPS 2013sprpk_q268_pre_catb	378
=2=																
30515	"WARNERVL"	230	30	30800	"WILSON "	230	30	"1 "	1.04	1.13	349.17	-44.91	896.75	AMPS 793.23	AMPS 2013sprpk_q268_pre_catb	467
30515	"WARNERVL"	230	30	30800	"WILSON "	230	30	"1 "	1.07	1.16	359.17	-44.52	922.62	AMPS 793.23	AMPS 2013sprpk_q268_pst_catb	467
=1=																

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY B 2013 SPRING PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING		
30515	"WARNERVL"	230 30	38208	"COTTLE B"	230 30	"1 "	0.89	0.92	285.34	2.02	727.21 AMPS	793.23 AMPS	2013sprpk_q268_pst_catb	288
30515	"WARNERVL"	230 30	38208	"COTTLE B"	230 30	"1 "	0.86	0.93	288.57	-8.64	734.49 AMPS	793.23 AMPS	2013sprpk_q268_pre_catb	467
30515	"WARNERVL"	230 30	38208	"COTTLE B"	230 30	"1 "	0.89	0.95	297.32	-9.22	757.36 AMPS	793.23 AMPS	2013sprpk_q268_pst_catb	467
30621	"Q260 "	230 30	30622	"EIGHT MI"	230 30	"1 "	0.93	1.18	453.53	-52.97	1155.09 AMPS	976.48 AMPS	2013sprpk_q268_pre_catb	366
30621	"Q260 "	230 30	30622	"EIGHT MI"	230 30	"1 "	0.93	1.18	452.83	-52.14	1153.32 AMPS	976.48 AMPS	2013sprpk_q268_pst_catb	366
30622	"EIGHT MI"	230 30	30624	"TESLA E "	230 30	"1 "	0.75	1.28	492.63	-52.08	1247.45 AMPS	976.48 AMPS	2013sprpk_q268_pre_catb	285
30622	"EIGHT MI"	230 30	30624	"TESLA E "	230 30	"1 "	0.74	1.28	491.72	-51.27	1245.12 AMPS	976.48 AMPS	2013sprpk_q268_pst_catb	285
30622	"EIGHT MI"	230 30	38000	"LODI "	230 30	"1 "	1.09	0.98	379.62	-35.79	961.23 AMPS	976.48 AMPS	2013sprpk_q268_pre_catb	109
30622	"EIGHT MI"	230 30	38000	"LODI "	230 30	"1 "	1.08	0.98	379.04	-35.10	959.76 AMPS	976.48 AMPS	2013sprpk_q268_pst_catb	109
30622	"EIGHT MI"	230 30	38000	"LODI "	230 30	"1 "	1.09	0.97	374.90	-41.91	949.05 AMPS	976.48 AMPS	2013sprpk_q268_pre_catb	113
30622	"EIGHT MI"	230 30	38000	"LODI "	230 30	"1 "	1.08	0.97	374.14	-41.10	947.08 AMPS	976.48 AMPS	2013sprpk_q268_pst_catb	113
30622	"EIGHT MI"	230 30	38000	"LODI "	230 30	"1 "	1.09	1.28	490.90	-63.03	1248.64 AMPS	976.48 AMPS	2013sprpk_q268_pre_catb	114
30622	"EIGHT MI"	230 30	38000	"LODI "	230 30	"1 "	1.08	1.28	490.16	-62.03	1246.74 AMPS	976.48 AMPS	2013sprpk_q268_pst_catb	114
30622	"EIGHT MI"	230 30	38000	"LODI "	230 30	"1 "	1.09	1.02	393.22	-32.55	993.19 AMPS	976.48 AMPS	2013sprpk_q268_pre_catb	115
30622	"EIGHT MI"	230 30	38000	"LODI "	230 30	"1 "	1.08	1.02	392.62	-31.85	991.71 AMPS	976.48 AMPS	2013sprpk_q268_pst_catb	115
30622	"EIGHT MI"	230 30	38000	"LODI "	230 30	"1 "	1.09	0.98	376.57	-35.56	953.38 AMPS	976.48 AMPS	2013sprpk_q268_pre_catb	5
30622	"EIGHT MI"	230 30	38000	"LODI "	230 30	"1 "	1.08	0.97	376.00	-34.87	951.94 AMPS	976.48 AMPS	2013sprpk_q268_pst_catb	5
30622	"EIGHT MI"	230 30	38000	"LODI "	230 30	"1 "	1.09	0.98	377.59	-35.71	955.88 AMPS	976.48 AMPS	2013sprpk_q268_pre_catb	6
30622	"EIGHT MI"	230 30	38000	"LODI "	230 30	"1 "	1.08	0.98	376.99	-35.02	954.36 AMPS	976.48 AMPS	2013sprpk_q268_pst_catb	6
30622	"EIGHT MI"	230 30	38000	"LODI "	230 30	"1 "	1.09	0.97	374.13	-35.64	947.20 AMPS	976.48 AMPS	2013sprpk_q268_pre_catb	95
30622	"EIGHT MI"	230 30	38000	"LODI "	230 30	"1 "	1.08	0.97	373.56	-34.96	945.76 AMPS	976.48 AMPS	2013sprpk_q268_pst_catb	95
30624	"TESLA E "	230 30	30670	"WESTLEY "	230 30	"1 "	1.08	1.10	702.82	-20.30	1753.84 AMPS	1600.01 AMPS	2013sprpk_q268_pre_catb	278
30624	"TESLA E "	230 30	30670	"WESTLEY "	230 30	"1 "	1.10	1.11	713.02	-16.87	1779.89 AMPS	1600.01 AMPS	2013sprpk_q268_pst_catb	278
30624	"TESLA E "	230 30	30670	"WESTLEY "	230 30	"1 "	1.08	1.16	744.92	-18.47	1855.00 AMPS	1600.01 AMPS	2013sprpk_q268_pre_catb	287
30624	"TESLA E "	230 30	30670	"WESTLEY "	230 30	"1 "	1.10	1.17	753.98	-15.41	1878.20 AMPS	1600.01 AMPS	2013sprpk_q268_pst_catb	287
30624	"TESLA E "	230 30	30670	"WESTLEY "	230 30	"1 "	1.08	1.09	696.09	-20.10	1736.72 AMPS	1600.01 AMPS	2013sprpk_q268_pre_catb	468
30624	"TESLA E "	230 30	30670	"WESTLEY "	230 30	"1 "	1.10	1.10	706.22	-18.02	1762.53 AMPS	1600.01 AMPS	2013sprpk_q268_pst_catb	468
31962	"WDLND_BM"	115 30	31970	"WOODLD "	115 30	"1 "	0.45	0.91	-130.07	31.22	669.68 AMPS	739.01 AMPS	2013sprpk_q268_pre_catb	95
31962	"WDLND_BM"	115 30	31970	"WOODLD "	115 30	"1 "	0.45	0.91	-129.91	31.14	668.85 AMPS	739.01 AMPS	2013sprpk_q268_pst_catb	95
31962	"WDLND_BM"	115 30	31992	"HUNT "	115 30	"1 "	0.63	0.96	139.30	-29.00	707.36 AMPS	738.00 AMPS	2013sprpk_q268_pre_catb	5
31962	"WDLND_BM"	115 30	31992	"HUNT "	115 30	"1 "	0.63	0.96	139.15	-28.92	706.55 AMPS	738.00 AMPS	2013sprpk_q268_pst_catb	5

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY B 2013 SPRING PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING		
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.66	0.95	96.64	-21.13	481.37 AMPS	507.06 AMPS	2013sprpk_q268_pre_catb	5
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.66	0.95	96.54	-21.10	480.88 AMPS	507.06 AMPS	2013sprpk_q268_pst_catb	5
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.66	0.97	98.56	-20.11	490.01 AMPS	507.06 AMPS	2013sprpk_q268_pre_catb	95
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.66	0.97	98.46	-20.08	489.51 AMPS	507.06 AMPS	2013sprpk_q268_pst_catb	95
31990	"DAVIS "	115 30	31992	"HUNT "	115 30	"1 "	0.63	0.96	-137.04	38.26	705.36 AMPS	738.00 AMPS	2013sprpk_q268_pre_catb	5
31990	"DAVIS "	115 30	31992	"HUNT "	115 30	"1 "	0.62	0.95	-136.89	38.16	704.54 AMPS	738.00 AMPS	2013sprpk_q268_pst_catb	5
32228	"PLACER "	115 30	32394	"PLACER "	60 30	"1 "	0.84	0.92	69.11	16.26	70.99 MVA	77.00 MVA	2013sprpk_q268_pre_catb	212
32228	"PLACER "	115 30	32394	"PLACER "	60 30	"1 "	0.84	0.92	69.11	16.26	70.99 MVA	77.00 MVA	2013sprpk_q268_pst_catb	212
=1=														
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.62	0.95	215.44	31.98	1063.16 AMPS	1124.58 AMPS	2013sprpk_q268_pst_catb	445
33540	"TESLA "	115 30	33541	"AEC_TP1 "	115 30	"1 "	0.16	0.92	-164.18	12.94	805.12 AMPS	878.58 AMPS	2013sprpk_q268_pre_catb	316
=2=														
33602	"NEWARKS "	60 30	33670	"STCKTN A"	60 30	"1 "	0.84	0.99	-32.30	-9.40	322.77 AMPS	327.17 AMPS	2013sprpk_q268_pre_catb	432
33602	"NEWARKS "	60 30	33670	"STCKTN A"	60 30	"1 "	0.84	0.99	-32.30	-9.40	322.87 AMPS	327.17 AMPS	2013sprpk_q268_pst_catb	432
33602	"NEWARKS "	60 30	33672	"CHRTRWYS"	60 30	"1 "	0.92	1.08	32.30	9.40	322.76 AMPS	298.30 AMPS	2013sprpk_q268_pre_catb	432
33602	"NEWARKS "	60 30	33672	"CHRTRWYS"	60 30	"1 "	0.92	1.08	32.31	9.40	322.88 AMPS	298.30 AMPS	2013sprpk_q268_pst_catb	432
33602	"NEWARKS "	60 30	33672	"CHRTRWYS"	60 30	"1 "	0.92	0.94	32.31	9.40	324.08 AMPS	346.41 AMPS	2013sprpk_q268_pre_catb	453
33602	"NEWARKS "	60 30	33672	"CHRTRWYS"	60 30	"1 "	0.92	0.94	32.31	9.40	324.18 AMPS	346.41 AMPS	2013sprpk_q268_pst_catb	453
33654	"SNTA FEA"	60 30	33662	"WEBER 2 "	60 30	"1 "	0.42	0.97	47.52	5.65	450.07 AMPS	461.88 AMPS	2013sprpk_q268_pre_catb	453
33654	"SNTA FEA"	60 30	33662	"WEBER 2 "	60 30	"1 "	0.42	0.97	47.52	5.66	450.21 AMPS	461.88 AMPS	2013sprpk_q268_pst_catb	453

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR 2013 SUMMER OFF PEAK **NORMAL** OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				---BASE---		LOADING				-----CASE-----
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	MW	MVAR	P.U.	FLOW	RATING		
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	334	12	1.22**	827 AMPS	675.25 AMPS	2013sumop_q268_pre_catb	
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	341	12	1.25**	847 AMPS	675.25 AMPS	2013sumop_q268_pst_catb	
30526	"PITSBG D"	230 30	38950	"VSC_PTSB"	181 30	"1 "	415	152	1.03**	442 MVA	430.00 MVA	2013sumop_q268_pre_catb	
30526	"PITSBG D"	230 30	38950	"VSC_PTSB"	181 30	"1 "	415	152	1.03**	442 MVA	430.00 MVA	2013sumop_q268_pst_catb	
31101	"SCOTIATP"	60 30	31105	"RIODLLTP"	60 30	"1 "	28	0	0.92	248 AMPS	269.43 AMPS	2013sumop_q268_pre_catb	
31101	"SCOTIATP"	60 30	31105	"RIODLLTP"	60 30	"1 "	28	0	0.92	248 AMPS	269.43 AMPS	2013sumop_q268_pst_catb	
31463	"WHEELBR "	115 30	31464	"COTWDPGE"	115 30	"1 "	-90	34	1.02	449 AMPS	441.80 AMPS	2013sumop_q268_pre_catb	
31463	"WHEELBR "	115 30	31464	"COTWDPGE"	115 30	"1 "	-90	34	1.02	449 AMPS	441.80 AMPS	2013sumop_q268_pst_catb	
31636	"BURNEY "	60 30	31638	"BURNEYQF"	60 30	"1 "	-10	4	0.99**	100 AMPS	101.04 AMPS	2013sumop_q268_pre_catb	
31636	"BURNEY "	60 30	31638	"BURNEYQF"	60 30	"1 "	-10	4	0.99**	100 AMPS	101.04 AMPS	2013sumop_q268_pst_catb	
33204	"POTRERO "	115 30	38951	"VSC_POTR"	181 30	"1 "	-400	179	1.02**	438 MVA	430.00 MVA	2013sumop_q268_pre_catb	
33204	"POTRERO "	115 30	38951	"VSC_POTR"	181 30	"1 "	-400	179	1.02**	438 MVA	430.00 MVA	2013sumop_q268_pst_catb	
33602	"NEWARKS "	60 30	33670	"STCKTN A"	60 30	"1 "	38	-12	1.13**	368 AMPS	327.17 AMPS	2013sumop_q268_pre_catb	
33602	"NEWARKS "	60 30	33670	"STCKTN A"	60 30	"1 "	38	-12	1.13**	368 AMPS	327.17 AMPS	2013sumop_q268_pst_catb	
33602	"NEWARKS "	60 30	33672	"CHRTRWYS"	60 30	"1 "	-38	12	1.23**	368 AMPS	298.30 AMPS	2013sumop_q268_pre_catb	
33602	"NEWARKS "	60 30	33672	"CHRTRWYS"	60 30	"1 "	-38	12	1.23**	368 AMPS	298.30 AMPS	2013sumop_q268_pst_catb	
33912	"SPRNG GJ"	115 30	33914	"MI-WUK "	115 30	"1 "	94	-19	0.95	465 AMPS	491.00 AMPS	2013sumop_q268_pre_catb	
33912	"SPRNG GJ"	115 30	33914	"MI-WUK "	115 30	"1 "	94	-19	0.95	465 AMPS	491.00 AMPS	2013sumop_q268_pst_catb	
33916	"CURTISS "	115 30	33917	"FBERBORD"	115 30	"1 "	-87	30	0.91	448 AMPS	492.00 AMPS	2013sumop_q268_pre_catb	
33916	"CURTISS "	115 30	33917	"FBERBORD"	115 30	"1 "	-87	30	0.91	448 AMPS	492.00 AMPS	2013sumop_q268_pst_catb	
37010	"HURLEY S"	230 30	37015	"PROCTER "	230 30	"1 "	293	-135	1.00	760 AMPS	760.09 AMPS	2013sumop_q268_pre_catb	
37010	"HURLEY S"	230 30	37015	"PROCTER "	230 30	"1 "	293	-135	1.00	759 AMPS	760.09 AMPS	2013sumop_q268_pst_catb	

APPENDIX C - STEADY STATE POWER FLOW RESULTS
 AUTCON OUTPUT FILES FOR ISO CATEGORY B 2013 SUMMER OFF PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)		
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING	FILE	OUTAGE #
30495	"STAGG "	230 30	30622	"EIGHT MI"	230 30	"1 "	0.83	1.05	409.36	-41.91	1021.50	AMPS 976.48	2013sumop_q268_pre_catb	286
30495	"STAGG "	230 30	30622	"EIGHT MI"	230 30	"1 "	0.83	1.04	408.50	-41.90	1019.37	AMPS 976.48	2013sumop_q268_pst_catb	286
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.22	1.15	367.32	11.87	910.86	AMPS 793.23	2013sumop_q268_pre_catb	277
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.25	1.18	376.87	11.65	934.87	AMPS 793.23	2013sumop_q268_pst_catb	277
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.22	1.27	405.47	12.41	1007.08	AMPS 793.23	2013sumop_q268_pre_catb	467
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.25	1.30	414.93	12.06	1030.88	AMPS 793.23	2013sumop_q268_pst_catb	467
30621	"Q260 "	230 30	30622	"EIGHT MI"	230 30	"1 "	0.71	0.91	358.44	-36.50	888.40	AMPS 976.48	2013sumop_q268_pre_catb	366
30621	"Q260 "	230 30	30622	"EIGHT MI"	230 30	"1 "	0.71	0.91	357.67	-36.43	886.48	AMPS 976.48	2013sumop_q268_pst_catb	366
30622	"EIGHT MI"	230 30	30624	"TESLA E "	230 30	"1 "	0.67	1.03	403.81	-53.26	1009.02	AMPS 976.48	2013sumop_q268_pre_catb	285
30622	"EIGHT MI"	230 30	30624	"TESLA E "	230 30	"1 "	0.67	1.03	402.87	-53.27	1006.67	AMPS 976.48	2013sumop_q268_pst_catb	285
30622	"EIGHT MI"	230 30	38000	"LODI "	230 30	"1 "	0.87	1.01	388.90	-74.37	983.06	AMPS 976.48	2013sumop_q268_pre_catb	114
30622	"EIGHT MI"	230 30	38000	"LODI "	230 30	"1 "	0.86	1.00	388.10	-74.28	981.02	AMPS 976.48	2013sumop_q268_pst_catb	114
30622	"EIGHT MI"	230 30	38000	"LODI "	230 30	"1 "	0.87	0.91	297.30	-60.31	751.73	AMPS 825.86	2013sumop_q268_pre_catb	437
30622	"EIGHT MI"	230 30	38000	"LODI "	230 30	"1 "	0.86	0.91	296.74	-60.41	750.38	AMPS 825.86	2013sumop_q268_pst_catb	437
-1=														
33540	"TESLA "	115 30	33541	"AEC_TP1 "	115 30	"1 "	0.66	0.96	-170.39	41.05	844.18	AMPS 878.58	2013sumop_q268_pst_catb	308
33540	"TESLA "	115 30	33541	"AEC_TP1 "	115 30	"1 "	0.54	0.92	-165.15	24.17	804.55	AMPS 878.58	2013sumop_q268_pre_catb	316
-2=														
-1=														
33540	"TESLA "	115 30	33541	"AEC_TP1 "	115 30	"1 "	0.66	0.93	-164.33	40.82	815.74	AMPS 878.58	2013sumop_q268_pst_catb	445
37010	"HURLEY S"	230 30	37015	"PROCTER "	230 30	"1 "	1.00	0.91	310.09	-136.21	797.52	AMPS 879.83	2013sumop_q268_pre_catb	278
37010	"HURLEY S"	230 30	37015	"PROCTER "	230 30	"1 "	1.00	0.91	310.69	-136.06	798.76	AMPS 879.83	2013sumop_q268_pst_catb	278
37010	"HURLEY S"	230 30	37015	"PROCTER "	230 30	"1 "	1.00	0.90	307.52	-137.14	793.27	AMPS 879.83	2013sumop_q268_pre_catb	289
37010	"HURLEY S"	230 30	37015	"PROCTER "	230 30	"1 "	1.00	0.90	307.32	-136.95	792.71	AMPS 879.83	2013sumop_q268_pst_catb	289
37010	"HURLEY S"	230 30	37015	"PROCTER "	230 30	"1 "	1.00	0.90	307.53	-137.14	793.29	AMPS 879.83	2013sumop_q268_pre_catb	290
37010	"HURLEY S"	230 30	37015	"PROCTER "	230 30	"1 "	1.00	0.90	307.31	-136.96	792.70	AMPS 879.83	2013sumop_q268_pst_catb	290
37010	"HURLEY S"	230 30	37015	"PROCTER "	230 30	"1 "	1.00	0.90	307.81	-138.22	794.72	AMPS 879.83	2013sumop_q268_pre_catb	372
37010	"HURLEY S"	230 30	37015	"PROCTER "	230 30	"1 "	1.00	0.90	308.00	-137.99	795.02	AMPS 879.83	2013sumop_q268_pst_catb	372

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY C 2013 SUMMER PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #	
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING			
30015	"TABLE MT"	500 30	30040	"TESLA "	500 30	"1 "	0.76	0.93	2328.05	-3.57	2539.42	AMPS 2730.06	AMPS	2013sumpk_q268_pre_catc	7
30015	"TABLE MT"	500 30	30040	"TESLA "	500 30	"1 "	0.76	0.93	2328.69	0.31	2540.34	AMPS 2730.06	AMPS	2013sumpk_q268_pst_catc	7
30114	"CPVSTA "	230 30	30450	"CORTINA "	230 30	"1 "	0.86	0.96	382.92	40.55	919.99	AMPS 953.88	AMPS	2013sumpk_q268_pre_catc	12
30114	"CPVSTA "	230 30	30450	"CORTINA "	230 30	"1 "	0.86	0.96	382.65	40.65	919.42	AMPS 953.88	AMPS	2013sumpk_q268_pst_catc	12
30250	"CARIBOU "	230 30	30261	"BELDENTP"	230 30	"1 "	1.10	1.05	372.09	13.61	889.83	AMPS 850.96	AMPS	2013sumpk_q268_pre_catc	50
30250	"CARIBOU "	230 30	30261	"BELDENTP"	230 30	"1 "	1.10	1.05	372.05	13.70	889.81	AMPS 850.96	AMPS	2013sumpk_q268_pst_catc	50
30261	"BELDENTP"	230 30	30300	"TBL MT D"	230 30	"1 "	1.10	1.05	369.50	1.58	889.97	AMPS 850.96	AMPS	2013sumpk_q268_pre_catc	50
30261	"BELDENTP"	230 30	30300	"TBL MT D"	230 30	"1 "	1.10	1.05	369.47	1.67	889.94	AMPS 850.96	AMPS	2013sumpk_q268_pst_catc	50
30330	"RIO OSO "	230 30	30335	"ATLANTC "	230 30	"1 "	1.00	0.97	400.96	69.00	1042.74	AMPS 1076.88	AMPS	2013sumpk_q268_pre_catc	15
30330	"RIO OSO "	230 30	30335	"ATLANTC "	230 30	"1 "	0.99	0.97	400.34	68.98	1041.15	AMPS 1076.88	AMPS	2013sumpk_q268_pst_catc	15
30330	"RIO OSO "	230 30	30335	"ATLANTC "	230 30	"1 "	1.00	1.00	413.19	68.03	1075.48	AMPS 1076.88	AMPS	2013sumpk_q268_pre_catc	16
30330	"RIO OSO "	230 30	30335	"ATLANTC "	230 30	"1 "	0.99	1.00	412.63	68.01	1074.03	AMPS 1076.88	AMPS	2013sumpk_q268_pst_catc	16
30330	"RIO OSO "	230 30	30335	"ATLANTC "	230 30	"1 "	1.00	1.33	538.94	131.13	1429.12	AMPS 1076.88	AMPS	2013sumpk_q268_pre_catc	64
30330	"RIO OSO "	230 30	30335	"ATLANTC "	230 30	"1 "	0.99	1.33	538.42	131.10	1427.80	AMPS 1076.88	AMPS	2013sumpk_q268_pst_catc	64
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.95	0.98	382.55	-8.48	981.53	AMPS 1004.09	AMPS	2013sumpk_q268_pre_catc	116
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.94	0.98	381.94	-8.31	979.96	AMPS 1004.09	AMPS	2013sumpk_q268_pst_catc	116
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.95	1.00	390.02	-7.53	1001.49	AMPS 1004.09	AMPS	2013sumpk_q268_pre_catc	117
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.94	1.00	389.41	-7.37	999.92	AMPS 1004.09	AMPS	2013sumpk_q268_pst_catc	117
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.95	1.01	394.96	-2.91	1016.56	AMPS 1004.09	AMPS	2013sumpk_q268_pre_catc	120
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.94	1.01	394.72	-2.69	1015.94	AMPS 1004.09	AMPS	2013sumpk_q268_pst_catc	120
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.95	1.09	421.60	11.57	1091.02	AMPS 1004.09	AMPS	2013sumpk_q268_pre_catc	121
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.94	1.09	421.39	11.85	1090.56	AMPS 1004.09	AMPS	2013sumpk_q268_pst_catc	121
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.95	0.90	353.65	-12.29	906.60	AMPS 1004.09	AMPS	2013sumpk_q268_pre_catc	122
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.94	0.90	353.38	-12.04	905.92	AMPS 1004.09	AMPS	2013sumpk_q268_pst_catc	122
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.95	1.13	438.94	58.47	1138.55	AMPS 1004.09	AMPS	2013sumpk_q268_pre_catc	19
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.94	1.13	438.48	58.71	1137.51	AMPS 1004.09	AMPS	2013sumpk_q268_pst_catc	19
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.95	0.97	379.99	-4.72	970.79	AMPS 1004.09	AMPS	2013sumpk_q268_pre_catc	27
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.94	0.97	379.52	-4.44	969.62	AMPS 1004.09	AMPS	2013sumpk_q268_pst_catc	27
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.95	1.05	414.38	5.39	1052.97	AMPS 1004.09	AMPS	2013sumpk_q268_pre_catc	44
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.94	1.05	413.80	5.54	1051.50	AMPS 1004.09	AMPS	2013sumpk_q268_pst_catc	44
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.95	1.03	403.56	-0.16	1030.81	AMPS 1004.09	AMPS	2013sumpk_q268_pre_catc	48

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY C 2013 SUMMER PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #	
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING			
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.94	1.02	402.92	-0.03	1029.19	AMPS 1004.09	AMPS	2013sumpk_q268_pst_catc	48
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.95	1.13	438.94	58.47	1138.55	AMPS 1004.09	AMPS	2013sumpk_q268_pre_catc	56
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.94	1.13	438.48	58.71	1137.51	AMPS 1004.09	AMPS	2013sumpk_q268_pst_catc	56
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.95	0.92	360.98	-13.25	924.14	AMPS 1004.09	AMPS	2013sumpk_q268_pre_catc	57
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.94	0.92	360.55	-13.00	923.02	AMPS 1004.09	AMPS	2013sumpk_q268_pst_catc	57
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.95	0.91	357.93	-7.76	913.09	AMPS 1004.09	AMPS	2013sumpk_q268_pre_catc	62
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.94	0.91	357.46	-7.53	911.91	AMPS 1004.09	AMPS	2013sumpk_q268_pst_catc	62
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.95	0.93	364.60	-7.06	934.13	AMPS 1004.09	AMPS	2013sumpk_q268_pre_catc	63
30330	"RIO OSO "	230 30	30348	"BRIGHTON"	230 30	"1 "	0.94	0.93	364.07	-6.87	932.78	AMPS 1004.09	AMPS	2013sumpk_q268_pst_catc	63
30330	"RIO OSO "	230 30	30482	"LOCKFORD"	230 30	"1 "	0.79	0.98	322.43	5.13	834.16	AMPS 849.96	AMPS	2013sumpk_q268_pre_catc	121
30330	"RIO OSO "	230 30	30482	"LOCKFORD"	230 30	"1 "	0.79	0.98	322.20	5.43	833.65	AMPS 849.96	AMPS	2013sumpk_q268_pst_catc	121
30330	"RIO OSO "	230 30	30482	"LOCKFORD"	230 30	"1 "	0.79	0.91	304.14	-0.94	772.77	AMPS 849.96	AMPS	2013sumpk_q268_pre_catc	44
30330	"RIO OSO "	230 30	30482	"LOCKFORD"	230 30	"1 "	0.79	0.91	303.55	-0.78	771.29	AMPS 849.96	AMPS	2013sumpk_q268_pst_catc	44
30330	"RIO OSO "	230 30	30482	"LOCKFORD"	230 30	"1 "	0.79	0.90	300.84	-5.58	768.55	AMPS 849.96	AMPS	2013sumpk_q268_pre_catc	48
30330	"RIO OSO "	230 30	30482	"LOCKFORD"	230 30	"1 "	0.79	0.90	300.19	-5.43	766.90	AMPS 849.96	AMPS	2013sumpk_q268_pst_catc	48
30335	"ATLANTC "	230 30	30337	"GOLDHILL"	230 30	"1 "	0.46	1.09	395.42	-10.59	1064.88	AMPS 976.48	AMPS	2013sumpk_q268_pre_catc	64
30335	"ATLANTC "	230 30	30337	"GOLDHILL"	230 30	"1 "	0.46	1.09	394.79	-10.44	1063.15	AMPS 976.48	AMPS	2013sumpk_q268_pst_catc	64
30337	"GOLDHILL"	230 30	32018	"GOLDHILL"	115 30	"1 "	0.59	0.96	439.23	43.39	441.37	MVA 462.00	MVA	2013sumpk_q268_pre_catc	64
30337	"GOLDHILL"	230 30	32018	"GOLDHILL"	115 30	"1 "	0.59	0.96	439.57	43.29	441.70	MVA 462.00	MVA	2013sumpk_q268_pst_catc	64
30337	"GOLDHILL"	230 30	32018	"GOLDHILL"	115 30	"2 "	0.56	1.03	471.86	42.55	473.78	MVA 462.00	MVA	2013sumpk_q268_pre_catc	63
30337	"GOLDHILL"	230 30	32018	"GOLDHILL"	115 30	"2 "	0.56	1.03	472.22	42.51	474.13	MVA 462.00	MVA	2013sumpk_q268_pst_catc	63
30337	"GOLDHILL"	230 30	37012	"LAKE "	230 30	"1 "	0.80	0.97	319.55	47.70	850.63	AMPS 879.83	AMPS	2013sumpk_q268_pre_catc	116
30337	"GOLDHILL"	230 30	37012	"LAKE "	230 30	"1 "	0.80	0.97	319.05	47.65	849.30	AMPS 879.83	AMPS	2013sumpk_q268_pst_catc	116
30337	"GOLDHILL"	230 30	37012	"LAKE "	230 30	"1 "	0.80	1.00	330.99	50.94	883.81	AMPS 879.83	AMPS	2013sumpk_q268_pre_catc	117
30337	"GOLDHILL"	230 30	37012	"LAKE "	230 30	"1 "	0.80	1.00	330.49	50.88	882.48	AMPS 879.83	AMPS	2013sumpk_q268_pst_catc	117
30337	"GOLDHILL"	230 30	37012	"LAKE "	230 30	"1 "	0.80	1.09	349.59	101.85	960.58	AMPS 879.83	AMPS	2013sumpk_q268_pre_catc	127
30337	"GOLDHILL"	230 30	37012	"LAKE "	230 30	"1 "	0.80	1.09	349.41	101.70	960.02	AMPS 879.83	AMPS	2013sumpk_q268_pst_catc	127
30337	"GOLDHILL"	230 30	37012	"LAKE "	230 30	"1 "	0.80	0.90	299.03	44.09	794.01	AMPS 879.83	AMPS	2013sumpk_q268_pre_catc	16
30337	"GOLDHILL"	230 30	37012	"LAKE "	230 30	"1 "	0.80	0.90	298.70	44.13	793.15	AMPS 879.83	AMPS	2013sumpk_q268_pst_catc	16
30460	"VACA-DIX"	230 30	30468	"Q257SWST"	230 30	"1 "	0.66	0.92	325.67	58.71	813.92	AMPS 886.11	AMPS	2013sumpk_q268_pre_catc	23
30460	"VACA-DIX"	230 30	30468	"Q257SWST"	230 30	"1 "	0.66	0.92	324.68	58.42	811.58	AMPS 886.11	AMPS	2013sumpk_q268_pst_catc	23

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY C 2013 SUMMER PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----				(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING			
30460	"VACA-DIX"	230 30	30468	"Q257SWST"	230 30	"2 "	0.66	0.91	321.34	48.63	805.23 AMPS	886.11 AMPS	2013sumpk_q268_pre_catc	21	
30460	"VACA-DIX"	230 30	30468	"Q257SWST"	230 30	"2 "	0.66	0.91	320.35	48.35	802.88 AMPS	886.11 AMPS	2013sumpk_q268_pst_catc	21	
30489	"STAGG-J2"	230 30	30624	"TESLA E "	230 30	"1 "	0.26	0.92	-342.87	-65.12	902.19 AMPS	976.48 AMPS	2013sumpk_q268_pre_catc	116	
30489	"STAGG-J2"	230 30	30624	"TESLA E "	230 30	"1 "	0.26	0.92	-342.87	-65.15	902.44 AMPS	976.48 AMPS	2013sumpk_q268_pst_catc	116	
30489	"STAGG-J2"	230 30	30624	"TESLA E "	230 30	"1 "	0.26	0.93	-342.89	-65.30	904.09 AMPS	976.48 AMPS	2013sumpk_q268_pre_catc	129	
30489	"STAGG-J2"	230 30	30624	"TESLA E "	230 30	"1 "	0.26	0.93	-342.89	-65.32	904.32 AMPS	976.48 AMPS	2013sumpk_q268_pst_catc	129	
30495	"STAGG "	230 30	30622	"EIGHT MI"	230 30	"1 "	0.93	0.94	345.07	77.16	919.46 AMPS	976.48 AMPS	2013sumpk_q268_pre_catc	115	
30495	"STAGG "	230 30	30622	"EIGHT MI"	230 30	"1 "	0.93	0.94	345.07	77.16	919.47 AMPS	976.48 AMPS	2013sumpk_q268_pst_catc	115	
30495	"STAGG "	230 30	30622	"EIGHT MI"	230 30	"1 "	0.93	0.90	351.21	3.54	881.89 AMPS	976.48 AMPS	2013sumpk_q268_pre_catc	118	
30495	"STAGG "	230 30	30622	"EIGHT MI"	230 30	"1 "	0.93	0.90	351.22	3.78	882.03 AMPS	976.48 AMPS	2013sumpk_q268_pst_catc	118	
30495	"STAGG "	230 30	30622	"EIGHT MI"	230 30	"1 "	0.93	0.93	345.42	83.72	908.91 AMPS	976.48 AMPS	2013sumpk_q268_pre_catc	131	
30495	"STAGG "	230 30	30622	"EIGHT MI"	230 30	"1 "	0.93	0.93	345.42	83.74	908.99 AMPS	976.48 AMPS	2013sumpk_q268_pst_catc	131	
30495	"STAGG "	230 30	30622	"EIGHT MI"	230 30	"1 "	0.93	0.93	345.02	76.13	903.33 AMPS	976.48 AMPS	2013sumpk_q268_pre_catc	137	
30495	"STAGG "	230 30	30622	"EIGHT MI"	230 30	"1 "	0.93	0.93	345.02	76.14	903.40 AMPS	976.48 AMPS	2013sumpk_q268_pst_catc	137	
30495	"STAGG "	230 30	30622	"EIGHT MI"	230 30	"1 "	0.93	0.93	355.88	-13.71	903.24 AMPS	976.48 AMPS	2013sumpk_q268_pre_catc	15	
30495	"STAGG "	230 30	30622	"EIGHT MI"	230 30	"1 "	0.93	0.92	355.27	-13.37	901.74 AMPS	976.48 AMPS	2013sumpk_q268_pst_catc	15	
30495	"STAGG "	230 30	30622	"EIGHT MI"	230 30	"1 "	0.93	0.93	356.64	-13.78	905.82 AMPS	976.48 AMPS	2013sumpk_q268_pre_catc	16	
30495	"STAGG "	230 30	30622	"EIGHT MI"	230 30	"1 "	0.93	0.93	356.07	-13.46	904.42 AMPS	976.48 AMPS	2013sumpk_q268_pst_catc	16	
30500	"BELLOTA "	230 30	38208	"COTTLE B"	230 30	"1 "	0.89	1.00	317.80	-2.24	790.12 AMPS	793.23 AMPS	2013sumpk_q268_pre_catc	127	
30500	"BELLOTA "	230 30	38208	"COTTLE B"	230 30	"1 "	0.92	1.02	325.14	-0.91	808.68 AMPS	793.23 AMPS	2013sumpk_q268_pst_catc	127	
30505	"WEBER "	230 30	30888	"P0703 "	230 30	"1 "	0.99	1.08	-517.67	12.13	1297.48 AMPS	1199.89 AMPS	2013sumpk_q268_pre_catc	128	
30505	"WEBER "	230 30	30888	"P0703 "	230 30	"1 "	0.99	1.08	-518.02	11.90	1298.78 AMPS	1199.89 AMPS	2013sumpk_q268_pst_catc	128	
30505	"WEBER "	230 30	30888	"P0703 "	230 30	"1 "	0.99	1.14	-540.75	-12.79	1365.55 AMPS	1199.89 AMPS	2013sumpk_q268_pre_catc	133	
30505	"WEBER "	230 30	30888	"P0703 "	230 30	"1 "	0.99	1.13	-539.03	-12.93	1361.40 AMPS	1199.89 AMPS	2013sumpk_q268_pst_catc	133	
30505	"WEBER "	230 30	30888	"P0703 "	230 30	"1 "	0.99	1.07	-505.04	-26.50	1284.98 AMPS	1199.89 AMPS	2013sumpk_q268_pre_catc	134	
30505	"WEBER "	230 30	30888	"P0703 "	230 30	"1 "	0.99	1.07	-505.55	-26.59	1286.61 AMPS	1199.89 AMPS	2013sumpk_q268_pst_catc	134	
30505	"WEBER "	230 30	30888	"P0703 "	230 30	"1 "	0.99	1.18	-562.53	13.42	1417.74 AMPS	1199.89 AMPS	2013sumpk_q268_pre_catc	15	
30505	"WEBER "	230 30	30888	"P0703 "	230 30	"1 "	0.99	1.18	-562.88	13.18	1419.07 AMPS	1199.89 AMPS	2013sumpk_q268_pst_catc	15	
30505	"WEBER "	230 30	30888	"P0703 "	230 30	"1 "	0.99	1.19	-566.45	6.36	1432.45 AMPS	1199.89 AMPS	2013sumpk_q268_pre_catc	16	
30505	"WEBER "	230 30	30888	"P0703 "	230 30	"1 "	0.99	1.20	-566.85	6.17	1433.91 AMPS	1199.89 AMPS	2013sumpk_q268_pst_catc	16	
30505	"WEBER "	230 30	30888	"P0703 "	230 30	"1 "	0.99	1.04	-497.28	-10.39	1252.47 AMPS	1199.89 AMPS	2013sumpk_q268_pre_catc	45	
30505	"WEBER "	230 30	30888	"P0703 "	230 30	"1 "	0.99	1.04	-497.75	-10.45	1253.87 AMPS	1199.89 AMPS	2013sumpk_q268_pst_catc	45	

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY C 2013 SUMMER PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #	
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING			
30630	"NEWARK D"	230 30	30631	"NEWARK E"	230 30	"1 "	0.09	1.00	-630.78	38.36	1602.64	AMPS 1599.01	AMPS	2013sumpk_q268_pst_catc	123
31960	"MOBILCHE"	115 30	31966	"WODLNDJ1"	115 30	"1 "	0.78	0.92	-144.66	8.40	750.34	AMPS 818.33	AMPS	2013sumpk_q268_pre_catc	16
31960	"MOBILCHE"	115 30	31966	"WODLNDJ1"	115 30	"1 "	0.78	0.92	-144.56	8.34	749.80	AMPS 818.33	AMPS	2013sumpk_q268_pst_catc	16
31960	"MOBILCHE"	115 30	31970	"WOODLD "	115 30	"1 "	0.78	0.92	144.56	-8.39	749.82	AMPS 818.33	AMPS	2013sumpk_q268_pre_catc	16
31960	"MOBILCHE"	115 30	31970	"WOODLD "	115 30	"1 "	0.78	0.92	144.46	-8.34	749.29	AMPS 818.33	AMPS	2013sumpk_q268_pst_catc	16
31962	"WDLND_BM"	115 30	31970	"WOODLD "	115 30	"1 "	0.55	1.13	-159.23	27.28	836.94	AMPS 739.01	AMPS	2013sumpk_q268_pre_catc	16
31962	"WDLND_BM"	115 30	31970	"WOODLD "	115 30	"1 "	0.55	1.13	-159.03	27.15	835.83	AMPS 739.01	AMPS	2013sumpk_q268_pst_catc	16
31962	"WDLND_BM"	115 30	31970	"WOODLD "	115 30	"1 "	0.55	0.90	128.19	6.84	667.21	AMPS 739.01	AMPS	2013sumpk_q268_pre_catc	19
31962	"WDLND_BM"	115 30	31970	"WOODLD "	115 30	"1 "	0.55	0.90	128.19	6.84	667.30	AMPS 739.01	AMPS	2013sumpk_q268_pst_catc	19
31962	"WDLND_BM"	115 30	31970	"WOODLD "	115 30	"1 "	0.55	1.04	-145.24	3.49	767.04	AMPS 739.01	AMPS	2013sumpk_q268_pre_catc	20
31962	"WDLND_BM"	115 30	31970	"WOODLD "	115 30	"1 "	0.55	1.04	-145.18	3.42	766.78	AMPS 739.01	AMPS	2013sumpk_q268_pst_catc	20
31962	"WDLND_BM"	115 30	31970	"WOODLD "	115 30	"1 "	0.55	1.05	-144.73	-9.40	777.83	AMPS 739.01	AMPS	2013sumpk_q268_pre_catc	28
31962	"WDLND_BM"	115 30	31970	"WOODLD "	115 30	"1 "	0.55	1.05	-144.73	-9.40	777.84	AMPS 739.01	AMPS	2013sumpk_q268_pst_catc	28
31962	"WDLND_BM"	115 30	31970	"WOODLD "	115 30	"1 "	0.55	0.90	128.19	6.84	667.21	AMPS 739.01	AMPS	2013sumpk_q268_pre_catc	56
31962	"WDLND_BM"	115 30	31970	"WOODLD "	115 30	"1 "	0.55	0.90	128.19	6.84	667.30	AMPS 739.01	AMPS	2013sumpk_q268_pst_catc	56
31962	"WDLND_BM"	115 30	31992	"HUNT "	115 30	"1 "	0.73	1.29	182.74	-23.58	954.57	AMPS 738.00	AMPS	2013sumpk_q268_pre_catc	16
31962	"WDLND_BM"	115 30	31992	"HUNT "	115 30	"1 "	0.73	1.29	182.54	-23.46	953.48	AMPS 738.00	AMPS	2013sumpk_q268_pst_catc	16
31962	"WDLND_BM"	115 30	31992	"HUNT "	115 30	"1 "	0.73	1.21	168.74	0.17	890.95	AMPS 738.00	AMPS	2013sumpk_q268_pre_catc	20
31962	"WDLND_BM"	115 30	31992	"HUNT "	115 30	"1 "	0.73	1.21	168.69	0.23	890.70	AMPS 738.00	AMPS	2013sumpk_q268_pst_catc	20
31962	"WDLND_BM"	115 30	31992	"HUNT "	115 30	"1 "	0.73	1.23	168.24	13.03	904.98	AMPS 738.00	AMPS	2013sumpk_q268_pre_catc	28
31962	"WDLND_BM"	115 30	31992	"HUNT "	115 30	"1 "	0.73	1.23	168.24	13.03	904.99	AMPS 738.00	AMPS	2013sumpk_q268_pst_catc	28
31964	"KNIGHT2 "	115 30	31968	"WODLNDJ2"	115 30	"2 "	0.86	0.98	156.78	3.35	797.91	AMPS 818.33	AMPS	2013sumpk_q268_pre_catc	16
31964	"KNIGHT2 "	115 30	31968	"WODLNDJ2"	115 30	"2 "	0.86	0.97	156.68	3.39	797.38	AMPS 818.33	AMPS	2013sumpk_q268_pst_catc	16
31964	"KNIGHT2 "	115 30	31968	"WODLNDJ2"	115 30	"2 "	0.86	0.94	149.54	14.17	772.15	AMPS 818.33	AMPS	2013sumpk_q268_pre_catc	20
31964	"KNIGHT2 "	115 30	31968	"WODLNDJ2"	115 30	"2 "	0.86	0.94	149.51	14.20	772.04	AMPS 818.33	AMPS	2013sumpk_q268_pst_catc	20
31964	"KNIGHT2 "	115 30	31968	"WODLNDJ2"	115 30	"2 "	0.86	0.96	149.37	21.06	782.70	AMPS 818.33	AMPS	2013sumpk_q268_pre_catc	28
31964	"KNIGHT2 "	115 30	31968	"WODLNDJ2"	115 30	"2 "	0.86	0.96	149.37	21.06	782.71	AMPS 818.33	AMPS	2013sumpk_q268_pst_catc	28
31964	"KNIGHT2 "	115 30	32214	"RIO OSO "	115 30	"2 "	0.86	0.97	161.47	24.21	797.30	AMPS 818.33	AMPS	2013sumpk_q268_pre_catc	16
31964	"KNIGHT2 "	115 30	32214	"RIO OSO "	115 30	"2 "	0.86	0.97	161.36	24.22	796.76	AMPS 818.33	AMPS	2013sumpk_q268_pst_catc	16
31964	"KNIGHT2 "	115 30	32214	"RIO OSO "	115 30	"2 "	0.86	0.94	153.93	33.62	771.05	AMPS 818.33	AMPS	2013sumpk_q268_pre_catc	20
31964	"KNIGHT2 "	115 30	32214	"RIO OSO "	115 30	"2 "	0.86	0.94	153.90	33.64	770.94	AMPS 818.33	AMPS	2013sumpk_q268_pst_catc	20

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY C 2013 SUMMER PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING		
31964	"KNIGHT2 "	115 30	32214	"RIO OSO "	115 30	"2 "	0.86	0.95	153.87	41.09	781.29 AMPS	818.33 AMPS	2013sumpk_q268_pre_catc	28
31964	"KNIGHT2 "	115 30	32214	"RIO OSO "	115 30	"2 "	0.86	0.95	153.87	41.09	781.30 AMPS	818.33 AMPS	2013sumpk_q268_pst_catc	28
31965	"KNIGHT1 "	115 30	31966	"WODLNDJ1"	115 30	"1 "	0.78	0.92	147.56	2.50	750.39 AMPS	818.33 AMPS	2013sumpk_q268_pre_catc	16
31965	"KNIGHT1 "	115 30	31966	"WODLNDJ1"	115 30	"1 "	0.78	0.92	147.46	2.54	749.85 AMPS	818.33 AMPS	2013sumpk_q268_pst_catc	16
31965	"KNIGHT1 "	115 30	32214	"RIO OSO "	115 30	"1 "	0.85	0.97	160.88	23.57	793.98 AMPS	818.33 AMPS	2013sumpk_q268_pre_catc	16
31965	"KNIGHT1 "	115 30	32214	"RIO OSO "	115 30	"1 "	0.85	0.97	160.77	23.58	793.44 AMPS	818.33 AMPS	2013sumpk_q268_pst_catc	16
31965	"KNIGHT1 "	115 30	32214	"RIO OSO "	115 30	"1 "	0.85	0.94	153.36	32.99	767.70 AMPS	818.33 AMPS	2013sumpk_q268_pre_catc	20
31965	"KNIGHT1 "	115 30	32214	"RIO OSO "	115 30	"1 "	0.85	0.94	153.33	33.02	767.59 AMPS	818.33 AMPS	2013sumpk_q268_pst_catc	20
31965	"KNIGHT1 "	115 30	32214	"RIO OSO "	115 30	"1 "	0.85	0.95	153.32	40.45	777.89 AMPS	818.33 AMPS	2013sumpk_q268_pre_catc	28
31965	"KNIGHT1 "	115 30	32214	"RIO OSO "	115 30	"1 "	0.85	0.95	153.32	40.46	777.90 AMPS	818.33 AMPS	2013sumpk_q268_pst_catc	28
31968	"WODLNDJ2"	115 30	31970	"WOODLD "	115 30	"2 "	0.77	0.91	145.72	2.10	742.93 AMPS	818.33 AMPS	2013sumpk_q268_pre_catc	16
31968	"WODLNDJ2"	115 30	31970	"WOODLD "	115 30	"2 "	0.77	0.91	145.61	2.14	742.40 AMPS	818.33 AMPS	2013sumpk_q268_pst_catc	16
31978	"DPWT_TP2"	115 30	31984	"BRIGHTN "	115 30	"1 "	0.84	1.24	-146.81	-34.60	751.34 AMPS	607.47 AMPS	2013sumpk_q268_pre_catc	19
31978	"DPWT_TP2"	115 30	31984	"BRIGHTN "	115 30	"1 "	0.84	1.24	-146.85	-34.55	751.56 AMPS	607.47 AMPS	2013sumpk_q268_pst_catc	19
31978	"DPWT_TP2"	115 30	31984	"BRIGHTN "	115 30	"1 "	0.84	1.24	-146.81	-34.60	751.34 AMPS	607.47 AMPS	2013sumpk_q268_pre_catc	56
31978	"DPWT_TP2"	115 30	31984	"BRIGHTN "	115 30	"1 "	0.84	1.24	-146.85	-34.55	751.56 AMPS	607.47 AMPS	2013sumpk_q268_pst_catc	56
31978	"DPWT_TP2"	115 30	31984	"BRIGHTN "	115 30	"1 "	0.84	0.95	-114.53	15.01	574.10 AMPS	607.47 AMPS	2013sumpk_q268_pre_catc	57
31978	"DPWT_TP2"	115 30	31984	"BRIGHTN "	115 30	"1 "	0.84	0.95	-114.58	15.04	574.42 AMPS	607.47 AMPS	2013sumpk_q268_pst_catc	57
31980	"DPWTR_TP"	115 30	31986	"W.SCRMNO"	115 30	"1 "	0.22	0.91	-131.69	-29.40	677.85 AMPS	743.03 AMPS	2013sumpk_q268_pre_catc	19
31980	"DPWTR_TP"	115 30	31986	"W.SCRMNO"	115 30	"1 "	0.22	0.91	-131.68	-29.43	677.90 AMPS	743.03 AMPS	2013sumpk_q268_pst_catc	19
31980	"DPWTR_TP"	115 30	31986	"W.SCRMNO"	115 30	"1 "	0.22	0.91	-131.69	-29.40	677.85 AMPS	743.03 AMPS	2013sumpk_q268_pre_catc	56
31980	"DPWTR_TP"	115 30	31986	"W.SCRMNO"	115 30	"1 "	0.22	0.91	-131.68	-29.43	677.90 AMPS	743.03 AMPS	2013sumpk_q268_pst_catc	56
31980	"DPWTR_TP"	115 30	32003	"UCD_TP1 "	115 30	"1 "	0.21	0.97	-131.34	39.07	722.59 AMPS	743.03 AMPS	2013sumpk_q268_pre_catc	20
31980	"DPWTR_TP"	115 30	32003	"UCD_TP1 "	115 30	"1 "	0.21	0.97	-131.34	39.06	722.65 AMPS	743.03 AMPS	2013sumpk_q268_pst_catc	20
31984	"BRIGHTN "	115 30	31993	"BRKRJCT "	115 30	"1 "	0.51	1.08	136.87	22.03	653.49 AMPS	602.45 AMPS	2013sumpk_q268_pre_catc	19
31984	"BRIGHTN "	115 30	31993	"BRKRJCT "	115 30	"1 "	0.51	1.08	136.89	22.02	653.64 AMPS	602.45 AMPS	2013sumpk_q268_pst_catc	19
31984	"BRIGHTN "	115 30	31993	"BRKRJCT "	115 30	"1 "	0.51	1.04	125.24	19.06	625.67 AMPS	602.45 AMPS	2013sumpk_q268_pre_catc	20
31984	"BRIGHTN "	115 30	31993	"BRKRJCT "	115 30	"1 "	0.51	1.04	125.31	19.02	626.03 AMPS	602.45 AMPS	2013sumpk_q268_pst_catc	20
31984	"BRIGHTN "	115 30	31993	"BRKRJCT "	115 30	"1 "	0.51	1.08	136.87	22.03	653.49 AMPS	602.45 AMPS	2013sumpk_q268_pre_catc	56
31984	"BRIGHTN "	115 30	31993	"BRKRJCT "	115 30	"1 "	0.51	1.08	136.89	22.02	653.64 AMPS	602.45 AMPS	2013sumpk_q268_pst_catc	56
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.86	1.34	138.82	-5.72	678.46 AMPS	507.06 AMPS	2013sumpk_q268_pre_catc	16
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.86	1.34	138.69	-5.68	677.79 AMPS	507.06 AMPS	2013sumpk_q268_pst_catc	16

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY C 2013 SUMMER PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING		
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.86	1.23	127.58	-12.40	623.65 AMPS	507.06 AMPS	2013sumpk_q268_pre_catc	19
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.86	1.23	127.52	-12.35	623.31 AMPS	507.06 AMPS	2013sumpk_q268_pst_catc	19
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.86	0.97	100.93	-8.54	490.47 AMPS	507.06 AMPS	2013sumpk_q268_pre_catc	27
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.86	0.97	100.86	-8.49	490.13 AMPS	507.06 AMPS	2013sumpk_q268_pst_catc	27
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.86	1.28	131.57	15.00	649.65 AMPS	507.06 AMPS	2013sumpk_q268_pre_catc	28
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.86	1.28	131.57	15.00	649.66 AMPS	507.06 AMPS	2013sumpk_q268_pst_catc	28
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.86	1.23	127.58	-12.40	623.65 AMPS	507.06 AMPS	2013sumpk_q268_pre_catc	56
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.86	1.23	127.52	-12.35	623.31 AMPS	507.06 AMPS	2013sumpk_q268_pst_catc	56
31990	"DAVIS "	115 30	31992	"HUNT "	115 30	"1 "	0.73	1.29	-178.78	41.15	952.60 AMPS	738.00 AMPS	2013sumpk_q268_pre_catc	16
31990	"DAVIS "	115 30	31992	"HUNT "	115 30	"1 "	0.73	1.29	-178.59	40.98	951.51 AMPS	738.00 AMPS	2013sumpk_q268_pst_catc	16
31990	"DAVIS "	115 30	31992	"HUNT "	115 30	"1 "	0.73	1.21	-165.26	15.09	889.37 AMPS	738.00 AMPS	2013sumpk_q268_pre_catc	20
31990	"DAVIS "	115 30	31992	"HUNT "	115 30	"1 "	0.73	1.20	-165.21	15.02	889.12 AMPS	738.00 AMPS	2013sumpk_q268_pst_catc	20
31990	"DAVIS "	115 30	31992	"HUNT "	115 30	"1 "	0.73	1.22	-164.65	2.77	903.61 AMPS	738.00 AMPS	2013sumpk_q268_pre_catc	28
31990	"DAVIS "	115 30	31992	"HUNT "	115 30	"1 "	0.73	1.22	-164.65	2.77	903.62 AMPS	738.00 AMPS	2013sumpk_q268_pst_catc	28
31990	"DAVIS "	115 30	32001	"UCD_TP2 "	115 30	"1 "	0.37	1.07	126.10	0.36	645.94 AMPS	602.45 AMPS	2013sumpk_q268_pre_catc	19
31990	"DAVIS "	115 30	32001	"UCD_TP2 "	115 30	"1 "	0.37	1.07	126.11	0.33	646.07 AMPS	602.45 AMPS	2013sumpk_q268_pst_catc	19
31990	"DAVIS "	115 30	32001	"UCD_TP2 "	115 30	"1 "	0.37	1.02	115.23	-0.80	617.47 AMPS	602.45 AMPS	2013sumpk_q268_pre_catc	20
31990	"DAVIS "	115 30	32001	"UCD_TP2 "	115 30	"1 "	0.37	1.03	115.28	-0.87	617.81 AMPS	602.45 AMPS	2013sumpk_q268_pst_catc	20
31990	"DAVIS "	115 30	32001	"UCD_TP2 "	115 30	"1 "	0.37	1.07	126.10	0.36	645.94 AMPS	602.45 AMPS	2013sumpk_q268_pre_catc	56
31990	"DAVIS "	115 30	32001	"UCD_TP2 "	115 30	"1 "	0.37	1.07	126.11	0.33	646.07 AMPS	602.45 AMPS	2013sumpk_q268_pst_catc	56
31990	"DAVIS "	115 30	32003	"UCD_TP1 "	115 30	"1 "	0.19	1.20	-165.23	21.30	892.77 AMPS	743.03 AMPS	2013sumpk_q268_pre_catc	20
31990	"DAVIS "	115 30	32003	"UCD_TP1 "	115 30	"1 "	0.19	1.20	-165.23	21.28	892.84 AMPS	743.03 AMPS	2013sumpk_q268_pst_catc	20
31993	"BRKRJCT "	115 30	32001	"UCD_TP2 "	115 30	"1 "	0.36	1.07	127.82	7.65	645.81 AMPS	602.45 AMPS	2013sumpk_q268_pre_catc	19
31993	"BRKRJCT "	115 30	32001	"UCD_TP2 "	115 30	"1 "	0.36	1.07	127.83	7.64	645.96 AMPS	602.45 AMPS	2013sumpk_q268_pst_catc	19
31993	"BRKRJCT "	115 30	32001	"UCD_TP2 "	115 30	"1 "	0.36	1.02	116.80	5.88	617.40 AMPS	602.45 AMPS	2013sumpk_q268_pre_catc	20
31993	"BRKRJCT "	115 30	32001	"UCD_TP2 "	115 30	"1 "	0.36	1.03	116.85	5.82	617.74 AMPS	602.45 AMPS	2013sumpk_q268_pst_catc	20
31993	"BRKRJCT "	115 30	32001	"UCD_TP2 "	115 30	"1 "	0.36	1.07	127.82	7.65	645.81 AMPS	602.45 AMPS	2013sumpk_q268_pre_catc	56
31993	"BRKRJCT "	115 30	32001	"UCD_TP2 "	115 30	"1 "	0.36	1.07	127.83	7.64	645.96 AMPS	602.45 AMPS	2013sumpk_q268_pst_catc	56
31998	"VACA-DIX"	115 30	32088	"VACA-DXN"	60 30	"5 "	0.34	0.94	82.34	21.40	85.08 MVA	90.80 MVA	2013sumpk_q268_pre_catc	34
31998	"VACA-DIX"	115 30	32088	"VACA-DXN"	60 30	"5 "	0.34	0.94	82.35	21.40	85.08 MVA	90.80 MVA	2013sumpk_q268_pst_catc	34
32018	"GOLDHILL"	115 30	32229	"HORSHEL "	115 30	"1 "	0.72	0.96	141.05	21.20	710.55 AMPS	738.00 AMPS	2013sumpk_q268_pre_catc	73

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY C 2013 SUMMER PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING		
32018	"GOLDHILL"	115 30	32229	"HORSHE1 "	115 30	"1 "	0.72	0.96	141.05	21.20	710.58 AMPS	738.00 AMPS	2013sumpk_q268_pst_catc	73
32018	"GOLDHILL"	115 30	32268	"SHPRING2"	115 30	"2 "	0.72	0.90	159.82	20.24	795.31 AMPS	881.09 AMPS	2013sumpk_q268_pre_catc	77
32018	"GOLDHILL"	115 30	32268	"SHPRING2"	115 30	"2 "	0.72	0.90	159.82	20.24	795.33 AMPS	881.09 AMPS	2013sumpk_q268_pst_catc	77
32208	"GLEAF TP"	115 30	32214	"RIO OSO "	115 30	"1 "	0.71	0.94	94.65	-27.45	480.84 AMPS	512.08 AMPS	2013sumpk_q268_pre_catc	46
32208	"GLEAF TP"	115 30	32214	"RIO OSO "	115 30	"1 "	0.71	0.94	94.45	-27.40	479.83 AMPS	512.08 AMPS	2013sumpk_q268_pst_catc	46
32212	"E.NICOLS"	115 30	32214	"RIO OSO "	115 30	"1 "	0.64	1.03	-76.46	-39.60	428.29 AMPS	416.70 AMPS	2013sumpk_q268_pre_catc	54
32212	"E.NICOLS"	115 30	32214	"RIO OSO "	115 30	"1 "	0.64	1.03	-76.46	-39.60	428.29 AMPS	416.70 AMPS	2013sumpk_q268_pst_catc	54
32212	"E.NICOLS"	115 30	32214	"RIO OSO "	115 30	"1 "	0.64	1.03	-76.50	-39.95	430.23 AMPS	416.70 AMPS	2013sumpk_q268_pre_catc	55
32212	"E.NICOLS"	115 30	32214	"RIO OSO "	115 30	"1 "	0.64	1.03	-76.50	-39.95	430.24 AMPS	416.70 AMPS	2013sumpk_q268_pst_catc	55
32214	"RIO OSO "	115 30	32356	"LINCOLN "	115 30	"1 "	0.50	1.27	294.66	-18.89	1430.91 AMPS	1124.58 AMPS	2013sumpk_q268_pre_catc	44
32214	"RIO OSO "	115 30	32356	"LINCOLN "	115 30	"1 "	0.50	1.27	294.27	-18.91	1429.00 AMPS	1124.58 AMPS	2013sumpk_q268_pst_catc	44
32218	"DRUM "	115 30	32220	"DTCH FL1"	115 30	"1 "	0.82	1.22	140.74	-5.57	682.26 AMPS	560.78 AMPS	2013sumpk_q268_pre_catc	44
32218	"DRUM "	115 30	32220	"DTCH FL1"	115 30	"1 "	0.81	1.21	140.23	-5.59	679.78 AMPS	560.78 AMPS	2013sumpk_q268_pst_catc	44
32218	"DRUM "	115 30	32220	"DTCH FL1"	115 30	"1 "	0.82	1.23	142.13	-15.84	689.84 AMPS	560.78 AMPS	2013sumpk_q268_pre_catc	48
32218	"DRUM "	115 30	32220	"DTCH FL1"	115 30	"1 "	0.81	1.23	141.55	-15.85	687.04 AMPS	560.78 AMPS	2013sumpk_q268_pst_catc	48
32218	"DRUM "	115 30	32220	"DTCH FL1"	115 30	"1 "	0.82	0.93	107.99	-3.25	519.24 AMPS	560.78 AMPS	2013sumpk_q268_pre_catc	49
32218	"DRUM "	115 30	32220	"DTCH FL1"	115 30	"1 "	0.81	0.92	107.62	-3.26	517.47 AMPS	560.78 AMPS	2013sumpk_q268_pst_catc	49
32218	"DRUM "	115 30	32220	"DTCH FL1"	115 30	"1 "	0.82	1.16	133.77	-0.84	649.45 AMPS	560.78 AMPS	2013sumpk_q268_pre_catc	64
32218	"DRUM "	115 30	32220	"DTCH FL1"	115 30	"1 "	0.81	1.15	133.36	-0.86	647.44 AMPS	560.78 AMPS	2013sumpk_q268_pst_catc	64
32218	"DRUM "	115 30	32220	"DTCH FL1"	115 30	"1 "	0.82	0.93	108.38	-2.10	521.28 AMPS	560.78 AMPS	2013sumpk_q268_pre_catc	66
32218	"DRUM "	115 30	32220	"DTCH FL1"	115 30	"1 "	0.81	0.93	108.01	-2.09	519.52 AMPS	560.78 AMPS	2013sumpk_q268_pst_catc	66
32220	"DTCH FL1"	115 30	32224	"CHCGO PK"	115 30	"1 "	0.80	1.07	160.62	0.14	787.33 AMPS	739.01 AMPS	2013sumpk_q268_pre_catc	44
32220	"DTCH FL1"	115 30	32224	"CHCGO PK"	115 30	"1 "	0.79	1.06	160.13	0.15	784.85 AMPS	739.01 AMPS	2013sumpk_q268_pst_catc	44
32220	"DTCH FL1"	115 30	32224	"CHCGO PK"	115 30	"1 "	0.80	1.07	161.97	-10.24	789.98 AMPS	739.01 AMPS	2013sumpk_q268_pre_catc	48
32220	"DTCH FL1"	115 30	32224	"CHCGO PK"	115 30	"1 "	0.79	1.07	161.40	-10.20	787.16 AMPS	739.01 AMPS	2013sumpk_q268_pst_catc	48
32220	"DTCH FL1"	115 30	32224	"CHCGO PK"	115 30	"1 "	0.80	1.02	153.83	5.36	756.82 AMPS	739.01 AMPS	2013sumpk_q268_pre_catc	64
32220	"DTCH FL1"	115 30	32224	"CHCGO PK"	115 30	"1 "	0.79	1.02	153.44	5.37	754.80 AMPS	739.01 AMPS	2013sumpk_q268_pst_catc	64
32224	"CHCGO PK"	115 30	32232	"HIGGINS "	115 30	"1 "	1.05	1.09	196.82	5.32	973.39 AMPS	893.64 AMPS	2013sumpk_q268_pre_catc	44
32224	"CHCGO PK"	115 30	32232	"HIGGINS "	115 30	"1 "	1.04	1.09	196.34	5.39	970.91 AMPS	893.64 AMPS	2013sumpk_q268_pst_catc	44
32224	"CHCGO PK"	115 30	32232	"HIGGINS "	115 30	"1 "	1.05	1.09	198.17	-5.02	970.30 AMPS	893.64 AMPS	2013sumpk_q268_pre_catc	48
32224	"CHCGO PK"	115 30	32232	"HIGGINS "	115 30	"1 "	1.04	1.08	197.61	-4.93	967.48 AMPS	893.64 AMPS	2013sumpk_q268_pst_catc	48

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY C 2013 SUMMER PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----				(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING			
32224	"CHCGO PK"	115 30	32232	"HIGGINS "	115 30	"1 "	1.05	0.91	165.46	12.70	811.76 AMPS	893.64 AMPS	2013sumpk_q268_pre_catc	49	
32224	"CHCGO PK"	115 30	32232	"HIGGINS "	115 30	"1 "	1.04	0.91	165.11	12.74	809.99 AMPS	893.64 AMPS	2013sumpk_q268_pst_catc	49	
32224	"CHCGO PK"	115 30	32232	"HIGGINS "	115 30	"1 "	1.05	1.06	190.15	11.06	945.65 AMPS	893.64 AMPS	2013sumpk_q268_pre_catc	64	
32224	"CHCGO PK"	115 30	32232	"HIGGINS "	115 30	"1 "	1.04	1.06	189.76	11.10	943.64 AMPS	893.64 AMPS	2013sumpk_q268_pst_catc	64	
32224	"CHCGO PK"	115 30	32232	"HIGGINS "	115 30	"1 "	1.05	0.91	165.85	13.78	815.02 AMPS	893.64 AMPS	2013sumpk_q268_pre_catc	66	
32224	"CHCGO PK"	115 30	32232	"HIGGINS "	115 30	"1 "	1.04	0.91	165.49	13.83	813.29 AMPS	893.64 AMPS	2013sumpk_q268_pst_catc	66	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.90	30.59	2.69	310.39 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	115	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.90	30.59	2.69	310.41 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	115	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.90	30.60	2.69	311.06 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	116	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.90	30.60	2.69	311.07 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	116	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.90	30.60	2.70	311.55 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	117	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.90	30.60	2.70	311.55 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	117	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.91	30.61	2.71	312.51 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	118	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.91	30.61	2.71	312.52 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	118	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.90	30.60	2.70	311.32 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	119	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.90	30.60	2.70	311.32 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	119	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.91	30.61	2.71	312.49 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	120	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.91	30.61	2.71	312.50 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	120	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.91	30.62	2.74	315.15 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	121	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.91	30.62	2.74	315.18 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	121	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.90	30.59	2.68	310.15 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	122	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.90	30.59	2.68	310.17 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	122	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.91	30.61	2.71	312.71 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	128	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.91	30.61	2.71	312.71 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	128	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.90	30.60	2.69	310.79 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	132	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.90	30.60	2.69	310.77 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	132	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.91	30.61	2.71	312.32 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	133	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.91	30.61	2.71	312.29 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	133	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.90	30.59	2.69	310.57 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	134	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.90	30.59	2.69	310.57 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	134	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.90	30.59	2.68	310.17 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	137	
32342	"E.NICOLS"	60 30	32344	"PLUMAS "	60 30	"1 "	1.04	0.90	30.59	2.68	310.19 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	137	

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY C 2013 SUMMER PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----				(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING			
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.34 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	15	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.34 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	15	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.91	30.61	2.71	312.95 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	16	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.91	30.61	2.71	312.94 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	16	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.42 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	19	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.43 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	19	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.91	30.61	2.72	313.70 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	20	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.91	30.61	2.72	313.72 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	20	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.91	30.62	2.74	315.08 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	28	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.91	30.62	2.74	315.10 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	28	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.69	311.03 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	29	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.69	311.05 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	29	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.91	30.61	2.71	313.03 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	45	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.91	30.61	2.71	313.01 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	45	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.73 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	46	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.73 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	46	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.53 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	49	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.52 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	49	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.69	310.92 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	52	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.69	310.95 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	52	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.91	30.62	2.73	314.80 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	54	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.91	30.62	2.73	314.81 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	54	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.92	30.63	2.75	316.26 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	55	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.92	30.63	2.75	316.26 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	55	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.42 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	56	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.43 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	56	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.61 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	57	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.69	310.62 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	57	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.69	310.90 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	62	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.60	2.69	310.92 AMPS	344.49 AMPS	2013sumpk_q268_pst_catc	62	
32342	"E.NICOLS"	60 30	32344	"PLUMAS"	60 30	"1 "	1.04	0.90	30.59	2.68	310.23 AMPS	344.49 AMPS	2013sumpk_q268_pre_catc	63	

**APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY C 2013 SUMMER PEAK OPERATING CONDITIONS**

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)		
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING	FILE	OUTAGE #
33514	"MANTECA "	115 30	33970	"INGRM C."	115 30	"1 "	0.75	1.61	-97.38	18.95	526.80	AMPS 326.33	AMPS 2013sumpk_q268_pre_catc	106
33514	"MANTECA "	115 30	33970	"INGRM C."	115 30	"1 "	0.68	1.62	-97.95	20.06	530.25	AMPS 326.33	AMPS 2013sumpk_q268_pst_catc	106
33514	"MANTECA "	115 30	33970	"INGRM C."	115 30	"1 "	0.75	1.61	-97.20	19.12	526.45	AMPS 326.33	AMPS 2013sumpk_q268_pre_catc	107
33514	"MANTECA "	115 30	33970	"INGRM C."	115 30	"1 "	0.68	1.64	-98.62	20.72	534.97	AMPS 326.33	AMPS 2013sumpk_q268_pst_catc	107
33514	"MANTECA "	115 30	33970	"INGRM C."	115 30	"1 "	0.75	1.53	-92.21	17.01	498.90	AMPS 326.33	AMPS 2013sumpk_q268_pre_catc	113
33514	"MANTECA "	115 30	33970	"INGRM C."	115 30	"1 "	0.68	1.57	-94.00	18.78	511.42	AMPS 326.33	AMPS 2013sumpk_q268_pst_catc	113
33514	"MANTECA "	115 30	33970	"INGRM C."	115 30	"1 "	0.75	1.53	-92.10	17.10	498.94	AMPS 326.33	AMPS 2013sumpk_q268_pre_catc	114
33514	"MANTECA "	115 30	33970	"INGRM C."	115 30	"1 "	0.68	1.57	-94.07	18.63	511.02	AMPS 326.33	AMPS 2013sumpk_q268_pst_catc	114
33514	"MANTECA "	115 30	33970	"INGRM C."	115 30	"1 "	0.75	1.01	-63.02	7.74	329.06	AMPS 326.33	AMPS 2013sumpk_q268_pre_catc	145
=2=														
33514	"MANTECA "	115 30	33970	"INGRM C."	115 30	"1 "	0.75	0.95	-59.81	9.71	310.88	AMPS 326.33	AMPS 2013sumpk_q268_pre_catc	146
=2=														
33522	"CROSRDJT"	115 30	33530	"KSSN-JC2"	115 30	"1 "	0.72	0.95	-166.10	8.55	840.76	AMPS 883.60	AMPS 2013sumpk_q268_pst_catc	102
=1=														
33522	"CROSRDJT"	115 30	33530	"KSSN-JC2"	115 30	"1 "	0.68	1.04	-179.12	7.23	918.34	AMPS 883.60	AMPS 2013sumpk_q268_pre_catc	108
33522	"CROSRDJT"	115 30	33530	"KSSN-JC2"	115 30	"1 "	0.72	1.09	-189.72	8.37	966.76	AMPS 883.60	AMPS 2013sumpk_q268_pst_catc	108
33522	"CROSRDJT"	115 30	33530	"KSSN-JC2"	115 30	"1 "	0.68	1.04	-178.89	7.45	918.12	AMPS 883.60	AMPS 2013sumpk_q268_pre_catc	109
33522	"CROSRDJT"	115 30	33530	"KSSN-JC2"	115 30	"1 "	0.72	1.09	-188.87	8.28	962.84	AMPS 883.60	AMPS 2013sumpk_q268_pst_catc	109
=1=														
33528	"KASSON "	115 30	33529	"LAMMERS "	115 30	"1 "	0.56	1.12	-251.28	8.66	1255.78	AMPS 1124.58	AMPS 2013sumpk_q268_pst_catc	102
=1=														
33528	"KASSON "	115 30	33529	"LAMMERS "	115 30	"1 "	0.56	0.96	-215.20	-14.03	1081.01	AMPS 1124.58	AMPS 2013sumpk_q268_pst_catc	108
=1=														
33528	"KASSON "	115 30	33529	"LAMMERS "	115 30	"1 "	0.56	0.94	-211.11	-16.71	1061.94	AMPS 1124.58	AMPS 2013sumpk_q268_pst_catc	109
33528	"KASSON "	115 30	33756	"KASSON "	60 30	"1 "	0.71	0.98	89.16	9.17	89.63	MVA 91.20	MVA 2013sumpk_q268_pre_catc	106
33528	"KASSON "	115 30	33756	"KASSON "	60 30	"1 "	0.72	1.06	95.83	10.17	96.36	MVA 91.20	MVA 2013sumpk_q268_pst_catc	106
33528	"KASSON "	115 30	33756	"KASSON "	60 30	"1 "	0.71	0.98	89.09	9.09	89.55	MVA 91.20	MVA 2013sumpk_q268_pre_catc	107
33528	"KASSON "	115 30	33756	"KASSON "	60 30	"1 "	0.72	1.04	94.17	10.11	94.71	MVA 91.20	MVA 2013sumpk_q268_pst_catc	107
=1=														
33529	"LAMMERS "	115 30	33531	"OWENSTP1"	115 30	"1 "	0.78	1.34	-303.79	-22.80	1507.26	AMPS 1124.58	AMPS 2013sumpk_q268_pst_catc	102
=1=														
33529	"LAMMERS "	115 30	33531	"OWENSTP1"	115 30	"1 "	0.78	0.92	-209.30	-24.73	1032.53	AMPS 1124.58	AMPS 2013sumpk_q268_pst_catc	106

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY C 2013 SUMMER PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING		
=2=														
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.86	0.93	209.65	32.17	1044.58	AMPS 1124.58	AMPS	2013sumpk_q268_pre_catc 121
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.83	0.90	204.47	34.84	1015.37	AMPS 1124.58	AMPS	2013sumpk_q268_pst_catc 121
=2=														
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.86	0.90	203.67	34.34	1016.89	AMPS 1124.58	AMPS	2013sumpk_q268_pre_catc 143
=2=														
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.86	1.05	234.89	40.44	1181.57	AMPS 1124.58	AMPS	2013sumpk_q268_pre_catc 147
=2=														
=1=														
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.83	1.06	236.84	46.31	1192.11	AMPS 1124.58	AMPS	2013sumpk_q268_pst_catc 148
=1=														
33537	"SFWY_TP1"	115 30	33541	"AEC_TP1 "	115 30	"1 "	0.06	1.34	-306.34	30.38	1511.76	AMPS 1124.58	AMPS	2013sumpk_q268_pst_catc 103
=1=														
33537	"SFWY_TP1"	115 30	33541	"AEC_TP1 "	115 30	"1 "	0.06	1.08	-245.82	31.25	1213.30	AMPS 1124.58	AMPS	2013sumpk_q268_pst_catc 113
=1=														
33537	"SFWY_TP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.06	1.37	-314.56	17.68	1537.21	AMPS 1124.58	AMPS	2013sumpk_q268_pst_catc 103
=1=														
33537	"SFWY_TP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.06	1.10	-253.03	22.16	1238.26	AMPS 1124.58	AMPS	2013sumpk_q268_pst_catc 113
=2=														
33540	"TESLA "	115 30	33541	"AEC_TP1 "	115 30	"1 "	0.26	0.92	-163.79	9.11	805.95	AMPS 878.58	AMPS	2013sumpk_q268_pre_catc 103
33540	"TESLA "	115 30	33541	"AEC_TP1 "	115 30	"1 "	0.11	1.72	-302.86	45.68	1511.60	AMPS 878.58	AMPS	2013sumpk_q268_pst_catc 103
=2=														
33540	"TESLA "	115 30	33541	"AEC_TP1 "	115 30	"1 "	0.26	0.92	-163.79	8.05	806.74	AMPS 878.58	AMPS	2013sumpk_q268_pre_catc 105
=2=														
=1=														
33540	"TESLA "	115 30	33541	"AEC_TP1 "	115 30	"1 "	0.11	1.38	-243.58	41.02	1213.12	AMPS 878.58	AMPS	2013sumpk_q268_pst_catc 113
=2=														
33540	"TESLA "	115 30	33543	"AEC_TP2 "	115 30	"1 "	0.69	1.13	199.72	26.71	992.61	AMPS 881.09	AMPS	2013sumpk_q268_pre_catc 148
=2=														
33540	"TESLA "	115 30	33544	"ELLS GTY"	115 30	"1 "	0.54	1.34	296.89	77.19	1507.12	AMPS 1124.58	AMPS	2013sumpk_q268_pre_catc 103
33540	"TESLA "	115 30	33544	"ELLS GTY"	115 30	"1 "	0.48	1.36	300.69	78.12	1533.22	AMPS 1124.58	AMPS	2013sumpk_q268_pst_catc 103
=2=														
33540	"TESLA "	115 30	33544	"ELLS GTY"	115 30	"1 "	0.54	1.34	296.73	77.10	1508.23	AMPS 1124.58	AMPS	2013sumpk_q268_pre_catc 105
33540	"TESLA "	115 30	33544	"ELLS GTY"	115 30	"1 "	0.48	1.36	300.86	78.18	1529.52	AMPS 1124.58	AMPS	2013sumpk_q268_pst_catc 105
=2=														
33540	"TESLA "	115 30	33544	"ELLS GTY"	115 30	"1 "	0.54	1.16	259.43	58.61	1302.06	AMPS 1124.58	AMPS	2013sumpk_q268_pre_catc 113
33540	"TESLA "	115 30	33544	"ELLS GTY"	115 30	"1 "	0.48	1.18	263.30	58.85	1325.03	AMPS 1124.58	AMPS	2013sumpk_q268_pst_catc 113

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY C 2013 SUMMER PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #		
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING				
33540	"TESLA "	115 30	33544	"ELLS GTY"	115 30	"1 "	0.54	1.16	259.25	58.37	1302.63	AMPS	1124.58	AMPS	2013sumpk_q268_pre_catc	114
33540	"TESLA "	115 30	33544	"ELLS GTY"	115 30	"1 "	0.48	1.18	263.40	59.11	1323.74	AMPS	1124.58	AMPS	2013sumpk_q268_pst_catc	114
33542	"LEPRINO "	115 30	33546	"TRACY JC"	115 30	"1 "	0.71	0.90	-174.54	-5.15	878.05	AMPS	973.97	AMPS	2013sumpk_q268_pre_catc	102
=2=																
33542	"LEPRINO "	115 30	33546	"TRACY JC"	115 30	"1 "	0.71	1.53	-279.63	-21.72	1488.24	AMPS	973.97	AMPS	2013sumpk_q268_pre_catc	103
33542	"LEPRINO "	115 30	33546	"TRACY JC"	115 30	"1 "	0.63	1.55	-282.94	-20.73	1514.24	AMPS	973.97	AMPS	2013sumpk_q268_pst_catc	103
33542	"LEPRINO "	115 30	33546	"TRACY JC"	115 30	"1 "	0.71	0.96	-185.61	-0.58	932.69	AMPS	973.97	AMPS	2013sumpk_q268_pre_catc	104
=2=																
33542	"LEPRINO "	115 30	33546	"TRACY JC"	115 30	"1 "	0.71	1.53	-279.44	-21.54	1489.32	AMPS	973.97	AMPS	2013sumpk_q268_pre_catc	105
33542	"LEPRINO "	115 30	33546	"TRACY JC"	115 30	"1 "	0.63	1.55	-283.19	-21.06	1510.60	AMPS	973.97	AMPS	2013sumpk_q268_pst_catc	105
33542	"LEPRINO "	115 30	33546	"TRACY JC"	115 30	"1 "	0.71	1.32	-245.66	-17.10	1283.35	AMPS	973.97	AMPS	2013sumpk_q268_pre_catc	113
33542	"LEPRINO "	115 30	33546	"TRACY JC"	115 30	"1 "	0.63	1.34	-249.16	-15.88	1306.25	AMPS	973.97	AMPS	2013sumpk_q268_pst_catc	113
33542	"LEPRINO "	115 30	33546	"TRACY JC"	115 30	"1 "	0.71	1.32	-245.47	-16.82	1283.90	AMPS	973.97	AMPS	2013sumpk_q268_pre_catc	114
33542	"LEPRINO "	115 30	33546	"TRACY JC"	115 30	"1 "	0.63	1.34	-249.28	-16.22	1304.99	AMPS	973.97	AMPS	2013sumpk_q268_pst_catc	114
33542	"LEPRINO "	115 30	33546	"TRACY JC"	115 30	"1 "	0.71	0.93	-176.83	-12.31	904.23	AMPS	973.97	AMPS	2013sumpk_q268_pre_catc	145
=2=																
33542	"LEPRINO "	115 30	33548	"TRACY "	115 30	"1 "	0.69	1.51	275.96	19.35	1467.90	AMPS	973.97	AMPS	2013sumpk_q268_pre_catc	103
33542	"LEPRINO "	115 30	33548	"TRACY "	115 30	"1 "	0.61	1.53	279.28	18.36	1493.83	AMPS	973.97	AMPS	2013sumpk_q268_pst_catc	103
33542	"LEPRINO "	115 30	33548	"TRACY "	115 30	"1 "	0.69	0.94	181.95	-1.80	914.29	AMPS	973.97	AMPS	2013sumpk_q268_pre_catc	104
=2=																
33542	"LEPRINO "	115 30	33548	"TRACY "	115 30	"1 "	0.69	1.51	275.77	19.17	1468.96	AMPS	973.97	AMPS	2013sumpk_q268_pre_catc	105
33542	"LEPRINO "	115 30	33548	"TRACY "	115 30	"1 "	0.61	1.53	279.52	18.69	1490.25	AMPS	973.97	AMPS	2013sumpk_q268_pst_catc	105
33542	"LEPRINO "	115 30	33548	"TRACY "	115 30	"1 "	0.69	1.30	241.99	14.73	1263.46	AMPS	973.97	AMPS	2013sumpk_q268_pre_catc	113
33542	"LEPRINO "	115 30	33548	"TRACY "	115 30	"1 "	0.61	1.32	245.50	13.51	1286.35	AMPS	973.97	AMPS	2013sumpk_q268_pst_catc	113
33542	"LEPRINO "	115 30	33548	"TRACY "	115 30	"1 "	0.69	1.30	241.80	14.45	1264.00	AMPS	973.97	AMPS	2013sumpk_q268_pre_catc	114
33542	"LEPRINO "	115 30	33548	"TRACY "	115 30	"1 "	0.61	1.32	245.61	13.85	1285.11	AMPS	973.97	AMPS	2013sumpk_q268_pst_catc	114
33542	"LEPRINO "	115 30	33548	"TRACY "	115 30	"1 "	0.69	0.91	173.16	9.94	884.79	AMPS	973.97	AMPS	2013sumpk_q268_pre_catc	145
=2=																
33544	"ELLS GTY"	115 30	33546	"TRACY JC"	115 30	"1 "	0.52	1.32	291.86	70.37	1487.63	AMPS	1124.58	AMPS	2013sumpk_q268_pre_catc	103
33544	"ELLS GTY"	115 30	33546	"TRACY JC"	115 30	"1 "	0.46	1.35	295.60	71.12	1513.63	AMPS	1124.58	AMPS	2013sumpk_q268_pst_catc	103
33544	"ELLS GTY"	115 30	33546	"TRACY JC"	115 30	"1 "	0.52	1.32	291.69	70.27	1488.71	AMPS	1124.58	AMPS	2013sumpk_q268_pre_catc	105
33544	"ELLS GTY"	115 30	33546	"TRACY JC"	115 30	"1 "	0.46	1.34	295.79	71.20	1509.99	AMPS	1124.58	AMPS	2013sumpk_q268_pst_catc	105

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY C 2013 SUMMER PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #	
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING			
33544	"ELLS GTY"	115 30	33546	"TRACY JC"	115 30	"1 "	0.52	1.14	254.75	53.07	1282.80	AMPS 1124.58	AMPS	2013sumpk_q268_pre_catc	113
33544	"ELLS GTY"	115 30	33546	"TRACY JC"	115 30	"1 "	0.46	1.16	258.59	53.18	1305.72	AMPS 1124.58	AMPS	2013sumpk_q268_pst_catc	113
33544	"ELLS GTY"	115 30	33546	"TRACY JC"	115 30	"1 "	0.52	1.14	254.57	52.83	1283.35	AMPS 1124.58	AMPS	2013sumpk_q268_pre_catc	114
33544	"ELLS GTY"	115 30	33546	"TRACY JC"	115 30	"1 "	0.46	1.16	258.69	53.45	1304.46	AMPS 1124.58	AMPS	2013sumpk_q268_pst_catc	114
33548	"TRACY "	115 30	33550	"HJ HEINZ"	115 30	"1 "	0.18	1.56	179.28	11.83	955.56	AMPS 612.49	AMPS	2013sumpk_q268_pre_catc	103
33548	"TRACY "	115 30	33550	"HJ HEINZ"	115 30	"1 "	0.06	1.60	182.58	10.72	978.42	AMPS 612.49	AMPS	2013sumpk_q268_pst_catc	103
33548	"TRACY "	115 30	33550	"HJ HEINZ"	115 30	"1 "	0.18	1.56	179.09	11.65	955.88	AMPS 612.49	AMPS	2013sumpk_q268_pre_catc	105
33548	"TRACY "	115 30	33550	"HJ HEINZ"	115 30	"1 "	0.06	1.59	182.83	11.07	976.58	AMPS 612.49	AMPS	2013sumpk_q268_pst_catc	105
33548	"TRACY "	115 30	33550	"HJ HEINZ"	115 30	"1 "	0.18	1.24	145.42	8.06	760.44	AMPS 612.49	AMPS	2013sumpk_q268_pre_catc	113
33548	"TRACY "	115 30	33550	"HJ HEINZ"	115 30	"1 "	0.06	1.28	148.91	6.75	781.34	AMPS 612.49	AMPS	2013sumpk_q268_pst_catc	113
33548	"TRACY "	115 30	33550	"HJ HEINZ"	115 30	"1 "	0.18	1.24	145.23	7.77	760.31	AMPS 612.49	AMPS	2013sumpk_q268_pre_catc	114
33548	"TRACY "	115 30	33550	"HJ HEINZ"	115 30	"1 "	0.06	1.27	149.03	7.09	780.85	AMPS 612.49	AMPS	2013sumpk_q268_pst_catc	114
33703	"LOUISJCT"	60 30	33742	"MANTECA "	60 30	"1 "	0.14	1.09	-36.82	7.75	357.19	AMPS 327.17	AMPS	2013sumpk_q268_pre_catc	106
33703	"LOUISJCT"	60 30	33742	"MANTECA "	60 30	"1 "	0.16	1.28	-43.05	8.85	417.15	AMPS 327.17	AMPS	2013sumpk_q268_pst_catc	106
33703	"LOUISJCT"	60 30	33742	"MANTECA "	60 30	"1 "	0.14	1.09	-36.75	7.83	356.99	AMPS 327.17	AMPS	2013sumpk_q268_pre_catc	107
33703	"LOUISJCT"	60 30	33742	"MANTECA "	60 30	"1 "	0.16	1.23	-41.51	8.36	402.05	AMPS 327.17	AMPS	2013sumpk_q268_pst_catc	107
33703	"LOUISJCT"	60 30	33742	"MANTECA "	60 30	"1 "	0.14	1.53	52.36	10.99	500.29	AMPS 327.17	AMPS	2013sumpk_q268_pre_catc	145
33703	"LOUISJCT"	60 30	33742	"MANTECA "	60 30	"1 "	0.16	1.52	52.35	10.95	498.77	AMPS 327.17	AMPS	2013sumpk_q268_pst_catc	145
33704	"STAGG "	60 30	33714	"HAMMER "	60 30	"1 "	0.95	1.44	132.87	28.75	1274.60	AMPS 885.27	AMPS	2013sumpk_q268_pre_catc	160
33704	"STAGG "	60 30	33714	"HAMMER "	60 30	"1 "	0.95	1.44	132.88	28.76	1274.82	AMPS 885.27	AMPS	2013sumpk_q268_pst_catc	160
33748	"MSSDLESW"	60 30	33750	"CALVO "	60 30	"1 "	0.23	1.06	-42.79	3.92	406.75	AMPS 384.90	AMPS	2013sumpk_q268_pre_catc	106
33748	"MSSDLESW"	60 30	33750	"CALVO "	60 30	"1 "	0.25	1.21	-49.15	4.37	466.79	AMPS 384.90	AMPS	2013sumpk_q268_pst_catc	106
33748	"MSSDLESW"	60 30	33750	"CALVO "	60 30	"1 "	0.23	1.06	-42.72	4.00	406.54	AMPS 384.90	AMPS	2013sumpk_q268_pre_catc	107
33748	"MSSDLESW"	60 30	33750	"CALVO "	60 30	"1 "	0.25	1.17	-47.57	4.06	451.80	AMPS 384.90	AMPS	2013sumpk_q268_pst_catc	107
33748	"MSSDLESW"	60 30	33750	"CALVO "	60 30	"1 "	0.23	1.16	46.22	6.28	445.49	AMPS 384.90	AMPS	2013sumpk_q268_pre_catc	145
33748	"MSSDLESW"	60 30	33750	"CALVO "	60 30	"1 "	0.25	1.15	46.21	6.25	444.13	AMPS 384.90	AMPS	2013sumpk_q268_pst_catc	145
33750	"CALVO "	60 30	33756	"KASSON "	60 30	"1 "	0.27	1.10	-45.10	1.91	422.14	AMPS 384.90	AMPS	2013sumpk_q268_pre_catc	106
33750	"CALVO "	60 30	33756	"KASSON "	60 30	"1 "	0.30	1.25	-51.65	2.04	482.18	AMPS 384.90	AMPS	2013sumpk_q268_pst_catc	106
33750	"CALVO "	60 30	33756	"KASSON "	60 30	"1 "	0.27	1.10	-45.03	1.99	421.92	AMPS 384.90	AMPS	2013sumpk_q268_pre_catc	107
33750	"CALVO "	60 30	33756	"KASSON "	60 30	"1 "	0.30	1.21	-50.02	1.81	467.23	AMPS 384.90	AMPS	2013sumpk_q268_pst_catc	107
33750	"CALVO "	60 30	33756	"KASSON "	60 30	"1 "	0.27	1.11	43.79	4.06	428.09	AMPS 384.90	AMPS	2013sumpk_q268_pre_catc	145

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY C 2013 SUMMER PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING		
33750	"CALVO "	60 30	33756	"KASSON "	60 30	"1 "	0.30	1.11	43.78	4.05	426.77 AMPS	384.90 AMPS	2013sumpk_q268_pst_catc	145
34008	"STNSLSRP"	60 30	34016	"MEDLIN J"	60 30	"1 "	0.58	0.98	49.68	-1.68	463.86 AMPS	471.50 AMPS	2013sumpk_q268_pre_catc	176
34008	"STNSLSRP"	60 30	34016	"MEDLIN J"	60 30	"1 "	0.58	0.98	49.67	-1.71	463.44 AMPS	471.50 AMPS	2013sumpk_q268_pst_catc	176
34016	"MEDLIN J"	60 30	34018	"NWMN JCT"	60 30	"1 "	0.58	0.98	48.68	-3.65	463.82 AMPS	471.50 AMPS	2013sumpk_q268_pre_catc	176
34016	"MEDLIN J"	60 30	34018	"NWMN JCT"	60 30	"1 "	0.58	0.98	48.68	-3.68	463.40 AMPS	471.50 AMPS	2013sumpk_q268_pst_catc	176
37009	"HEDGE "	230 30	37015	"PROCTER "	230 30	"1 "	0.45	1.19	381.92	-49.64	1048.34 AMPS	879.83 AMPS	2013sumpk_q268_pre_catc	127
37009	"HEDGE "	230 30	37015	"PROCTER "	230 30	"1 "	0.45	1.19	382.05	-50.14	1048.82 AMPS	879.83 AMPS	2013sumpk_q268_pst_catc	127
37010	"HURLEY S"	230 30	37585	"TRCY PMP"	230 30	"1 "	0.72	1.04	399.80	105.72	1034.06 AMPS	991.54 AMPS	2013sumpk_q268_pre_catc	127
37010	"HURLEY S"	230 30	37585	"TRCY PMP"	230 30	"1 "	0.72	1.04	400.53	105.42	1036.15 AMPS	991.54 AMPS	2013sumpk_q268_pst_catc	127
37545	"COTWDWAP"	230 30	37567	"ROSEVILL"	230 30	"1 "	0.73	0.90	280.94	92.76	723.88 AMPS	800.01 AMPS	2013sumpk_q268_pre_catc	127
37545	"COTWDWAP"	230 30	37567	"ROSEVILL"	230 30	"1 "	0.73	0.90	280.52	92.45	722.72 AMPS	800.01 AMPS	2013sumpk_q268_pst_catc	127
37558	"KESWICK "	230 30	37641	"SPRINGCR"	230 30	"2 "	0.89	0.90	-181.21	-38.51	450.53 AMPS	500.04 AMPS	2013sumpk_q268_pre_catc	127
37558	"KESWICK "	230 30	37641	"SPRINGCR"	230 30	"2 "	0.89	0.90	-181.21	-38.54	450.55 AMPS	500.04 AMPS	2013sumpk_q268_pst_catc	127
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	1.20	59.02	-14.61	507.07 AMPS	422.55 AMPS	2013sumpk_q268_pre_catc	120
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	1.20	59.24	-14.60	509.04 AMPS	422.55 AMPS	2013sumpk_q268_pst_catc	120
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	1.31	64.04	-18.21	554.28 AMPS	422.55 AMPS	2013sumpk_q268_pre_catc	121
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	1.32	64.29	-18.10	555.82 AMPS	422.55 AMPS	2013sumpk_q268_pst_catc	121
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	1.04	50.82	-13.83	438.50 AMPS	422.55 AMPS	2013sumpk_q268_pre_catc	122
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	1.04	51.04	-13.82	440.44 AMPS	422.55 AMPS	2013sumpk_q268_pst_catc	122
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	1.01	49.47	-12.98	426.23 AMPS	422.55 AMPS	2013sumpk_q268_pre_catc	132
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	1.01	49.70	-12.97	428.27 AMPS	422.55 AMPS	2013sumpk_q268_pst_catc	132
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	1.28	62.14	-17.98	539.25 AMPS	422.55 AMPS	2013sumpk_q268_pre_catc	133
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	1.29	63.17	-16.68	544.81 AMPS	422.55 AMPS	2013sumpk_q268_pst_catc	133
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	1.03	50.42	-14.27	436.26 AMPS	422.55 AMPS	2013sumpk_q268_pre_catc	15
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	1.04	50.61	-14.23	437.86 AMPS	422.55 AMPS	2013sumpk_q268_pst_catc	15
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	1.04	50.77	-13.96	438.57 AMPS	422.55 AMPS	2013sumpk_q268_pre_catc	16
38260	"PRESCOTT"	69 30	38316	"WOODLMID"	69 30	"1 "	1.07	1.04	50.95	-13.93	440.19 AMPS	422.55 AMPS	2013sumpk_q268_pst_catc	16
38264	"ENSLEN "	69 30	38266	"WOODROW "	69 30	"1 "	0.59	0.98	51.52	-16.86	451.80 AMPS	460.21 AMPS	2013sumpk_q268_pre_catc	121
38264	"ENSLEN "	69 30	38266	"WOODROW "	69 30	"1 "	0.60	0.99	51.91	-16.39	453.48 AMPS	460.21 AMPS	2013sumpk_q268_pst_catc	121
38264	"ENSLEN "	69 30	38266	"WOODROW "	69 30	"1 "	0.59	0.94	48.84	-17.35	432.64 AMPS	460.21 AMPS	2013sumpk_q268_pre_catc	133
38264	"ENSLEN "	69 30	38266	"WOODROW "	69 30	"1 "	0.60	0.95	50.19	-15.44	438.45 AMPS	460.21 AMPS	2013sumpk_q268_pst_catc	133

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY C 2013 SPRING PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #	
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING			
30495	"STAGG "	230 30	30622	"EIGHT MI"	230 30	"1 "	1.15	1.33	511.05	-28.85	1294.87	AMPS 976.48	AMPS	2013sprpk_q268_pre_catc	136
30495	"STAGG "	230 30	30622	"EIGHT MI"	230 30	"1 "	1.15	1.32	510.10	-28.07	1292.51	AMPS 976.48	AMPS	2013sprpk_q268_pst_catc	136
30495	"STAGG "	230 30	30622	"EIGHT MI"	230 30	"1 "	1.15	1.12	429.59	-25.28	1088.92	AMPS 976.48	AMPS	2013sprpk_q268_pre_catc	15
30495	"STAGG "	230 30	30622	"EIGHT MI"	230 30	"1 "	1.15	1.11	429.05	-24.72	1087.65	AMPS 976.48	AMPS	2013sprpk_q268_pst_catc	15
30495	"STAGG "	230 30	30622	"EIGHT MI"	230 30	"1 "	1.15	1.10	423.75	-24.38	1073.77	AMPS 976.48	AMPS	2013sprpk_q268_pre_catc	16
30495	"STAGG "	230 30	30622	"EIGHT MI"	230 30	"1 "	1.15	1.10	423.25	-23.83	1072.60	AMPS 976.48	AMPS	2013sprpk_q268_pst_catc	16
30496	"STAGG-H "	230 30	30497	"STAGG-F "	230 30	"1 "	0.70	0.99	463.92	-61.05	1189.58	AMPS 1199.89	AMPS	2013sprpk_q268_pre_catc	136
30496	"STAGG-H "	230 30	30497	"STAGG-F "	230 30	"1 "	0.70	0.99	462.98	-60.18	1187.15	AMPS 1199.89	AMPS	2013sprpk_q268_pst_catc	136
30500	"BELLOTA "	230 30	38208	"COTTLE B"	230 30	"1 "	0.96	0.91	287.82	11.45	721.81	AMPS 793.23	AMPS	2013sprpk_q268_pre_catc	116
30500	"BELLOTA "	230 30	38208	"COTTLE B"	230 30	"1 "	0.98	0.93	295.10	12.39	740.31	AMPS 793.23	AMPS	2013sprpk_q268_pst_catc	116
30500	"BELLOTA "	230 30	38208	"COTTLE B"	230 30	"1 "	0.96	0.92	289.53	10.92	726.36	AMPS 793.23	AMPS	2013sprpk_q268_pre_catc	117
30500	"BELLOTA "	230 30	38208	"COTTLE B"	230 30	"1 "	0.98	0.94	296.80	11.87	744.86	AMPS 793.23	AMPS	2013sprpk_q268_pst_catc	117
30500	"BELLOTA "	230 30	38208	"COTTLE B"	230 30	"1 "	0.96	1.03	325.99	22.00	815.16	AMPS 793.23	AMPS	2013sprpk_q268_pre_catc	122
30500	"BELLOTA "	230 30	38208	"COTTLE B"	230 30	"1 "	0.98	1.05	333.09	23.21	833.22	AMPS 793.23	AMPS	2013sprpk_q268_pst_catc	122
=1=															
30500	"BELLOTA "	230 30	38208	"COTTLE B"	230 30	"1 "	0.98	0.92	293.80	27.35	732.24	AMPS 793.23	AMPS	2013sprpk_q268_pst_catc	127
=1=															
30500	"BELLOTA "	230 30	38208	"COTTLE B"	230 30	"1 "	0.98	0.92	292.92	20.15	732.35	AMPS 793.23	AMPS	2013sprpk_q268_pst_catc	136
30500	"BELLOTA "	230 30	38208	"COTTLE B"	230 30	"1 "	0.96	1.01	319.42	21.80	799.25	AMPS 793.23	AMPS	2013sprpk_q268_pre_catc	137
30500	"BELLOTA "	230 30	38208	"COTTLE B"	230 30	"1 "	0.98	1.03	326.49	27.48	818.49	AMPS 793.23	AMPS	2013sprpk_q268_pst_catc	137
=1=															
30500	"BELLOTA "	230 30	38208	"COTTLE B"	230 30	"1 "	0.98	0.91	290.45	23.36	725.08	AMPS 793.23	AMPS	2013sprpk_q268_pst_catc	162
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.04	0.90	278.63	-45.03	716.61	AMPS 793.23	AMPS	2013sprpk_q268_pre_catc	115
=2=															
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.04	0.92	281.65	-46.97	727.17	AMPS 793.23	AMPS	2013sprpk_q268_pre_catc	116
=2=															
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.04	0.92	282.10	-47.19	728.62	AMPS 793.23	AMPS	2013sprpk_q268_pre_catc	117
=2=															
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.04	0.91	278.86	-45.49	717.88	AMPS 793.23	AMPS	2013sprpk_q268_pre_catc	119
=2=															
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.04	0.98	301.30	-45.10	775.72	AMPS 793.23	AMPS	2013sprpk_q268_pre_catc	122

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY C 2013 SPRING PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING		
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.07	1.00	309.39	-44.33	796.41 AMPS	793.23 AMPS	2013sprpk_q268_pst_catc	122
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.04	0.91	282.46	-43.72	725.24 AMPS	793.23 AMPS	2013sprpk_q268_pre_catc	123
=2=														
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.04	0.92	285.37	-41.90	730.53 AMPS	793.23 AMPS	2013sprpk_q268_pre_catc	127
=2=														
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.04	0.94	287.74	-54.53	743.77 AMPS	793.23 AMPS	2013sprpk_q268_pre_catc	132
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.07	0.97	297.88	-54.39	769.59 AMPS	793.23 AMPS	2013sprpk_q268_pst_catc	132
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.04	0.93	288.48	-44.13	741.29 AMPS	793.23 AMPS	2013sprpk_q268_pre_catc	136
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.07	0.96	296.72	-43.50	762.34 AMPS	793.23 AMPS	2013sprpk_q268_pst_catc	136
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.04	0.91	281.69	-43.21	722.60 AMPS	793.23 AMPS	2013sprpk_q268_pre_catc	154
=2=														
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.04	0.91	281.05	-43.03	720.77 AMPS	793.23 AMPS	2013sprpk_q268_pre_catc	156
=2=														
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.04	0.92	283.38	-43.40	727.36 AMPS	793.23 AMPS	2013sprpk_q268_pre_catc	159
=2=														
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.04	0.93	288.80	-42.60	740.43 AMPS	793.23 AMPS	2013sprpk_q268_pre_catc	162
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.07	0.96	297.05	-41.97	761.51 AMPS	793.23 AMPS	2013sprpk_q268_pst_catc	162
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.04	0.90	278.22	-43.63	714.14 AMPS	793.23 AMPS	2013sprpk_q268_pre_catc	31
=2=														
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.04	0.91	280.64	-43.80	720.62 AMPS	793.23 AMPS	2013sprpk_q268_pre_catc	58
=2=														
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.04	0.91	280.11	-43.80	719.23 AMPS	793.23 AMPS	2013sprpk_q268_pre_catc	66
=2=														
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.04	0.90	279.19	-43.91	716.97 AMPS	793.23 AMPS	2013sprpk_q268_pre_catc	95
=2=														
30515	"WARNERVL"	230 30	30800	"WILSON "	230 30	"1 "	1.04	0.90	278.40	-43.36	714.23 AMPS	793.23 AMPS	2013sprpk_q268_pre_catc	99
=2=														
30515	"WARNERVL"	230 30	38208	"COTTLE B"	230 30	"1 "	0.86	0.95	295.22	-3.86	750.71 AMPS	793.23 AMPS	2013sprpk_q268_pre_catc	122
30515	"WARNERVL"	230 30	38208	"COTTLE B"	230 30	"1 "	0.89	0.97	302.08	-4.03	768.73 AMPS	793.23 AMPS	2013sprpk_q268_pst_catc	122
30515	"WARNERVL"	230 30	38208	"COTTLE B"	230 30	"1 "	0.86	0.93	288.85	-2.89	734.79 AMPS	793.23 AMPS	2013sprpk_q268_pre_catc	137
30515	"WARNERVL"	230 30	38208	"COTTLE B"	230 30	"1 "	0.89	0.95	295.68	1.34	754.04 AMPS	793.23 AMPS	2013sprpk_q268_pst_catc	137

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY C 2013 SPRING PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #	
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING			
30621	"Q260	" 230 30	30622	"EIGHT MI"	230 30	"1 "	0.93	0.94	361.77	-35.64	919.62	AMPS 976.48	AMPS	2013sprpk_q268_pre_catc	15
30621	"Q260	" 230 30	30622	"EIGHT MI"	230 30	"1 "	0.93	0.94	361.15	-35.14	918.05	AMPS 976.48	AMPS	2013sprpk_q268_pst_catc	15
30621	"Q260	" 230 30	30622	"EIGHT MI"	230 30	"1 "	0.93	0.92	355.30	-35.14	903.00	AMPS 976.48	AMPS	2013sprpk_q268_pre_catc	16
30621	"Q260	" 230 30	30622	"EIGHT MI"	230 30	"1 "	0.93	0.92	354.73	-34.64	901.54	AMPS 976.48	AMPS	2013sprpk_q268_pst_catc	16
30621	"Q260	" 230 30	30622	"EIGHT MI"	230 30	"1 "	0.93	0.97	373.47	-39.87	945.83	AMPS 976.48	AMPS	2013sprpk_q268_pre_catc	63
30621	"Q260	" 230 30	30622	"EIGHT MI"	230 30	"1 "	0.93	0.97	372.72	-39.25	943.93	AMPS 976.48	AMPS	2013sprpk_q268_pst_catc	63
30622	"EIGHT MI"	230 30	30624	"TESLA E "	230 30	"1 "	0.75	1.28	492.63	-52.08	1247.45	AMPS 976.48	AMPS	2013sprpk_q268_pre_catc	129
30622	"EIGHT MI"	230 30	30624	"TESLA E "	230 30	"1 "	0.74	1.28	491.72	-51.27	1245.12	AMPS 976.48	AMPS	2013sprpk_q268_pst_catc	129
30622	"EIGHT MI"	230 30	30624	"TESLA E "	230 30	"1 "	0.75	1.12	430.94	-61.65	1097.98	AMPS 976.48	AMPS	2013sprpk_q268_pre_catc	130
30622	"EIGHT MI"	230 30	30624	"TESLA E "	230 30	"1 "	0.74	1.12	430.04	-60.83	1095.58	AMPS 976.48	AMPS	2013sprpk_q268_pst_catc	130
30622	"EIGHT MI"	230 30	38000	"LODI	" 230 30	"1 "	1.09	0.98	379.72	-33.72	960.16	AMPS 976.48	AMPS	2013sprpk_q268_pre_catc	122
30622	"EIGHT MI"	230 30	38000	"LODI	" 230 30	"1 "	1.08	0.98	379.12	-32.99	958.66	AMPS 976.48	AMPS	2013sprpk_q268_pst_catc	122
30622	"EIGHT MI"	230 30	38000	"LODI	" 230 30	"1 "	1.09	1.03	395.18	-39.83	1002.50	AMPS 976.48	AMPS	2013sprpk_q268_pre_catc	128
30622	"EIGHT MI"	230 30	38000	"LODI	" 230 30	"1 "	1.08	1.02	394.50	-39.12	1000.76	AMPS 976.48	AMPS	2013sprpk_q268_pst_catc	128
30622	"EIGHT MI"	230 30	38000	"LODI	" 230 30	"1 "	1.09	0.98	376.25	-34.26	952.84	AMPS 976.48	AMPS	2013sprpk_q268_pre_catc	132
30622	"EIGHT MI"	230 30	38000	"LODI	" 230 30	"1 "	1.08	0.97	375.68	-33.54	951.40	AMPS 976.48	AMPS	2013sprpk_q268_pst_catc	132
30622	"EIGHT MI"	230 30	38000	"LODI	" 230 30	"1 "	1.09	1.09	419.96	-41.81	1067.01	AMPS 976.48	AMPS	2013sprpk_q268_pre_catc	15
30622	"EIGHT MI"	230 30	38000	"LODI	" 230 30	"1 "	1.08	1.09	419.29	-41.11	1065.28	AMPS 976.48	AMPS	2013sprpk_q268_pst_catc	15
30622	"EIGHT MI"	230 30	38000	"LODI	" 230 30	"1 "	1.09	1.07	412.79	-40.96	1048.50	AMPS 976.48	AMPS	2013sprpk_q268_pre_catc	16
30622	"EIGHT MI"	230 30	38000	"LODI	" 230 30	"1 "	1.08	1.07	412.16	-40.28	1046.89	AMPS 976.48	AMPS	2013sprpk_q268_pst_catc	16
30622	"EIGHT MI"	230 30	38000	"LODI	" 230 30	"1 "	1.09	0.98	377.97	-31.10	954.44	AMPS 976.48	AMPS	2013sprpk_q268_pre_catc	58
30622	"EIGHT MI"	230 30	38000	"LODI	" 230 30	"1 "	1.08	0.98	377.44	-30.34	953.12	AMPS 976.48	AMPS	2013sprpk_q268_pst_catc	58
30622	"EIGHT MI"	230 30	38000	"LODI	" 230 30	"1 "	1.09	0.98	378.29	-31.42	955.37	AMPS 976.48	AMPS	2013sprpk_q268_pre_catc	66
30622	"EIGHT MI"	230 30	38000	"LODI	" 230 30	"1 "	1.08	0.98	377.76	-30.67	954.06	AMPS 976.48	AMPS	2013sprpk_q268_pst_catc	66
30624	"TESLA E "	230 30	30670	"WESTLEY "	230 30	"1 "	1.08	1.09	696.33	-26.99	1737.37	AMPS 1600.01	AMPS	2013sprpk_q268_pre_catc	121
30624	"TESLA E "	230 30	30670	"WESTLEY "	230 30	"1 "	1.10	1.10	704.93	-24.02	1759.26	AMPS 1600.01	AMPS	2013sprpk_q268_pst_catc	121
30624	"TESLA E "	230 30	30670	"WESTLEY "	230 30	"1 "	1.08	1.17	750.23	-17.21	1868.32	AMPS 1600.01	AMPS	2013sprpk_q268_pre_catc	123
30624	"TESLA E "	230 30	30670	"WESTLEY "	230 30	"1 "	1.10	1.18	759.30	-14.17	1891.55	AMPS 1600.01	AMPS	2013sprpk_q268_pst_catc	123
30624	"TESLA E "	230 30	30670	"WESTLEY "	230 30	"1 "	1.08	1.07	684.91	-5.84	1705.17	AMPS 1600.01	AMPS	2013sprpk_q268_pre_catc	125
30624	"TESLA E "	230 30	30670	"WESTLEY "	230 30	"1 "	1.10	1.09	699.30	-1.77	1741.66	AMPS 1600.01	AMPS	2013sprpk_q268_pst_catc	125
30624	"TESLA E "	230 30	30670	"WESTLEY "	230 30	"1 "	1.08	1.07	684.92	-5.63	1705.16	AMPS 1600.01	AMPS	2013sprpk_q268_pre_catc	126
30624	"TESLA E "	230 30	30670	"WESTLEY "	230 30	"1 "	1.10	1.09	699.32	-1.56	1741.65	AMPS 1600.01	AMPS	2013sprpk_q268_pst_catc	126

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY C 2013 SPRING PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #	
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING			
30624	"TESLA E "	230 30	30670	"WESTLEY "	230 30	"1 "	1.08	1.11	709.84	-21.81	1773.51	AMPS 1600.01	AMPS	2013sprpk_q268_pre_catc	133
30624	"TESLA E "	230 30	30670	"WESTLEY "	230 30	"1 "	1.10	1.12	719.99	-20.17	1799.46	AMPS 1600.01	AMPS	2013sprpk_q268_pst_catc	133
30624	"TESLA E "	230 30	30670	"WESTLEY "	230 30	"1 "	1.08	1.12	722.25	-20.29	1799.95	AMPS 1600.01	AMPS	2013sprpk_q268_pre_catc	136
30624	"TESLA E "	230 30	30670	"WESTLEY "	230 30	"1 "	1.10	1.14	731.39	-17.40	1823.35	AMPS 1600.01	AMPS	2013sprpk_q268_pst_catc	136
30630	"NEWARK D"	230 30	30631	"NEWARK E"	230 30	"1 "	0.12	0.91	-578.37	41.38	1462.46	AMPS 1599.01	AMPS	2013sprpk_q268_pre_catc	123
30630	"NEWARK D"	230 30	30631	"NEWARK E"	230 30	"1 "	0.12	0.91	-577.81	38.51	1460.56	AMPS 1599.01	AMPS	2013sprpk_q268_pst_catc	123
31962	"WDLND_BM"	115 30	31970	"WOODLD "	115 30	"1 "	0.45	0.97	-138.84	34.57	717.43	AMPS 739.01	AMPS	2013sprpk_q268_pre_catc	16
31962	"WDLND_BM"	115 30	31970	"WOODLD "	115 30	"1 "	0.45	0.97	-138.65	34.50	716.41	AMPS 739.01	AMPS	2013sprpk_q268_pst_catc	16
31962	"WDLND_BM"	115 30	31992	"HUNT "	115 30	"1 "	0.63	1.12	162.53	-30.79	829.42	AMPS 738.00	AMPS	2013sprpk_q268_pre_catc	16
31962	"WDLND_BM"	115 30	31992	"HUNT "	115 30	"1 "	0.63	1.12	162.34	-30.72	828.41	AMPS 738.00	AMPS	2013sprpk_q268_pst_catc	16
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.66	1.09	111.94	-19.47	554.18	AMPS 507.06	AMPS	2013sprpk_q268_pre_catc	16
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.66	1.09	111.82	-19.45	553.57	AMPS 507.06	AMPS	2013sprpk_q268_pst_catc	16
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.66	0.92	94.78	-13.49	465.86	AMPS 507.06	AMPS	2013sprpk_q268_pre_catc	19
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.66	0.92	94.72	-13.48	465.54	AMPS 507.06	AMPS	2013sprpk_q268_pst_catc	19
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.66	0.92	94.78	-13.49	465.86	AMPS 507.06	AMPS	2013sprpk_q268_pre_catc	56
31986	"W.SCRMNO"	115 30	32214	"RIO OSO "	115 30	"1 "	0.66	0.92	94.72	-13.48	465.54	AMPS 507.06	AMPS	2013sprpk_q268_pst_catc	56
31990	"DAVIS "	115 30	31992	"HUNT "	115 30	"1 "	0.63	1.12	-159.51	43.83	827.45	AMPS 738.00	AMPS	2013sprpk_q268_pre_catc	16
31990	"DAVIS "	115 30	31992	"HUNT "	115 30	"1 "	0.62	1.12	-159.32	43.72	826.44	AMPS 738.00	AMPS	2013sprpk_q268_pst_catc	16
32214	"RIO OSO "	115 30	32356	"LINCOLN "	115 30	"1 "	0.37	1.03	239.55	-13.98	1163.26	AMPS 1124.58	AMPS	2013sprpk_q268_pre_catc	44
32214	"RIO OSO "	115 30	32356	"LINCOLN "	115 30	"1 "	0.37	1.03	239.19	-13.98	1161.54	AMPS 1124.58	AMPS	2013sprpk_q268_pst_catc	44
32218	"DRUM "	115 30	32220	"DTCH FL1"	115 30	"1 "	0.64	0.99	116.13	-13.13	557.40	AMPS 560.78	AMPS	2013sprpk_q268_pre_catc	44
32218	"DRUM "	115 30	32220	"DTCH FL1"	115 30	"1 "	0.64	0.99	115.65	-13.11	555.13	AMPS 560.78	AMPS	2013sprpk_q268_pst_catc	44
32218	"DRUM "	115 30	32220	"DTCH FL1"	115 30	"1 "	0.64	1.08	125.88	-19.12	607.52	AMPS 560.78	AMPS	2013sprpk_q268_pre_catc	48
32218	"DRUM "	115 30	32220	"DTCH FL1"	115 30	"1 "	0.64	1.08	125.34	-19.09	604.97	AMPS 560.78	AMPS	2013sprpk_q268_pst_catc	48
32220	"DTCH FL1"	115 30	32224	"CHCGO PK"	115 30	"1 "	0.66	0.96	146.20	-16.66	706.71	AMPS 739.01	AMPS	2013sprpk_q268_pre_catc	48
32220	"DTCH FL1"	115 30	32224	"CHCGO PK"	115 30	"1 "	0.66	0.95	145.67	-16.60	704.16	AMPS 739.01	AMPS	2013sprpk_q268_pst_catc	48
32224	"CHCGO PK"	115 30	32232	"HIGGINS "	115 30	"1 "	0.91	0.93	172.48	-10.31	833.81	AMPS 893.64	AMPS	2013sprpk_q268_pre_catc	44
32224	"CHCGO PK"	115 30	32232	"HIGGINS "	115 30	"1 "	0.91	0.93	172.02	-10.24	831.56	AMPS 893.64	AMPS	2013sprpk_q268_pst_catc	44
32224	"CHCGO PK"	115 30	32232	"HIGGINS "	115 30	"1 "	0.91	0.99	181.82	-18.57	880.46	AMPS 893.64	AMPS	2013sprpk_q268_pre_catc	48
32224	"CHCGO PK"	115 30	32232	"HIGGINS "	115 30	"1 "	0.91	0.98	181.31	-18.48	877.92	AMPS 893.64	AMPS	2013sprpk_q268_pst_catc	48
32250	"ELDORAD "	115 30	32481	"APLHTAP2"	115 30	"2 "	0.13	1.33	89.04	6.83	500.34	AMPS 376.53	AMPS	2013sprpk_q268_pre_catc	67

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY C 2013 SPRING PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----				(RATE 2)				
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING	FILE	OUTAGE #			
32250	"ELDORAD "	115 30	32481	"APLHTAP2"	115 30	"2 "	0.13	1.33	89.04	6.83	500.37	AMPS	376.53	AMPS	2013sprpk_q268_pst_catc	67	
32250	"ELDORAD "	115 30	32482	"APLHTAP1"	115 30	"1 "	0.19	1.22	-96.65	-7.18	543.02	AMPS	446.82	AMPS	2013sprpk_q268_pre_catc	67	
32250	"ELDORAD "	115 30	32482	"APLHTAP1"	115 30	"1 "	0.19	1.22	-96.65	-7.19	543.05	AMPS	446.82	AMPS	2013sprpk_q268_pst_catc	67	
32255	"PLCRVLT1"	115 30	32261	"MIZOU_T1"	115 30	"1 "	0.30	0.91	-124.13	-20.37	671.35	AMPS	739.01	AMPS	2013sprpk_q268_pre_catc	67	
32255	"PLCRVLT1"	115 30	32261	"MIZOU_T1"	115 30	"1 "	0.30	0.91	-124.14	-20.37	671.38	AMPS	739.01	AMPS	2013sprpk_q268_pst_catc	67	
32255	"PLCRVLT1"	115 30	32482	"APLHTAP1"	115 30	"1 "	0.48	1.50	-121.07	-14.04	671.64	AMPS	446.82	AMPS	2013sprpk_q268_pre_catc	67	
32255	"PLCRVLT1"	115 30	32482	"APLHTAP1"	115 30	"1 "	0.48	1.50	-121.07	-14.04	671.67	AMPS	446.82	AMPS	2013sprpk_q268_pst_catc	67	
32257	"PLCRVLT2"	115 30	32481	"APLHTAP2"	115 30	"2 "	0.12	1.33	87.38	3.54	500.46	AMPS	376.53	AMPS	2013sprpk_q268_pre_catc	67	
32257	"PLCRVLT2"	115 30	32481	"APLHTAP2"	115 30	"2 "	0.12	1.33	87.38	3.54	500.48	AMPS	376.53	AMPS	2013sprpk_q268_pst_catc	67	
32398	"ULTRA JT"	115 30	32414	"FORMICA "	115 30	"1 "	0.32	0.96	208.70	-63.54	1076.43	AMPS	1124.58	AMPS	2013sprpk_q268_pre_catc	44	
32398	"ULTRA JT"	115 30	32414	"FORMICA "	115 30	"1 "	0.32	0.96	208.38	-63.39	1074.70	AMPS	1124.58	AMPS	2013sprpk_q268_pst_catc	44	
32408	"PLSNT GR"	115 30	32414	"FORMICA "	115 30	"1 "	0.32	0.96	-207.62	67.35	1076.26	AMPS	1124.58	AMPS	2013sprpk_q268_pre_catc	44	
32408	"PLSNT GR"	115 30	32414	"FORMICA "	115 30	"1 "	0.32	0.96	-207.30	67.18	1074.53	AMPS	1124.58	AMPS	2013sprpk_q268_pst_catc	44	
33514	"MANTECA "	115 30	33742	"MANTECA "	60 30	"3 "	0.61	1.64	59.67	15.03	61.53	MVA	37.50	MVA	2013sprpk_q268_pre_catc	145	
33514	"MANTECA "	115 30	33742	"MANTECA "	60 30	"3 "	0.58	1.64	59.63	14.86	61.45	MVA	37.50	MVA	2013sprpk_q268_pst_catc	145	
33514	"MANTECA "	115 30	33970	"INGRM C."	115 30	"1 "	0.39	1.03	-64.16	9.37	335.64	AMPS	326.33	AMPS	2013sprpk_q268_pre_catc	103	
33514	"MANTECA "	115 30	33970	"INGRM C."	115 30	"1 "	0.32	1.07	-66.08	10.72	348.26	AMPS	326.33	AMPS	2013sprpk_q268_pst_catc	103	
33514	"MANTECA "	115 30	33970	"INGRM C."	115 30	"1 "	0.39	1.03	-64.08	9.44	335.59	AMPS	326.33	AMPS	2013sprpk_q268_pre_catc	105	
33514	"MANTECA "	115 30	33970	"INGRM C."	115 30	"1 "	0.32	1.07	-66.21	10.41	348.03	AMPS	326.33	AMPS	2013sprpk_q268_pst_catc	105	
=1=	33514	"MANTECA "	115 30	33970	"INGRM C."	115 30	"1 "	0.32	0.93	-58.14	9.51	302.99	AMPS	326.33	AMPS	2013sprpk_q268_pst_catc	113
=1=	33514	"MANTECA "	115 30	33970	"INGRM C."	115 30	"1 "	0.32	0.93	-58.19	9.37	302.79	AMPS	326.33	AMPS	2013sprpk_q268_pst_catc	114
=1=	33528	"KASSON "	115 30	33529	"LAMMERS "	115 30	"1 "	0.40	1.16	-262.93	23.64	1304.04	AMPS	1124.58	AMPS	2013sprpk_q268_pst_catc	102
=1=	33528	"KASSON "	115 30	33530	"KSSN-JC2"	115 30	"1 "	0.32	0.93	210.82	-25.96	1049.26	AMPS	1124.58	AMPS	2013sprpk_q268_pst_catc	102
=1=	33529	"LAMMERS "	115 30	33531	"OWENSTP1"	115 30	"1 "	0.57	1.33	-304.61	-9.67	1500.61	AMPS	1124.58	AMPS	2013sprpk_q268_pst_catc	102
33530	"KSSN-JC2"	115 30	33550	"HJ HEINZ"	115 30	"1 "	0.05	0.96	-111.24	-5.55	577.37	AMPS	602.45	AMPS	2013sprpk_q268_pre_catc	103	
33530	"KSSN-JC2"	115 30	33550	"HJ HEINZ"	115 30	"1 "	0.17	0.99	-114.41	-1.74	595.11	AMPS	602.45	AMPS	2013sprpk_q268_pst_catc	103	

APPENDIX C - STEADY STATE POWER FLOW RESULTS
 AUTCON OUTPUT FILES FOR ISO CATEGORY C 2013 SPRING PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING		
33530	"KSSN-JC2"	115 30	33550	"HJ HEINZ"	115 30	"1 "	0.05	0.96	-111.10	-5.32	577.21 AMPS	602.45 AMPS	2013sprpk_q268_pre_catc	105
33530	"KSSN-JC2"	115 30	33550	"HJ HEINZ"	115 30	"1 "	0.17	0.99	-114.56	-2.13	594.37 AMPS	602.45 AMPS	2013sprpk_q268_pst_catc	105
=1=														
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.62	1.38	316.47	19.50	1553.71 AMPS	1124.58 AMPS	2013sprpk_q268_pst_catc	102
=1=														
33531	"OWENSTP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.62	0.93	212.72	27.85	1046.35 AMPS	1124.58 AMPS	2013sprpk_q268_pst_catc	108
=1=														
33537	"SFWY_TP1"	115 30	33541	"AEC_TP1 "	115 30	"1 "	0.19	1.34	-306.72	36.61	1512.26 AMPS	1124.58 AMPS	2013sprpk_q268_pst_catc	103
=1=														
33537	"SFWY_TP1"	115 30	33541	"AEC_TP1 "	115 30	"1 "	0.19	1.13	-257.67	35.65	1271.76 AMPS	1124.58 AMPS	2013sprpk_q268_pst_catc	113
=1=														
33537	"SFWY_TP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.20	1.37	-314.57	24.10	1535.61 AMPS	1124.58 AMPS	2013sprpk_q268_pst_catc	103
=1=														
33537	"SFWY_TP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.20	1.15	-264.69	26.12	1294.79 AMPS	1124.58 AMPS	2013sprpk_q268_pst_catc	113
33540	"TESLA "	115 30	33541	"AEC_TP1 "	115 30	"1 "	0.16	0.92	-164.18	12.65	805.29 AMPS	878.58 AMPS	2013sprpk_q268_pre_catc	103
33540	"TESLA "	115 30	33541	"AEC_TP1 "	115 30	"1 "	0.33	1.72	-303.24	51.93	1512.08 AMPS	878.58 AMPS	2013sprpk_q268_pst_catc	103
33540	"TESLA "	115 30	33541	"AEC_TP1 "	115 30	"1 "	0.16	0.92	-164.18	11.73	805.87 AMPS	878.58 AMPS	2013sprpk_q268_pre_catc	105
=2=														
=1=														
33540	"TESLA "	115 30	33541	"AEC_TP1 "	115 30	"1 "	0.33	1.45	-255.22	46.41	1271.56 AMPS	878.58 AMPS	2013sprpk_q268_pst_catc	113
=1=														
33540	"TESLA "	115 30	33544	"ELLS GTY"	115 30	"1 "	0.28	0.91	204.11	37.26	1019.73 AMPS	1124.58 AMPS	2013sprpk_q268_pst_catc	103
=1=														
33540	"TESLA "	115 30	33544	"ELLS GTY"	115 30	"1 "	0.28	0.91	204.23	37.54	1017.87 AMPS	1124.58 AMPS	2013sprpk_q268_pst_catc	105
33542	"LEPRINO "	115 30	33546	"TRACY JC"	115 30	"1 "	0.45	1.01	-191.31	-15.22	983.18 AMPS	973.97 AMPS	2013sprpk_q268_pre_catc	103
33542	"LEPRINO "	115 30	33546	"TRACY JC"	115 30	"1 "	0.37	1.03	-194.55	-11.65	1002.44 AMPS	973.97 AMPS	2013sprpk_q268_pst_catc	103
33542	"LEPRINO "	115 30	33546	"TRACY JC"	115 30	"1 "	0.45	1.01	-191.18	-14.98	983.47 AMPS	973.97 AMPS	2013sprpk_q268_pre_catc	105
33542	"LEPRINO "	115 30	33546	"TRACY JC"	115 30	"1 "	0.37	1.03	-194.70	-12.03	1000.63 AMPS	973.97 AMPS	2013sprpk_q268_pst_catc	105
33542	"LEPRINO "	115 30	33548	"TRACY "	115 30	"1 "	0.43	0.99	187.90	13.01	964.93 AMPS	973.97 AMPS	2013sprpk_q268_pre_catc	103
33542	"LEPRINO "	115 30	33548	"TRACY "	115 30	"1 "	0.34	1.01	191.14	9.45	984.31 AMPS	973.97 AMPS	2013sprpk_q268_pst_catc	103
33542	"LEPRINO "	115 30	33548	"TRACY "	115 30	"1 "	0.43	0.99	187.77	12.78	965.21 AMPS	973.97 AMPS	2013sprpk_q268_pre_catc	105
33542	"LEPRINO "	115 30	33548	"TRACY "	115 30	"1 "	0.34	1.01	191.29	9.82	982.53 AMPS	973.97 AMPS	2013sprpk_q268_pst_catc	105

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY C 2013 SPRING PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING		
33548	"TRACY"	" 115 30	33550	"HJ HEINZ"	115 30	"1 "	0.05	0.94	112.22	8.27	577.29 AMPS	612.49 AMPS	2013sprpk_q268_pre_catc	103
33548	"TRACY"	" 115 30	33550	"HJ HEINZ"	115 30	"1 "	0.17	0.97	115.45	4.66	595.08 AMPS	612.49 AMPS	2013sprpk_q268_pst_catc	103
33548	"TRACY"	" 115 30	33550	"HJ HEINZ"	115 30	"1 "	0.05	0.94	112.08	8.03	577.13 AMPS	612.49 AMPS	2013sprpk_q268_pre_catc	105
33548	"TRACY"	" 115 30	33550	"HJ HEINZ"	115 30	"1 "	0.17	0.97	115.60	5.03	594.33 AMPS	612.49 AMPS	2013sprpk_q268_pst_catc	105
33703	"LOUISJCT"	60 30	33742	"MANTECA "	60 30	"1 "	0.11	1.25	42.26	8.20	407.70 AMPS	327.17 AMPS	2013sprpk_q268_pre_catc	145
33703	"LOUISJCT"	60 30	33742	"MANTECA "	60 30	"1 "	0.11	1.24	42.24	8.13	404.32 AMPS	327.17 AMPS	2013sprpk_q268_pst_catc	145
33704	"STAGG "	60 30	33714	"HAMMER "	60 30	"1 "	0.74	1.12	104.34	19.47	990.00 AMPS	885.27 AMPS	2013sprpk_q268_pre_catc	160
33704	"STAGG "	60 30	33714	"HAMMER "	60 30	"1 "	0.74	1.12	104.34	19.48	990.28 AMPS	885.27 AMPS	2013sprpk_q268_pst_catc	160
33748	"MSSDLESW"	60 30	33750	"CALVO "	60 30	"1 "	0.12	0.93	36.71	4.61	356.32 AMPS	384.90 AMPS	2013sprpk_q268_pre_catc	145
33748	"MSSDLESW"	60 30	33750	"CALVO "	60 30	"1 "	0.15	0.92	36.69	4.57	353.35 AMPS	384.90 AMPS	2013sprpk_q268_pst_catc	145

APPENDIX C - STEADY STATE POWER FLOW RESULTS
 AUTCON OUTPUT FILES FOR ISO CATEGORY C 2013 SUMMER OFF PEAK OPERATING CONDITIONS

Bus #	NAME	KV	AREA	Bus #	NAME	KV	AREA	ID	(RATE 1) BASE	(RATE 2) OUTAGE	MW	MVAR	FLOW	(RATE 2) RATING	FILE	OUTAGE #
30495	"STAGG "	230	30	30622	"EIGHT MI"	230	30	"1 "	0.83	1.04	405.12	-41.67	1011.01 AMPS	976.48 AMPS	2013sumop_q268_pre_catc	136
30495	"STAGG "	230	30	30622	"EIGHT MI"	230	30	"1 "	0.83	1.03	404.12	-41.66	1008.53 AMPS	976.48 AMPS	2013sumop_q268_pst_catc	136
30515	"WARNERVL"	230	30	30800	"WILSON "	230	30	"1 "	1.22	1.16	368.81	10.90	918.27 AMPS	793.23 AMPS	2013sumop_q268_pre_catc	122
30515	"WARNERVL"	230	30	30800	"WILSON "	230	30	"1 "	1.25	1.18	376.62	11.03	938.05 AMPS	793.23 AMPS	2013sumop_q268_pst_catc	122
30515	"WARNERVL"	230	30	30800	"WILSON "	230	30	"1 "	1.22	1.15	368.87	9.79	915.57 AMPS	793.23 AMPS	2013sumop_q268_pre_catc	132
30515	"WARNERVL"	230	30	30800	"WILSON "	230	30	"1 "	1.25	1.18	378.47	9.54	939.73 AMPS	793.23 AMPS	2013sumop_q268_pst_catc	132
30622	"EIGHT MI"	230	30	30624	"TESLA E "	230	30	"1 "	0.67	1.03	403.81	-53.26	1009.01 AMPS	976.48 AMPS	2013sumop_q268_pre_catc	129
30622	"EIGHT MI"	230	30	30624	"TESLA E "	230	30	"1 "	0.67	1.03	402.87	-53.27	1006.67 AMPS	976.48 AMPS	2013sumop_q268_pst_catc	129
30622	"EIGHT MI"	230	30	30624	"TESLA E "	230	30	"1 "	0.67	0.95	369.59	-55.99	926.46 AMPS	976.48 AMPS	2013sumop_q268_pre_catc	130
30622	"EIGHT MI"	230	30	30624	"TESLA E "	230	30	"1 "	0.67	0.95	368.64	-55.98	924.12 AMPS	976.48 AMPS	2013sumop_q268_pst_catc	130
32206	"BOGUE "	115	30	32208	"GLEAF TP"	115	30	"1 "	0.68	0.92	-93.87	9.79	470.47 AMPS	512.08 AMPS	2013sumop_q268_pre_catc	47
32206	"BOGUE "	115	30	32208	"GLEAF TP"	115	30	"1 "	0.68	0.92	-94.10	9.80	471.64 AMPS	512.08 AMPS	2013sumop_q268_pst_catc	47
32212	"E.NICOLS"	115	30	32214	"RIO OSO "	115	30	"1 "	0.81	0.98	-82.73	2.48	406.44 AMPS	416.70 AMPS	2013sumop_q268_pre_catc	46
32212	"E.NICOLS"	115	30	32214	"RIO OSO "	115	30	"1 "	0.81	0.98	-83.02	2.47	407.88 AMPS	416.70 AMPS	2013sumop_q268_pst_catc	46
32212	"E.NICOLS"	115	30	32214	"RIO OSO "	115	30	"1 "	0.81	1.13	-95.28	3.42	470.00 AMPS	416.70 AMPS	2013sumop_q268_pre_catc	47
32212	"E.NICOLS"	115	30	32214	"RIO OSO "	115	30	"1 "	0.81	1.13	-95.57	3.40	471.43 AMPS	416.70 AMPS	2013sumop_q268_pst_catc	47
33514	"MANTECA "	115	30	33742	"MANTECA "	60	30	"3 "	0.42	0.99	36.28	7.10	36.97 MVA	37.50 MVA	2013sumop_q268_pre_catc	145
33514	"MANTECA "	115	30	33742	"MANTECA "	60	30	"3 "	0.39	0.99	36.28	7.07	36.96 MVA	37.50 MVA	2013sumop_q268_pst_catc	145
33528	"KASSON "	115	30	33529	"LAMMERS "	115	30	"1 "	0.24	1.23	-282.22	33.91	1381.43 AMPS	1124.58 AMPS	2013sumop_q268_pst_catc	102
33528	"KASSON "	115	30	33530	"KSSN-JC2"	115	30	"1 "	0.24	1.08	246.83	-34.64	1211.30 AMPS	1124.58 AMPS	2013sumop_q268_pst_catc	102
33529	"LAMMERS "	115	30	33531	"OWENSTP1"	115	30	"1 "	0.34	1.33	-306.64	-2.54	1490.46 AMPS	1124.58 AMPS	2013sumop_q268_pst_catc	102
33530	"KSSN-JC2"	115	30	33550	"HJ HEINZ"	115	30	"1 "	0.29	1.26	153.53	-30.38	760.20 AMPS	602.45 AMPS	2013sumop_q268_pst_catc	102
33530	"KSSN-JC2"	115	30	33550	"HJ HEINZ"	115	30	"1 "	0.29	1.16	142.29	-25.86	700.22 AMPS	602.45 AMPS	2013sumop_q268_pst_catc	104
33531	"OWENSTP1"	115	30	33549	"SCHULTE "	115	30	"1 "	0.38	1.36	316.48	11.04	1532.39 AMPS	1124.58 AMPS	2013sumop_q268_pst_catc	102

APPENDIX C - STEADY STATE POWER FLOW RESULTS
AUTCON OUTPUT FILES FOR ISO CATEGORY C 2013 SUMMER OFF PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)				
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING	FILE	OUTAGE #		
33537	"SFWY_TP1"	115 30	33541	"AEC_TP1 "	115 30	"1 "	0.37	1.33	-307.76	45.75	1501.24	AMPS 1124.58	AMPS 2013sumop_q268_pst_catc	103		
=1=	33537	"SFWY_TP1"	115 30	33541	"AEC_TP1 "	115 30	"1 "	0.37	1.21	-277.67	44.70	1356.64	AMPS 1124.58	AMPS 2013sumop_q268_pst_catc	113	
=1=	33537	"SFWY_TP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.39	1.35	-314.61	33.89	1519.59	AMPS 1124.58	AMPS 2013sumop_q268_pst_catc	103	
=1=	33537	"SFWY_TP1"	115 30	33549	"SCHULTE "	115 30	"1 "	0.39	1.22	-284.01	34.67	1374.83	AMPS 1124.58	AMPS 2013sumop_q268_pst_catc	113	
33540	"TESLA "	115 30	33541	"AEC_TP1 "	115 30	"1 "	0.54	0.92	-165.15	24.97	804.36	AMPS 878.58	AMPS 2013sumop_q268_pre_catc	103		
33540	"TESLA "	115 30	33541	"AEC_TP1 "	115 30	"1 "	0.66	1.71	-304.33	60.84	1501.02	AMPS 878.58	AMPS 2013sumop_q268_pst_catc	103		
33540	"TESLA "	115 30	33541	"AEC_TP1 "	115 30	"1 "	0.54	0.92	-165.15	24.23	804.54	AMPS 878.58	AMPS 2013sumop_q268_pre_catc	105		
=2=	=1=	33540	"TESLA "	115 30	33541	"AEC_TP1 "	115 30	"1 "	0.66	1.00	-177.78	40.98	878.58	AMPS 878.58	AMPS 2013sumop_q268_pst_catc	106
=1=	33540	"TESLA "	115 30	33541	"AEC_TP1 "	115 30	"1 "	0.66	0.95	-168.60	41.25	836.10	AMPS 878.58	AMPS 2013sumop_q268_pst_catc	108	
=1=	33540	"TESLA "	115 30	33541	"AEC_TP1 "	115 30	"1 "	0.66	1.54	-274.88	56.97	1356.41	AMPS 878.58	AMPS 2013sumop_q268_pst_catc	113	
=1=	33548	"TRACY "	115 30	33550	"HJ HEINZ"	115 30	"1 "	0.29	1.24	-151.83	35.25	759.92	AMPS 612.49	AMPS 2013sumop_q268_pst_catc	102	
=1=	33548	"TRACY "	115 30	33550	"HJ HEINZ"	115 30	"1 "	0.29	1.14	-140.85	29.94	699.99	AMPS 612.49	AMPS 2013sumop_q268_pst_catc	104	
37010	"HURLEY S"	230 30	37015	"PROCTER "	230 30	"1 "	1.00	0.90	306.66	-136.03	791.92	AMPS 879.83	AMPS 2013sumop_q268_pre_catc	116		
=2=	37010	"HURLEY S"	230 30	37015	"PROCTER "	230 30	"1 "	1.00	0.90	307.25	-136.08	793.34	AMPS 879.83	AMPS 2013sumop_q268_pre_catc	117	
37010	"HURLEY S"	230 30	37015	"PROCTER "	230 30	"1 "	1.00	0.90	307.05	-135.91	792.79	AMPS 879.83	AMPS 2013sumop_q268_pst_catc	117		
37010	"HURLEY S"	230 30	37015	"PROCTER "	230 30	"1 "	1.00	1.07	371.42	-146.80	942.72	AMPS 879.83	AMPS 2013sumop_q268_pre_catc	122		
37010	"HURLEY S"	230 30	37015	"PROCTER "	230 30	"1 "	1.00	1.07	371.05	-146.64	941.83	AMPS 879.83	AMPS 2013sumop_q268_pst_catc	122		
37010	"HURLEY S"	230 30	37015	"PROCTER "	230 30	"1 "	1.00	0.91	309.95	-137.69	799.12	AMPS 879.83	AMPS 2013sumop_q268_pre_catc	126		
37010	"HURLEY S"	230 30	37015	"PROCTER "	230 30	"1 "	1.00	0.91	310.91	-137.42	801.07	AMPS 879.83	AMPS 2013sumop_q268_pst_catc	126		
37010	"HURLEY S"	230 30	37015	"PROCTER "	230 30	"1 "	1.00	0.93	317.93	-137.49	816.64	AMPS 879.83	AMPS 2013sumop_q268_pre_catc	136		
37010	"HURLEY S"	230 30	37015	"PROCTER "	230 30	"1 "	1.00	0.93	317.78	-137.30	816.20	AMPS 879.83	AMPS 2013sumop_q268_pst_catc	136		

APPENDIX C - STEADY STATE POWER FLOW RESULTS
 AUTCON OUTPUT FILES FOR ISO CATEGORY C 2013 SUMMER OFF PEAK OPERATING CONDITIONS

-----FROM BUS-----			-----TO BUS-----				(RATE 1)	(RATE 2)	-----OUTAGE-----			(RATE 2)	FILE	OUTAGE #
Bus #	NAME	KV AREA	Bus #	NAME	KV AREA	ID	BASE	OUTAGE	MW	MVAR	FLOW	RATING		
37010	"HURLEY S"	230 30	37015	"PROCTER "	230 30	"1 "	1.00	0.91	311.07	-137.72	801.70 AMPS	879.83 AMPS	2013sumop_q268_pre_catc	137
37010	"HURLEY S"	230 30	37015	"PROCTER "	230 30	"1 "	1.00	0.91	310.95	-137.54	801.35 AMPS	879.83 AMPS	2013sumop_q268_pst_catc	137
37010	"HURLEY S"	230 30	37015	"PROCTER "	230 30	"1 "	1.00	0.91	310.67	-137.09	800.70 AMPS	879.83 AMPS	2013sumop_q268_pre_catc	47
37010	"HURLEY S"	230 30	37015	"PROCTER "	230 30	"1 "	1.00	0.91	310.60	-136.93	800.45 AMPS	879.83 AMPS	2013sumop_q268_pst_catc	47

Appendix D

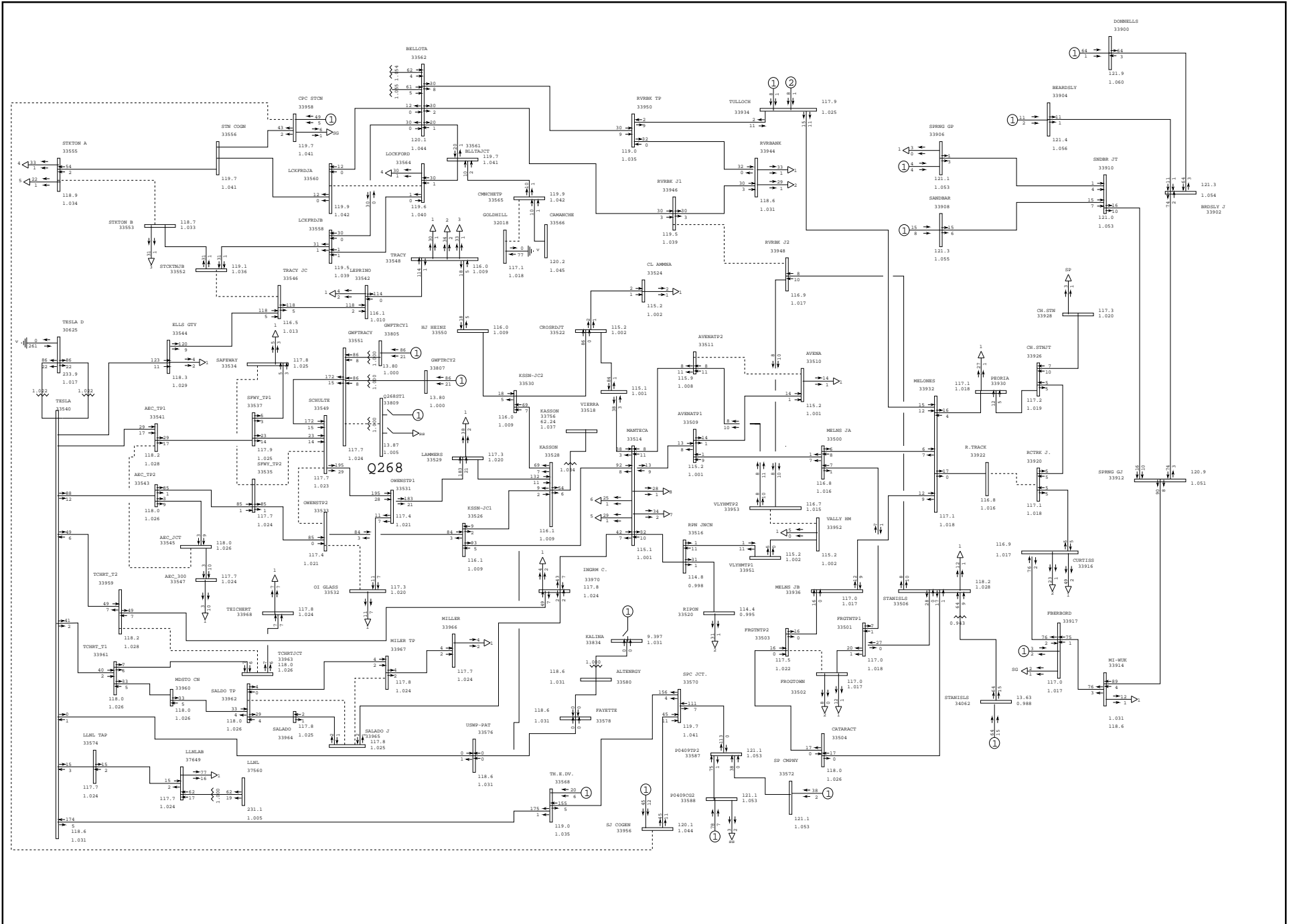
Steady State Power Flow Plots

APPENDIX D - STEADY STATE POWER FLOW PLOTS


Q268 GWF Tracy SIS Power Flow Plots

Plot	Description
Plot #1	2013 Summer Peak FY Pre-Project: Normal Conditions (MW/MVAr)
Plot #2	2013 Summer Peak FY Pre-Project: Normal Conditions (Amps/% Rate)
Plot #3	2013 Summer Peak FY Post-Project: Normal Conditions (MW/MVAr)
Plot #4	2013 Summer Peak FY Post-Project: Normal Conditions (Amps/% Rate)
Plot #5	2013 Spring Peak FY Pre-Project: Normal Conditions (MW/MVAr)
Plot #6	2013 Spring Peak FY Pre-Project: Normal Conditions (Amps/% Rate)
Plot #7	2013 Spring Peak FY Post-Project: Normal Conditions (MW/MVAr)
Plot #8	2013 Spring Peak FY Post-Project: Normal Conditions (Amps/% Rate)
Plot #9	2013 Summer Off Peak FY Pre-Project: Normal Conditions (MW/MVAr)
Plot #10	2013 Summer Off Peak FY Pre-Project: Normal Conditions (Amps/% Rate)
Plot #11	2013 Summer Off Peak FY Post-Project: Normal Conditions (MW/MVAr)
Plot #12	2013 Summer Off Peak FY Post-Project: Normal Conditions (Amps/% Rate)
Plot #13	2013 Summer Peak FY Pre-Project: Tesla/Schulte - Manteca 115 kV Line and Stanislaus PH Outage (MW/MVAr)
Plot #14	2013 Summer Peak FY Pre-Project: Tesla/Schulte - Manteca 115 kV Line and Stanislaus PH Outage (Amps/% Rate)
Plot #15	2013 Summer Peak FY Post-Project: Tesla/Schulte - Manteca 115 kV Line and Stanislaus PH Outage (MW/MVAr)
Plot #16	2013 Summer Peak FY Post-Project: Tesla/Schulte - Manteca 115 kV Line and Stanislaus PH Outage (Amps/% Rate)
Plot #17	2013 Summer Peak FY Post-Project Mitigation 1: Normal Conditions (MW/MVAr)
Plot #	2013 Summer Peak FY Post-Project Mitigation 1: Normal Conditions (Amps/% Rate)
Plot #	2013 Spring Peak FY Post-Project Mitigation 1: Normal Conditions (MW/MVAr)
Plot #	2013 Spring Peak FY Post-Project Mitigation 1: Normal Conditions (Amps/% Rate)
Plot #	2013 Summer Off Peak FY Post-Project Mitigation 1: Normal Conditions (MW/MVAr)
Plot #	2013 Summer Off Peak FY Post-Project Mitigation 1: Normal Conditions (Amps/% Rate)
Plot #	2013 Summer Peak FY Post-Project Mitigation 1: Tesla/Schulte - Manteca 115 kV Line and Stanislaus PH Outage (MW/MVAr)
Plot #	2013 Summer Peak FY Post-Project Mitigation 1: Tesla/Schulte - Manteca 115 kV Line and Stanislaus PH Outage (Amps/% Rate)

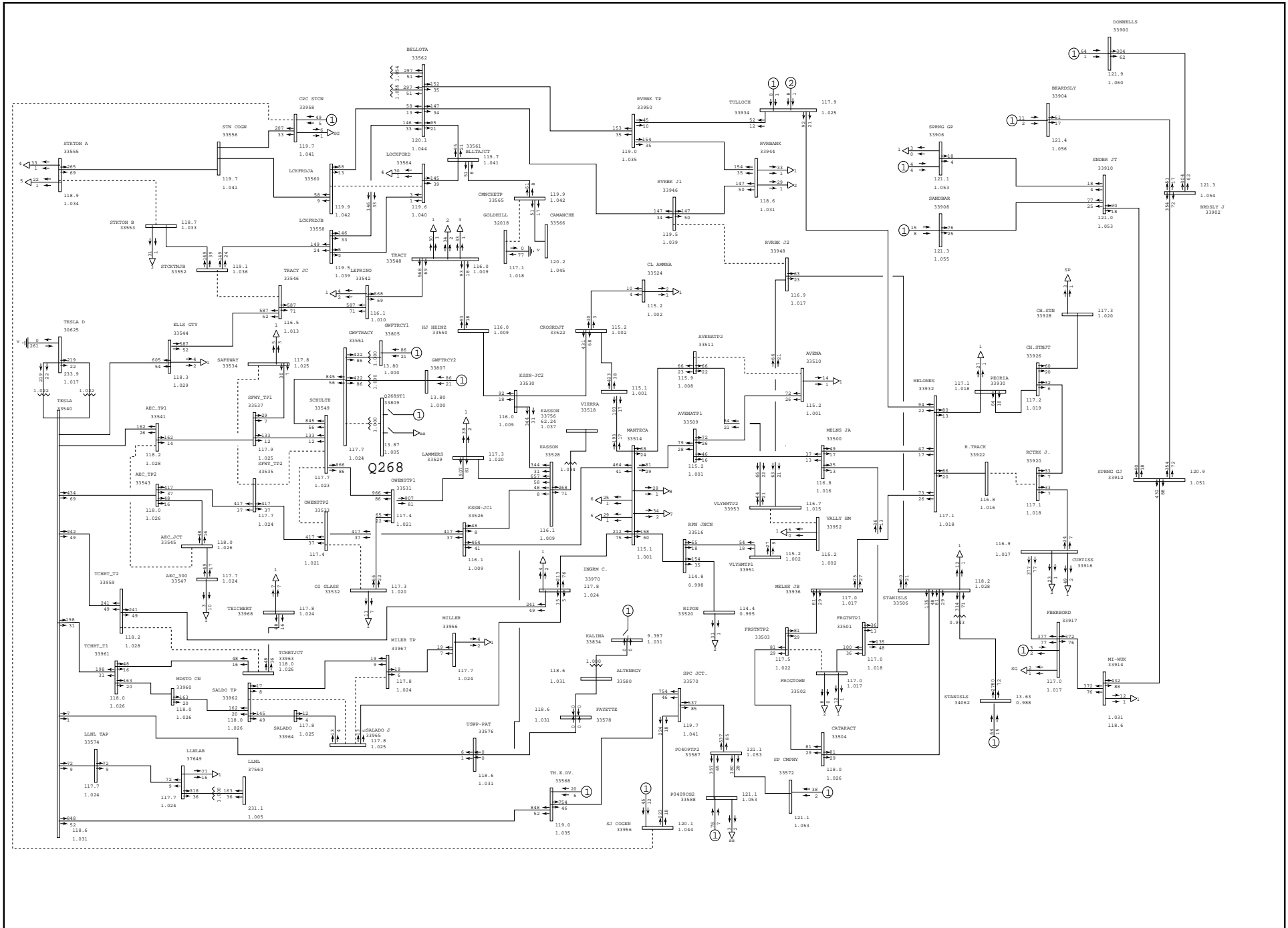
APPENDIX D - STEADY STATE POWER FLOW PLOTS




General Electric International, Inc. PSLF Program Fri Apr 18 09:09:44 2008 cases\sumpk\2013sumpk_q268_pre.sav

 <p>PG&E 2007 CASE SERIES: 2013 Central Valley Summer Peak Pre-Project Case PATH15=-2464 MW(S-N) PATH26= 3838 MW(N-S) PDCI= 2500 MW(N-S) COI= 4638 MW(N-S) Q268 145 MW at GWF Tracy 115 kV SIS - 2013 Summer Peak Pre-Project FY/CO2</p>	<p>Plot 001: Normal Conditions</p>	<p>MW/MVAR draw\q268.drw Rating = 1</p>
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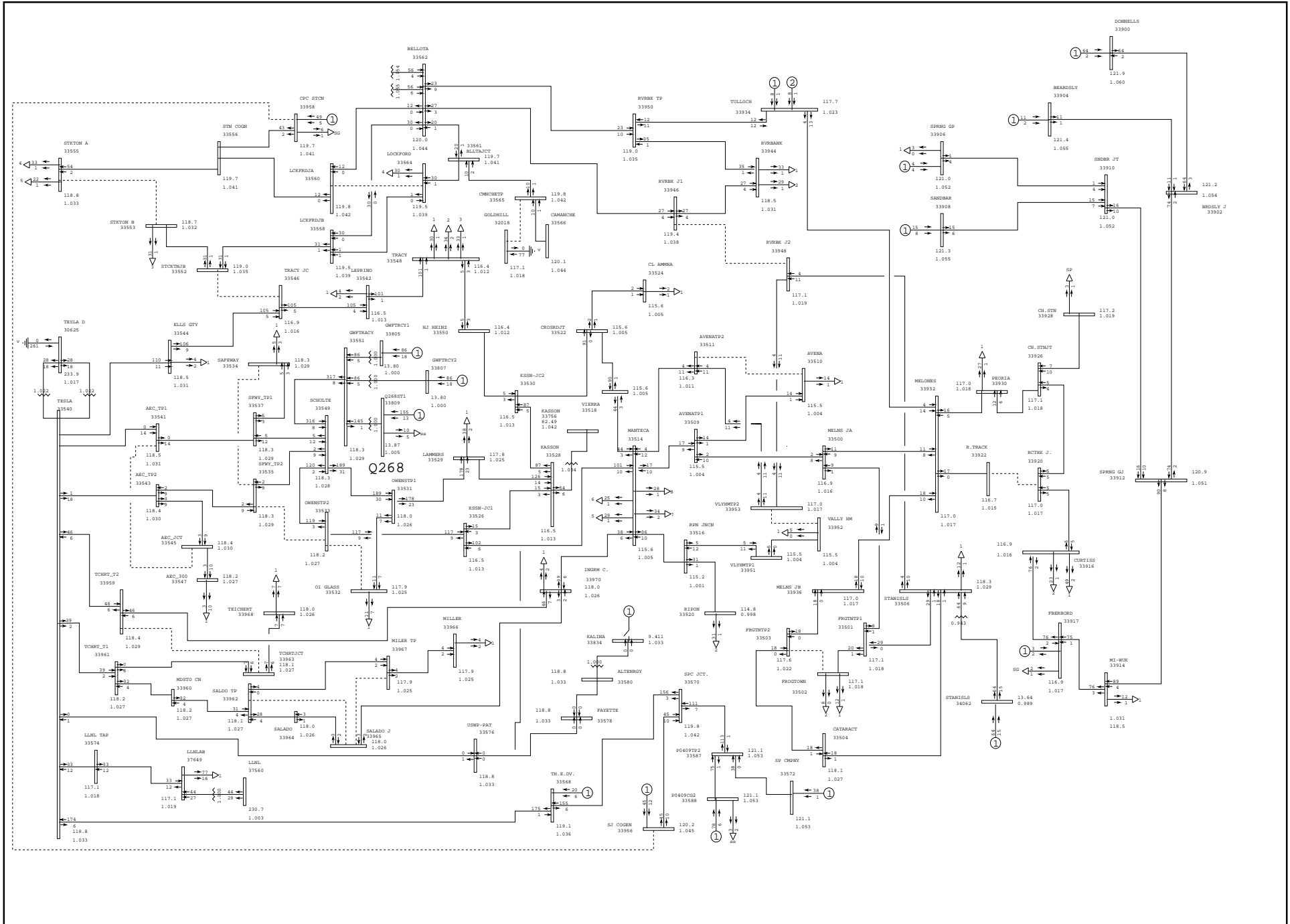
APPENDIX D - STEADY STATE POWER FLOW PLOTS




General Electric International, Inc. PSLF Program Fri Apr 18 09:09:45 2008 cases\sumpk\2013sumpk_q268_pre.sav

	PG&E 2007 CASE SERIES: 2013 Central Valley Summer Peak Pre-Project Case PATH15=-2464 MW(S-N) PATH26= 3838 MW(N-S) PDCI= 2500 MW(N-S) COI= 4638 MW(N-S) Q268 145 MW at GWF Tracy 115 kV SIS - 2013 Summer Peak Pre-Project FY/COID	Plot 002: Normal Conditions	amps/rate draw\q268.drw Rating = 1
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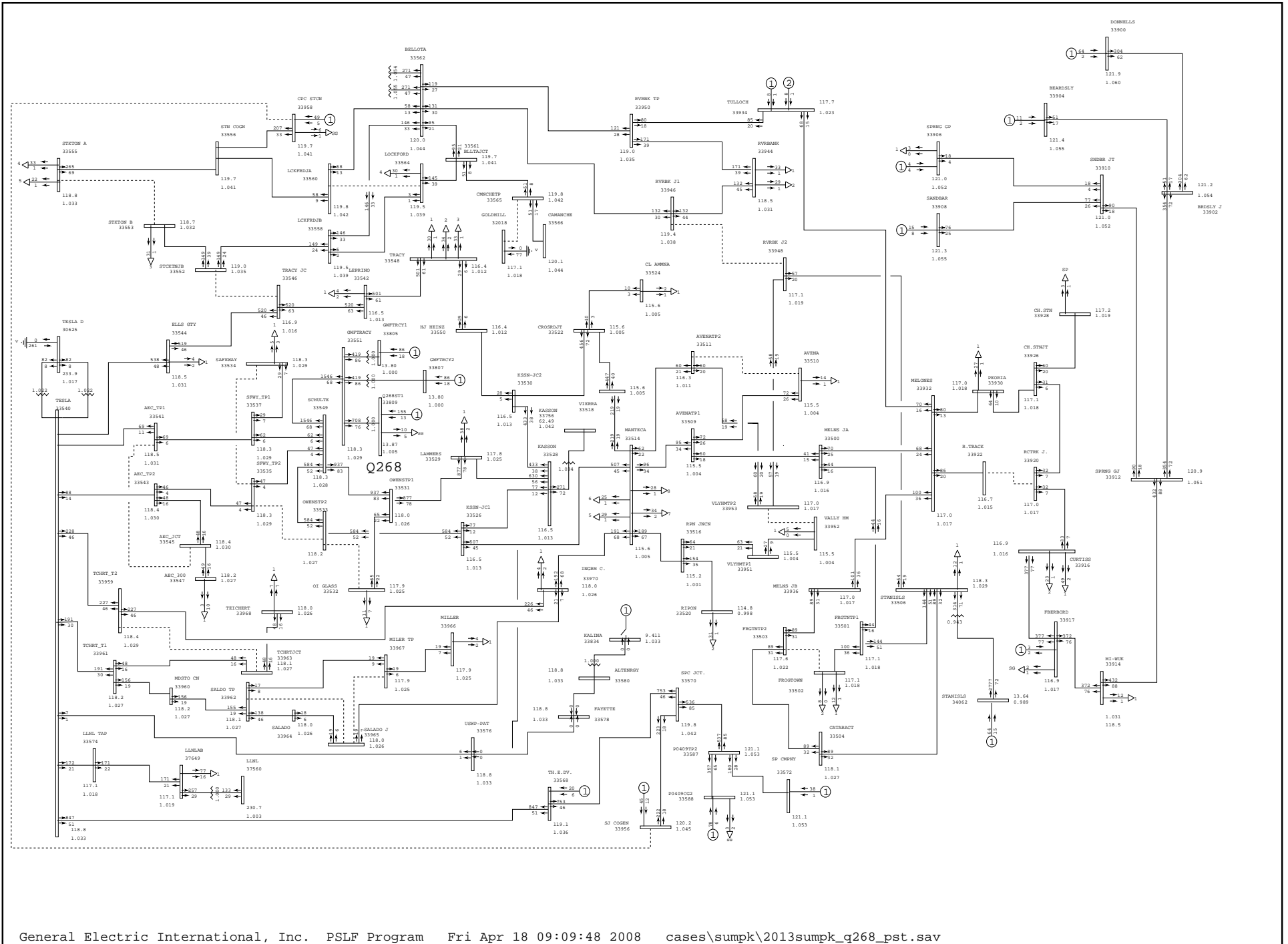
APPENDIX D - STEADY STATE POWER FLOW PLOTS



General Electric International, Inc. PSLF Program Fri Apr 18 09:09:47 2008 cases\sumpk\2013sumpk_q268_pst.sav

 <p>PG&E 2007 CASE SERIES: 2013 Central Valley Summer Peak Post-Project Case PATH15=-2594 MW(S-N) PATH26= 3830 MW(N-S) PDCI= 2500 MW(N-S) COI= 4630 MW(N-S) Q268 145 MW at GWF Tracy 115 kV SIS - 2013 Summer Peak Post-Project FY/COD</p>	<p>Plot 003: Normal Conditions</p>	<p>MW/MVAR draw\q268.drw Rating = 1</p>
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APPENDIX D - STEADY STATE POWER FLOW PLOTS



General Electric International, Inc. PSLF Program Fri Apr 18 09:09:48 2008 cases\sumpk\2013sumpk_q268_pst.sav

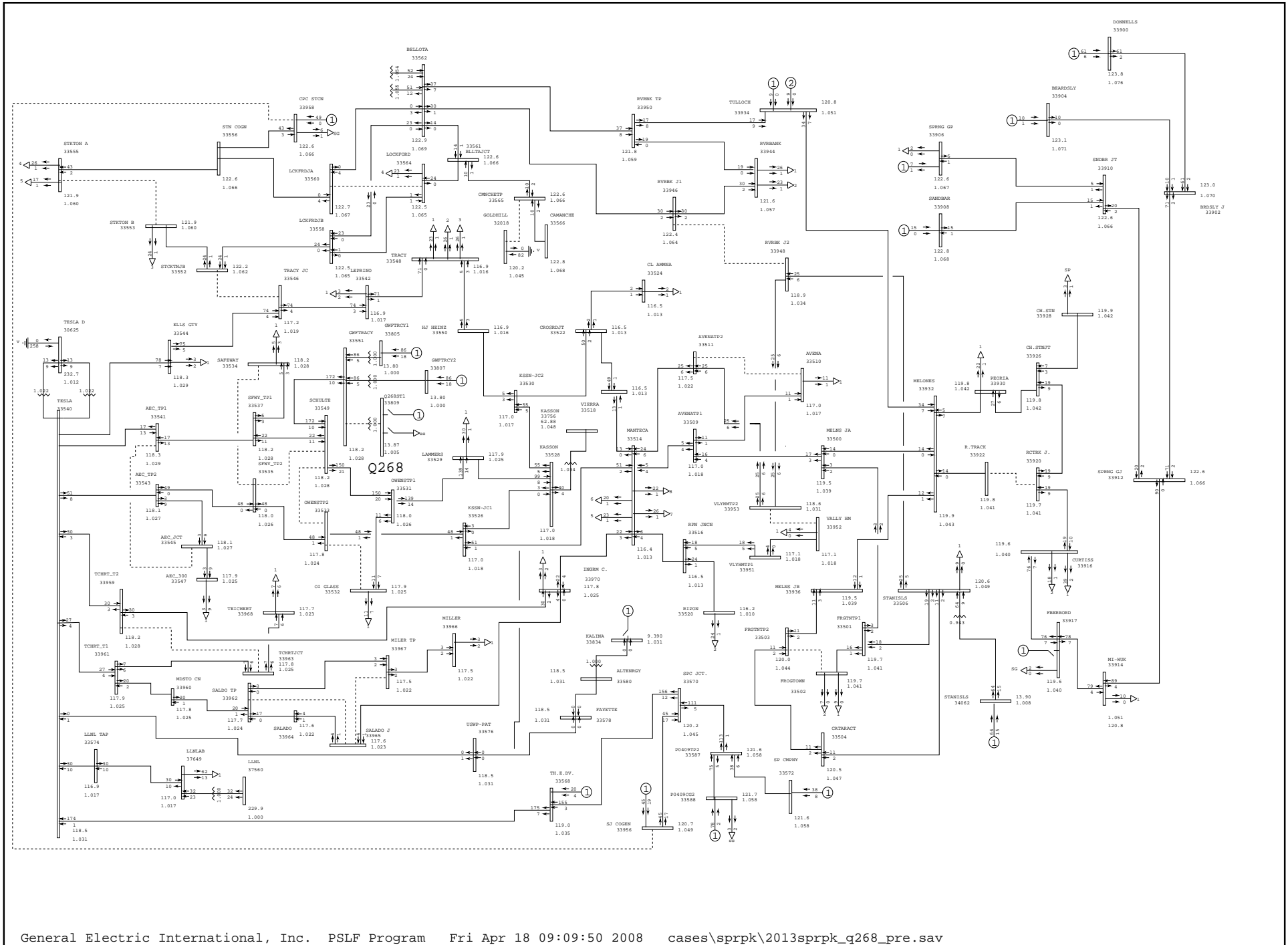


PG&E 2007 CASE SERIES: 2013 Central Valley Summer Peak Post-Project Case
 PATH15=-2594 MW(S-N) PATH26= 3830 MW(N-S) PDCI= 2500 MW(N-S) COI= 4630 MW(N-S)
 Q268 145 MW at GWF Tracy 115 kV SIS - 2013 Summer Peak Post-Project FY/COD

Plot 004: Normal Conditions

amps/rate
 draw\q268.drw
 Rating = 1

APPENDIX D - STEADY STATE POWER FLOW PLOTS



General Electric International, Inc. PSLF Program Fri Apr 18 09:09:50 2008 cases\sprpk\2013sprpk_q268_pre.sav

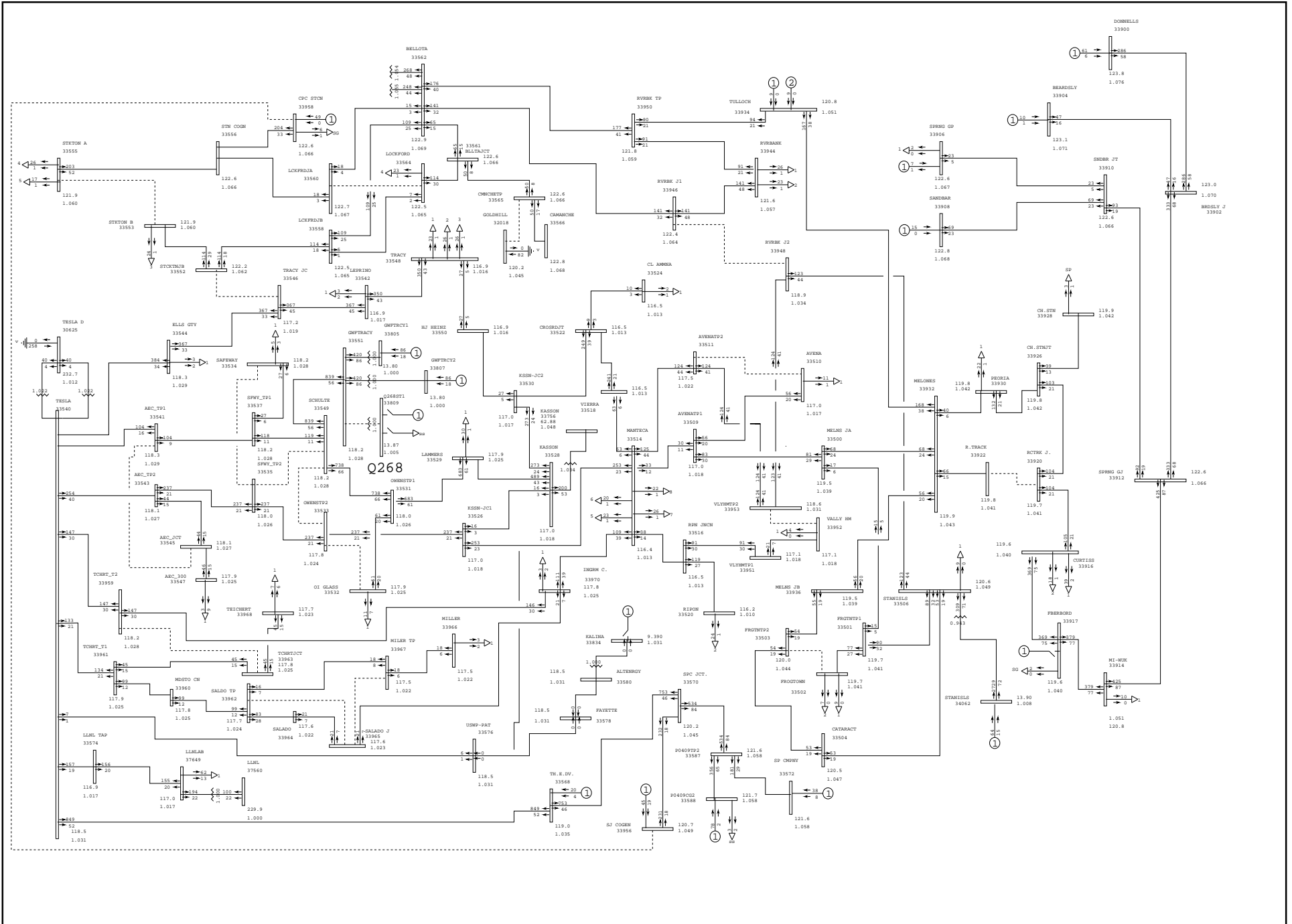


PG&E 2007 CASE SERIES: 2013 Spring Peak Pre-Project Case
 PATH15=-2311 MW(S-N) PATH26= 2600 MW(N-S) PDCI= 3097 MW(N-S) COI= 4417 MW(N-S)
 Q268 145 MW at GWF Tracy 115 kV SIS - 2013 Spring Peak Pre-Project FY/CO2

Plot 005: Normal Conditions

MW/MVAR
 draw\q268.drw
 Rating = 1

APPENDIX D - STEADY STATE POWER FLOW PLOTS



General Electric International, Inc. PSLF Program Fri Apr 18 09:09:50 2008 cases\sprpk\2013sprpk_q268_pre.sav

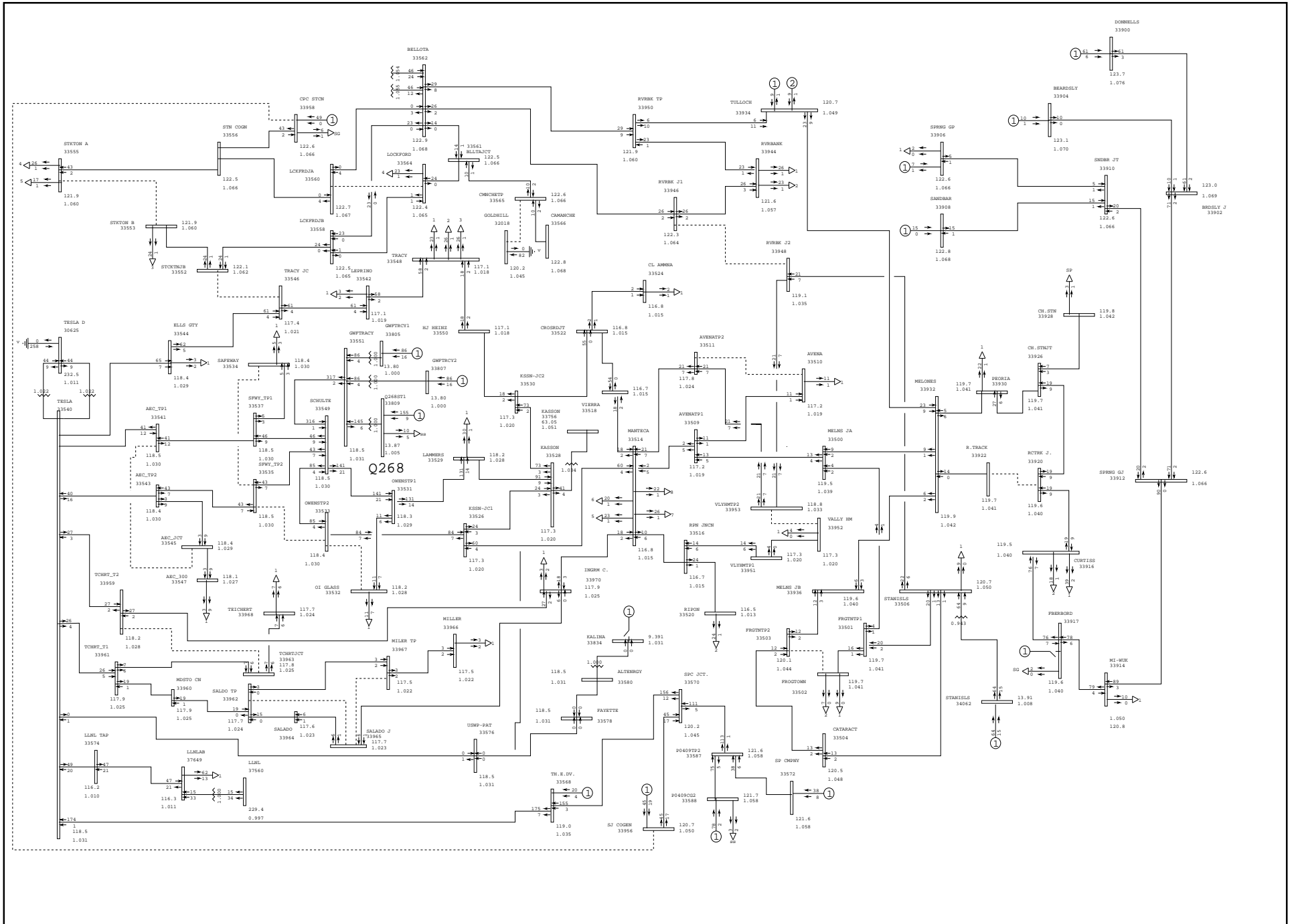


PG&E 2007 CASE SERIES: 2013 Spring Peak Pre-Project Case
 PATH15=-2311 MW(S-N) PATH26= 2600 MW(N-S) PDCI= 3097 MW(N-S) COI= 4417 MW(N-S)
 Q268 145 MW at GWF Tracy 115 kV SIS - 2013 Spring Peak Pre-Project FY/CO2


Plot 006: Normal Conditions

amps/rate
 draw\q268.drw
 Rating = 1

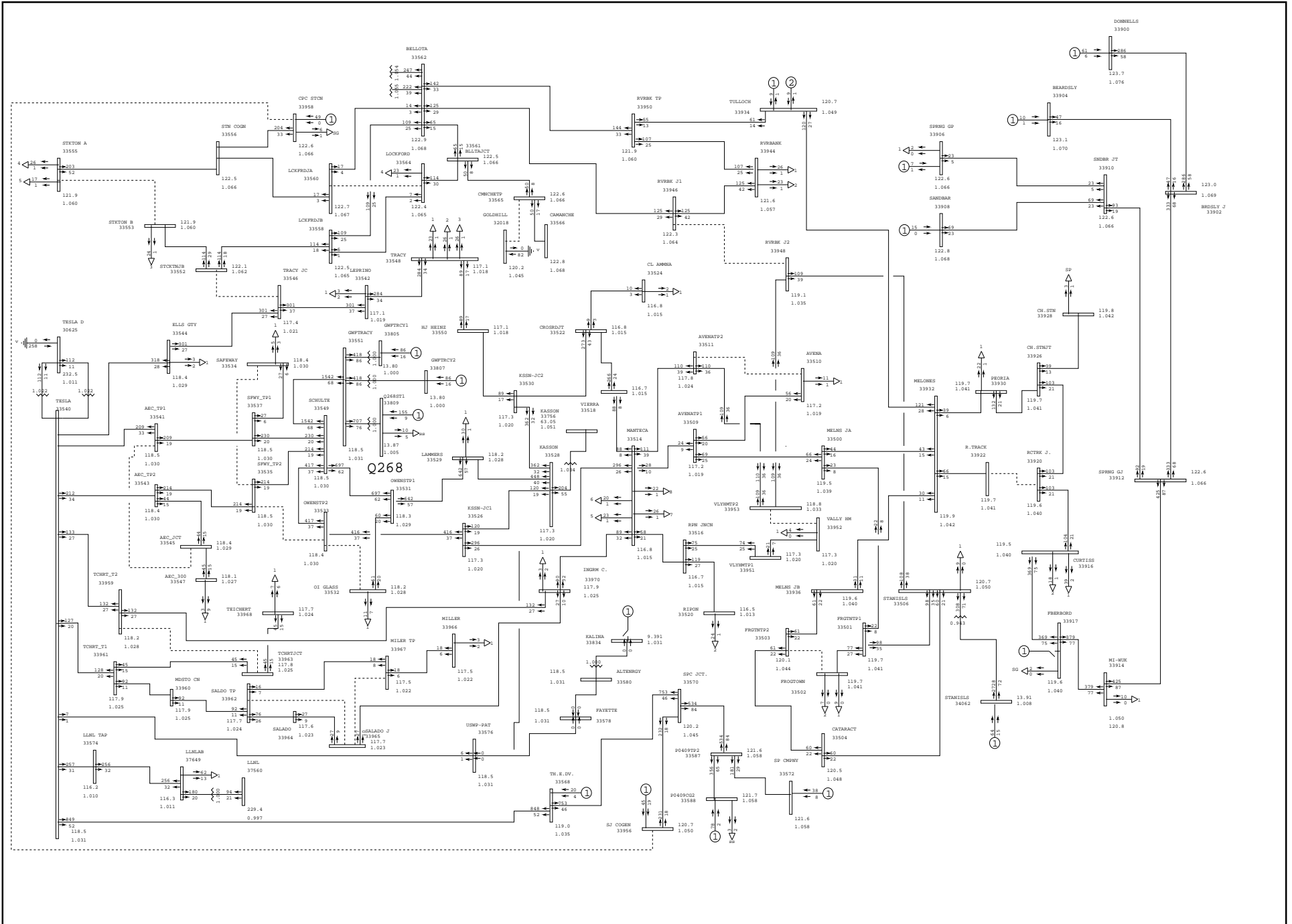
APPENDIX D - STEADY STATE POWER FLOW PLOTS



General Electric International, Inc. PSLF Program Fri Apr 18 09:09:52 2008 cases\sprpk\2013sprpk_q268_pst.sav

 <p>PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case PATH15=-2441 MW(S-N) PATH26= 2593 MW(N-S) PDCI= 3097 MW(N-S) COI= 4410 MW(N-S) Q268 145 MW at GWF Tracy 115 kV SIS - 2013 Spring Peak Post-Project FY/COD</p>	<p>Plot 007: Normal Conditions</p>	<p>MW/MVAR draw\q268.drw Rating = 1</p>
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APPENDIX D - STEADY STATE POWER FLOW PLOTS



General Electric International, Inc. PSLF Program Fri Apr 18 09:09:53 2008 cases\sprpk\2013sprpk_q268_pst.sav

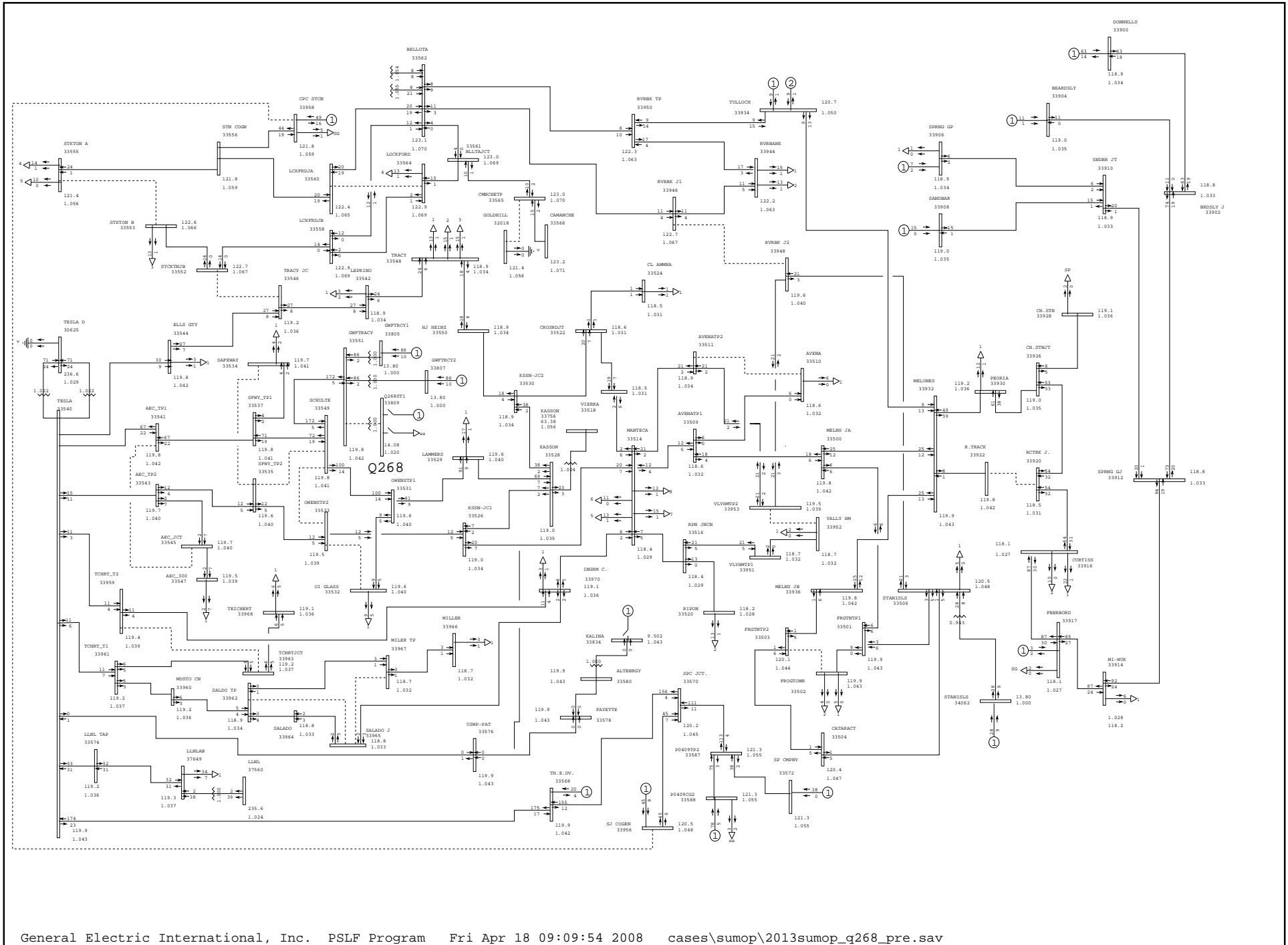


PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case
 PATH15=-2441 MW(S-N) PATH26= 2593 MW(N-S) PDCI= 3097 MW(N-S) COI= 4410 MW(N-S)
 Q268 145 MW at GWF Tracy 115 kV SIS - 2013 Spring Peak Post-Project FY/COD

Plot 008: Normal Conditions

amps/rate
 draw\q268.drw
 Rating = 1

APPENDIX D - STEADY STATE POWER FLOW PLOTS



General Electric International, Inc. PSLF Program Fri Apr 18 09:09:54 2008 cases\sumop\2013sumop_q268_pre.sav

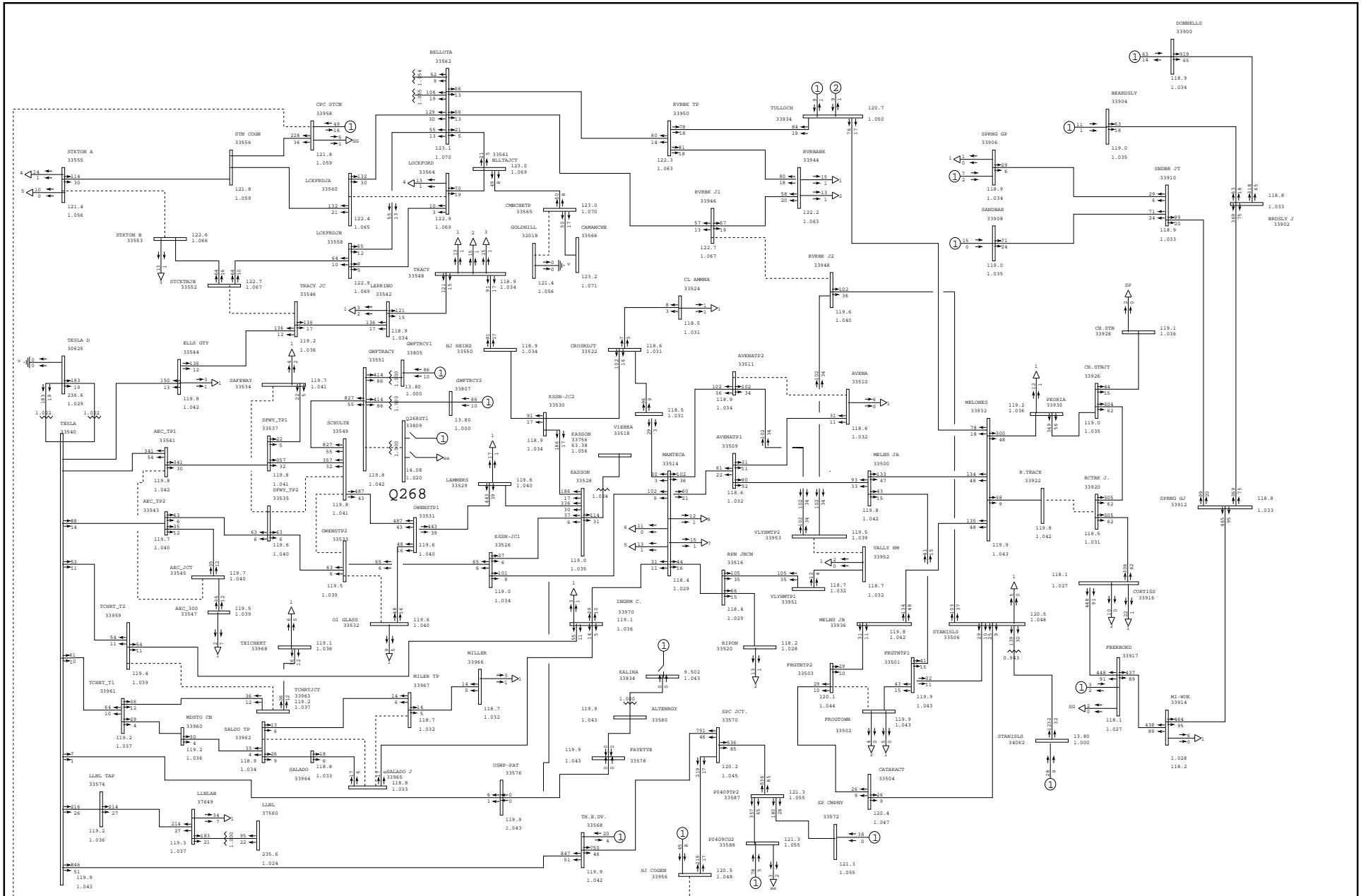


PG&E 2007 CASE SERIES: 2013 Summer Off Peak Pre-Project Case
 PATH15= 2898 MW(S-N) PATH26= -704 MW(N-S) PDCI=-1846 MW(N-S) COI=-3638 MW(N-S)
 Q268 145 MW at GWF Tracy 115 kV SIS - 2013 Summer Off Peak Pre-Project FY/COD

Plot 009: Normal Conditions

MW/MVAR
 draw\q268.drw
 Rating = 1

APPENDIX D - STEADY STATE POWER FLOW PLOTS



General Electric International, Inc. PSLF Program Fri Apr 18 09:09:55 2008 cases\sumop\2013sumop_q268_pre.sav

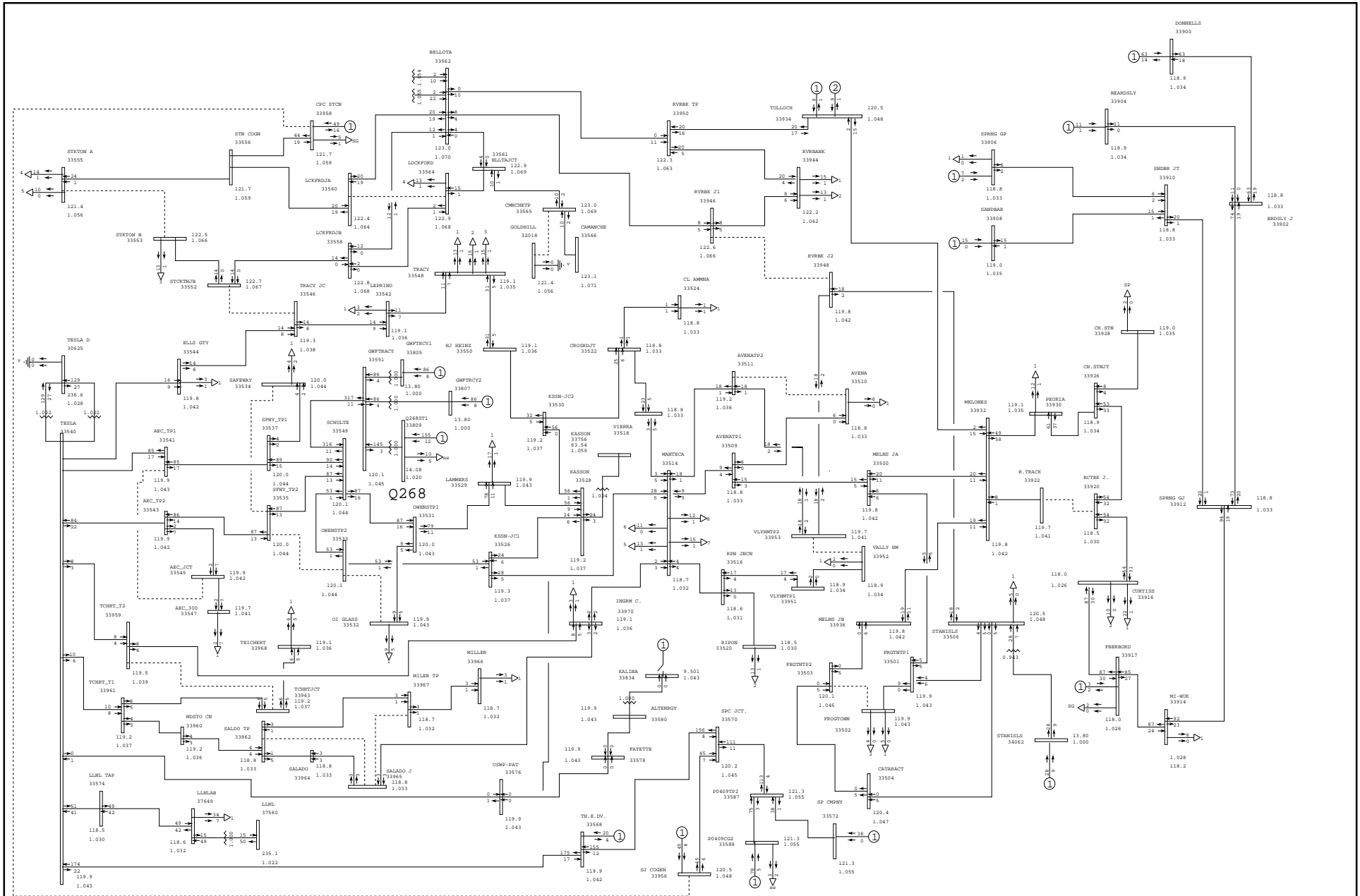


PG&E 2007 CASE SERIES: 2013 Summer Off Peak Pre-Project Case
 PATH15= 2898 MW(S-N) PATH26= -704 MW(N-S) PDCI=-1846 MW(N-S) COI=-3638 MW(N-S)
 Q268 145 MW at GWF Tracy 115 kV SIS - 2013 Summer Off Peak Pre-Project FY/COD


Plot 010: Normal Conditions

amps/rate
 draw\q268.drw
 Rating = 1

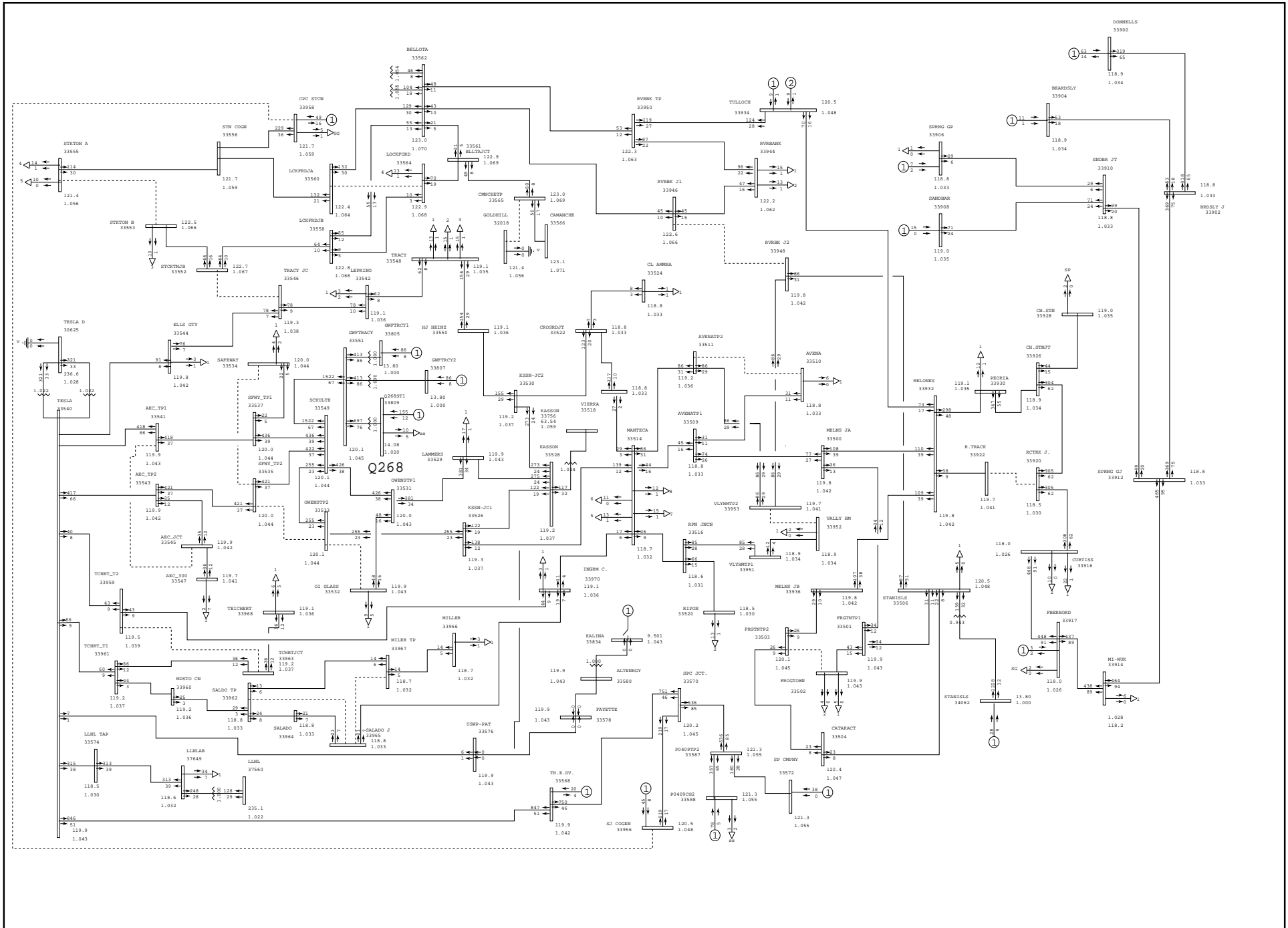
APPENDIX D - STEADY STATE POWER FLOW PLOTS



General Electric International, Inc. PSLF Program Fri Apr 18 09:09:57 2008 cases\sumop\2013sumop_q268_pst.sav

 <p>PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case PATH15= 2765 MW(S-N) PATH26= -712 MW(N-S) PDCI=-1846 MW(N-S) COI=-3645 MW(N-S) Q268 145 MW at GWF Tracy 115 kV SIS - 2013 Summer Off Peak Post-Project FY/COD</p>	<p>Plot 011: Normal Conditions</p>	<p>MW/MVAR draw\q268.drw Rating = 1</p>
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APPENDIX D - STEADY STATE POWER FLOW PLOTS



General Electric International, Inc. PSLF Program Fri Apr 18 09:09:58 2008 cases\sumop\2013sumop_q268_pst.sav

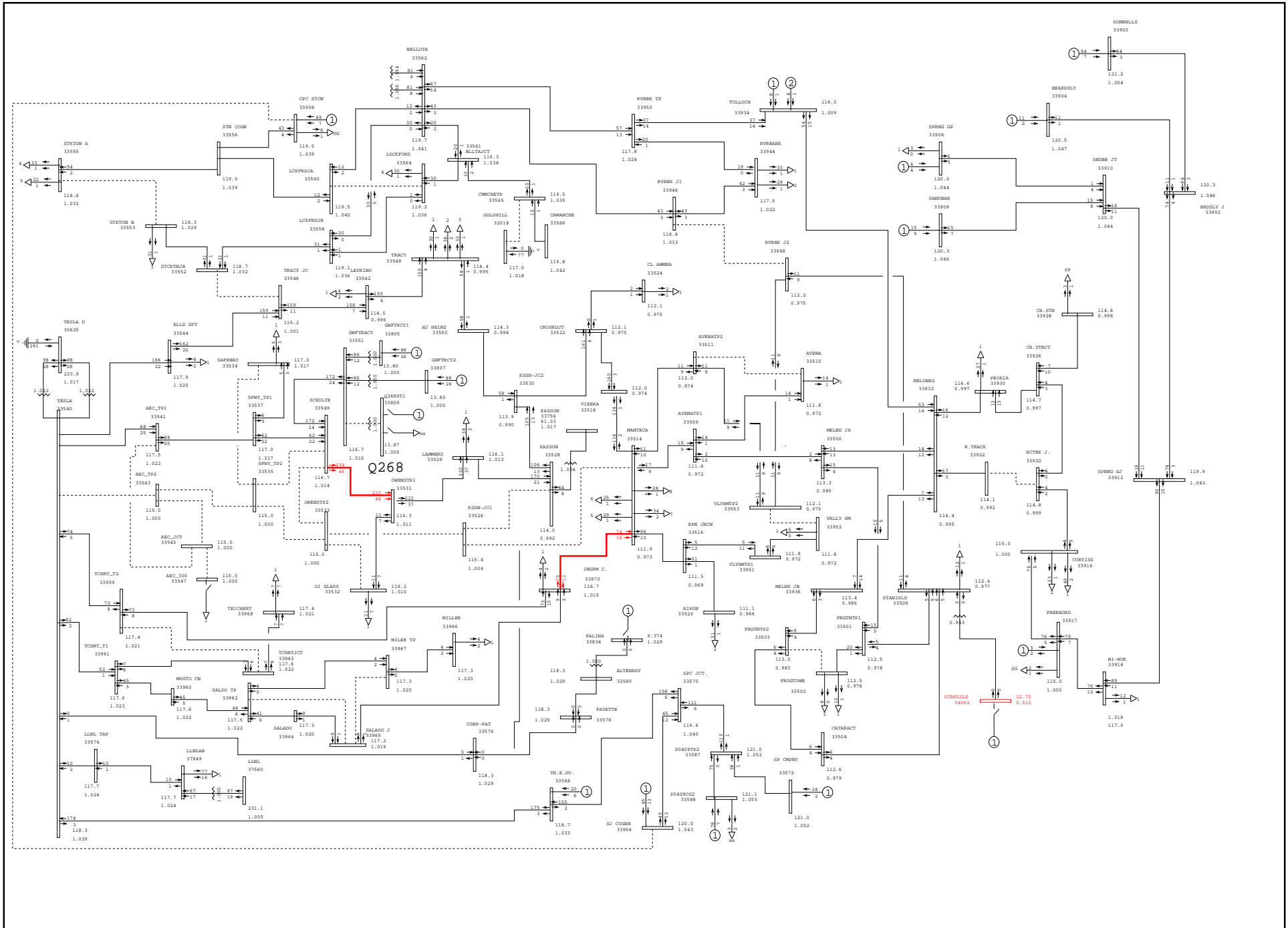


PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case
 PATH15= 2765 MW(S-N) PATH26= -712 MW(N-S) PDCI=-1846 MW(N-S) COI=-3645 MW(N-S)
 Q268 145 MW at GWF Tracy 115 kV SIS - 2013 Summer Off Peak Post-Project FY/COD

Plot 012: Normal Conditions

amps/rate
 draw\q268.drw
 Rating = 1

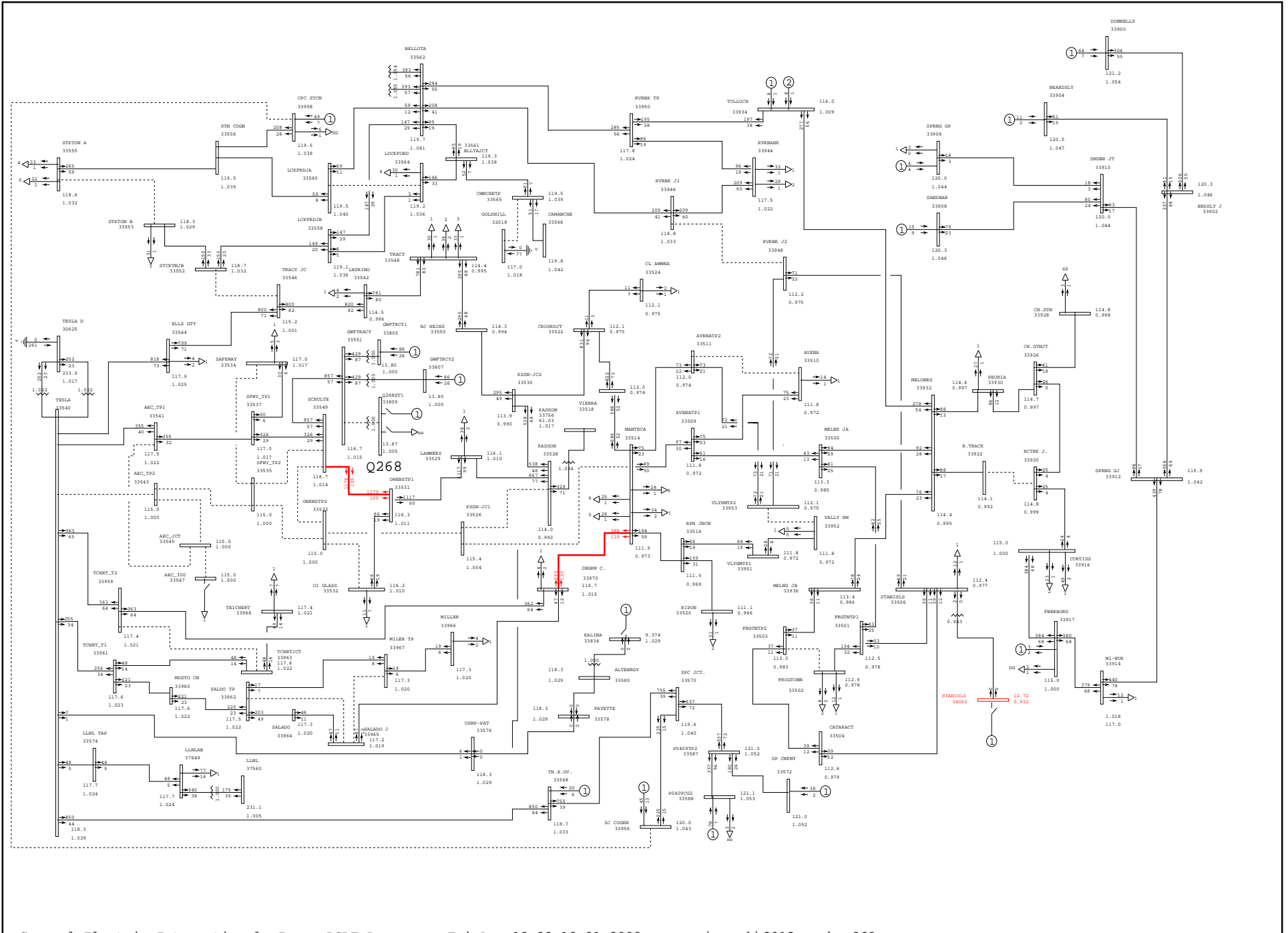
APPENDIX D - STEADY STATE POWER FLOW PLOTS



General Electric International, Inc. PSLF Program Fri Apr 18 09:10:00 2008 cases\sumpk\2013sumpk_q268_pre.sav

	<p>PG&E 2007 CASE SERIES: 2013 Central Valley Summer Peak Pre-Project Case PATH15=-2464 MW(S-N) PATH26= 3838 MW(N-S) PDCI= 2500 MW(N-S) COI= 4638 MW(N-S) Q268 145 MW at GWF Tracy 115 kV SIS - 2013 Summer Peak Pre-Project FY/CO2</p>	<p>Plot 013: Tesla/Schulte - Manteca 115 kV Line and Stanislaus PH Outage</p>	<p>MW/MVAR draw\q268.drw Rating = 2</p>
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APPENDIX D - STEADY STATE POWER FLOW PLOTS



General Electric International, Inc. PSLF Program Fri Apr 18 09:10:01 2008 cases\sumpk\2013sumpk_q268_pre.sav

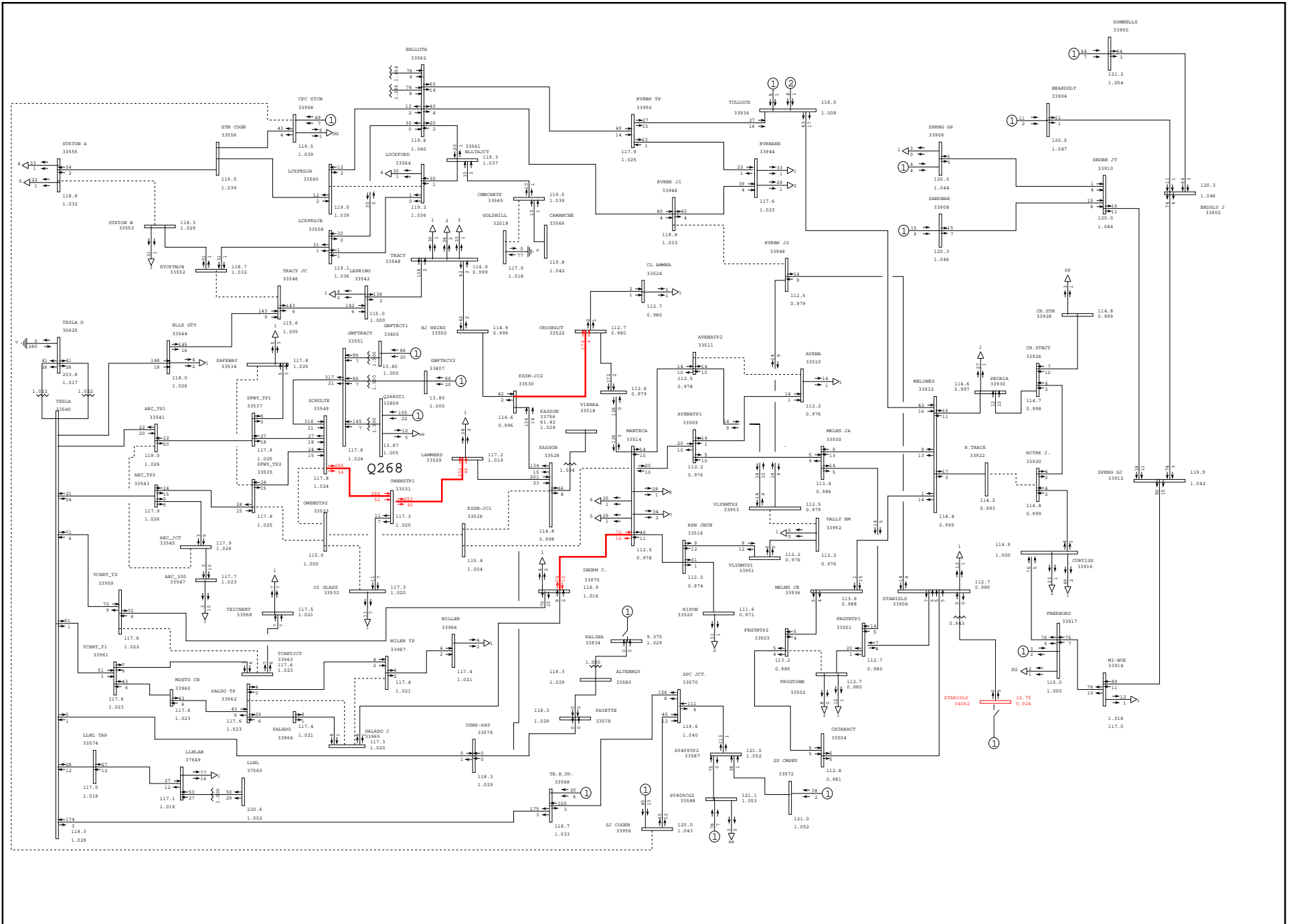


PG&E 2007 CASE SERIES: 2013 Central Valley Summer Peak Pre-Project Case
 PATH15=-2464 MW(S-N) PATH26= 3838 MW(N-S) PDCI= 2500 MW(N-S) COI= 4638 MW(N-S)
 Q268 145 MW at GWF Tracy 115 kV SIS - 2013 Summer Peak Pre-Project FY/COID

Plot 014: Tesla/Schulte - Manteca 115 kV Line and Stanislaus PH Outage

amps/rate
 draw\q268.drw
 Rating = 2

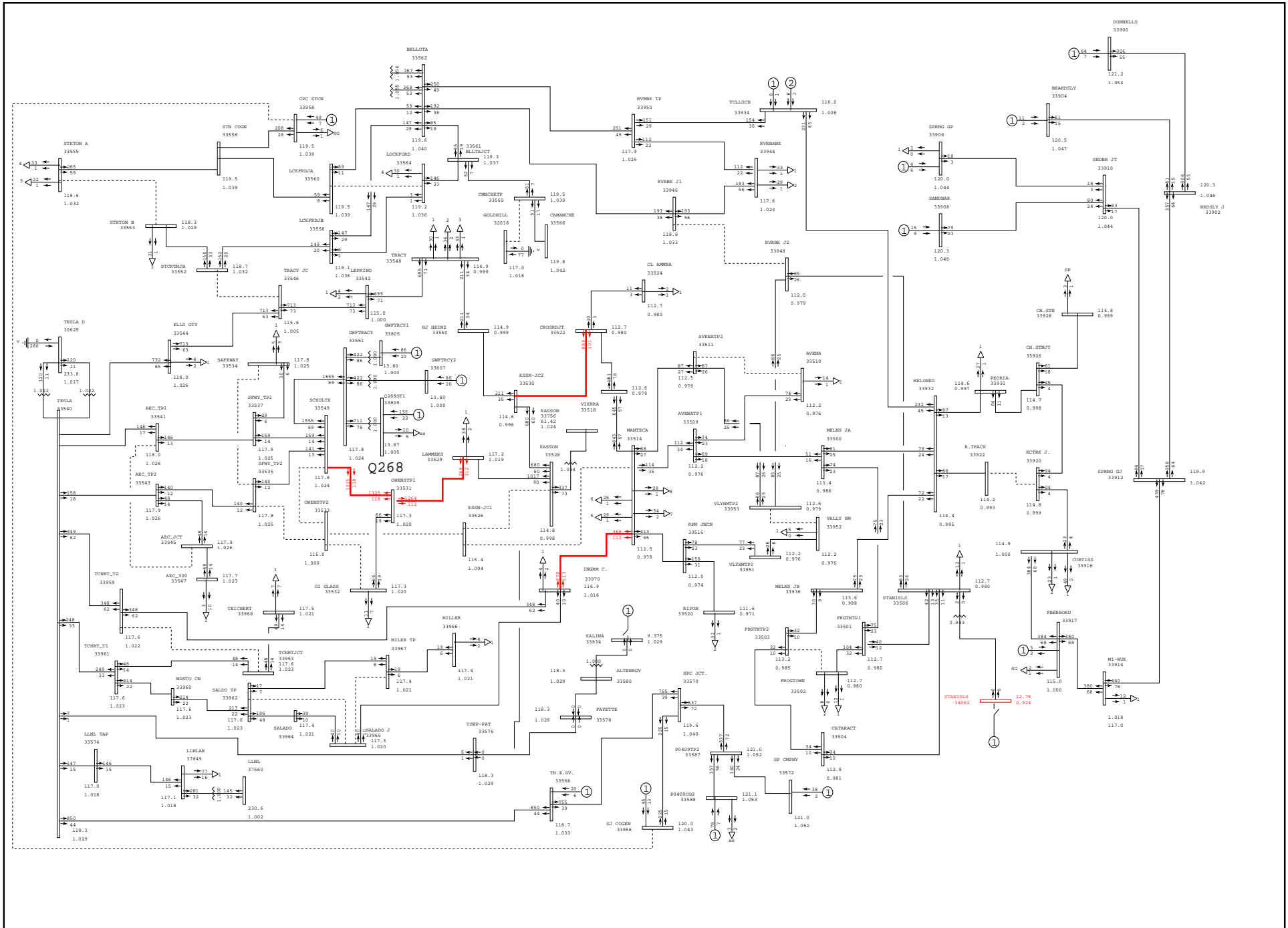
APPENDIX D - STEADY STATE POWER FLOW PLOTS




General Electric International, Inc. PSLF Program Fri Apr 18 09:10:03 2008 cases\sumpk\2013sumpk_q268_pst.sav

	<p>PG&E 2007 CASE SERIES: 2013 Central Valley Summer Peak Post-Project Case PATH15=-2594 MW(S-N) PATH26= 3830 MW(N-S) PDCI= 2500 MW(N-S) COI= 4630 MW(N-S) Q268 145 MW at GWF Tracy 115 kV SIS - 2013 Summer Peak Post-Project FY/COD</p>	<p>Plot 015: Tesla/Schulte - Manteca 115 kV Line and Stanislaus PH Outage</p>	<p>MW/MVAR draw\q268.drw Rating = 2</p>
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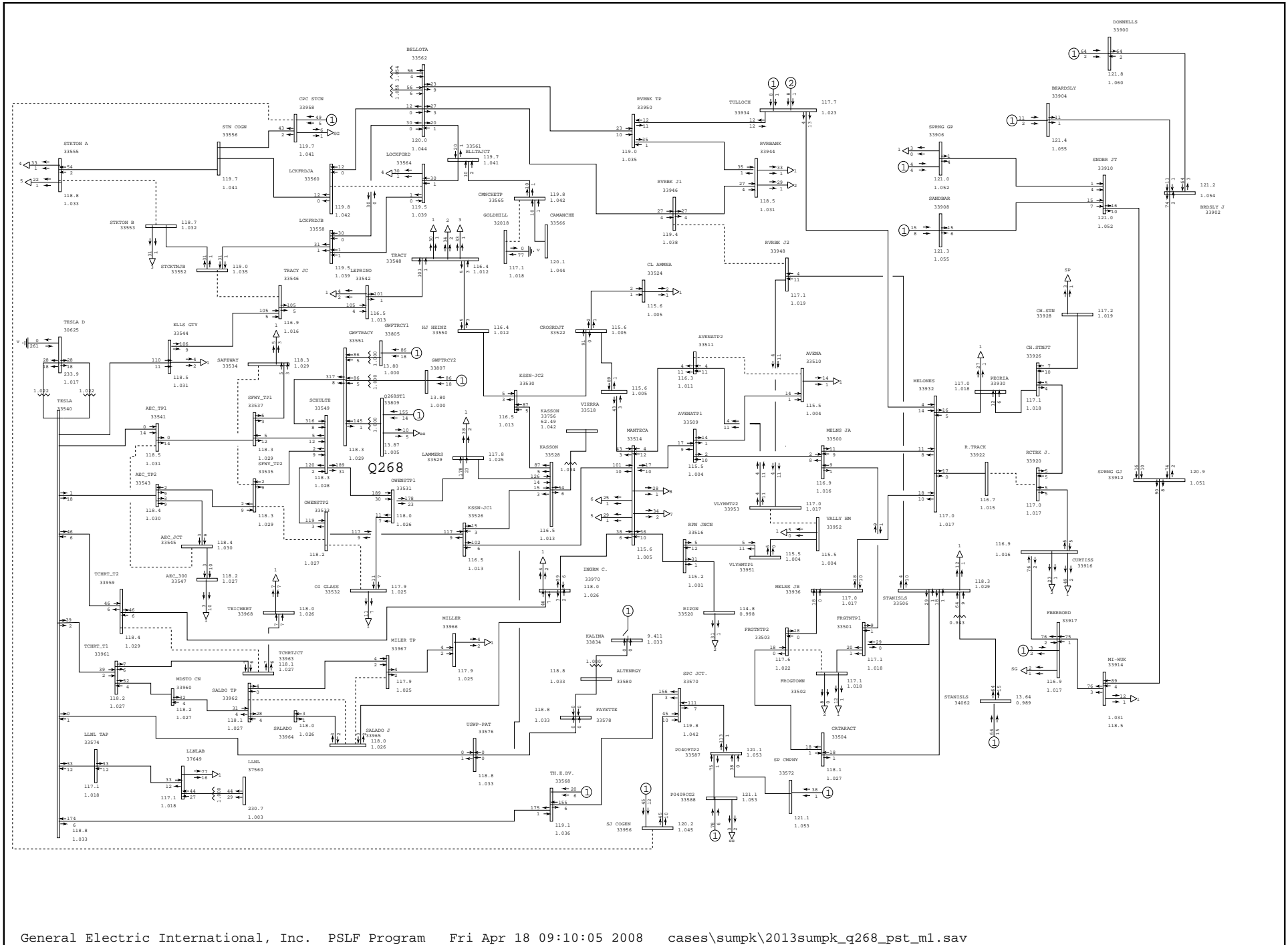
APPENDIX D - STEADY STATE POWER FLOW PLOTS




General Electric International, Inc. PSLF Program Fri Apr 18 09:10:04 2008 cases\sumpk\2013sumpk_q268_pst.sav

	PG&E 2007 CASE SERIES: 2013 Central Valley Summer Peak Post-Project Case PATH15=-2594 MW(S-N) PATH26= 3830 MW(N-S) PDCI= 2500 MW(N-S) COI= 4630 MW(N-S) Q268 145 MW at GWF Tracy 115 kV SIS - 2013 Summer Peak Post-Project FY/COD	Plot 016: Tesla/Schulte - Manteca 115 kV Line and Stanislaus PH Outage amps/rate draw\q268.drw Rating = 2
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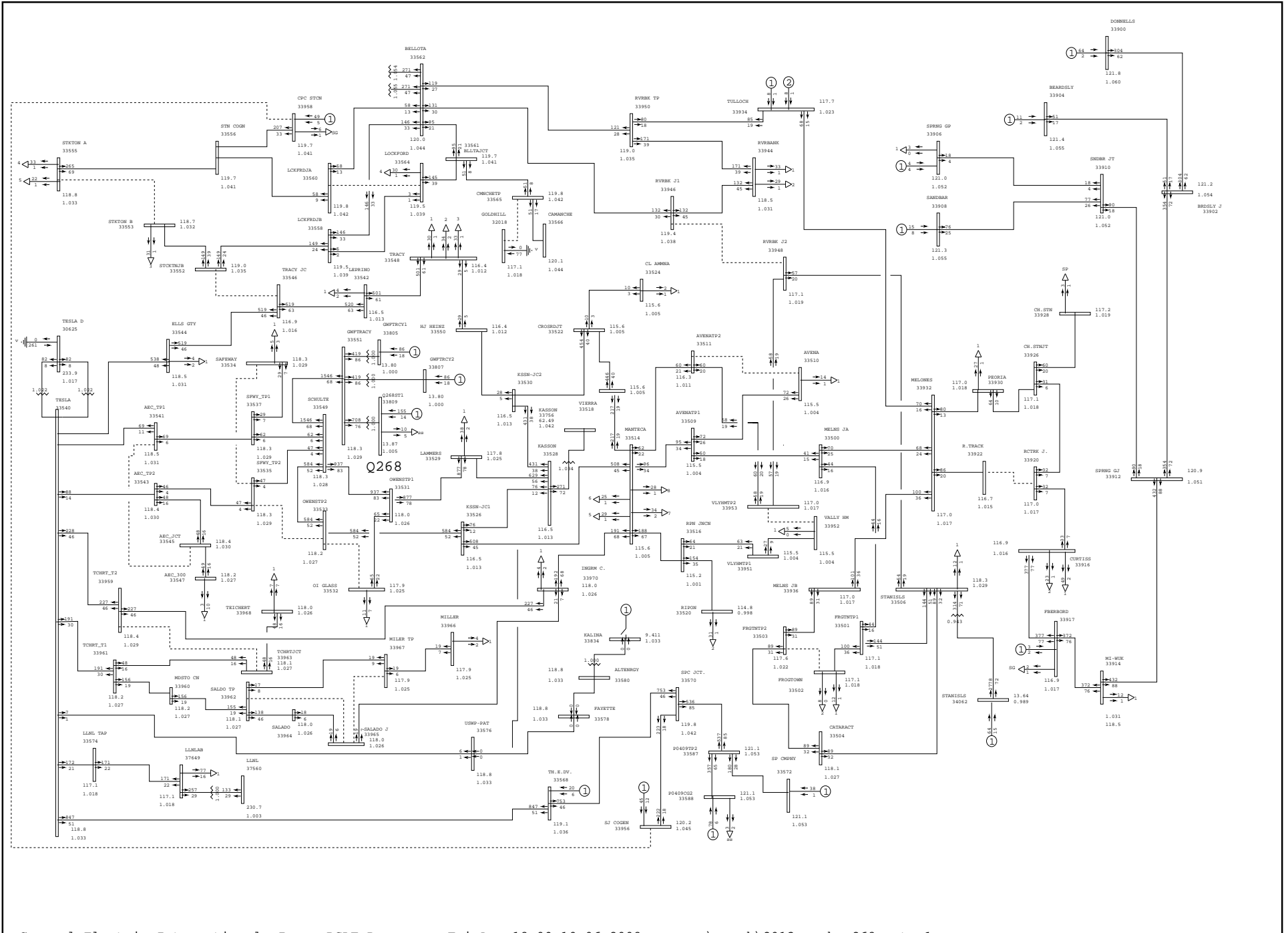
APPENDIX D - STEADY STATE POWER FLOW PLOTS



General Electric International, Inc. PSLF Program Fri Apr 18 09:10:05 2008 cases\sumpk\2013sumpk_q268_pst_m1.sav

	PG&E 2007 CASE SERIES: 2013 Central Valley Summer Peak Post-Project Case PATH15=-2594 MW(S-N) PATH26= 3830 MW(N-S) PDCI= 2500 MW(N-S) COI= 4630 MW(N-S) Q268 145 MW at GWF Tracy 115 kV SIS - 2013 Summer Peak Post-Project FY/COD M1	Plot 017: Mitigation 1 Normal Conditions MW/MVAR draw\q268.drw Rating = 1
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APPENDIX D - STEADY STATE POWER FLOW PLOTS



General Electric International, Inc. PSLF Program Fri Apr 18 09:10:06 2008 cases\sumpk\2013sumpk_q268_pst_m1.sav

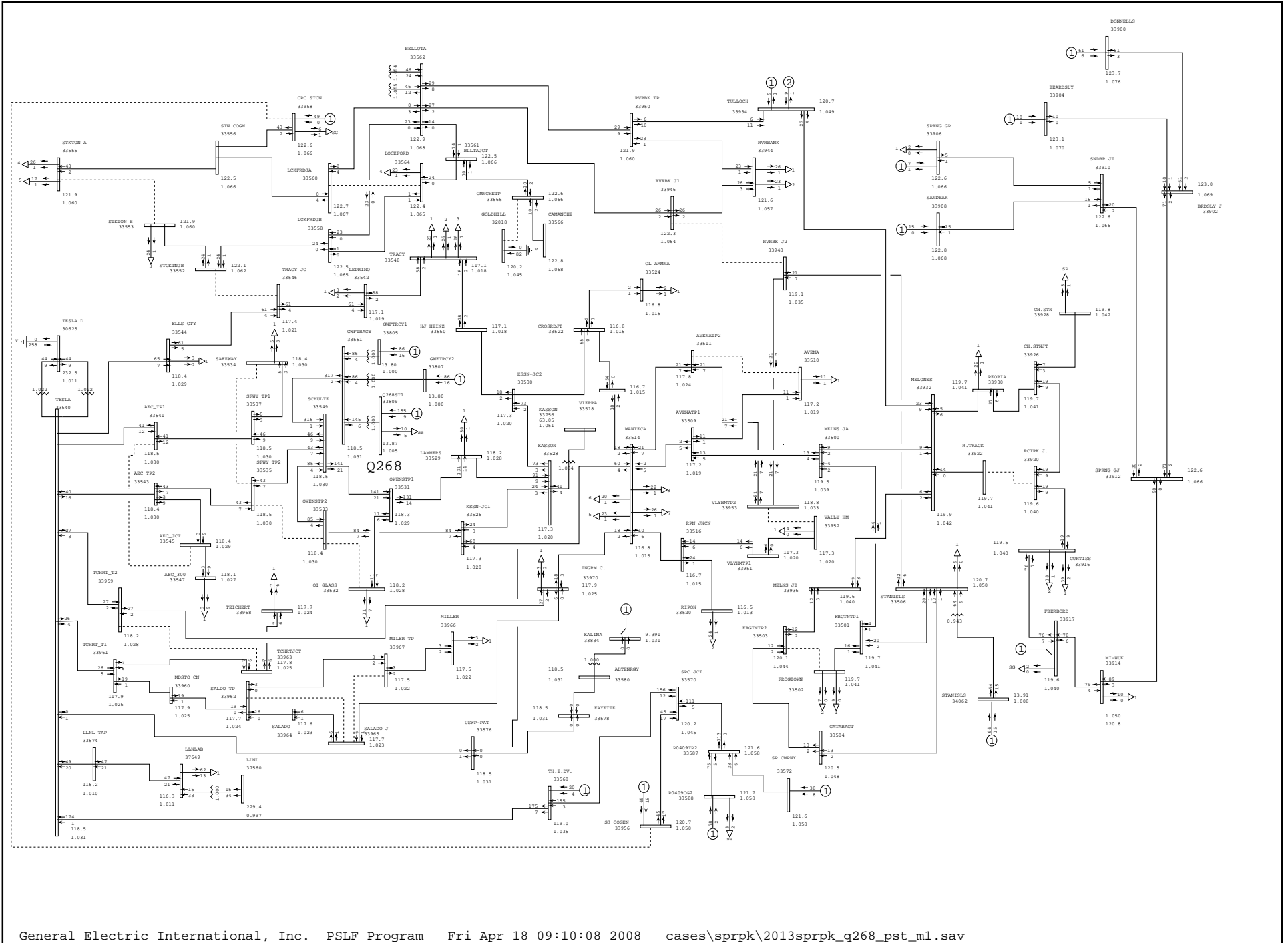


PG&E 2007 CASE SERIES: 2013 Central Valley Summer Peak Post-Project Case
 PATH15=-2594 MW(S-N) PATH26= 3830 MW(N-S) PDCI= 2500 MW(N-S) COI= 4630 MW(N-S)
 Q268 145 MW at GWF Tracy 115 kV SIS - 2013 Summer Peak Post-Project FY/COD M1

Plot 018: Mitigation 1 Normal Conditions

amps/rate
 draw\q268.drw
 Rating = 1

APPENDIX D - STEADY STATE POWER FLOW PLOTS



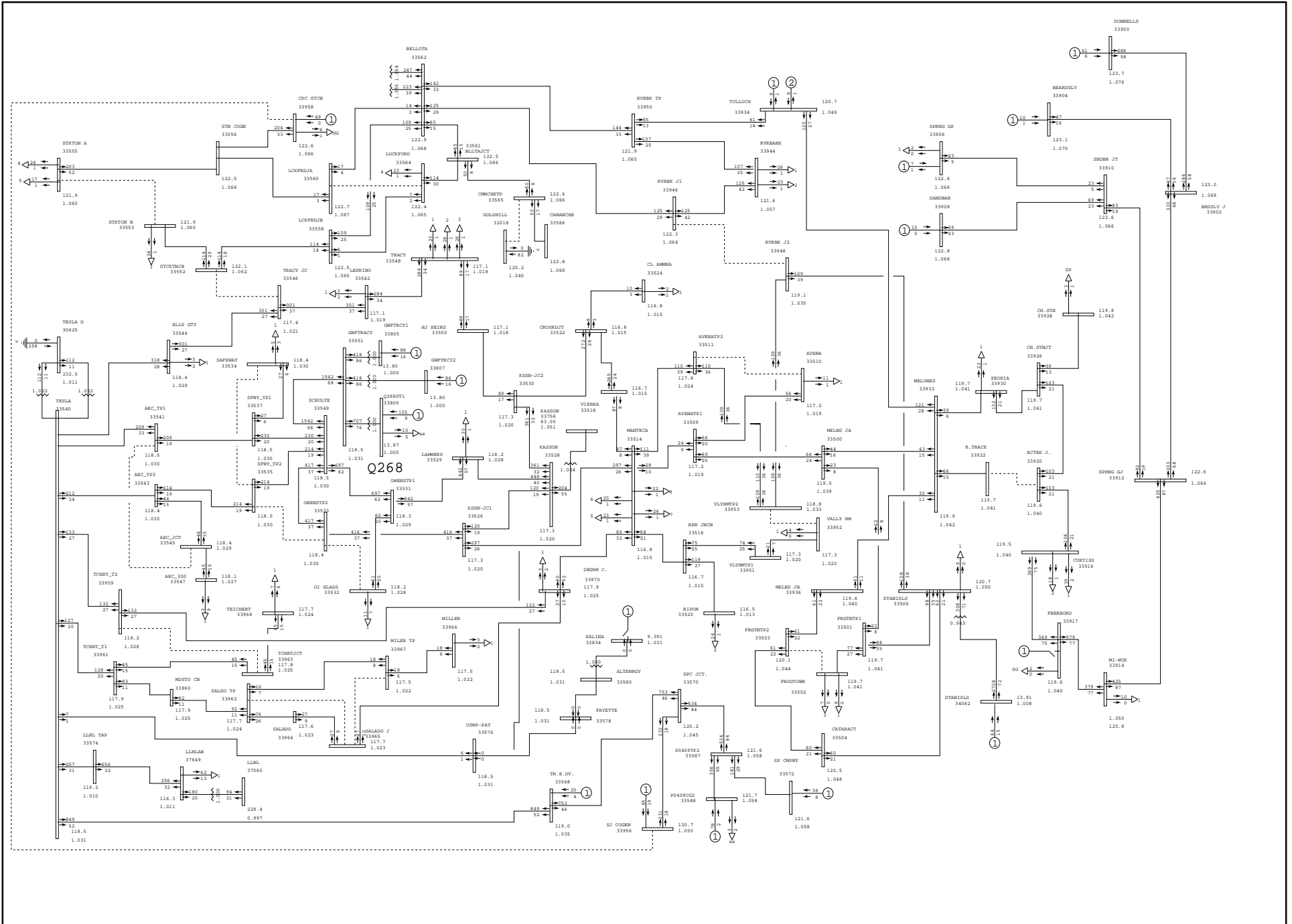
General Electric International, Inc. PSLF Program Fri Apr 18 09:10:08 2008 cases\sprpk\2013sprpk_q268_pst_m1.sav



PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case
 PATH15=-2441 MW(S-N) PATH26= 2593 MW(N-S) PDCI= 3097 MW(N-S) COI= 4410 MW(N-S)
 Q268 145 MW at GWF Tracy 115 kV SIS - 2013 Spring Peak Post-Project FY/COD M1

Plot 019: Mitigation 1 Normal Conditions
 MW/MVAR
 draw\q268.drw
 Rating = 1

APPENDIX D - STEADY STATE POWER FLOW PLOTS



General Electric International, Inc. PSLF Program Fri Apr 18 09:10:09 2008 cases\sprpk\2013sprpk_q268_pst_m1.sav

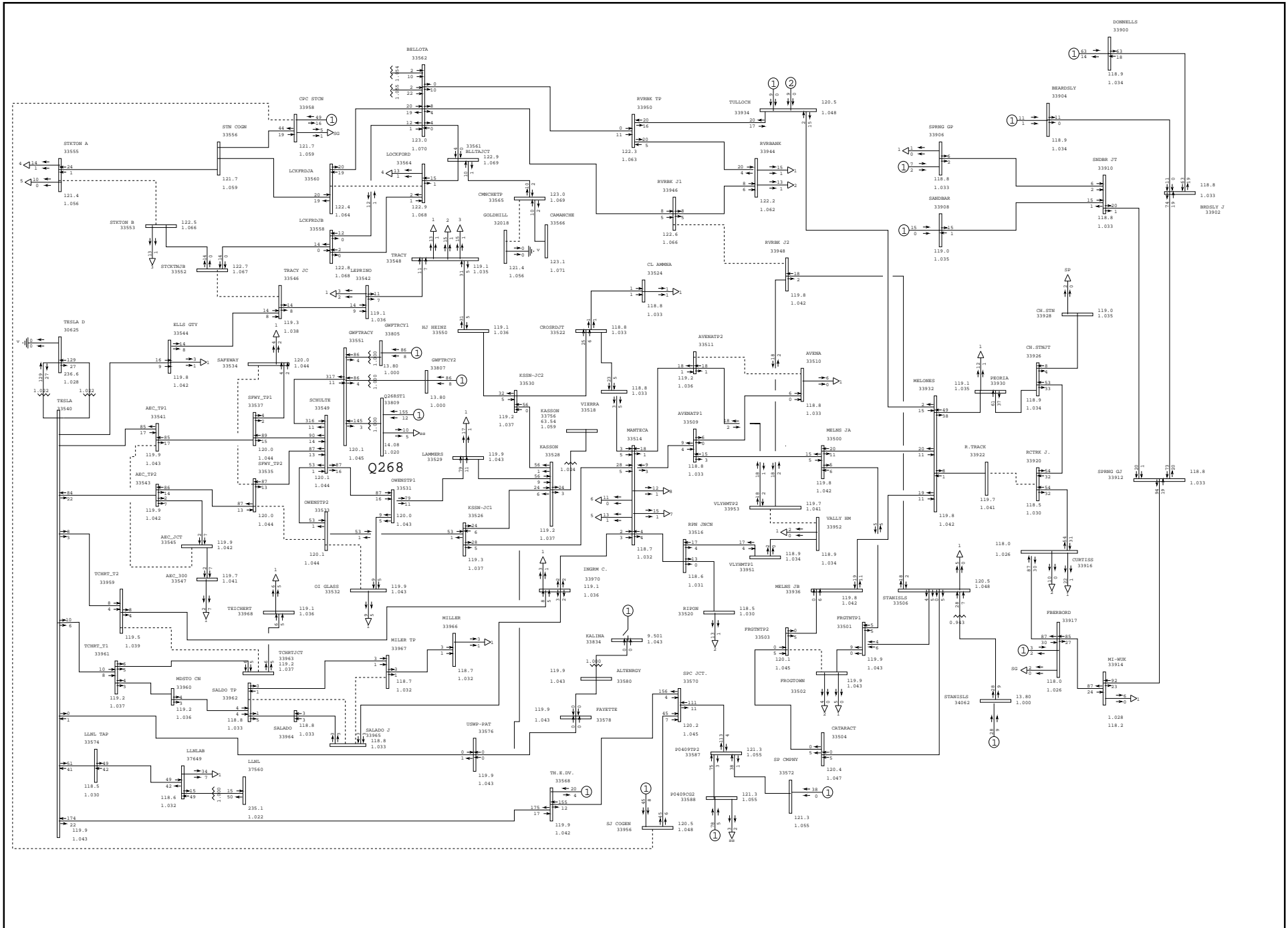


PG&E 2007 CASE SERIES: 2013 Spring Peak Post-Project Case
 PATH15=-2441 MW(S-N) PATH26= 2593 MW(N-S) PDCI= 3097 MW(N-S) COI= 4410 MW(N-S)
 Q268 145 MW at GWF Tracy 115 kV SIS - 2013 Spring Peak Post-Project FY/COD M1


Plot 020: Mitigation 1 Normal Conditions

amps/rate
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 Rating = 1

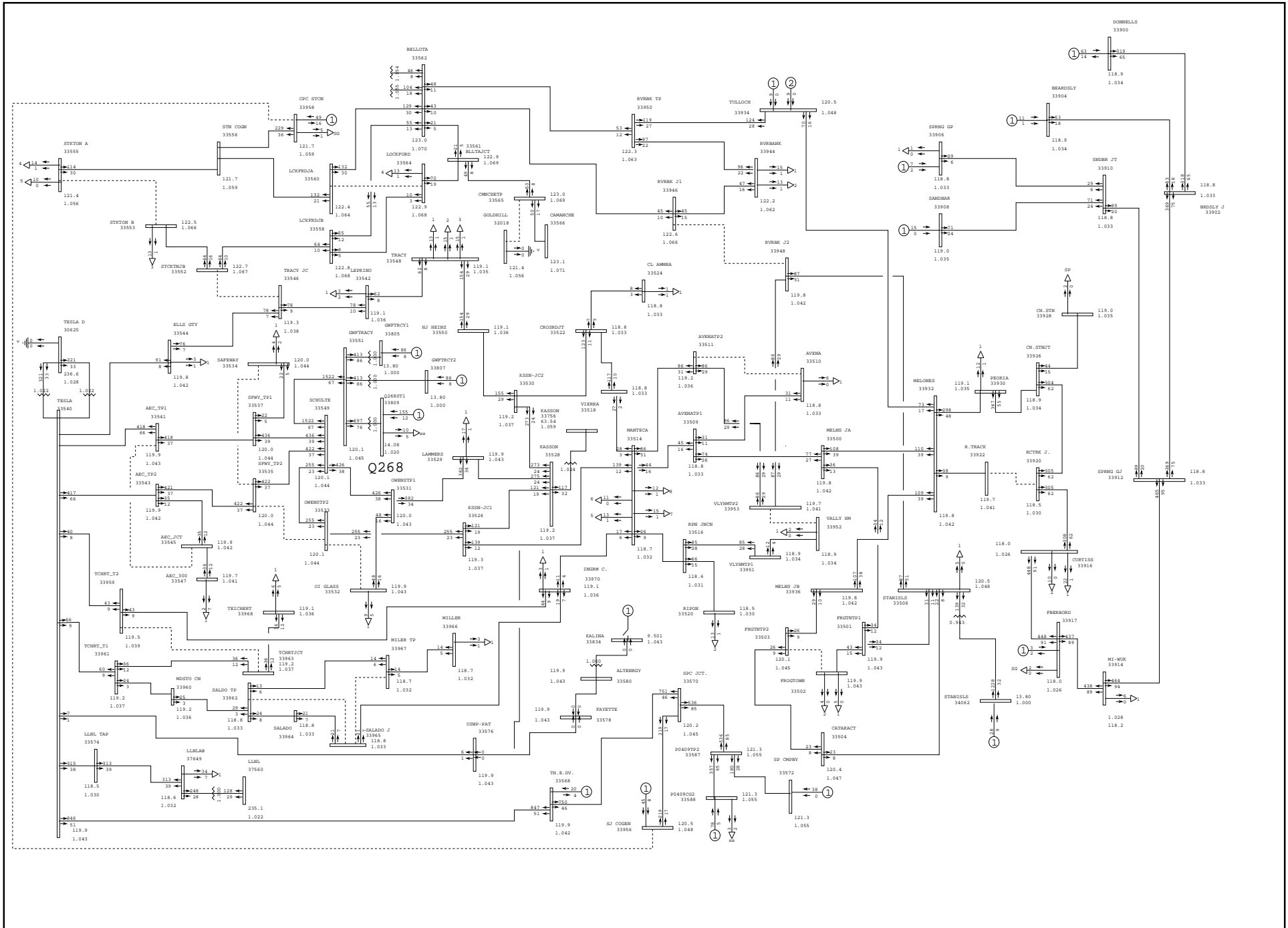
APPENDIX D - STEADY STATE POWER FLOW PLOTS



General Electric International, Inc. PSLF Program Fri Apr 18 09:10:10 2008 cases\sumop\2013sumop_q268_pst_m1.sav

	PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case PATH15= 2765 MW(S-N) PATH26= -712 MW(N-S) PDCI=-1846 MW(N-S) COI=-3645 MW(N-S) Q268 145 MW at GWF Tracy 115 kV SIS-2013 Summer Off Peak Post-Project FY/COD M1	Plot 021: Mitigation 1 Normal Conditions	MW/MVAR draw\q268.drw Rating = 1
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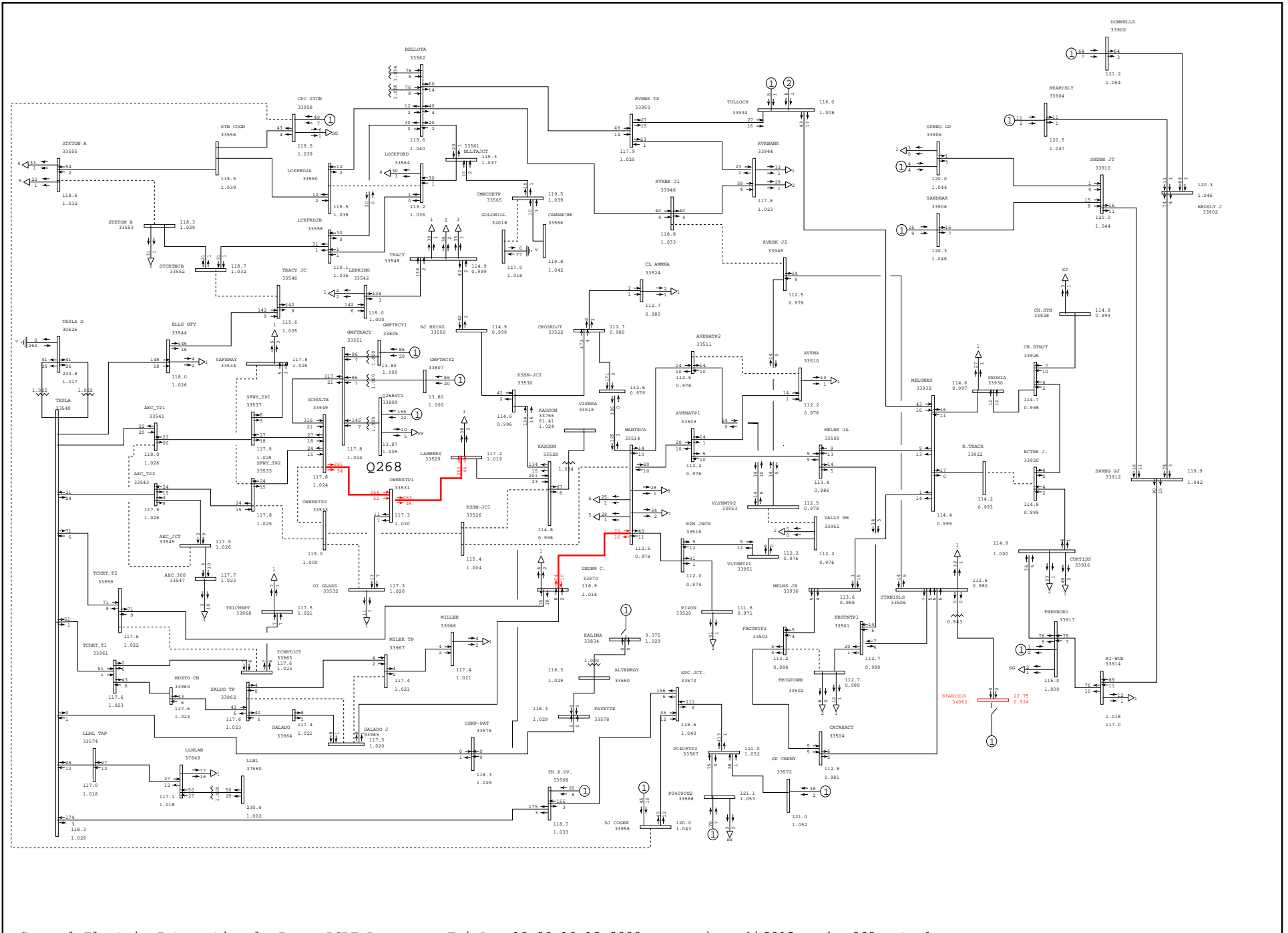
APPENDIX D - STEADY STATE POWER FLOW PLOTS



General Electric International, Inc. PSLF Program Fri Apr 18 09:10:11 2008 cases\sumop\2013sumop_q268_pst_m1.sav

	PG&E 2007 CASE SERIES: 2013 Summer Off Peak Post-Project Case PATH15= 2765 MW(S-N) PATH26= -712 MW(N-S) PDCI=-1846 MW(N-S) COI=-3645 MW(N-S) Q268 145 MW at GWF Tracy 115 kV SIS-2013 Summer Off Peak Post-Project FY/COD M1	Plot 022: Mitigation 1 Normal Conditions		amps/rate draw\q268.drw Rating = 1
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APPENDIX D - STEADY STATE POWER FLOW PLOTS



General Electric International, Inc. PSLF Program Fri Apr 18 09:10:13 2008 cases\sumpk\2013sumpk_q268_pst_m1.sav

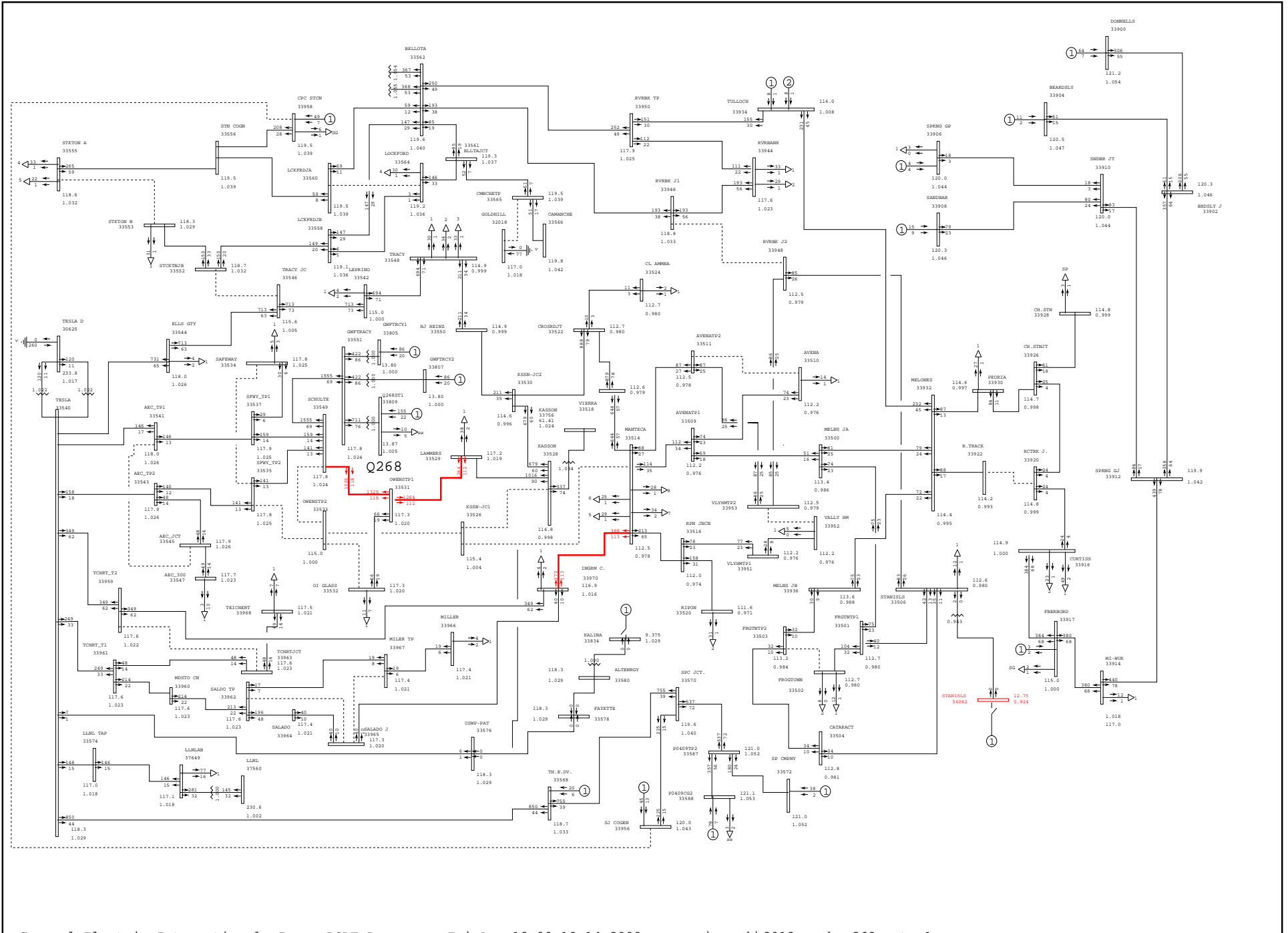


PG&E 2007 CASE SERIES: 2013 Central Valley Summer Peak Post-Project Case
 PATH15=-2594 MW(S-N) PATH26= 3830 MW(N-S) PDCI= 2500 MW(N-S) COI= 4630 MW(N-S)
 Q268 145 MW at GWF Tracy 115 kV SIS - 2013 Summer Peak Post-Project FY/COD M1

Plot 023: Mitigation 1
 Tesla/Schulte - Manteca 115 kV Line and Stanislaus PH Outage

MW/MVAR
 draw\q268.drw
 Rating = 2

APPENDIX D - STEADY STATE POWER FLOW PLOTS



General Electric International, Inc. PSLF Program Fri Apr 18 09:10:14 2008 cases\sumpk\2013sumpk_q268_pst_m1.sav



PG&E 2007 CASE SERIES: 2013 Central Valley Summer Peak Post-Project Case
 PATH15=-2594 MW(S-N) PATH26= 3830 MW(N-S) PDCI= 2500 MW(N-S) COI= 4630 MW(N-S)
 Q268 145 MW at GWF Tracy 115 kV SIS - 2013 Summer Peak Post-Project FY/COD M1

Plot 024: Mitigation 1
 Tesla/Schulte - Manteca 115 kV Line and Stanislaus PH Outage

amps/rate
 draw\q268.drw
 Rating = 2

Appendix E

Generator Machine Dynamic Data

Machine Data: Model: GENTPF

Variable	Description	Value
Tdop	D-axis transient rotor time constant, sec	10
Tppdo	D-axis sub-transient rotor time constant, sec	.035
Tpqo	Q-axis transient rotor time constant, sec	1.5
Tppqo	Q-axis sub-transient rotor time constant, sec	0.10
H	Inertia constant, sec	4.11
D	Damping factor, pu	0.00
Ld	D-axis synchronous reactance, pu	1.832
Lq	Q-axis synchronous reactance, pu	1.59
Lpd	D-axis transient reactance, pu	0.2156
Lpq	Q-axis transient reactance, pu	0.70
Lppd	D-axis subtransient reactance, pu	0.1654
Lppq	Q-axis subtransient reactance, pu	0.1654
Ll	Stator leakage reactance, pu	0.104
s1	Saturation factor at 1 pu flux	0.2075
s12	Saturation factor at 1.2 pu flux	0.501
Ra	Stator resistance, pu	0.0058
Rcomp	Compounding resistance voltage control, pu	0.00
Xcomp	Compounding reactance voltage control, pu	0.00

Excitation Data: Model: EXAC1

Variable	Description	Value
Tr	Voltage transducer time constant, sec	0.01
Tb	Lag time constant, sec	.01667
Tc	Lead time constant, sec	0.01
Ka	Voltage regulator gain	600.000
Ta	Voltage regulator time constant, sec	.04
Vamax	Maximum control element, p.u.	5.0
Vamin	Minimum control element, p.u.	-5.0
Te	Exciter time constant, sec	0.15
Kf	Rate feedback gain	0.04
Tf	Rate feedback time constant, sec	2.0
Kc	Rectifier regulation factor, p.u.	0.0
Kd	Exciter internal reactance, p.u.	0.137
Ke	Exciter field resistance constant, p.u.	0.863
E1	Exciter flux at knee of curve, p.u.	4.0
Se1	Saturation factor at knee	0.01
E2	Maximum exciter, p.u.	5.0
Se2	Saturation factor at max flux	0.02
Vrmax	Maximum controller output, p.u.	5.0
Vrmin	Minimum controller output, p.u.	-5.0

PSS Data:

Model: PSS2a

Variable	Description	Value
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	2.0
tw2	First washout on signal #1, sec	2.0
tw3	First washout on signal #2, sec	2.0
tw4	First washout on signal #2, sec	0.00
t6	Time constant on signal #1, sec	0.00
t7	Time constant on signal #2, sec	2.0
ks2	Gain signal #2	0.379
ks3	Gain signal #2	1.0
ks4	Gain signal #2	1.0
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	3.0
t1	Lead/lag time constants, sec	0.15
t2	Lead/lag time constants, sec	0.03
t3	Lead/lag time constants, sec	0.15
t4	Lead/lag time constants, sec	0.03
vstmax	Stabilizer output max limit, p.u.	0.1
vstmin	Stabilizer output min limit, p.u.	-0.1
a	Lead/lag num. gain.	0.0
Ta	Lead/lag time constant, sec	2.0
Tb	Lead/lag time constant, sec	2.0

Governor: TGOV1

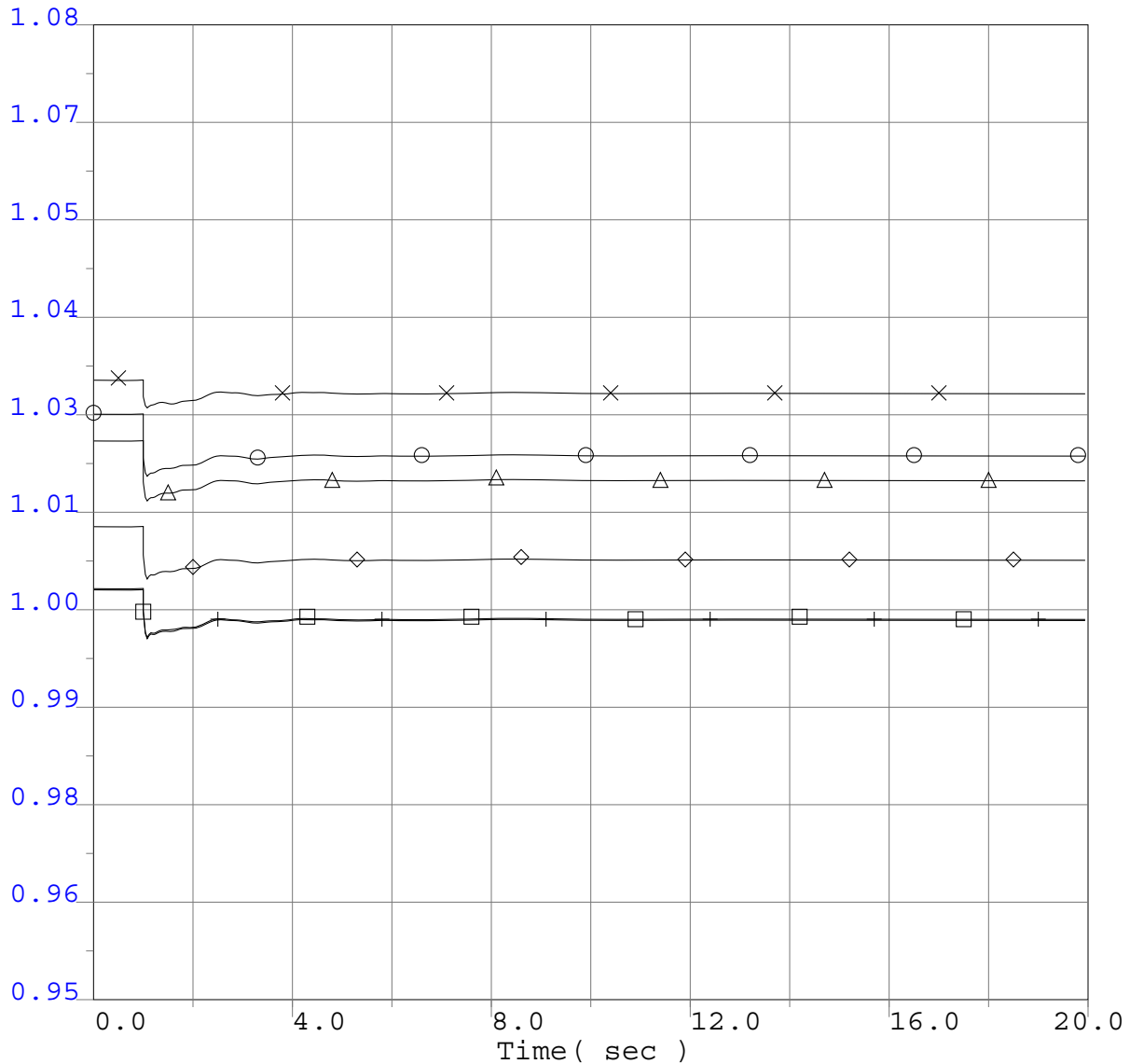
Variable	Description	Value
R	Permanent droop, p.u.	0.05
T1	Steam bowl time constant, sec	0.50
Vmax	Maximum valve position, p.u. of mwcap	1.0
Vmin	Minimum valve position, p.u. of mwcap	0.0
T2	Numerator time constant of T2, T3 block, sec	3.0
T3	Reheater time constant, sec	10.0
Dt	Turbine damping coefficient, p.u.	0

Appendix F

Dynamic Stability Plots

Q268 Project Interconnection System Impact Study

Selected PG&E Bus Voltage Plots Adjacent to Fault



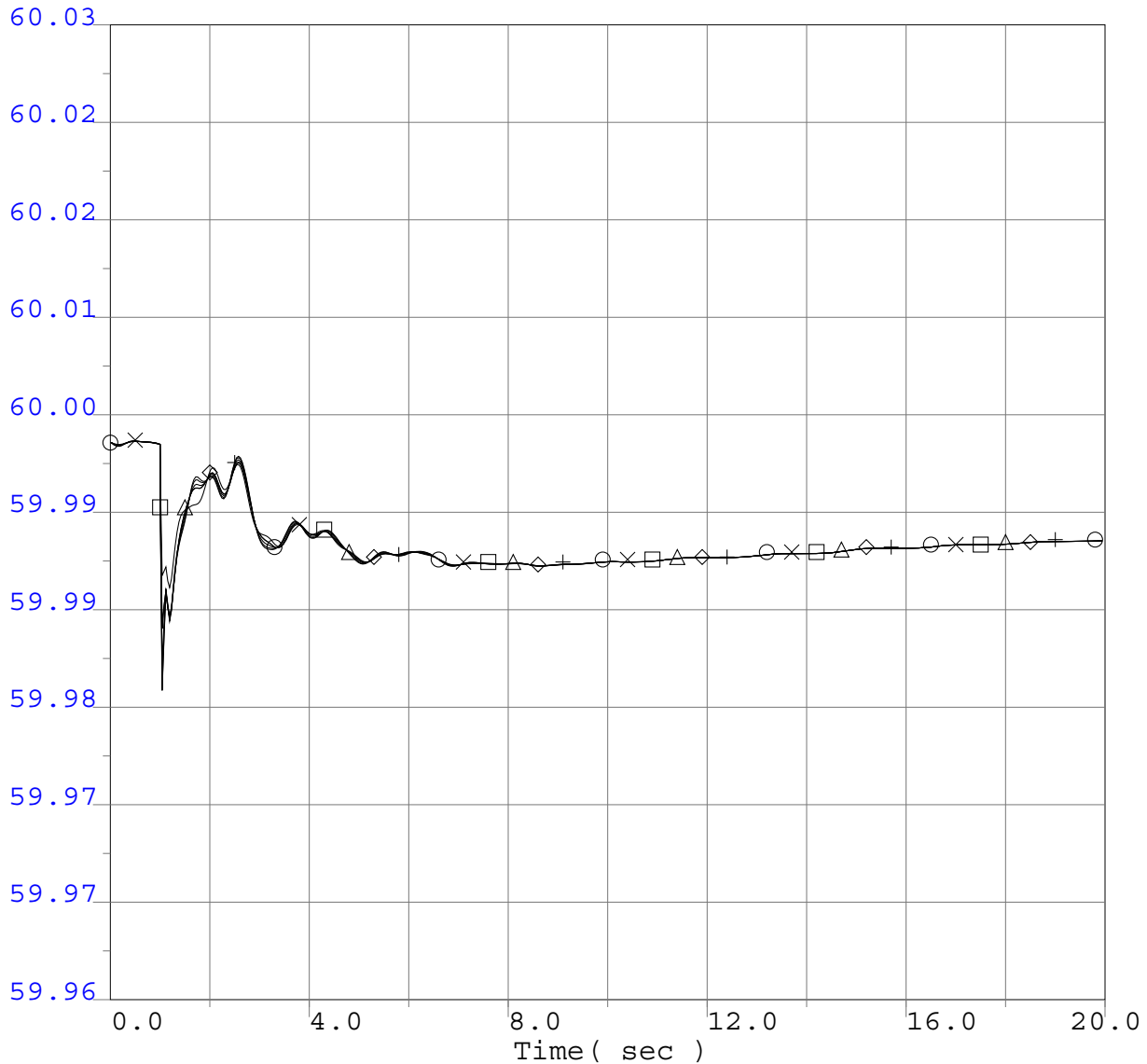
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□	0.9500 vbus	33540	TESLA 115.0	0	0.0	""	1	1.0800
△	0.9500 vbul	33514	MANTECA 115.0	0	0.0	""	1	1.0800
◇	0.9500 vbul	33529	LAMMERS 115.0	0	0.0	""	1	1.0800
+	0.9500 vbus	33528	KASSON 115.0	0	0.0	""	1	1.0800
+	0.9500 vbul	33518	VIERRA 115.0	0	0.0	""	1	1.0800

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Q268 Load Rejection
 No Fault Load Rejection



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Frequency Plots Adjacent to Fault



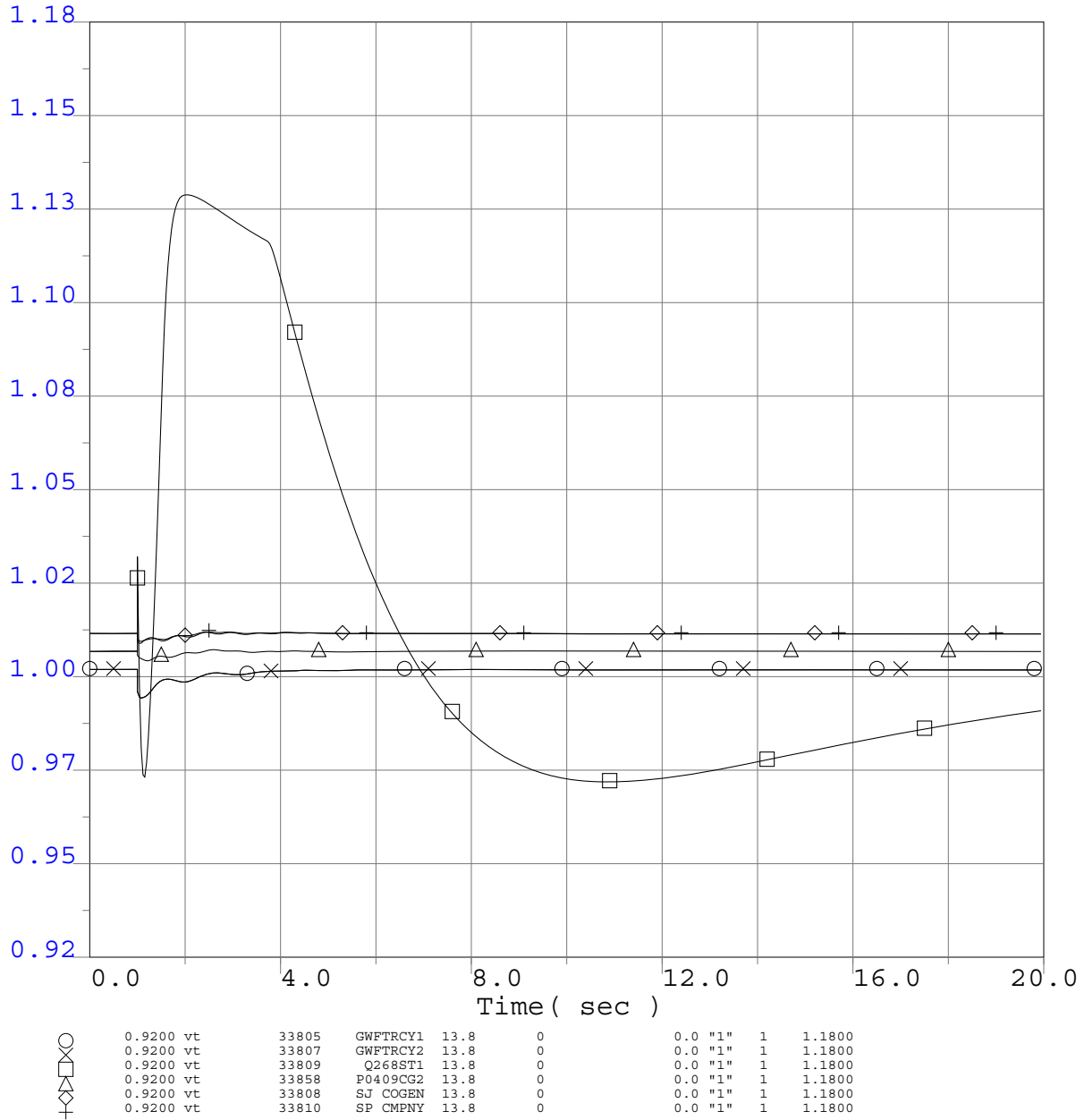
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□	59.9600 Fbus	33540	TESLA 115.0	0	0.0	"**"	1	60.0300
△	59.9600 Fbul	33514	MANTECA 115.0	0	0.0	"**"	1	60.0300
◇	59.9600 Fbul	33529	LAMMERS 115.0	0	0.0	"**"	1	60.0300
+	59.9600 Fbus	33528	KASSON 115.0	0	0.0	"**"	1	60.0300
×	59.9600 Fbul	33518	VIERRA 115.0	0	0.0	"**"	1	60.0300

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Q268 Load Rejection
 No Fault Load Rejection



Q268 Project Interconnection System Impact Study

Project Generator Terminal Voltages

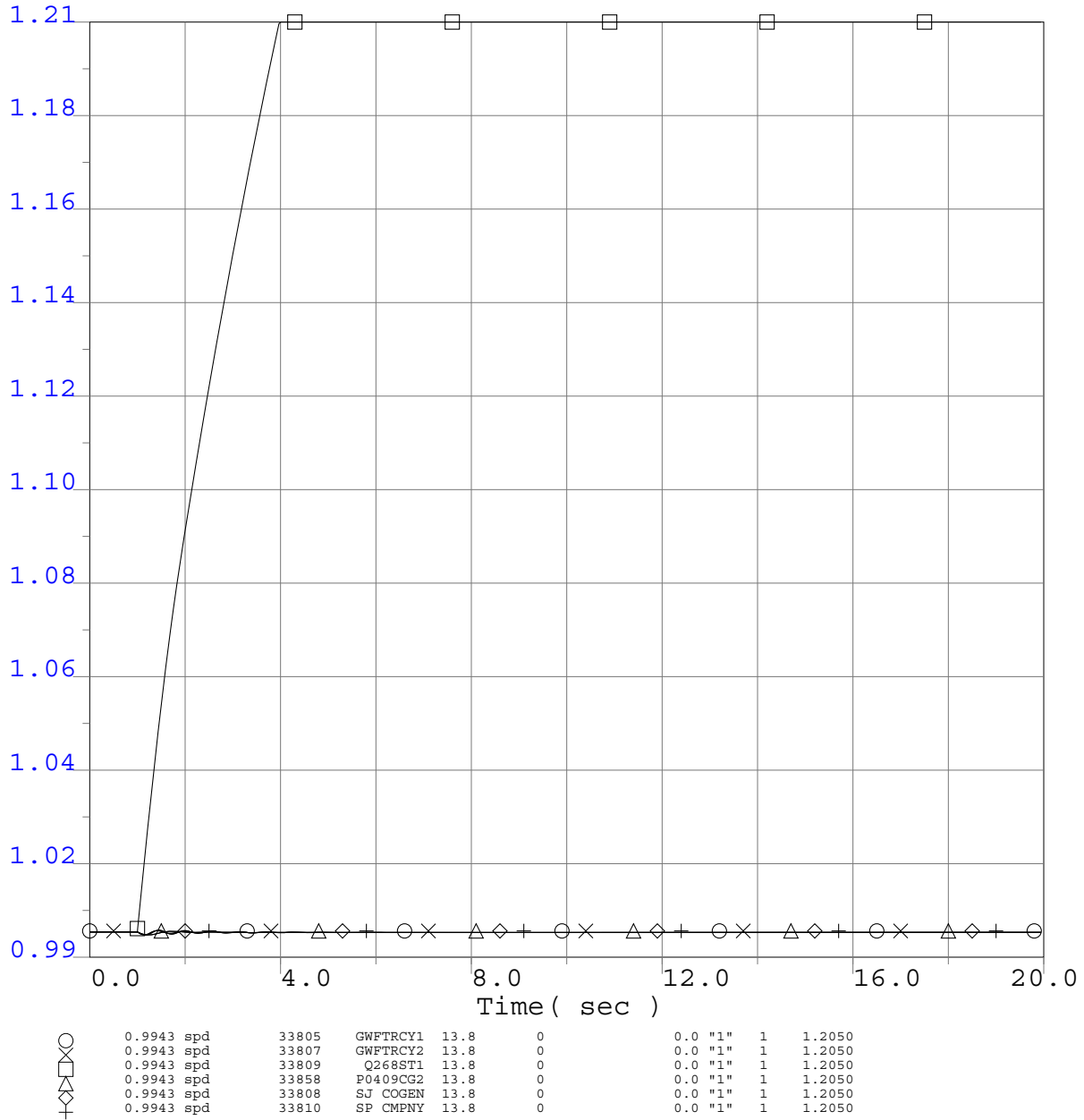


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Q268 Load Rejection
 No Fault Load Rejection



Q268 Project Interconnection System Impact Study

Project Generator Rotor Speed

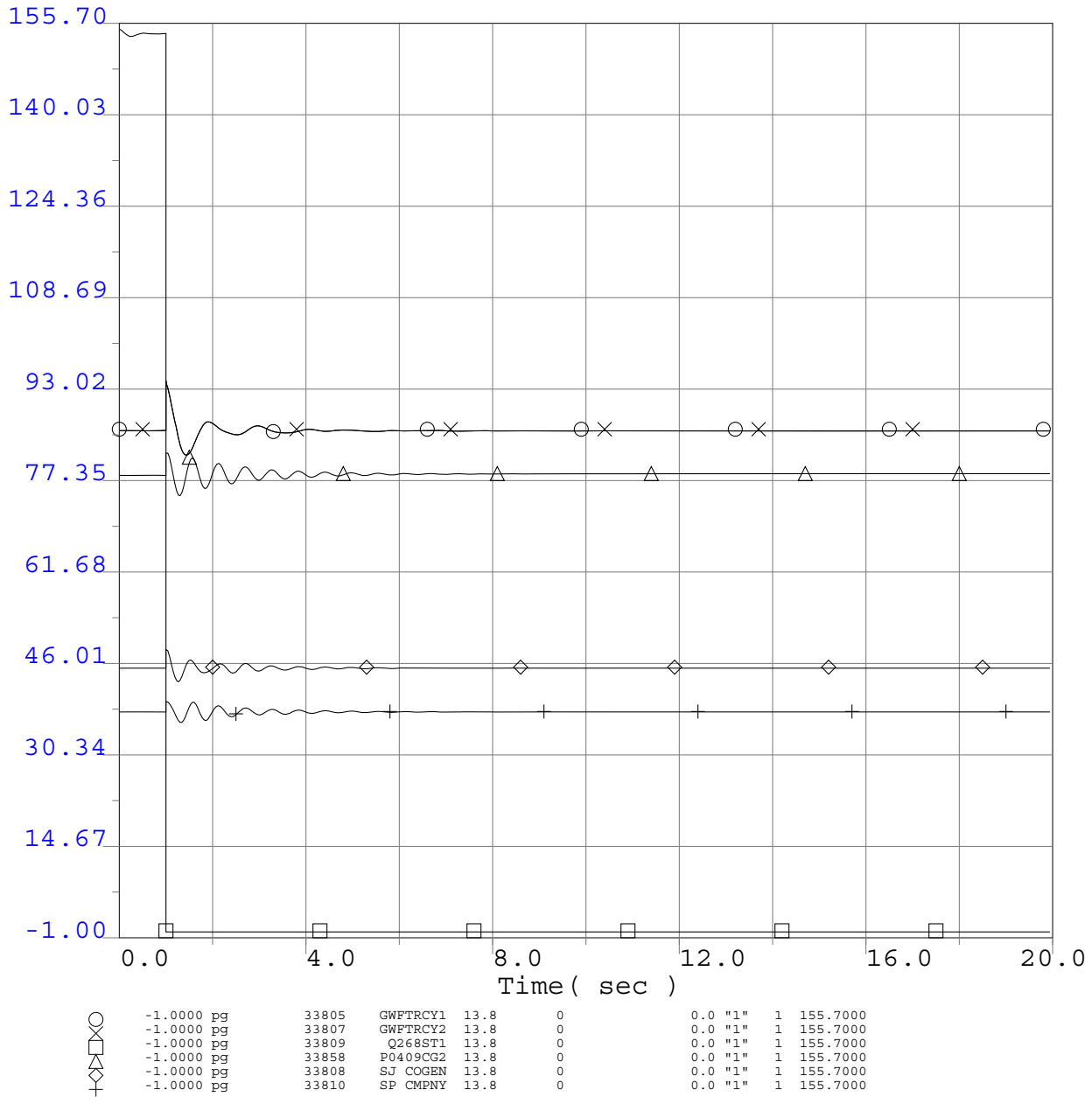


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Q268 Load Rejection
 No Fault Load Rejection



Q268 Project Interconnection System Impact Study

Project Generator Terminal Power

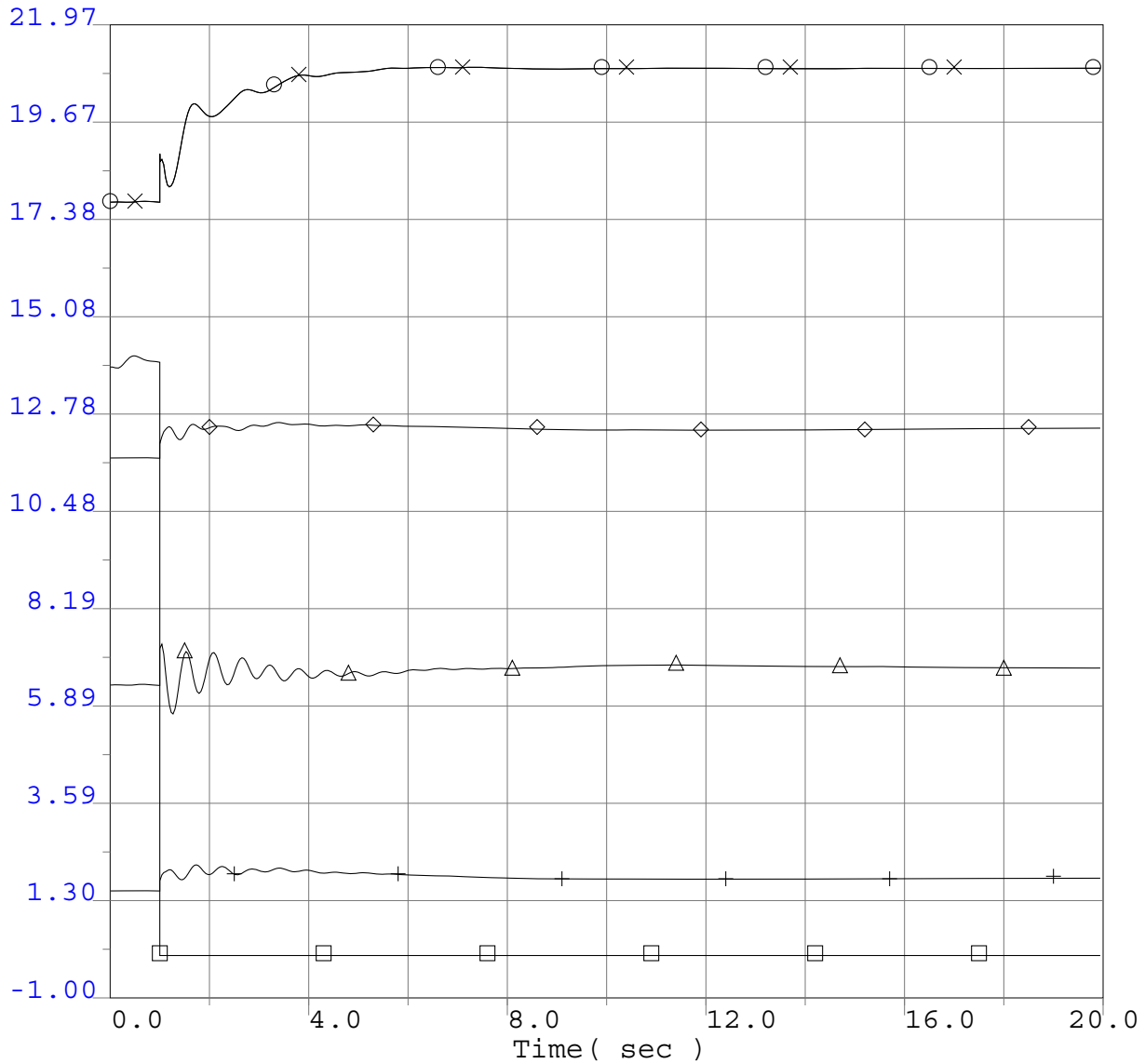


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Q268 Load Rejection
 No Fault Load Rejection



Q268 Project Interconnection System Impact Study

Project Generator Terminal Reactive Power



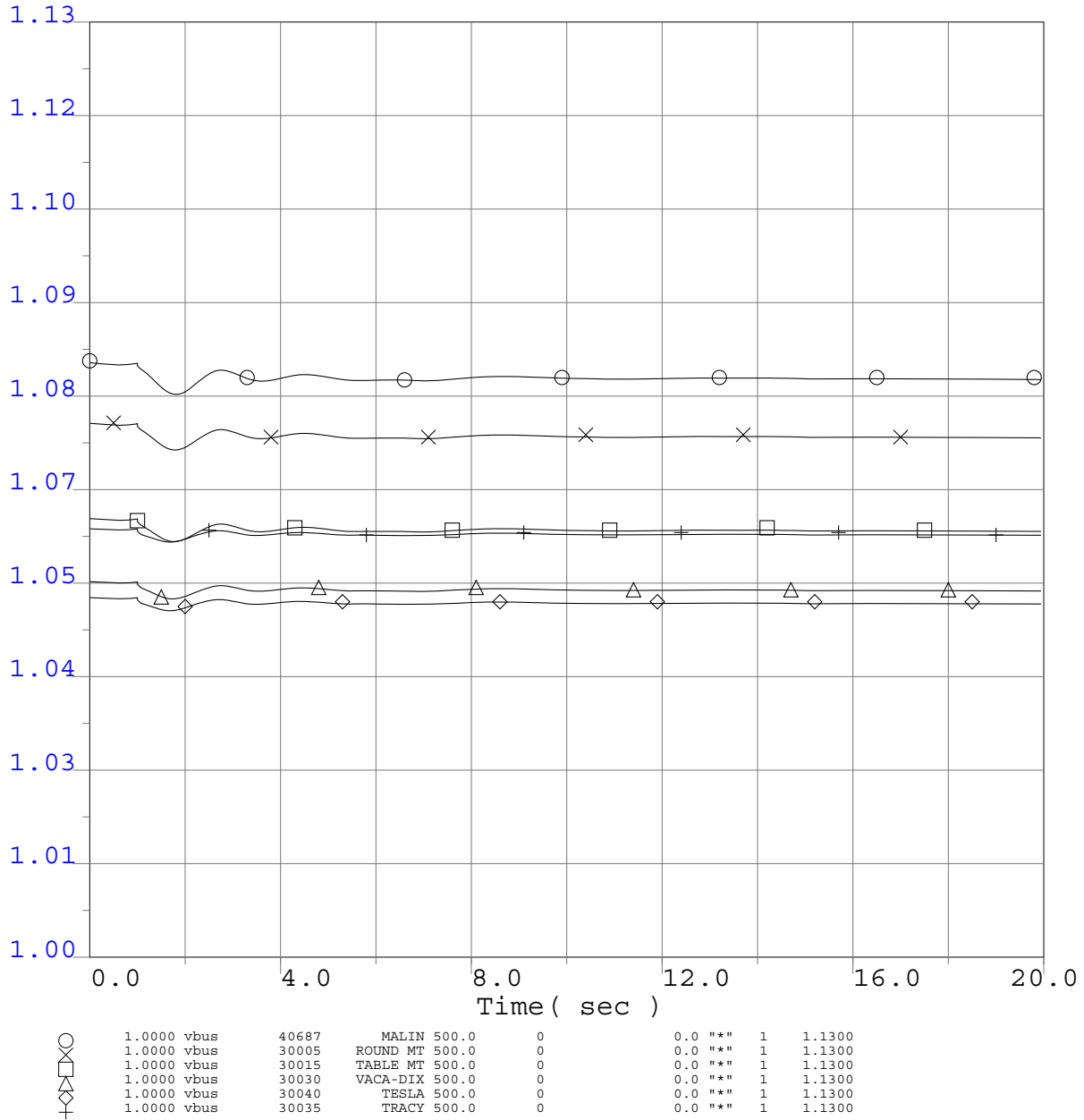
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◇	-1.0000	qg	33807	GWTRCY2	13.8	0	0.0	"1"	1	21.9700
△	-1.0000	qg	33809	Q268ST1	13.8	0	0.0	"1"	1	21.9700
+	-1.0000	qg	33858	P0409CG2	13.8	0	0.0	"1"	1	21.9700
◇	-1.0000	qg	33808	SJ COGEN	13.8	0	0.0	"1"	1	21.9700
□	-1.0000	qg	33810	SF CMPNY	13.8	0	0.0	"1"	1	21.9700

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Q268 Load Rejection
 No Fault Load Rejection



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

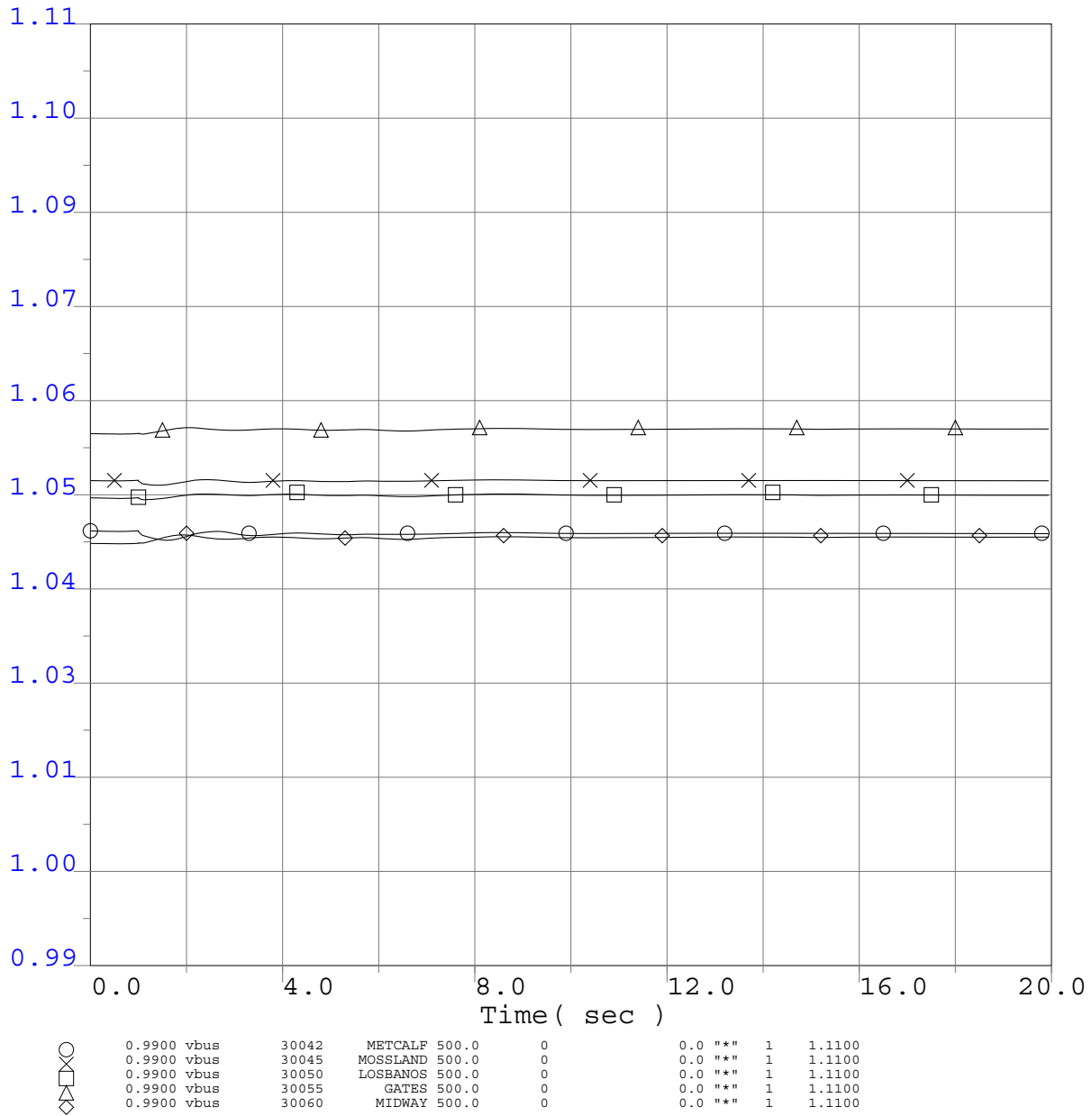


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Q268 Load Rejection
 No Fault Load Rejection



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

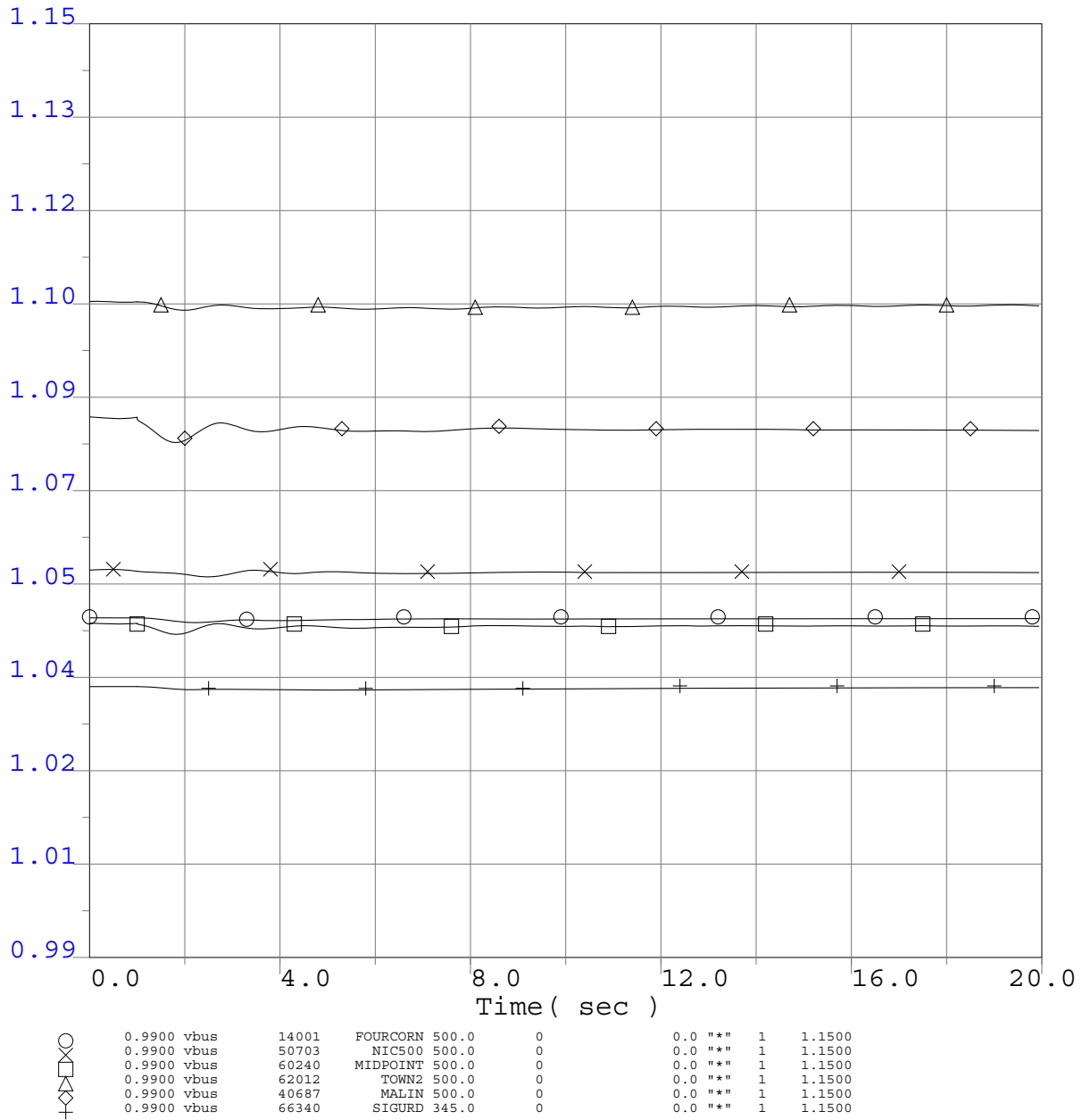


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Q268 Load Rejection
 No Fault Load Rejection



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

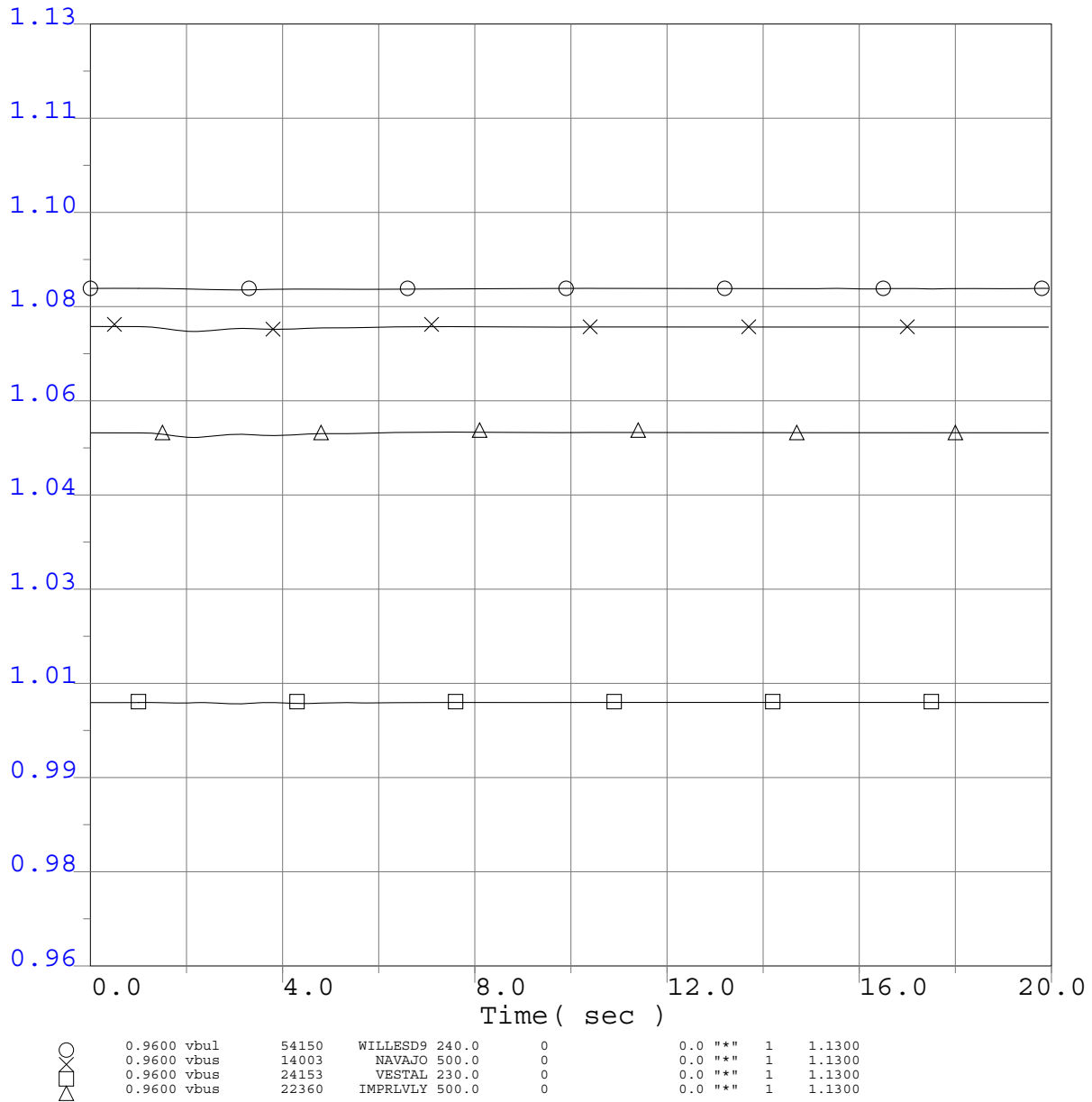


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Q268 Load Rejection
 No Fault Load Rejection



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

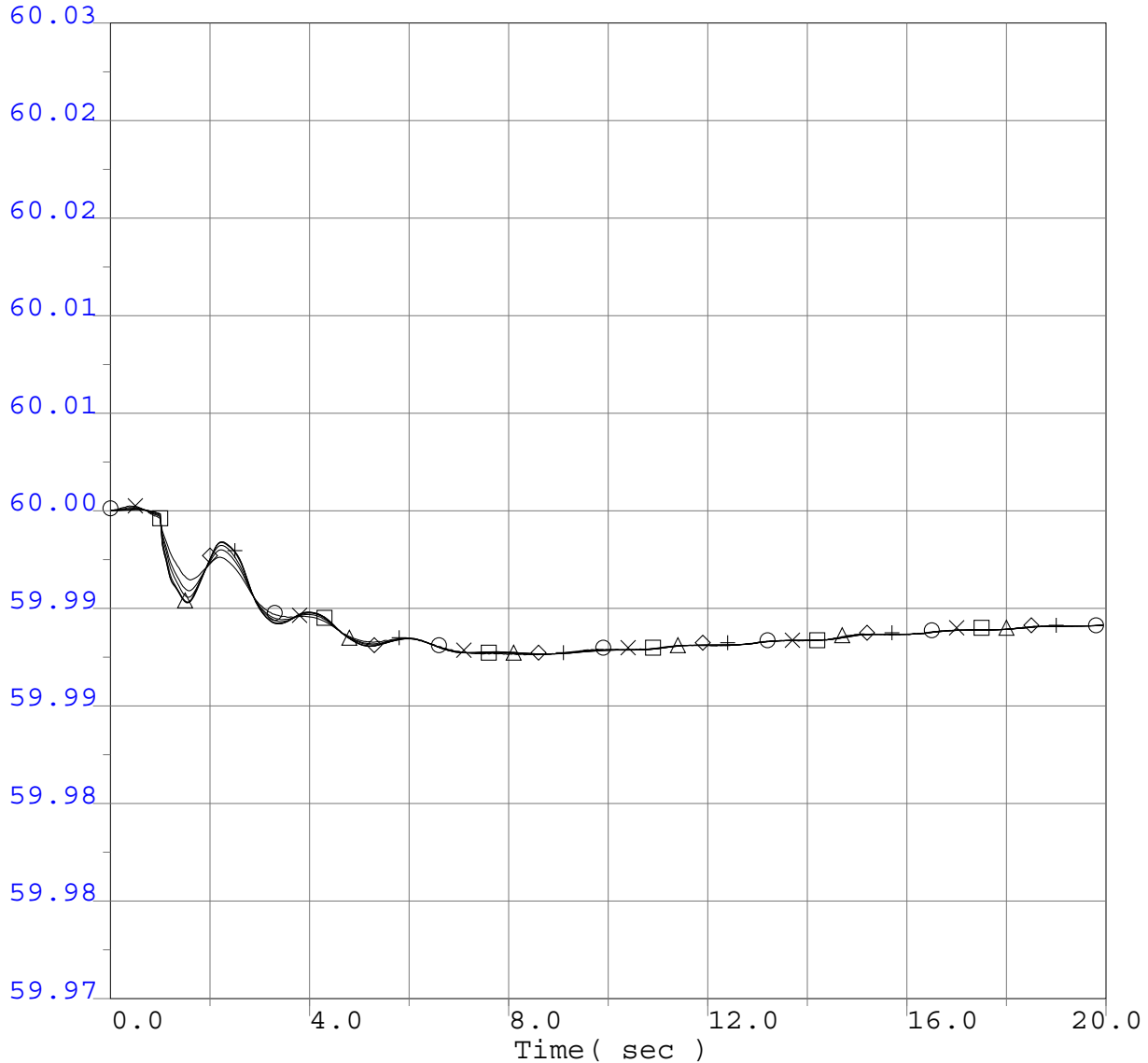


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Q268 Load Rejection
 No Fault Load Rejection



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



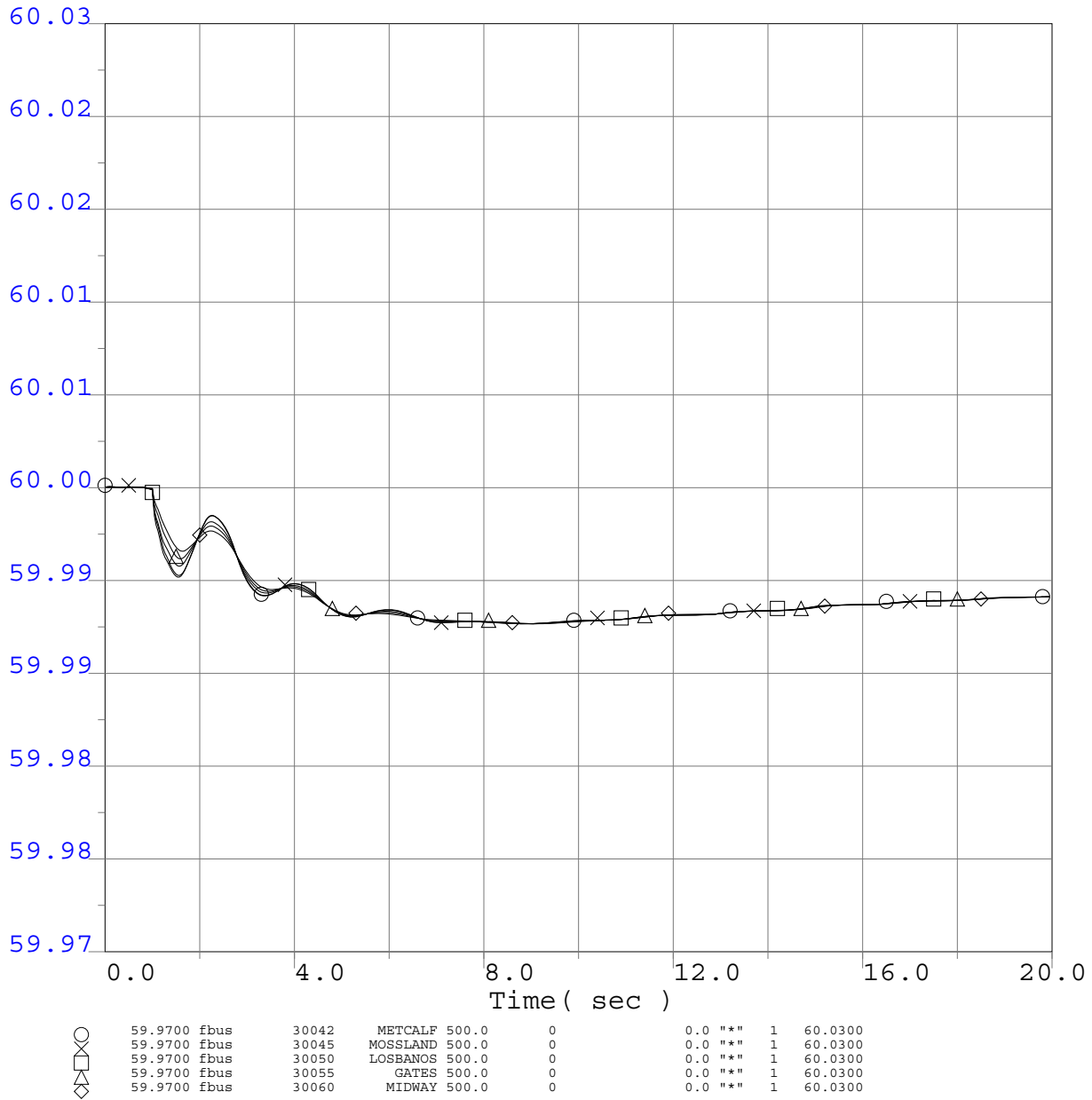
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□	59.9700 Ebus	30005	ROUND MT 500.0	0	0.0	""	1	60.0300
△	59.9700 Ebus	30015	TABLE MT 500.0	0	0.0	""	1	60.0300
◇	59.9700 Ebus	30030	VACA-DIX 500.0	0	0.0	""	1	60.0300
+	59.9700 Ebus	30040	TESLA 500.0	0	0.0	""	1	60.0300
×	59.9700 Ebus	30035	TRACY 500.0	0	0.0	""	1	60.0300

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Q268 Load Rejection
 No Fault Load Rejection



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots

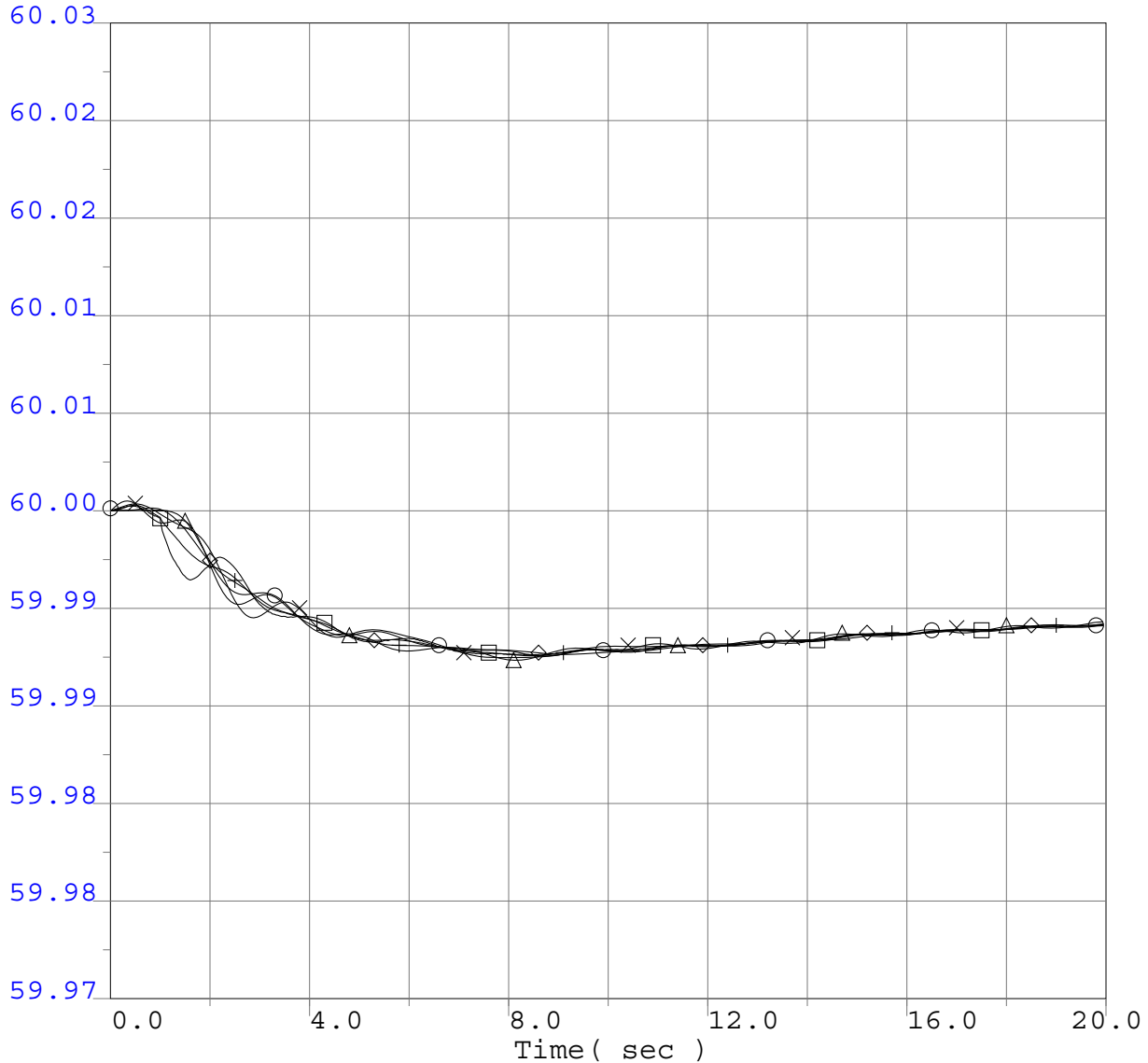


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Q268 Load Rejection
 No Fault Load Rejection



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



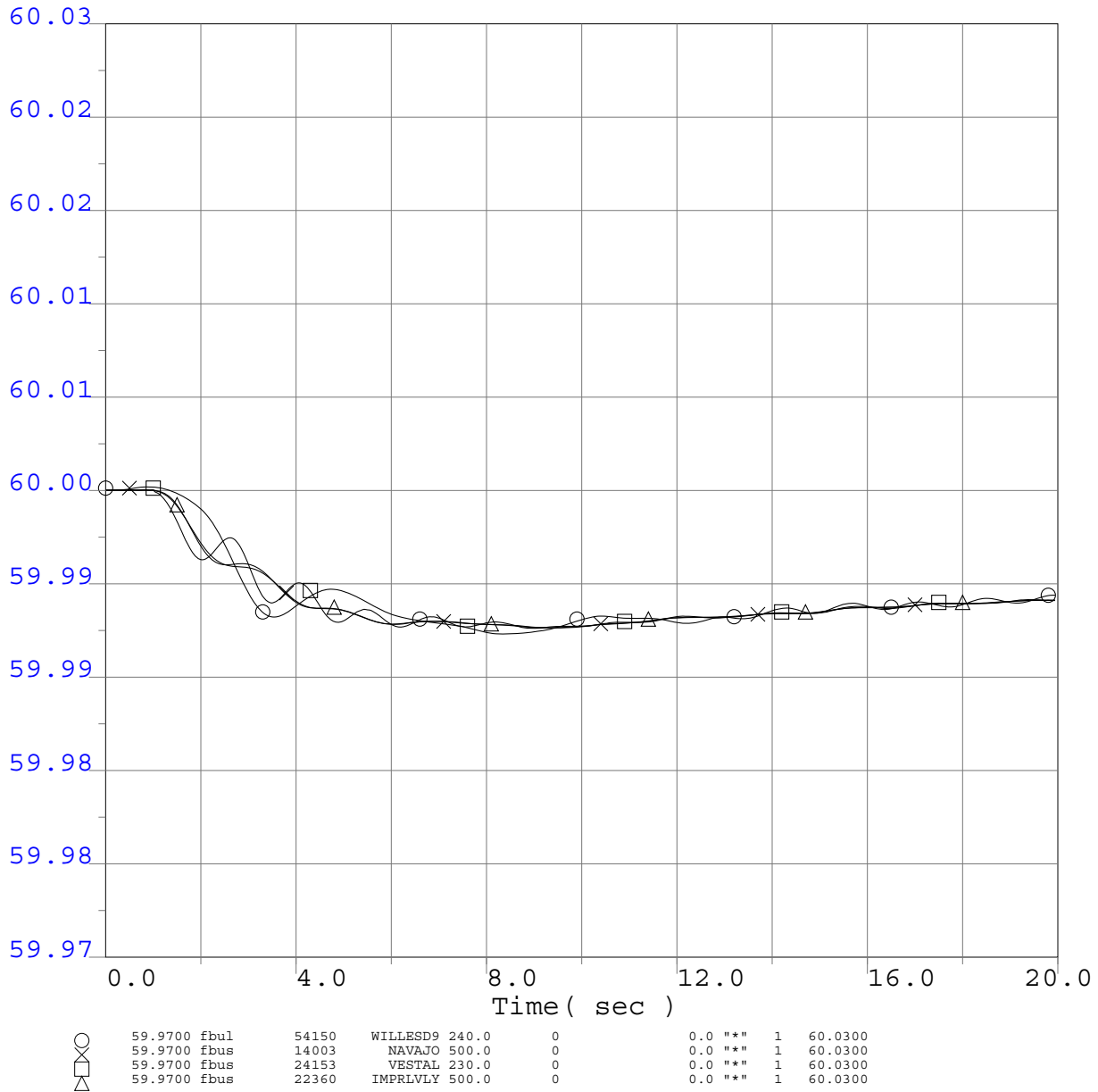
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□	59.9700 Ebus	50703	NIC500	500.0	0	0.0	"**"	1	60.0300
△	59.9700 Ebus	60240	MIDPOINT	500.0	0	0.0	"**"	1	60.0300
◇	59.9700 Ebus	62012	TOWN2	500.0	0	0.0	"**"	1	60.0300
+	59.9700 Ebus	40687	MALIN	500.0	0	0.0	"**"	1	60.0300
	59.9700 Ebus	66340	SIGURD	345.0	0	0.0	"**"	1	60.0300

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Q268 Load Rejection
 No Fault Load Rejection



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots

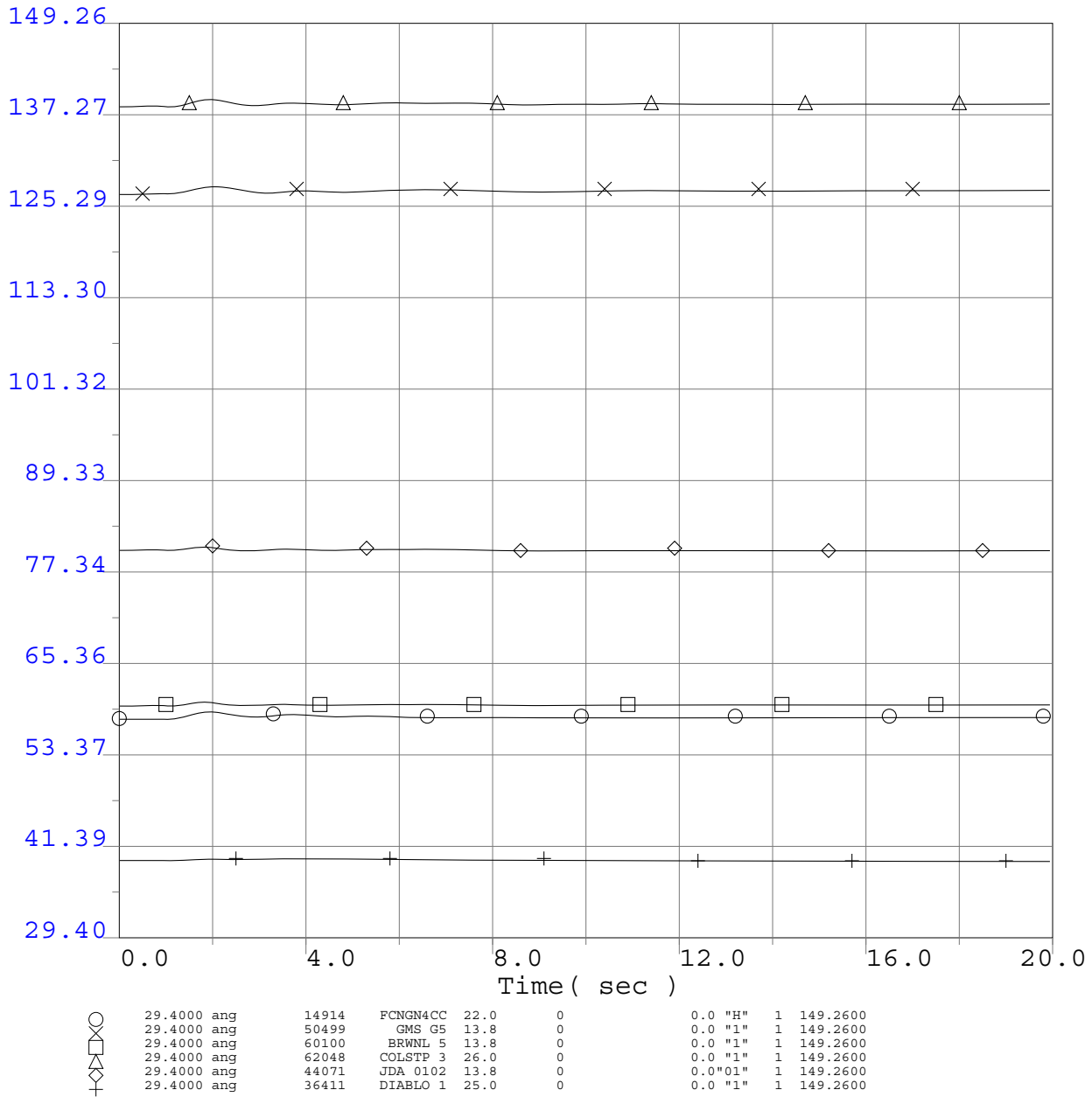


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Q268 Load Rejection
 No Fault Load Rejection



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle

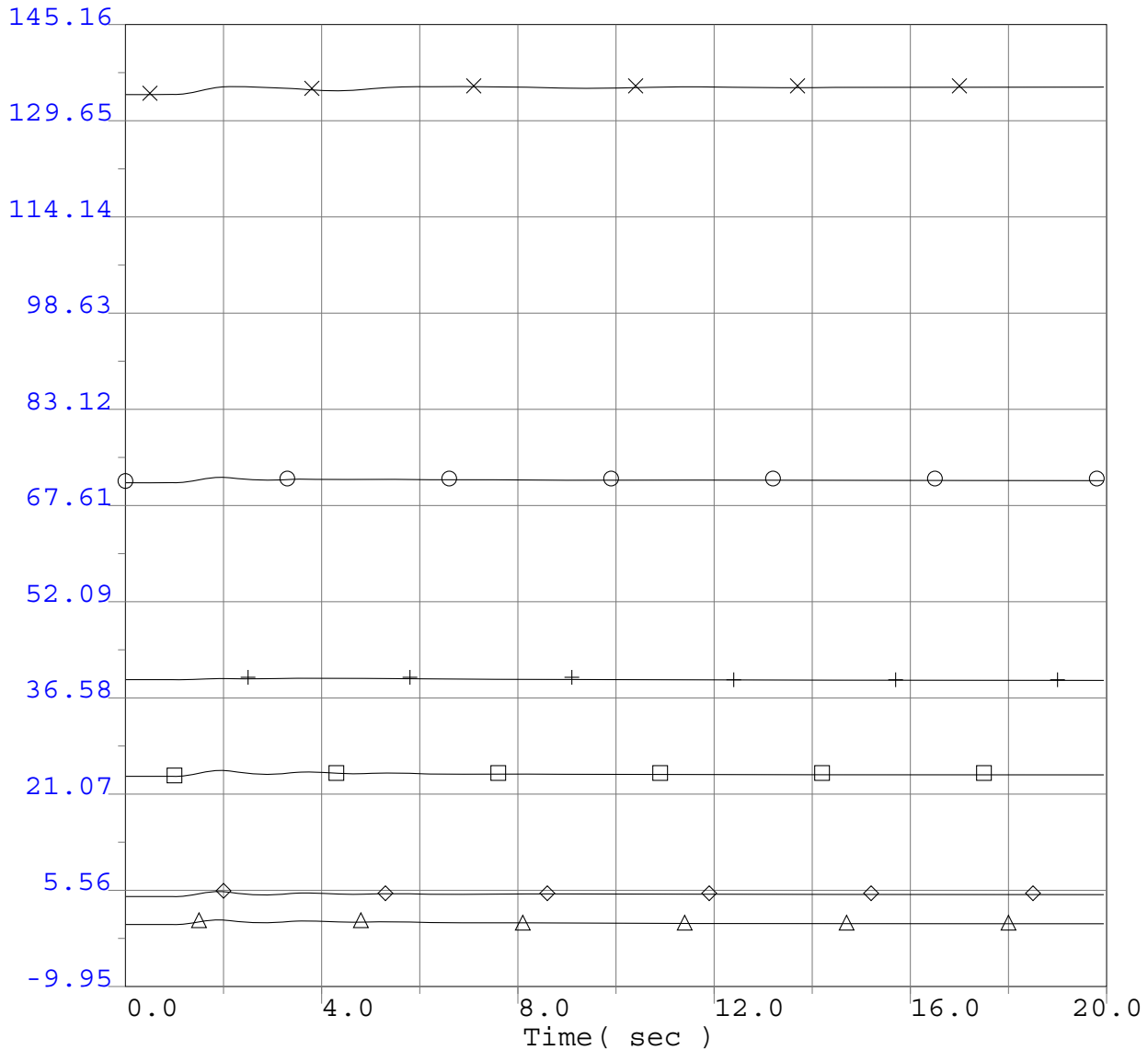


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Q268 Load Rejection
 No Fault Load Rejection



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle



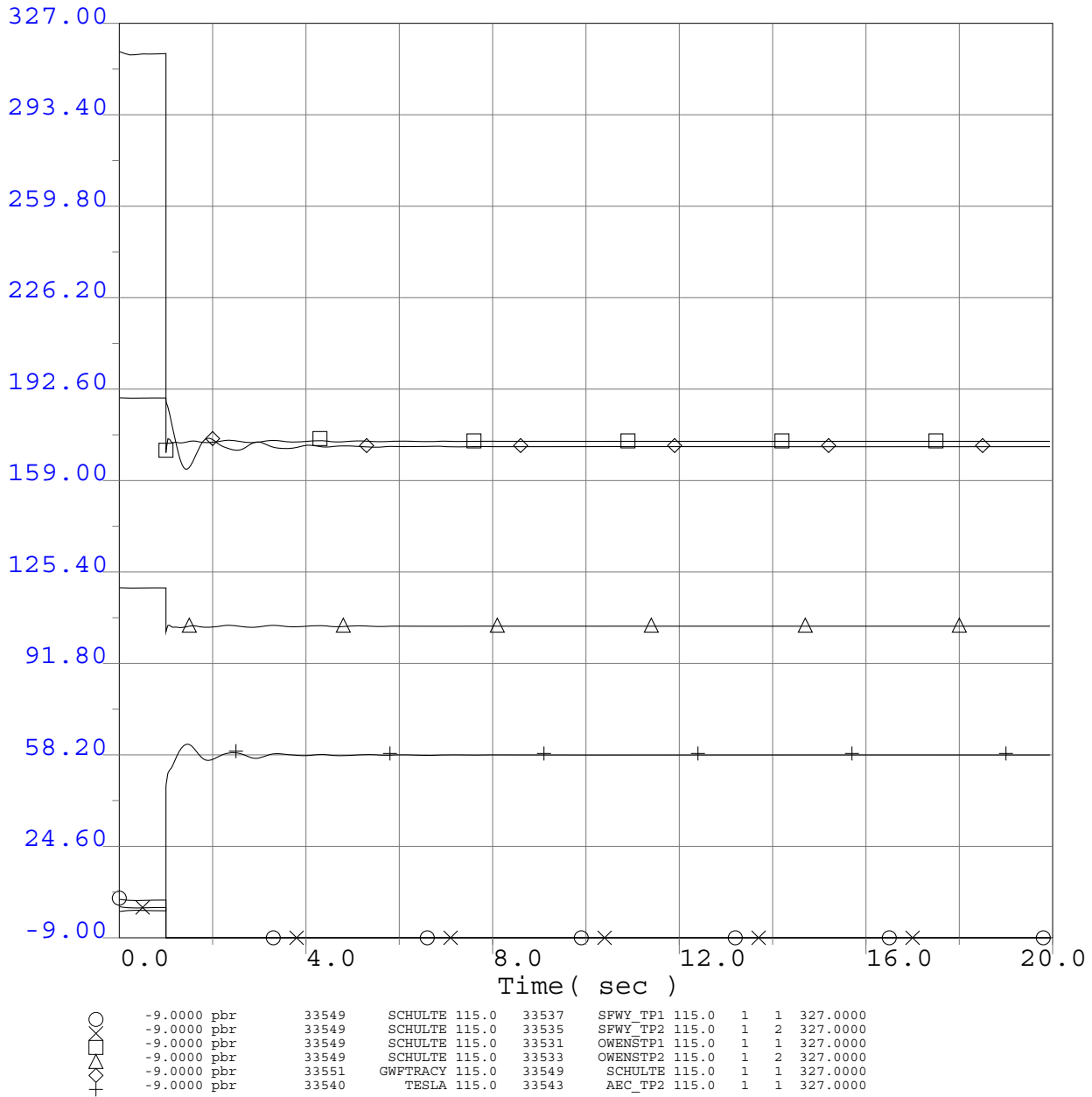
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□	-9.9500 ang	79151	GLENC3-4	13.8	0	0.0 "3"	1	145.1600
○	-9.9500 ang	24130	S.ONOPR3	22.0	0	0.0 "3"	1	145.1600
◇	-9.9500 ang	22244	ENCINA 5	24.0	0	0.0 "1"	1	145.1600
+	-9.9500 ang	36411	DIABLO 1	25.0	0	0.0 "1"	1	145.1600

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Q268 Load Rejection
 No Fault Load Rejection



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)

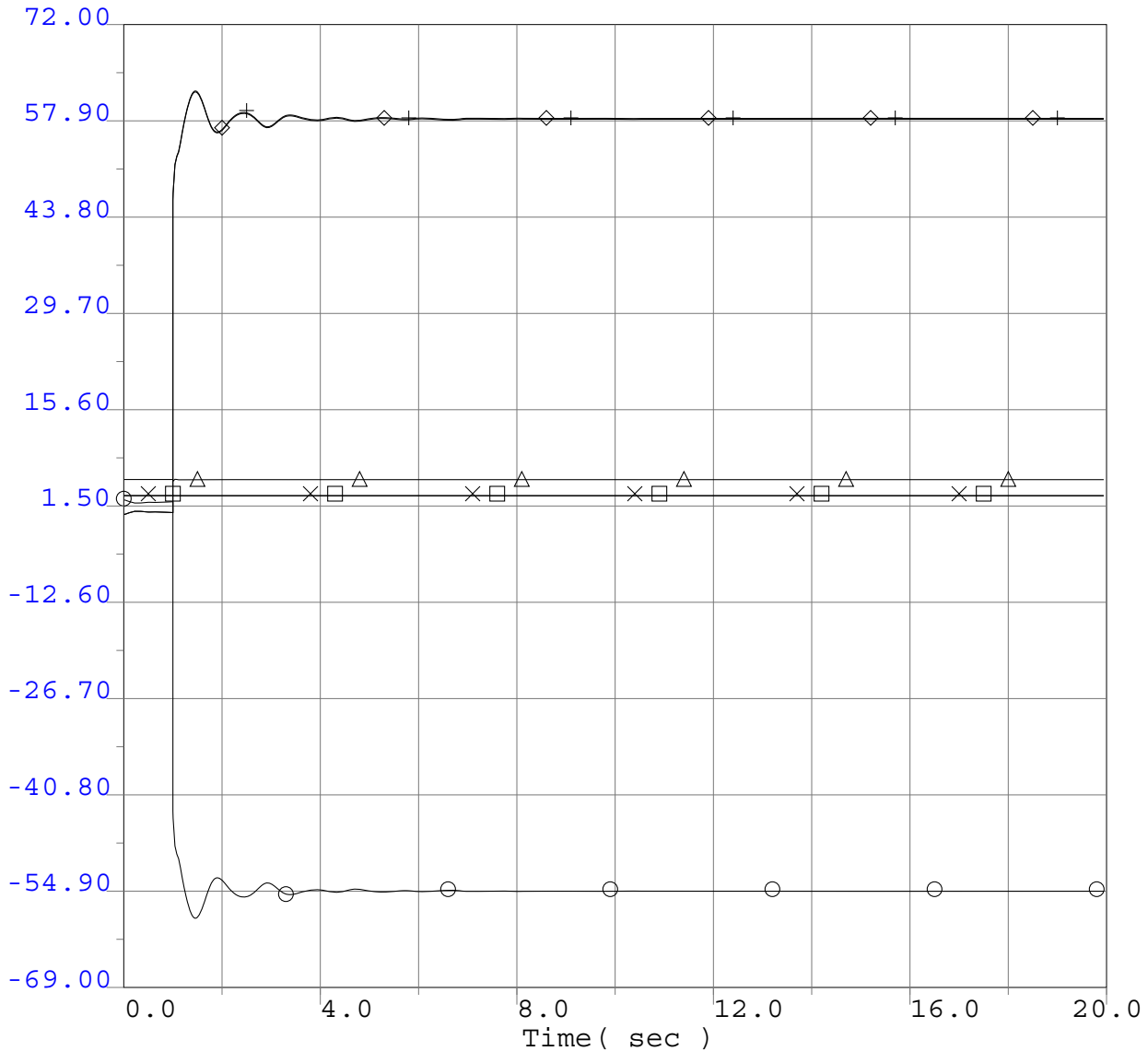


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Q268 Load Rejection
 No Fault Load Rejection



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)



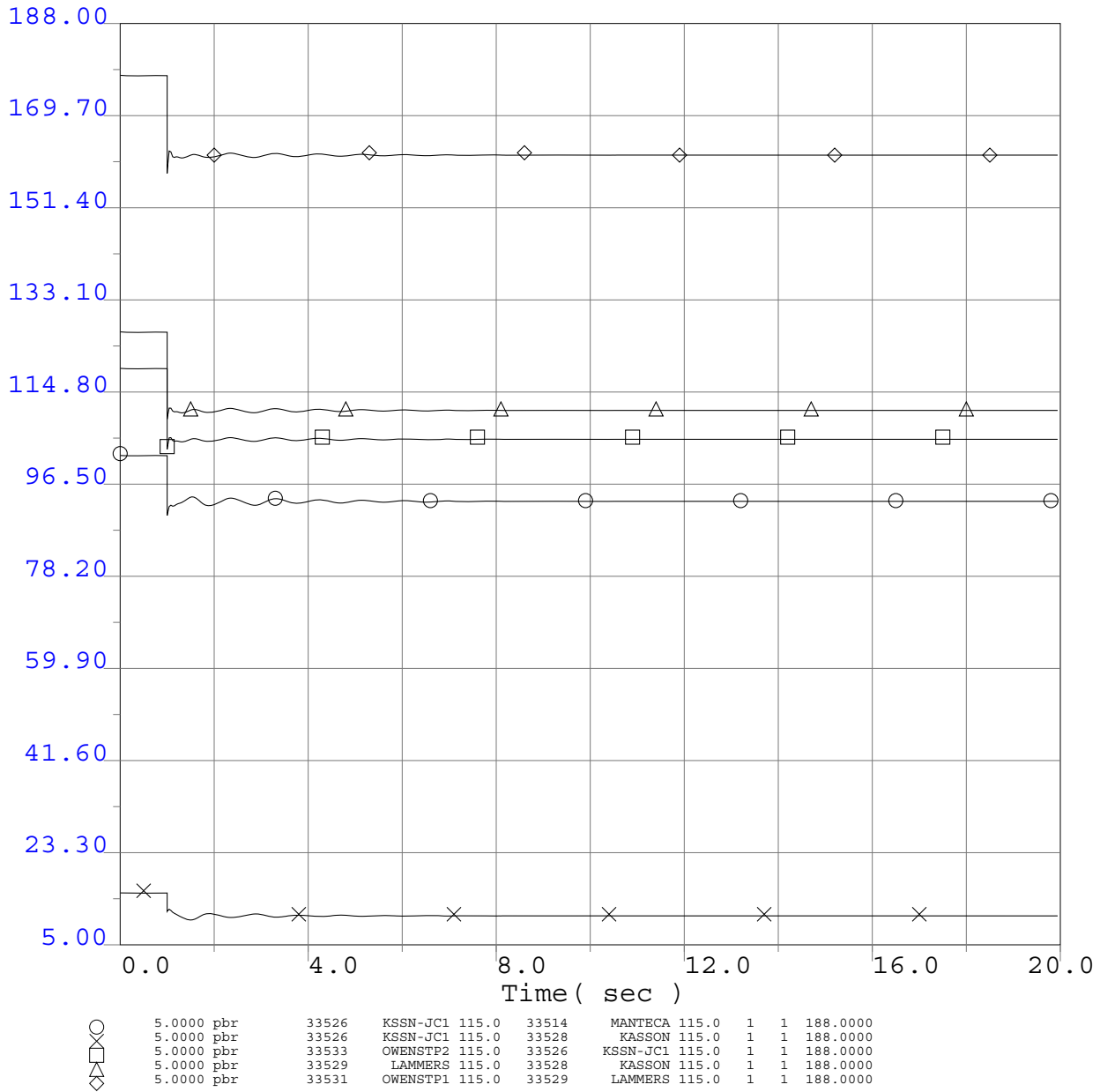
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□	-69.0000 pbr	33543	AEC_TP2 115.0	33545	AEC_JCT 115.0	1	1	72.0000
△	-69.0000 pbr	33545	AEC_JCT 115.0	33547	AEC_300 115.0	1	1	72.0000
×	-69.0000 pbr	33537	SFWY_TP1 115.0	33534	SAFEWAY 115.0	1	1	72.0000
◇	-69.0000 pbr	33541	AEC_TP1 115.0	33537	SFWY_TP1 115.0	1	1	72.0000
+	-69.0000 pbr	33540	TESLA 115.0	33541	AEC_TP1 115.0	1	1	72.0000

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Q268 Load Rejection
 No Fault Load Rejection



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)

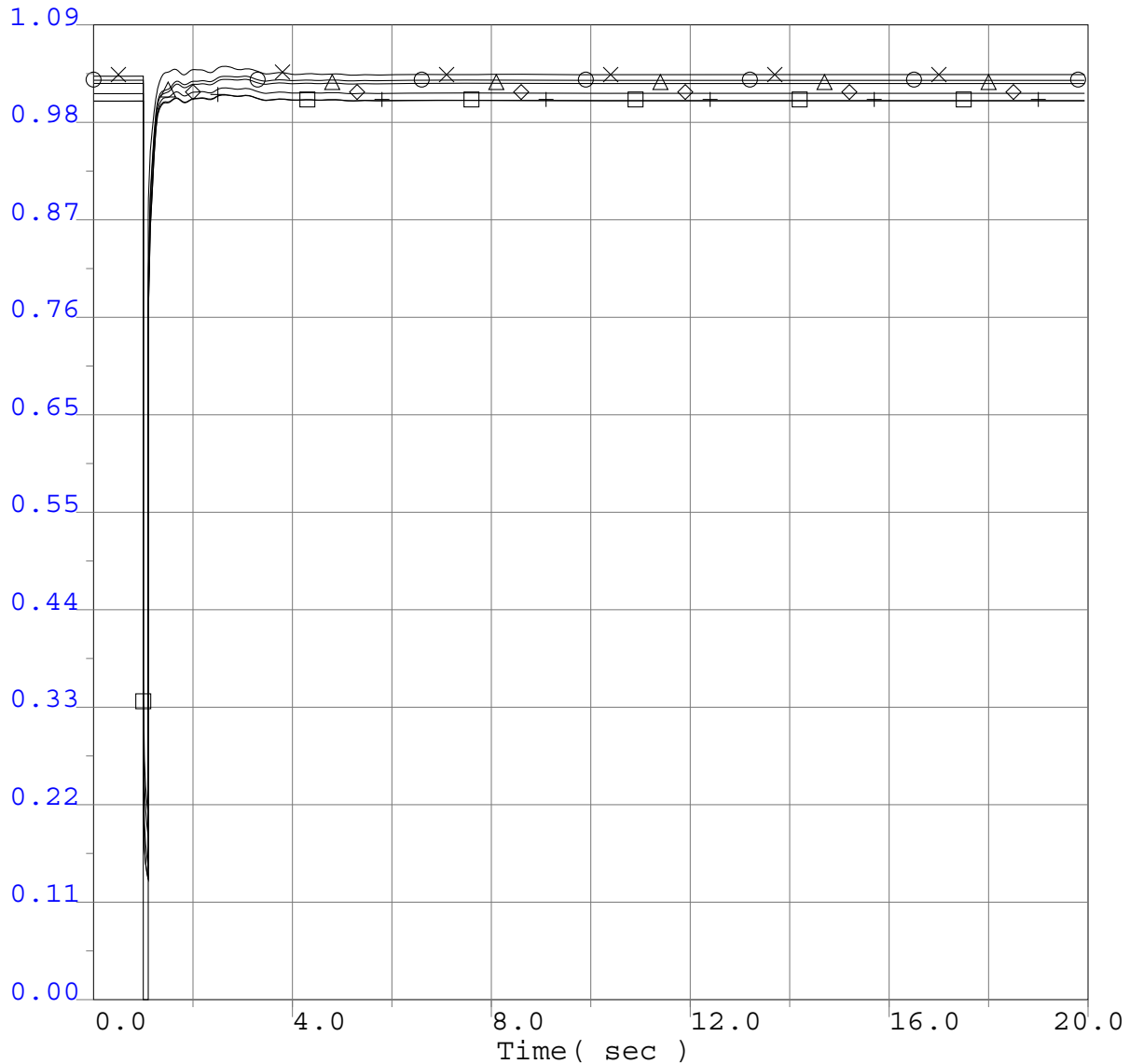


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Q268 Load Rejection
 No Fault Load Rejection



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Voltage Plots Adjacent to Fault



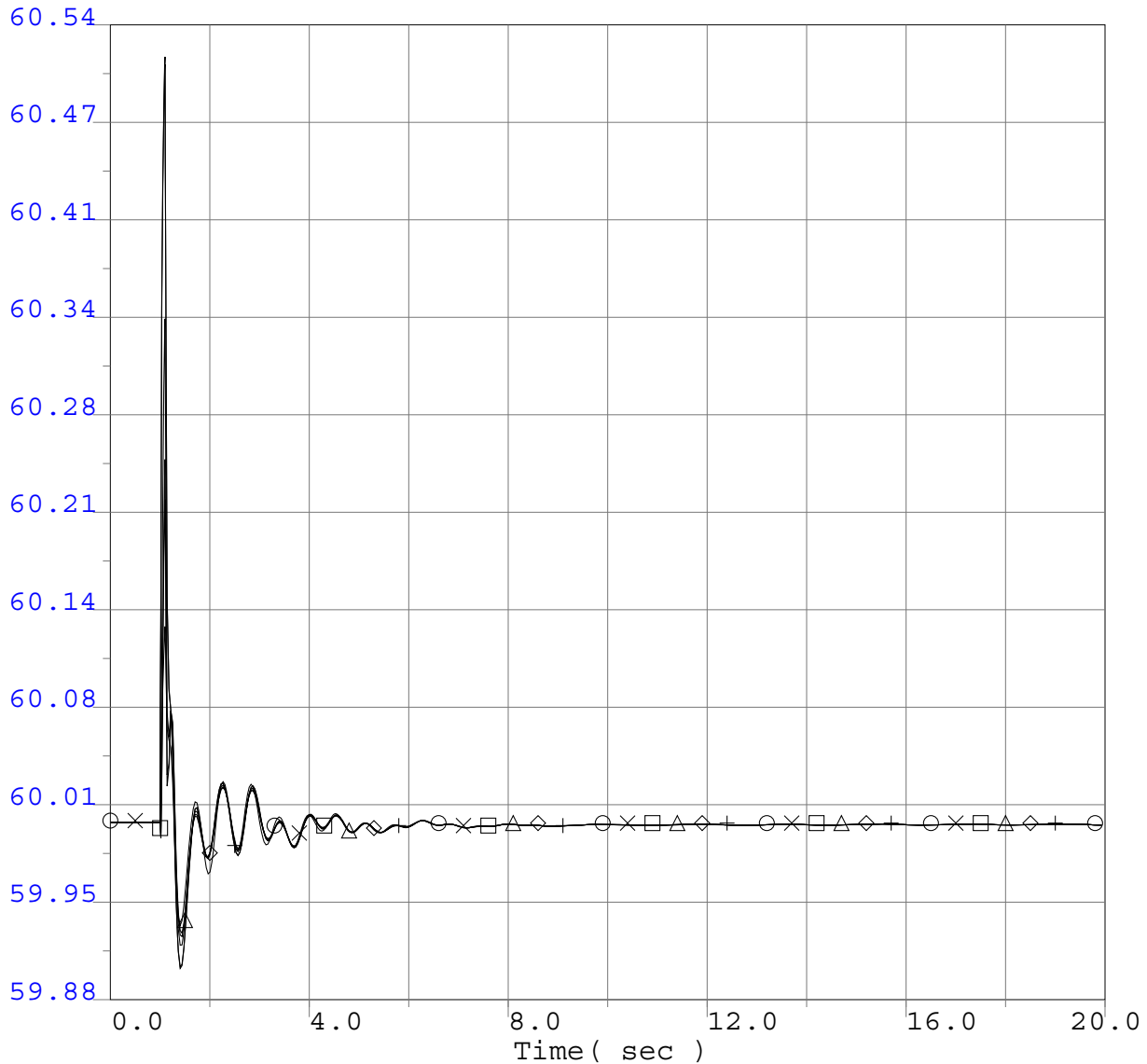
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□	0.0000 vbus	33540	TESLA 115.0	0	0.0	""	1	1.0900
△	0.0000 vbul	33514	MANTECA 115.0	0	0.0	""	1	1.0900
◇	0.0000 vbul	33529	LAMMERS 115.0	0	0.0	""	1	1.0900
+	0.0000 vbus	33528	KASSON 115.0	0	0.0	""	1	1.0900
+	0.0000 vbul	33518	VIERRA 115.0	0	0.0	""	1	1.0900

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Frequency Plots Adjacent to Fault



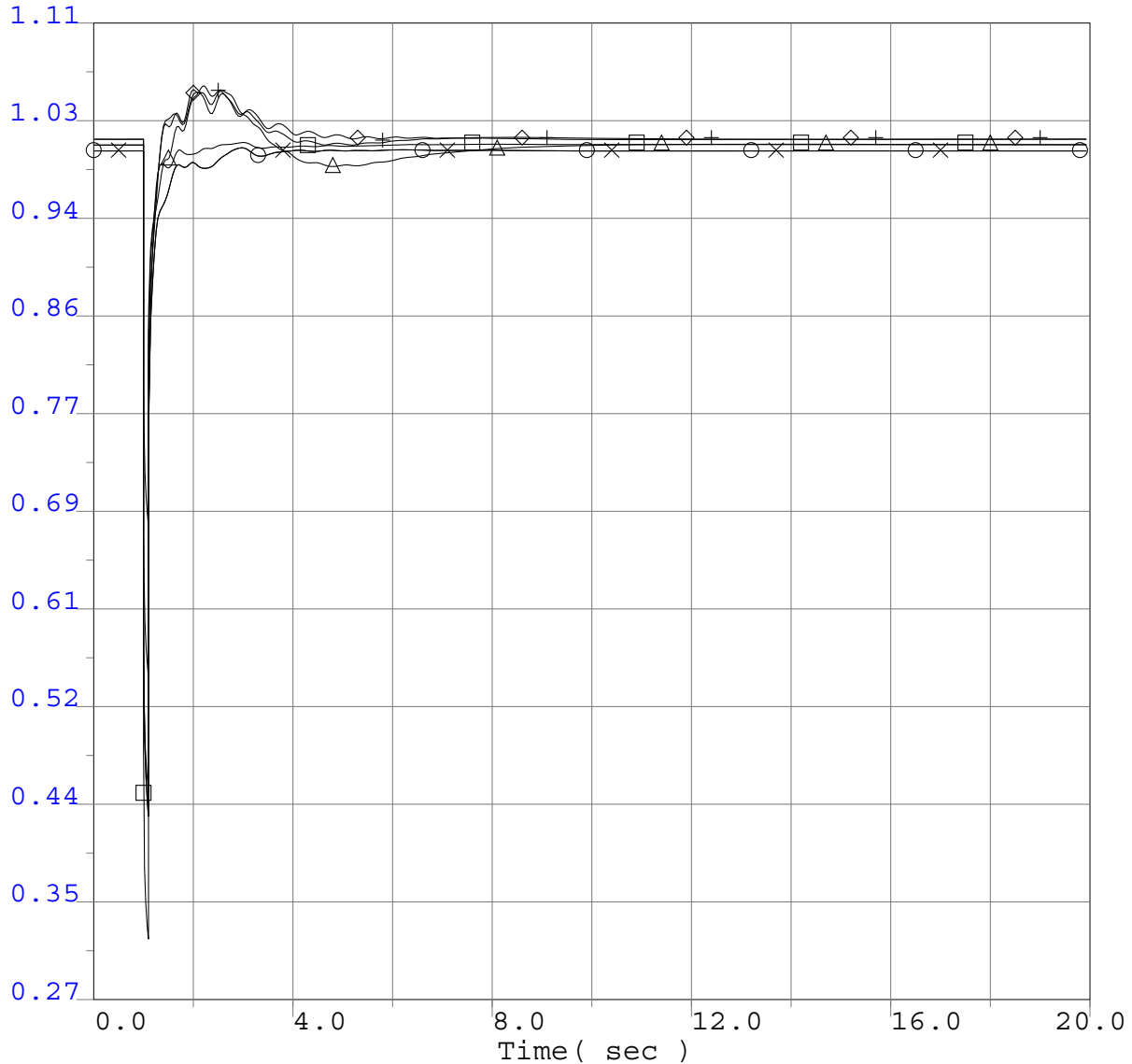
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×	59.8800 Fbus	33540	TESLA 115.0	0	0.0	""	1	60.5400
□	59.8800 Fbul	33514	MANTECA 115.0	0	0.0	""	1	60.5400
△	59.8800 Fbul	33529	LAMMERS 115.0	0	0.0	""	1	60.5400
◇	59.8800 Fbus	33528	KASSON 115.0	0	0.0	""	1	60.5400
+	59.8800 Fbul	33518	VIERRA 115.0	0	0.0	""	1	60.5400

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Terminal Voltages



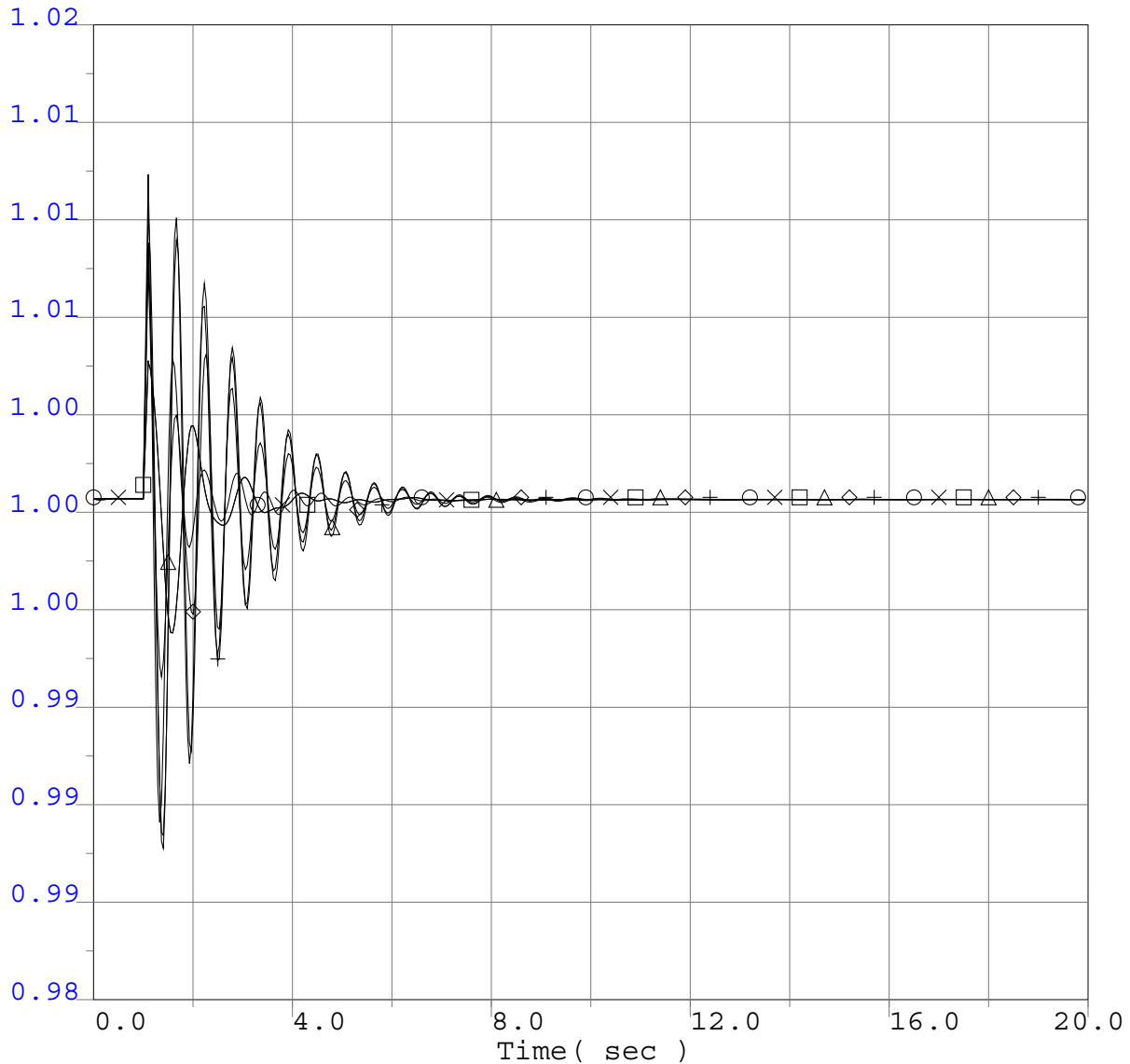
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□	0.2700 vt	33807	GWTRCY2	13.8	0	0.0	"1"	1	1.1100
△	0.2700 vt	33809	Q268ST1	13.8	0	0.0	"1"	1	1.1100
◇	0.2700 vt	33858	P0409CG2	13.8	0	0.0	"1"	1	1.1100
+	0.2700 vt	33808	SJ COGEN	13.8	0	0.0	"1"	1	1.1100
×	0.2700 vt	33810	SP CMPNY	13.8	0	0.0	"1"	1	1.1100

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Rotor Speed



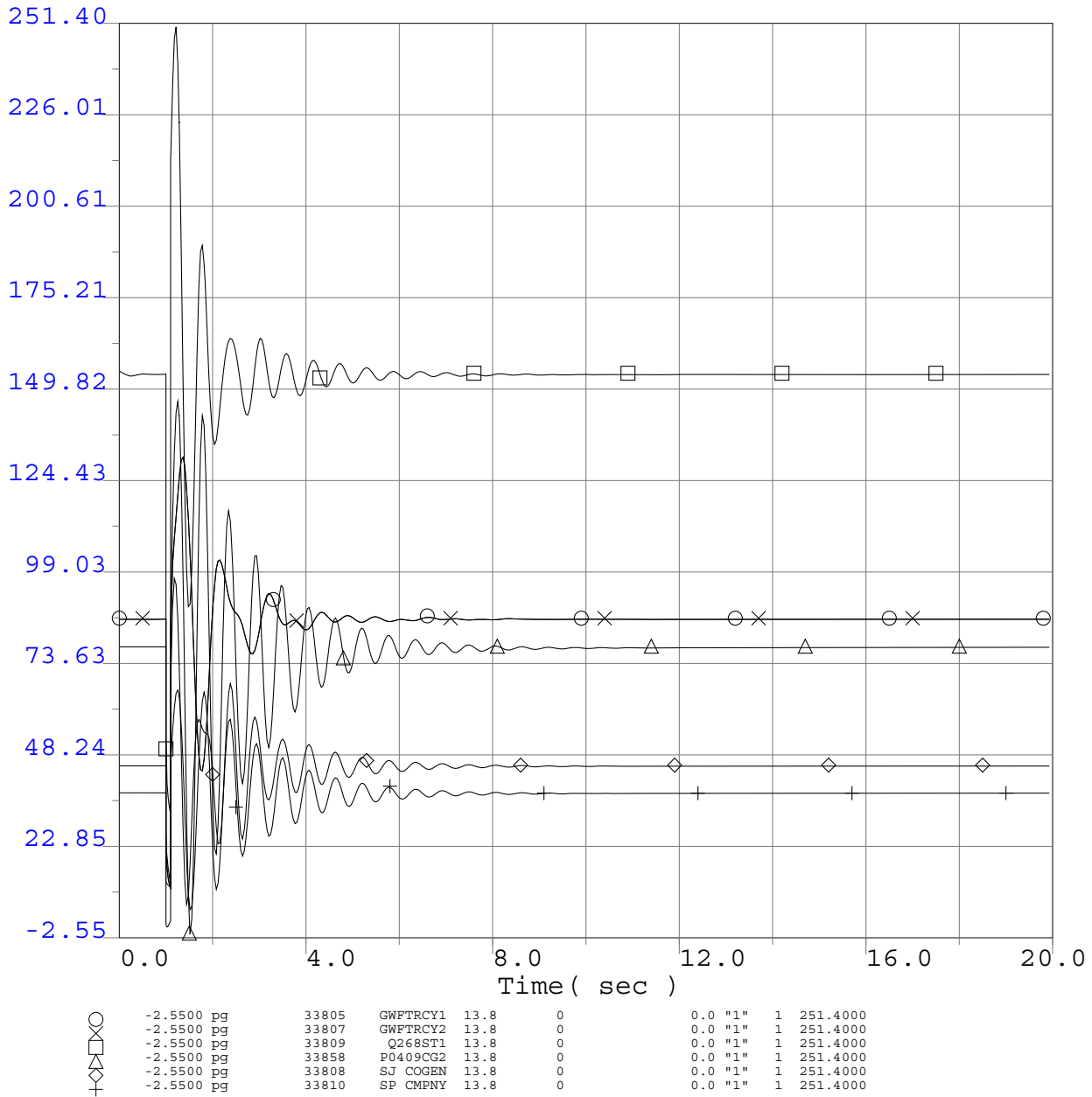
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□	0.9833 spd	33809	Q268ST1	13.8	0	0.0	"1"	1	1.0158
◇	0.9833 spd	33858	P0409CG2	13.8	0	0.0	"1"	1	1.0158
△	0.9833 spd	33808	SJ COGEN	13.8	0	0.0	"1"	1	1.0158
+	0.9833 spd	33810	SF CMPNY	13.8	0	0.0	"1"	1	1.0158

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Terminal Power

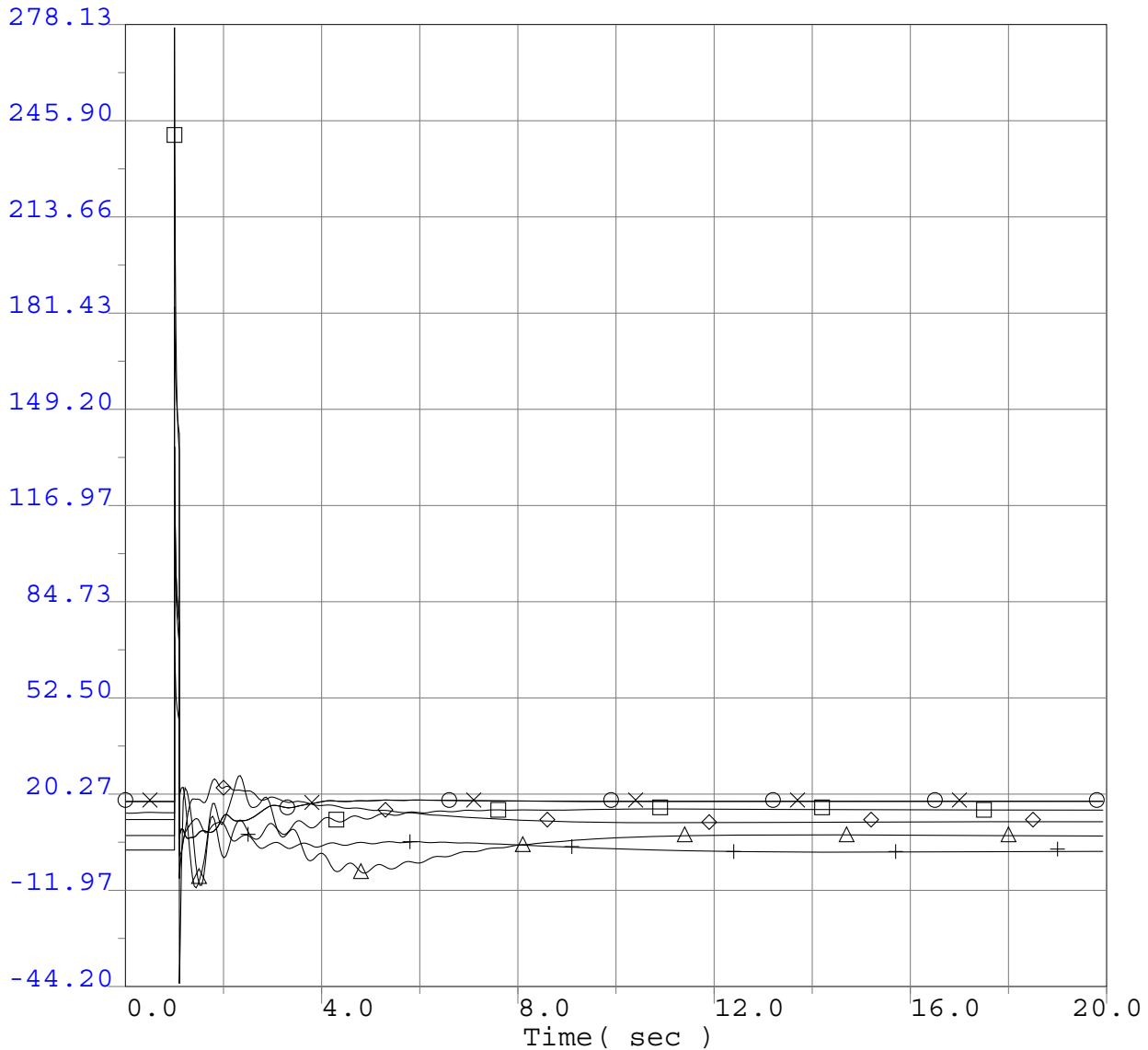


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Terminal Reactive Power



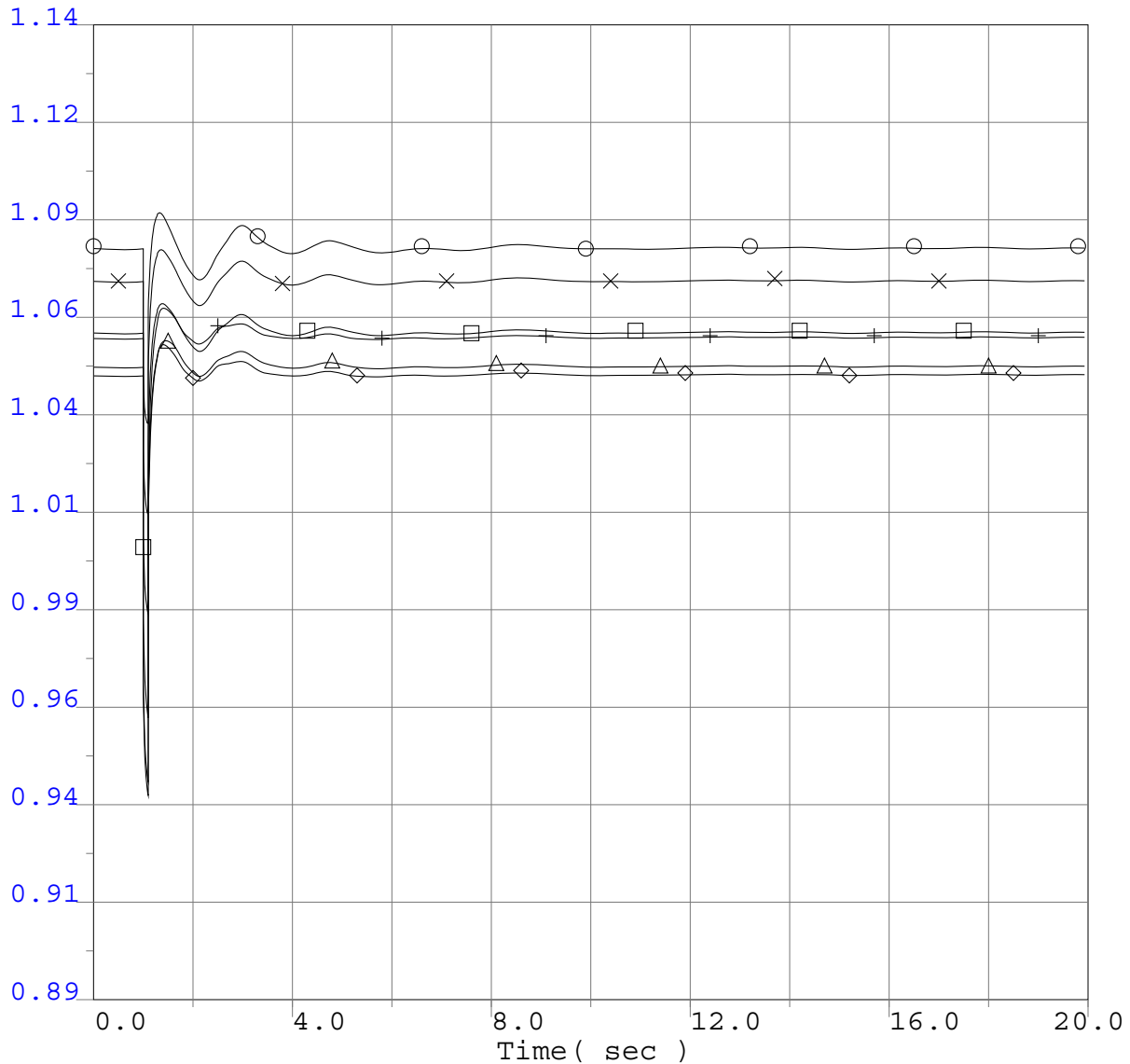
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×	-44.2000	gg	33807	GWTRCY2	13.8	0	0.0	"1"	1	278.1300
□	-44.2000	gg	33809	Q268ST1	13.8	0	0.0	"1"	1	278.1300
◇	-44.2000	gg	33858	P0409CG2	13.8	0	0.0	"1"	1	278.1300
△	-44.2000	gg	33808	SJ COGEN	13.8	0	0.0	"1"	1	278.1300
+	-44.2000	gg	33810	SP CMPNY	13.8	0	0.0	"1"	1	278.1300

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots



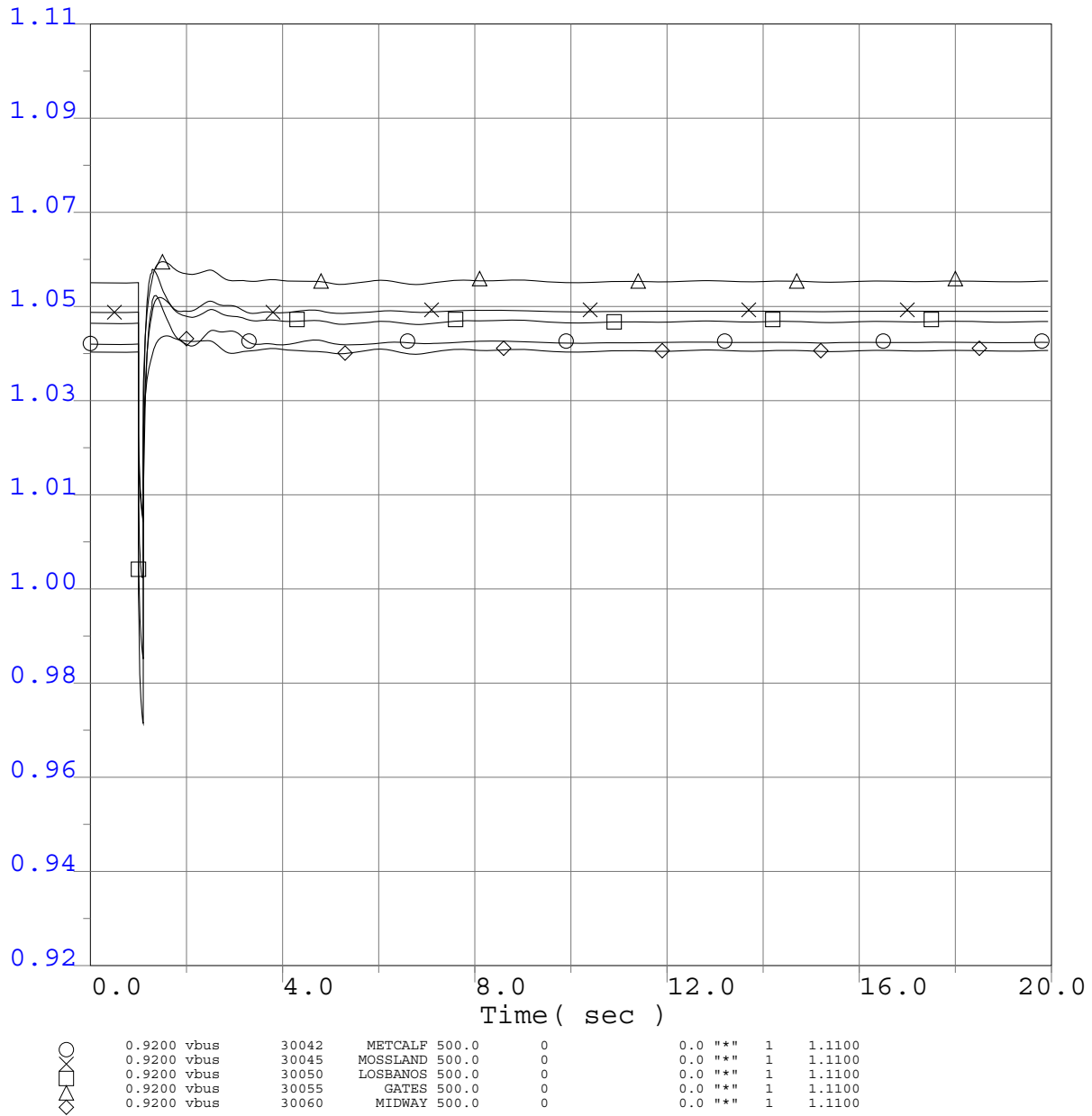
○	0.8900 vbus	40687	MALIN 500.0	0	0.0	1	1.1400
×	0.8900 vbus	30005	ROUND MT 500.0	0	0.0	1	1.1400
□	0.8900 vbus	30015	TABLE MT 500.0	0	0.0	1	1.1400
△	0.8900 vbus	30030	VACA-DIX 500.0	0	0.0	1	1.1400
◇	0.8900 vbus	30040	TESLA 500.0	0	0.0	1	1.1400
+	0.8900 vbus	30035	TRACY 500.0	0	0.0	1	1.1400

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

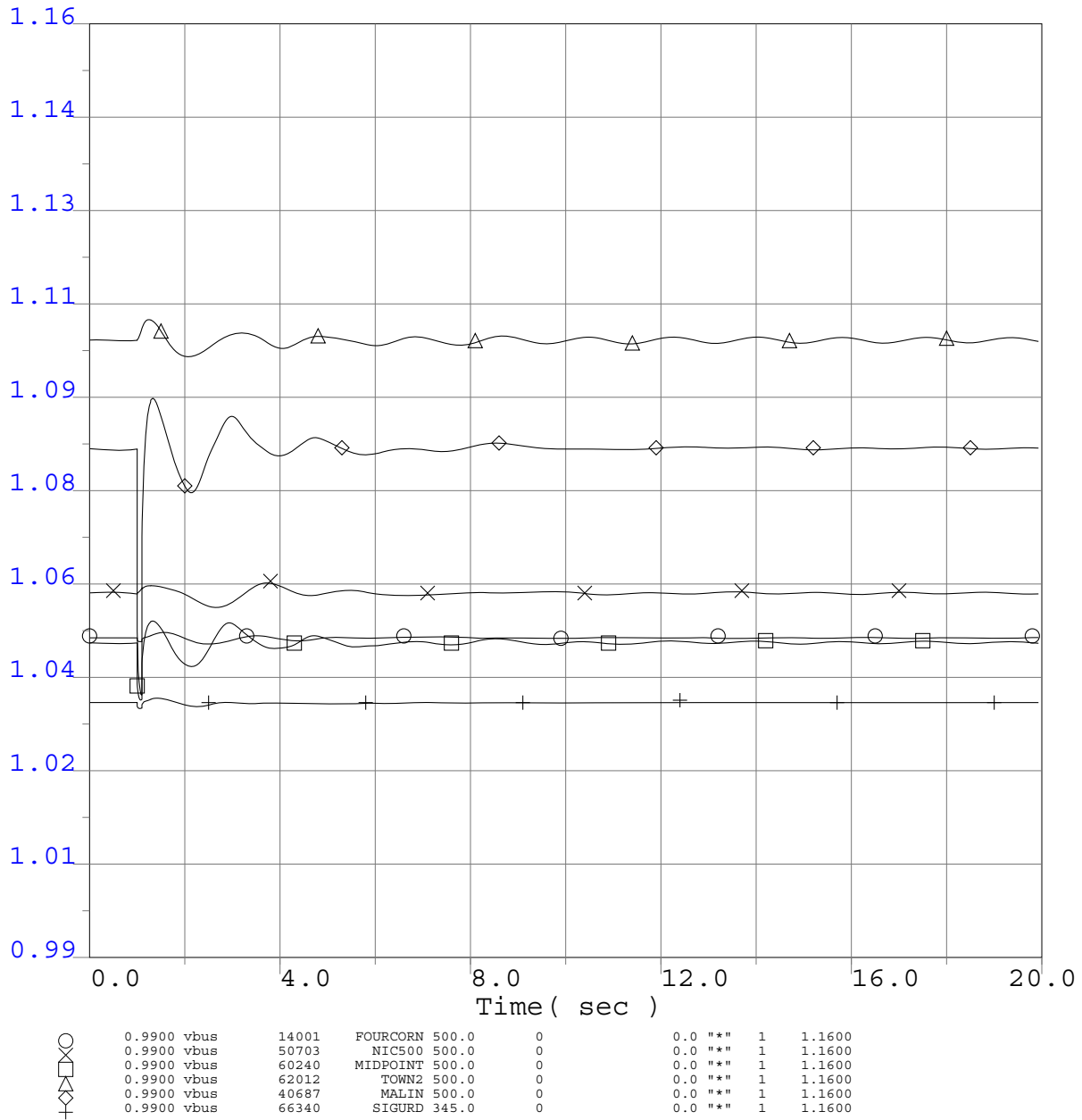


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

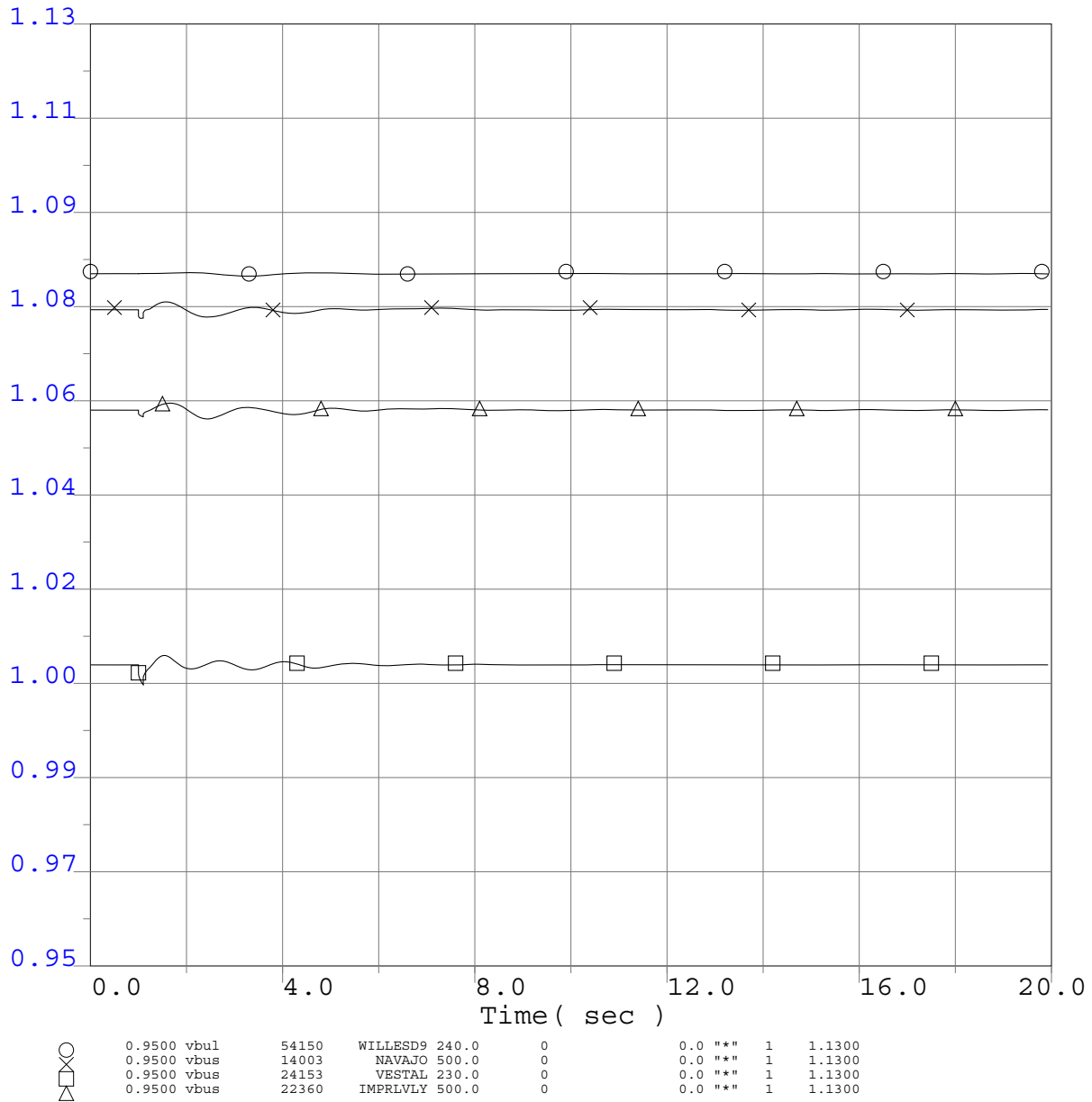


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

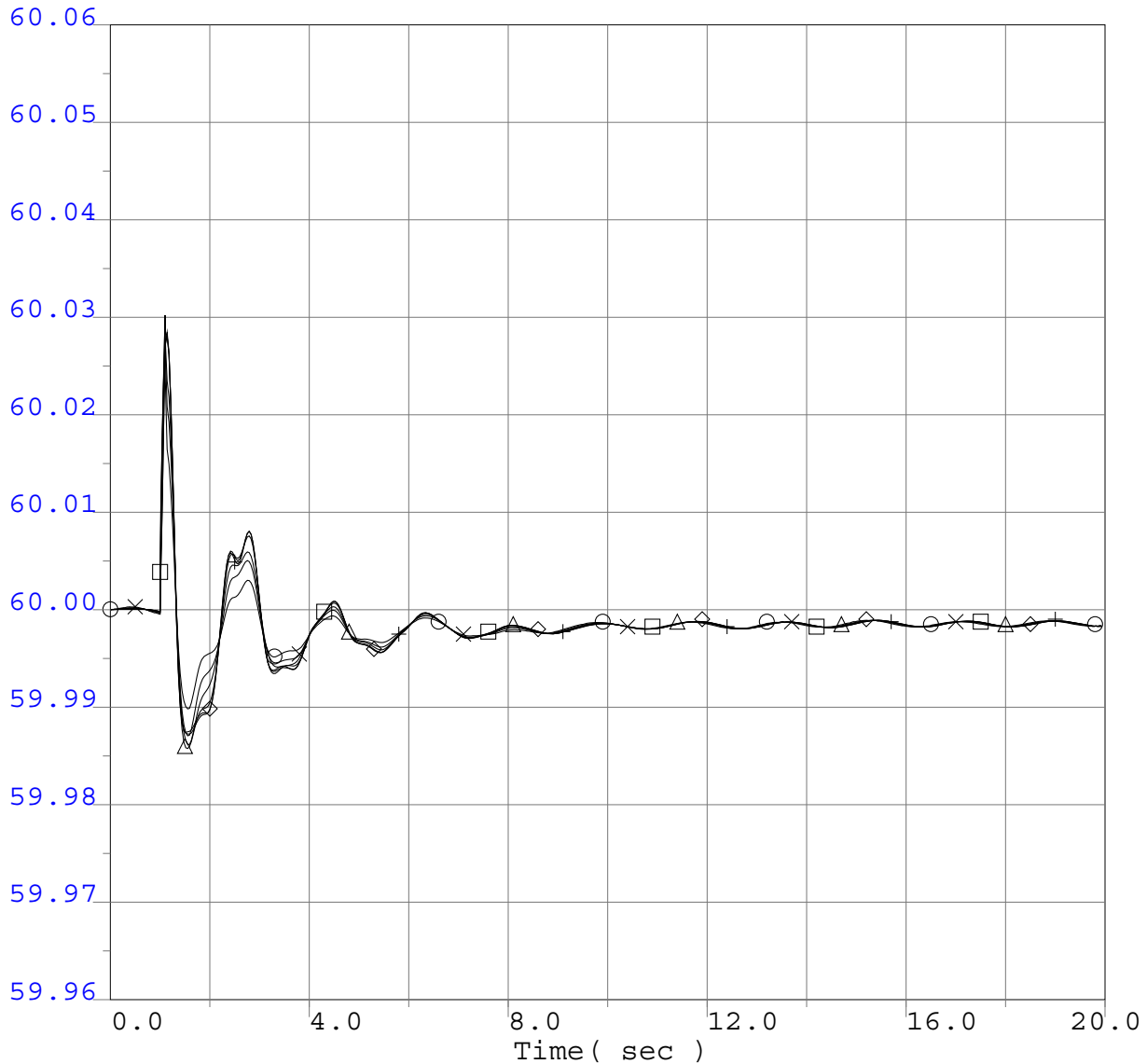


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



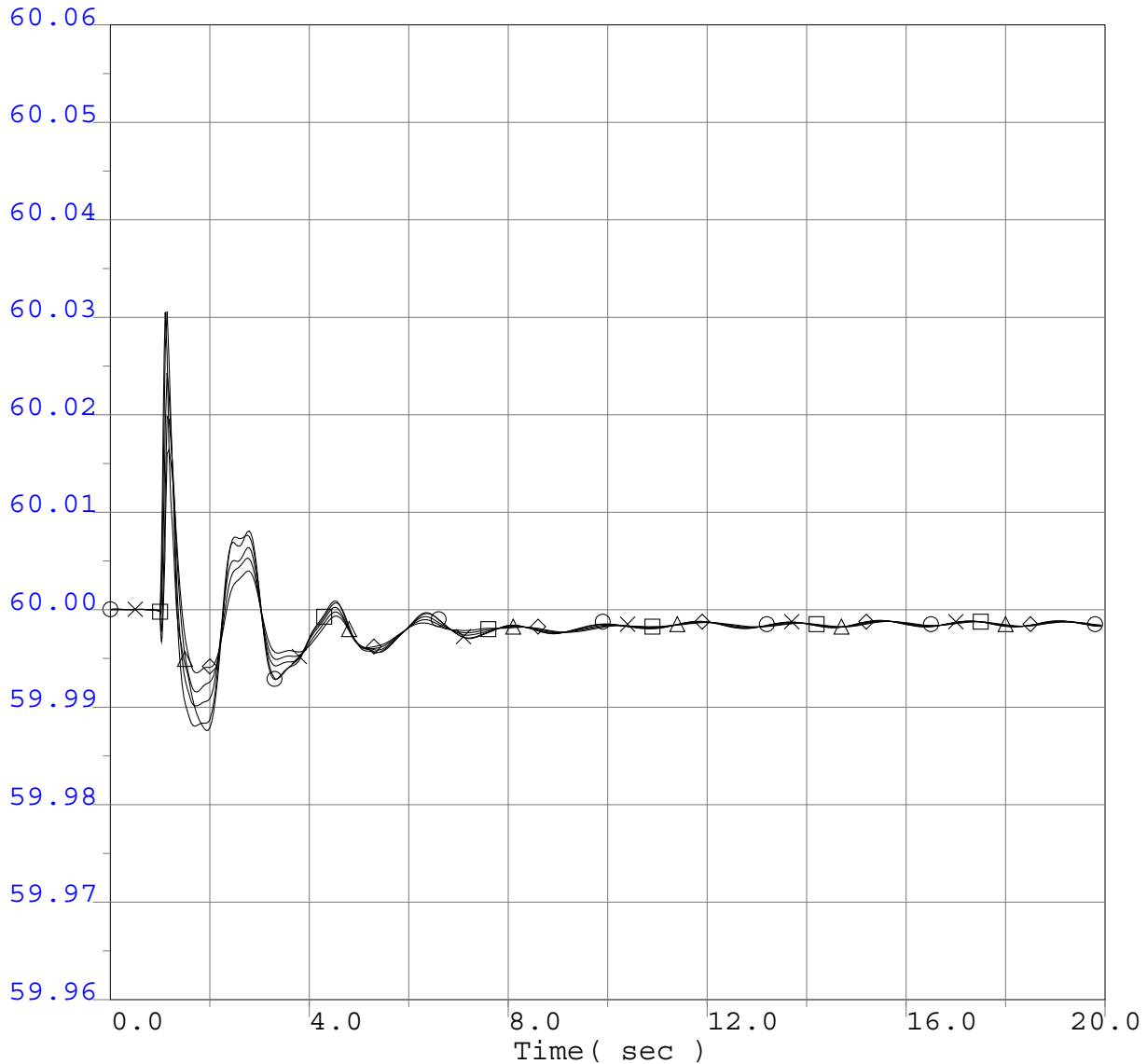
○	59.9600 Ebus	40687	MALIN 500.0	0	0.0	"	1	60.0600
□	59.9600 Ebus	30005	ROUND MT 500.0	0	0.0	"	1	60.0600
△	59.9600 Ebus	30015	TABLE MT 500.0	0	0.0	"	1	60.0600
◇	59.9600 Ebus	30030	VACA-DIX 500.0	0	0.0	"	1	60.0600
+	59.9600 Ebus	30040	TESLA 500.0	0	0.0	"	1	60.0600
×	59.9600 Ebus	30035	TRACY 500.0	0	0.0	"	1	60.0600

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



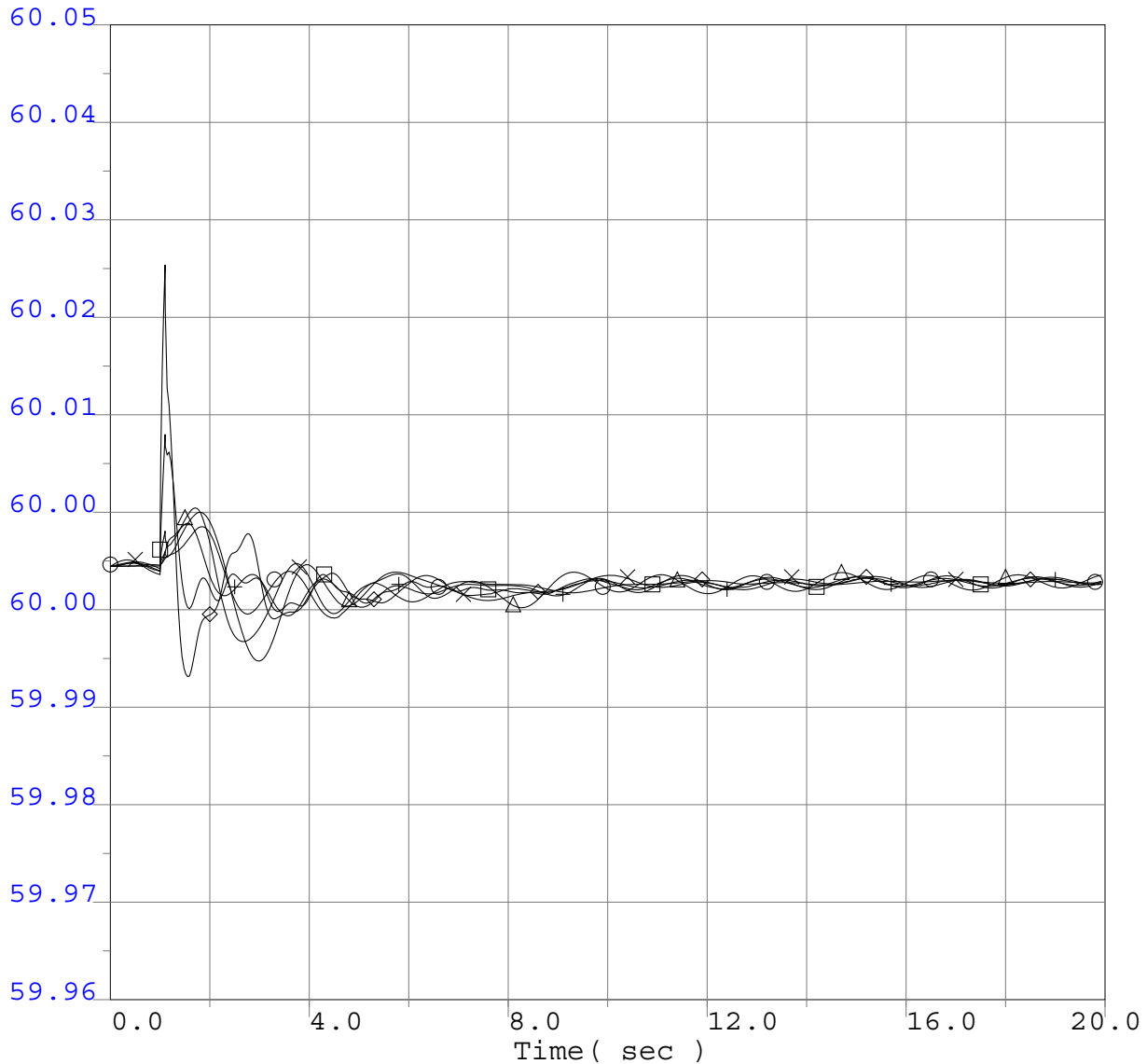
○	59.9600 Ebus	30042	METCALF 500.0	0	0.0	"**	1	60.0600
□	59.9600 Ebus	30045	MOSSLAND 500.0	0	0.0	"**	1	60.0600
△	59.9600 Ebus	30050	LOSBANOS 500.0	0	0.0	"**	1	60.0600
◇	59.9600 Ebus	30055	GATES 500.0	0	0.0	"**	1	60.0600
◇	59.9600 Ebus	30060	MIDWAY 500.0	0	0.0	"**	1	60.0600

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



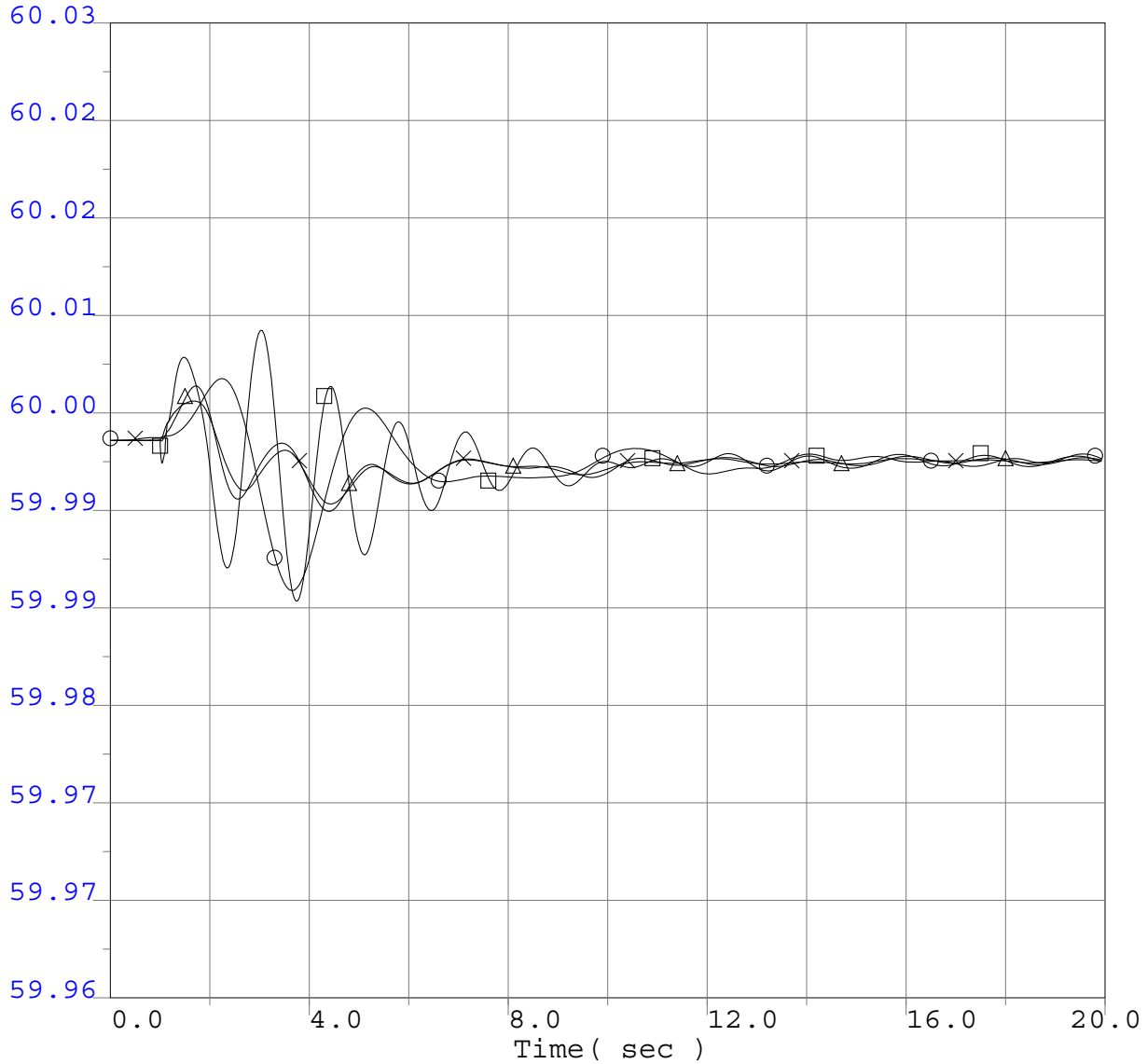
○	59.9600 Ebus	14001	FOURCORN	500.0	0	0.0	"**"	1	60.0500
□	59.9600 Ebus	50703	NIC500	500.0	0	0.0	"**"	1	60.0500
△	59.9600 Ebus	60240	MIDPOINT	500.0	0	0.0	"**"	1	60.0500
◇	59.9600 Ebus	62012	TOWN2	500.0	0	0.0	"**"	1	60.0500
+	59.9600 Ebus	40687	MALIN	500.0	0	0.0	"**"	1	60.0500
×	59.9600 Ebus	66340	SIGURD	345.0	0	0.0	"**"	1	60.0500

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



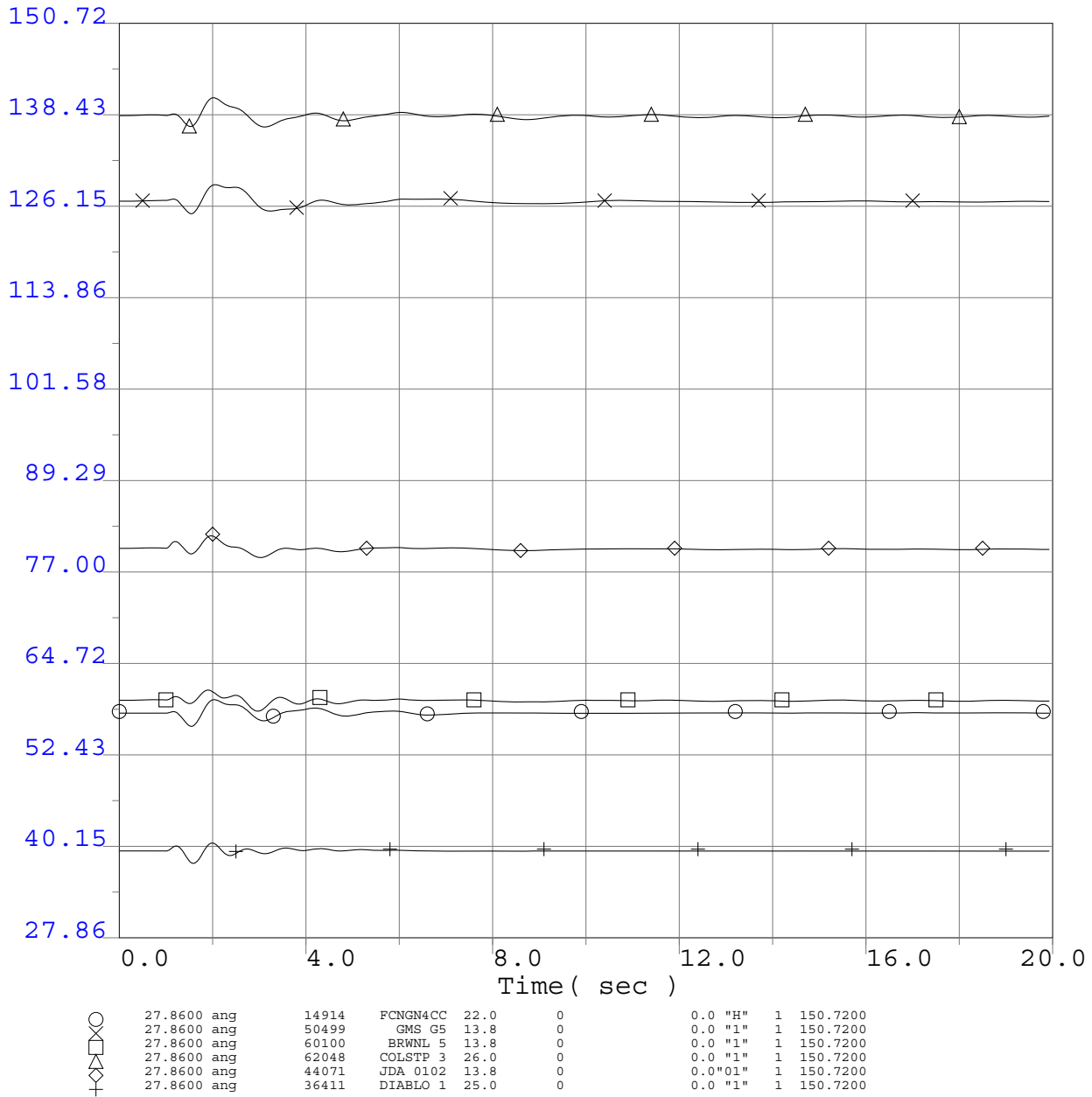
○	59.9600 Fbus	54150	WILLES9 240.0	0	0.0	""	1	60.0300
×	59.9600 Fbus	14003	NAVAJO 500.0	0	0.0	""	1	60.0300
□	59.9600 Fbus	24153	VESTAL 230.0	0	0.0	""	1	60.0300
△	59.9600 Fbus	22360	IMPRLVLY 500.0	0	0.0	""	1	60.0300

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
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 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle

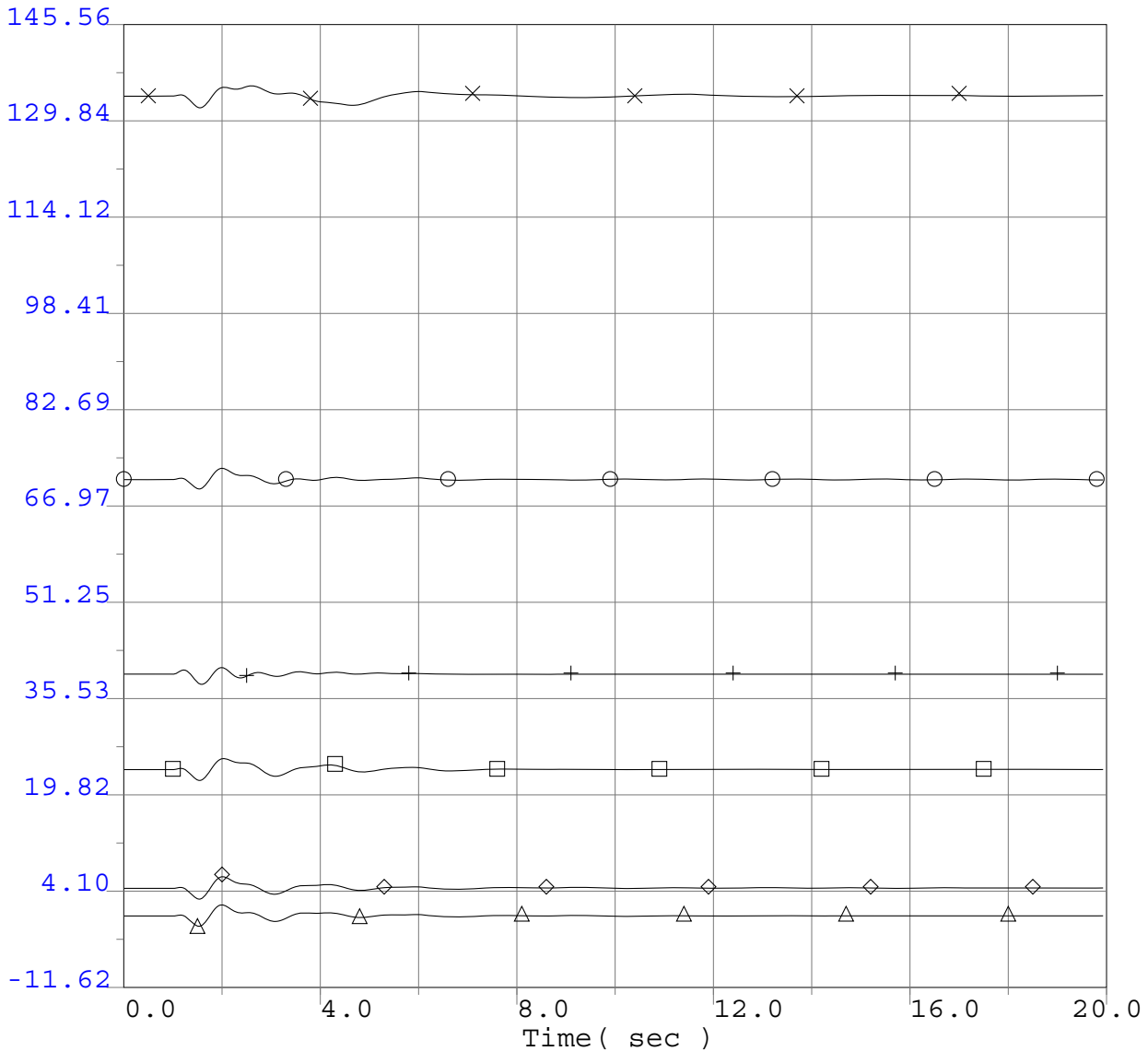


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle



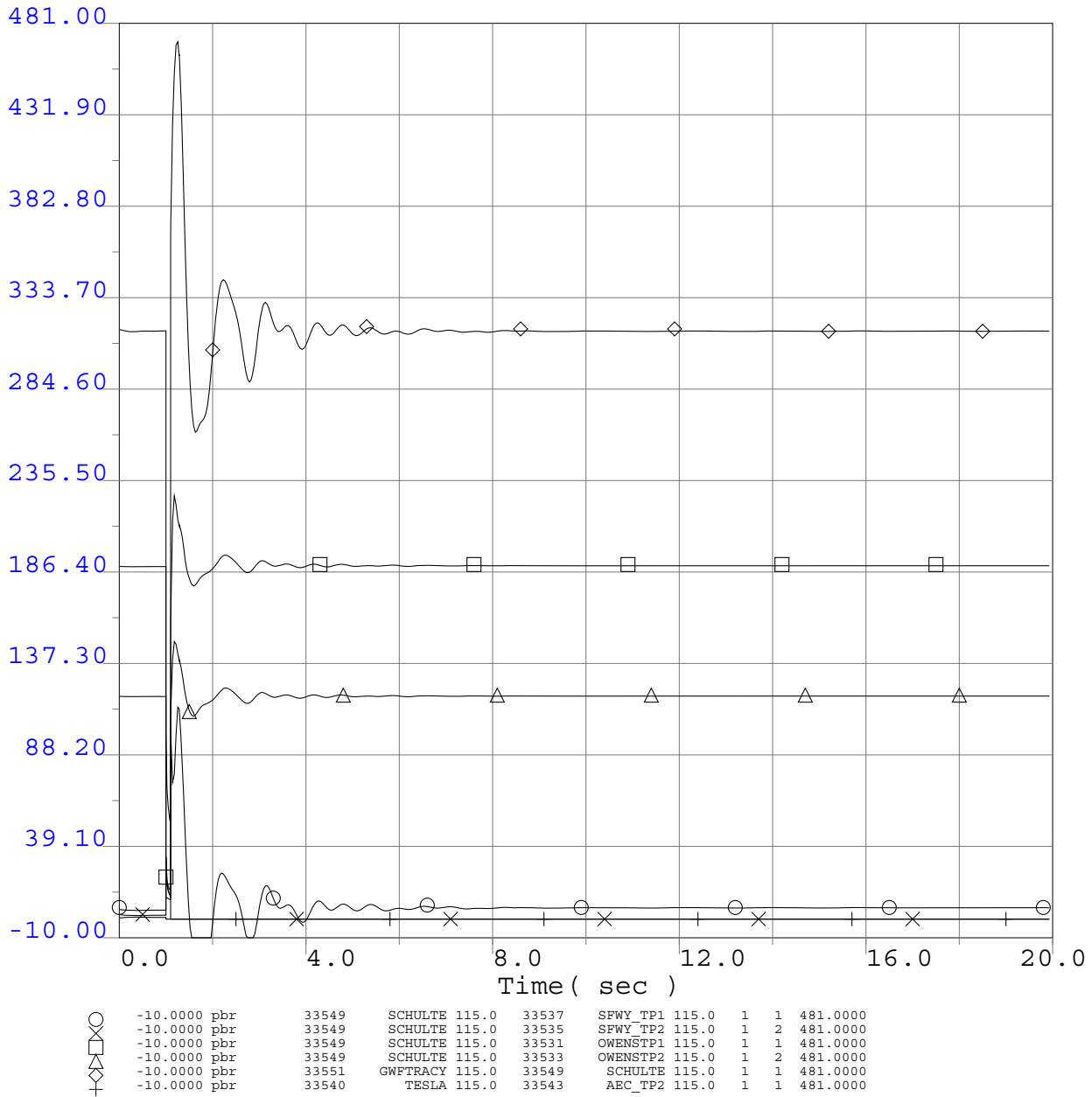
○	-11.6200 ang	65490	EHUNTR 1	24.0	0	0.0 "1"	1	145.5600
○	-11.6200 ang	54338	SUND#2GN	18.0	0	0.0 "2"	1	145.5600
□	-11.6200 ang	79151	GLENC3-4	13.8	0	0.0 "3"	1	145.5600
△	-11.6200 ang	24130	S.ONOPR3	22.0	0	0.0 "3"	1	145.5600
◇	-11.6200 ang	22244	ENCINA 5	24.0	0	0.0 "1"	1	145.5600
+	-11.6200 ang	36411	DIABLO 1	25.0	0	0.0 "1"	1	145.5600

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)

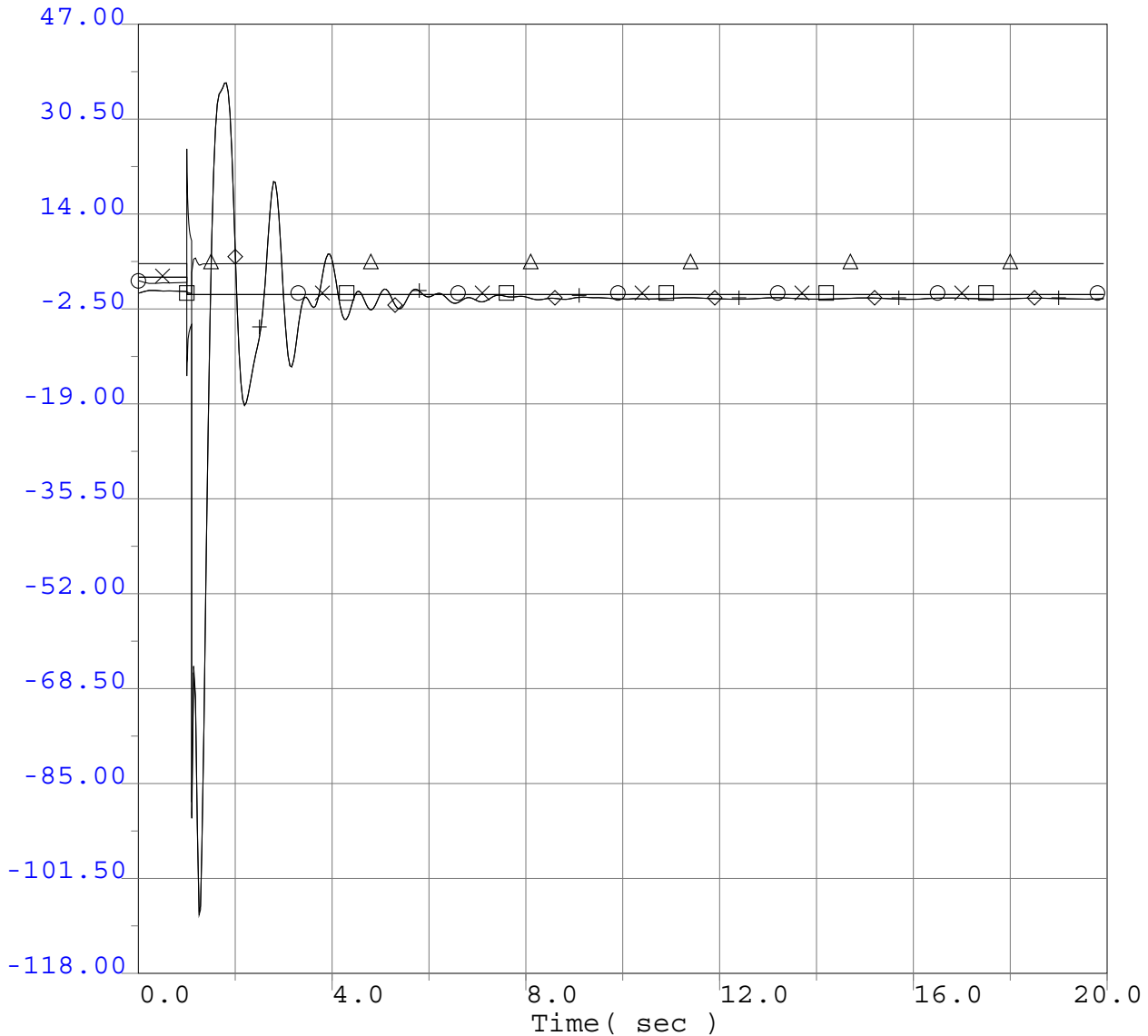


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)



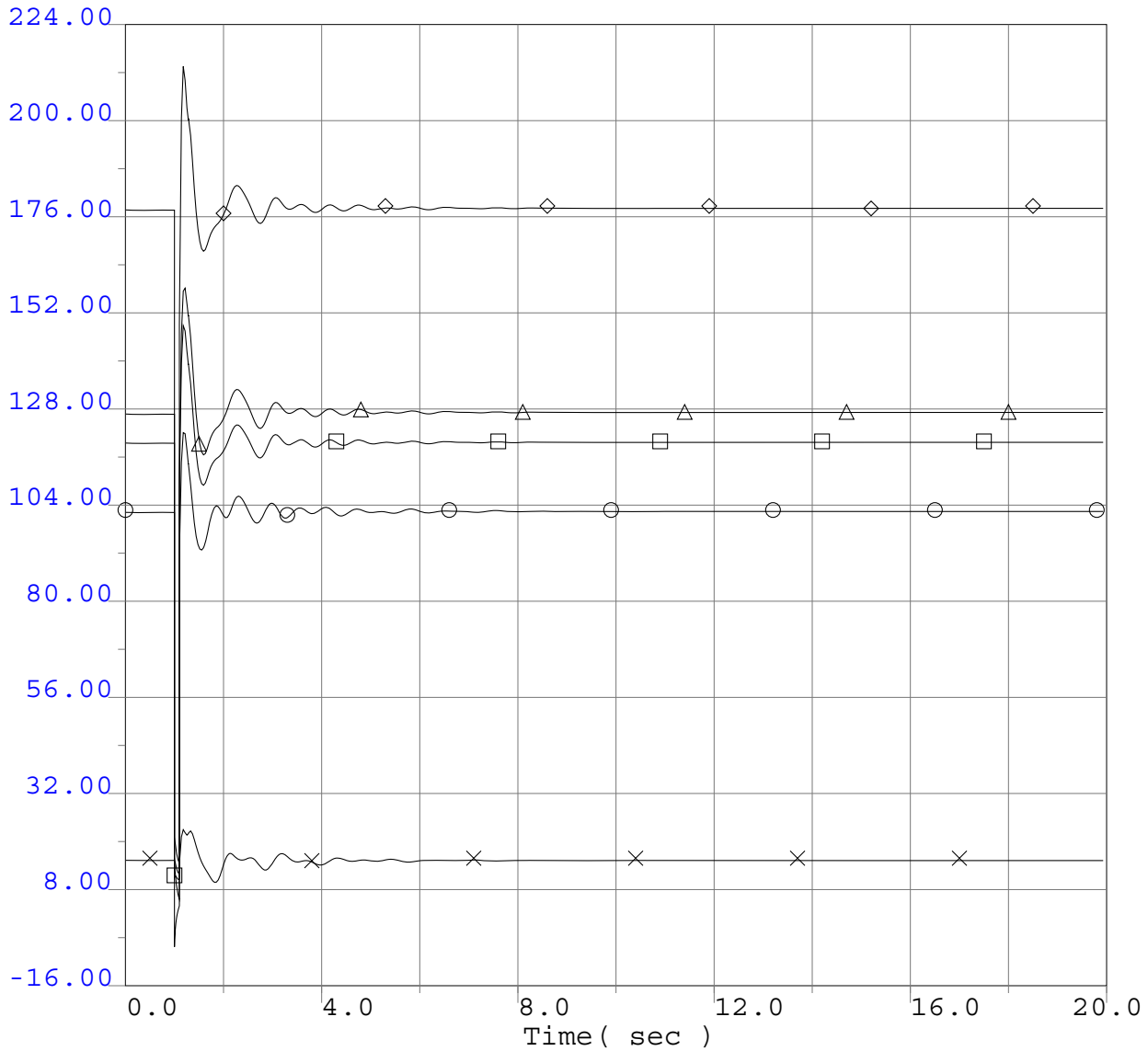
○	-118.0000 pbr	33535	SFWY_TP2 115.0	33543	AEC_TP2 115.0	1	1	47.0000
□	-118.0000 pbr	33543	AEC_TP2 115.0	33545	AEC_JCT 115.0	1	1	47.0000
△	-118.0000 pbr	33545	AEC_JCT 115.0	33547	AEC_300 115.0	1	1	47.0000
◇	-118.0000 pbr	33537	SFWY_TP1 115.0	33534	SAFEWAY 115.0	1	1	47.0000
+	-118.0000 pbr	33541	AEC_TP1 115.0	33537	SFWY_TP1 115.0	1	1	47.0000
×	-118.0000 pbr	33540	TESLA 115.0	33541	AEC_TP1 115.0	1	1	47.0000

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)



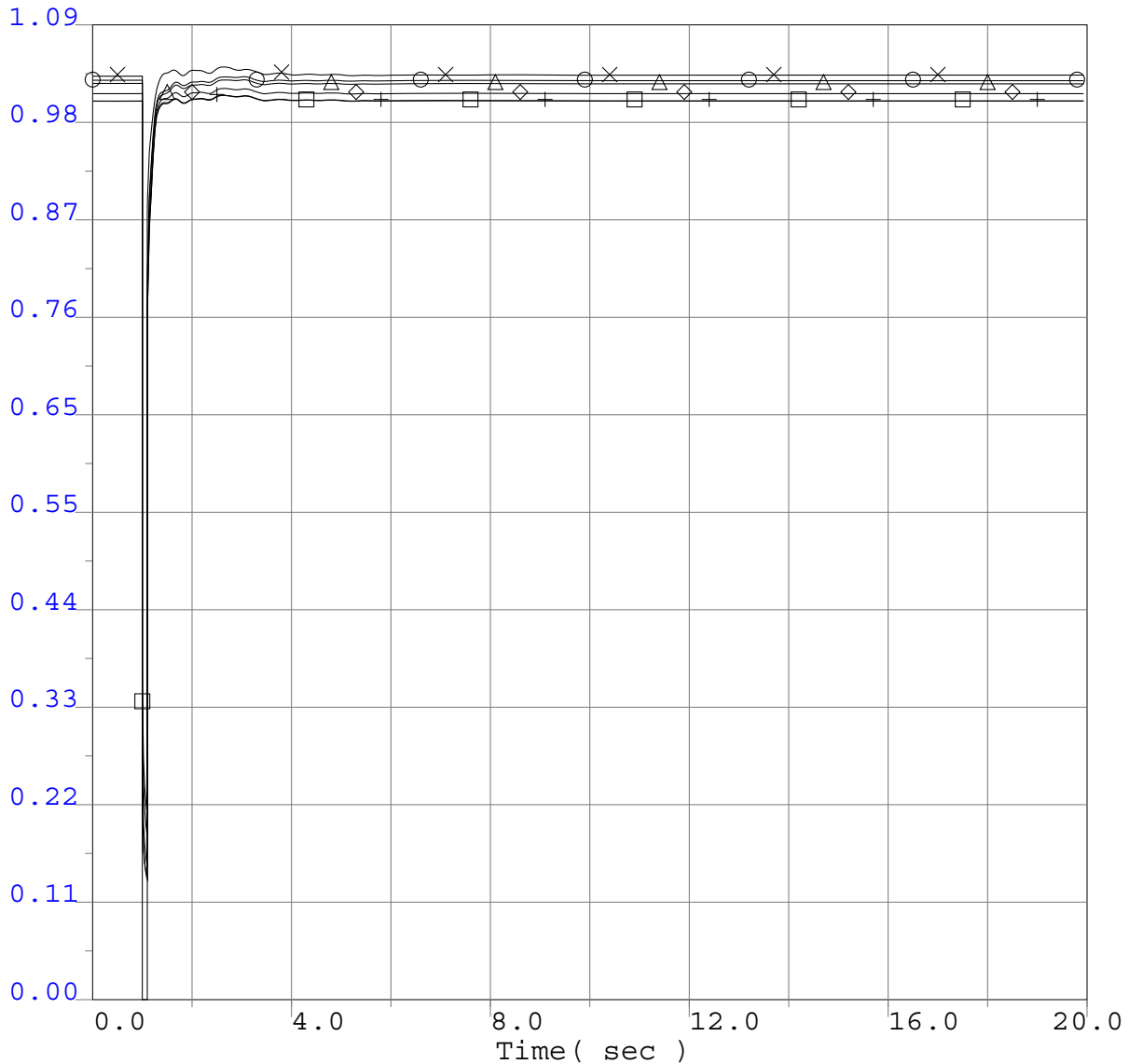
○	-16.0000 pbr	33526	KSSN-JC1	115.0	33514	MANTECA	115.0	1	1	224.0000
□	-16.0000 pbr	33526	KSSN-JC1	115.0	33528	KASSON	115.0	1	1	224.0000
△	-16.0000 pbr	33533	OWENSTP2	115.0	33526	KSSN-JC1	115.0	1	1	224.0000
◇	-16.0000 pbr	33529	LAMMERS	115.0	33528	KASSON	115.0	1	1	224.0000
×	-16.0000 pbr	33531	OWENSTP1	115.0	33529	LAMMERS	115.0	1	1	224.0000

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Voltage Plots Adjacent to Fault



○	0.0000 vbus	33549	SCHULTE 115.0	0	0.0	""	1	1.0900
□	0.0000 vbus	33540	TESLA 115.0	0	0.0	""	1	1.0900
△	0.0000 vbul	33514	MANTECA 115.0	0	0.0	""	1	1.0900
◇	0.0000 vbul	33529	LAMMERS 115.0	0	0.0	""	1	1.0900
+	0.0000 vbus	33528	KASSON 115.0	0	0.0	""	1	1.0900
×	0.0000 vbul	33518	VIERRA 115.0	0	0.0	""	1	1.0900

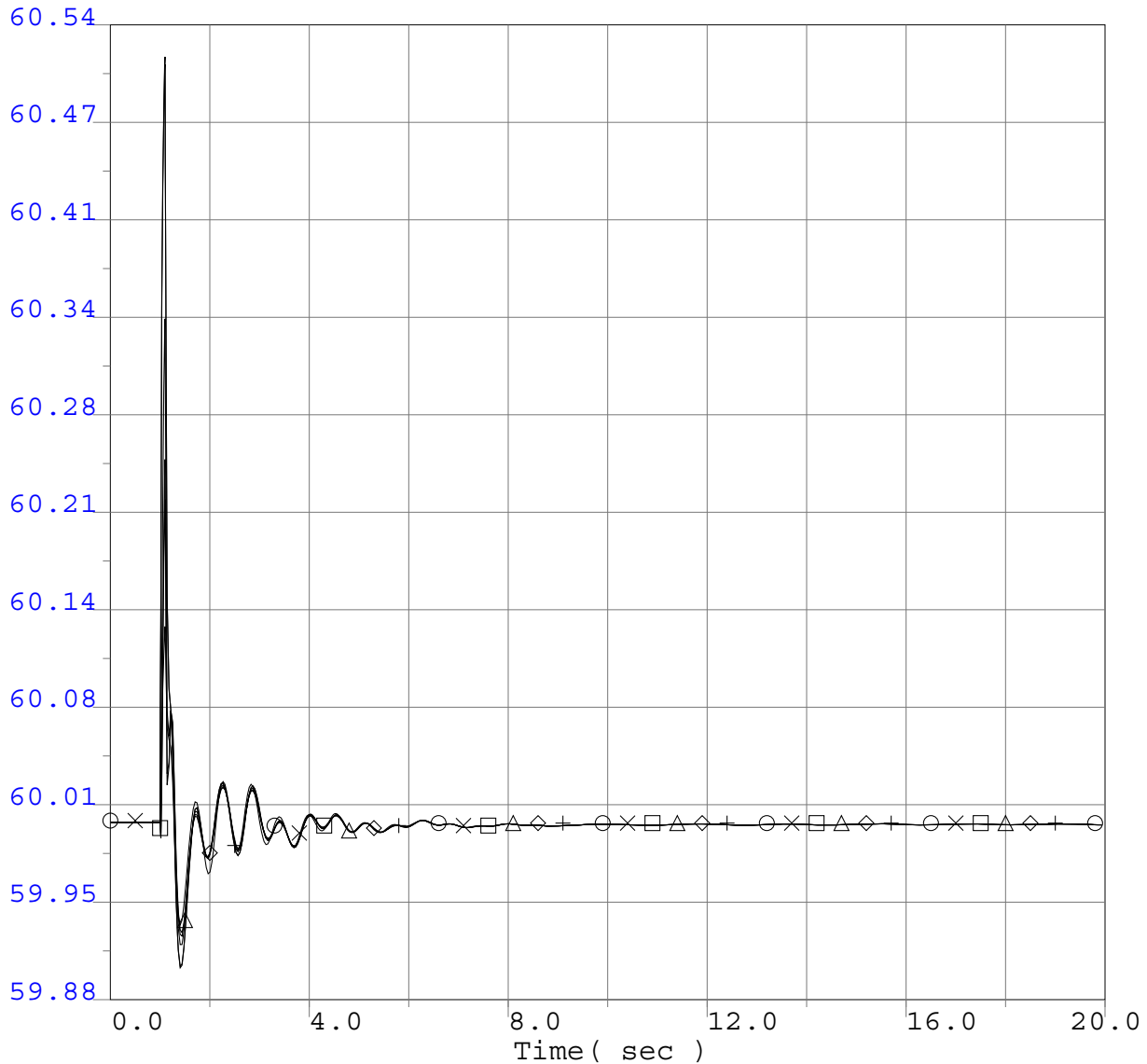


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Frequency Plots Adjacent to Fault



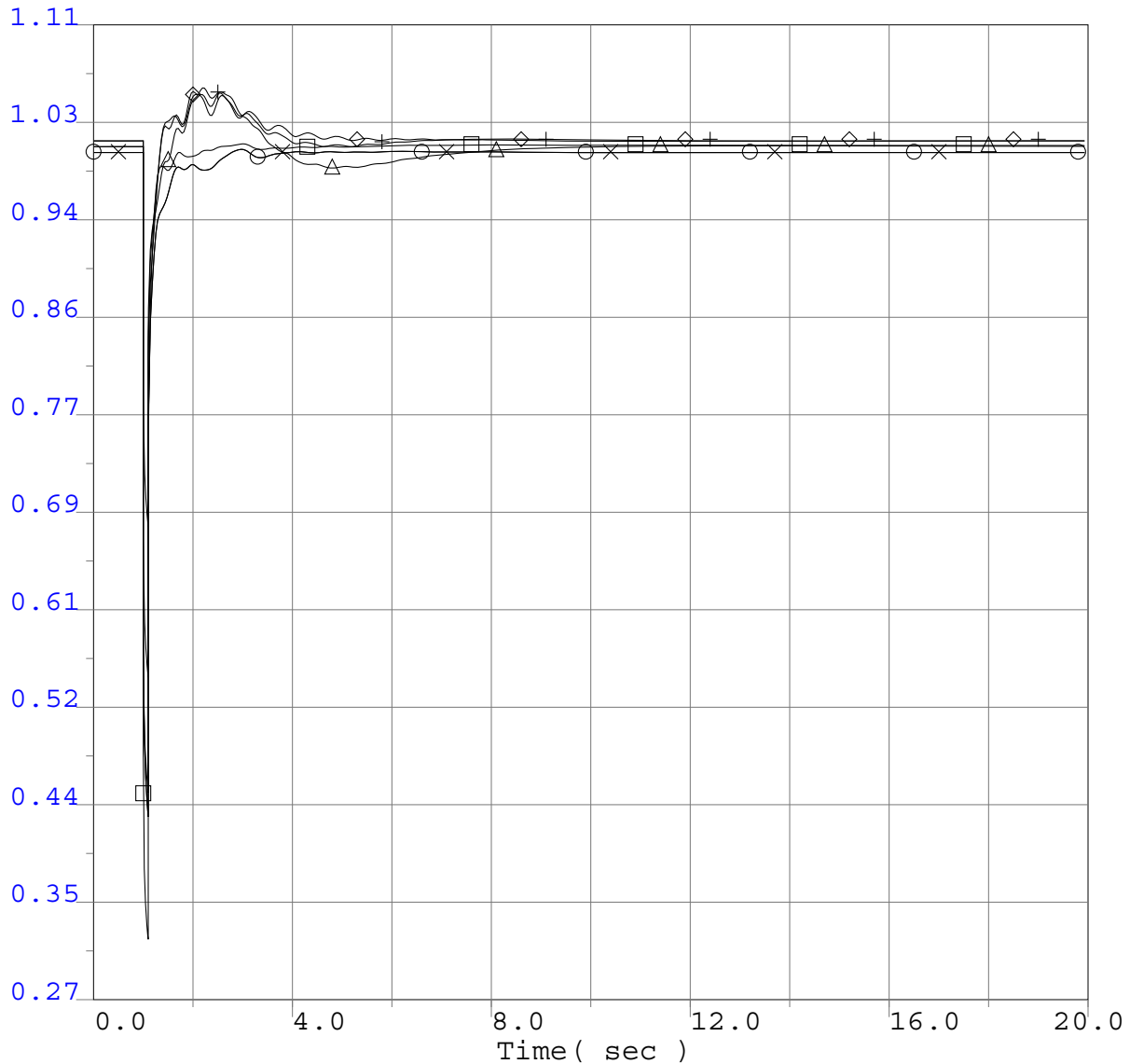
○	59.8800 Fbus	33549	SCHULTE 115.0	0	0.0	""	1	60.5400
×	59.8800 Fbus	33540	TESLA 115.0	0	0.0	""	1	60.5400
□	59.8800 Fbul	33514	MANTECA 115.0	0	0.0	""	1	60.5400
△	59.8800 Fbul	33529	LAMMERS 115.0	0	0.0	""	1	60.5400
◇	59.8800 Fbus	33528	KASSON 115.0	0	0.0	""	1	60.5400
+	59.8800 Fbul	33518	VIERRA 115.0	0	0.0	""	1	60.5400

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Terminal Voltages



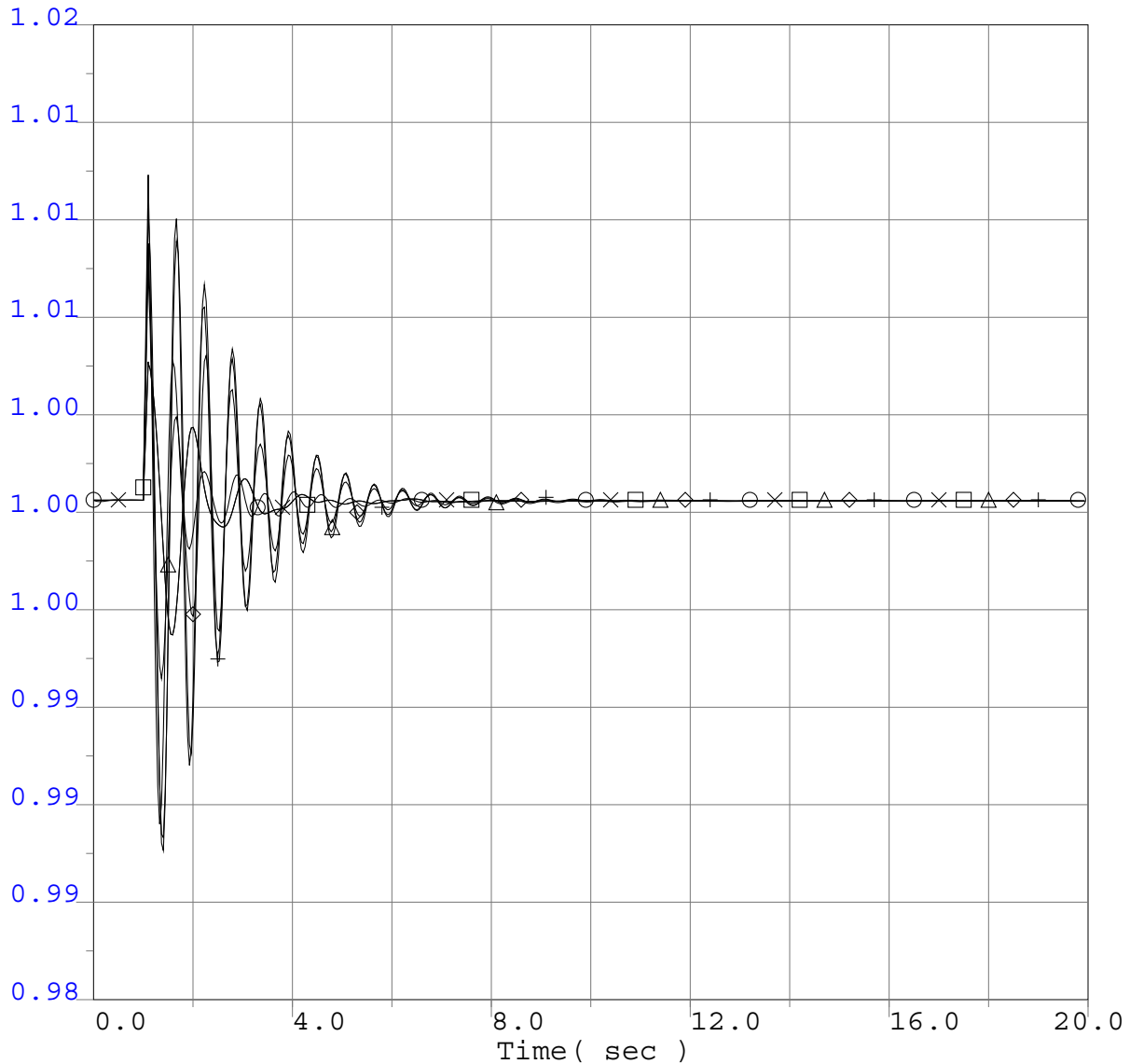
○	0.2700 vt	33805	GWTRCY1	13.8	0	0.0	"1"	1	1.1100
□	0.2700 vt	33807	GWTRCY2	13.8	0	0.0	"1"	1	1.1100
△	0.2700 vt	33809	Q268ST1	13.8	0	0.0	"1"	1	1.1100
◇	0.2700 vt	33858	P0409CG2	13.8	0	0.0	"1"	1	1.1100
+	0.2700 vt	33808	SJ COGEN	13.8	0	0.0	"1"	1	1.1100
×	0.2700 vt	33810	SP CMPNY	13.8	0	0.0	"1"	1	1.1100

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Rotor Speed



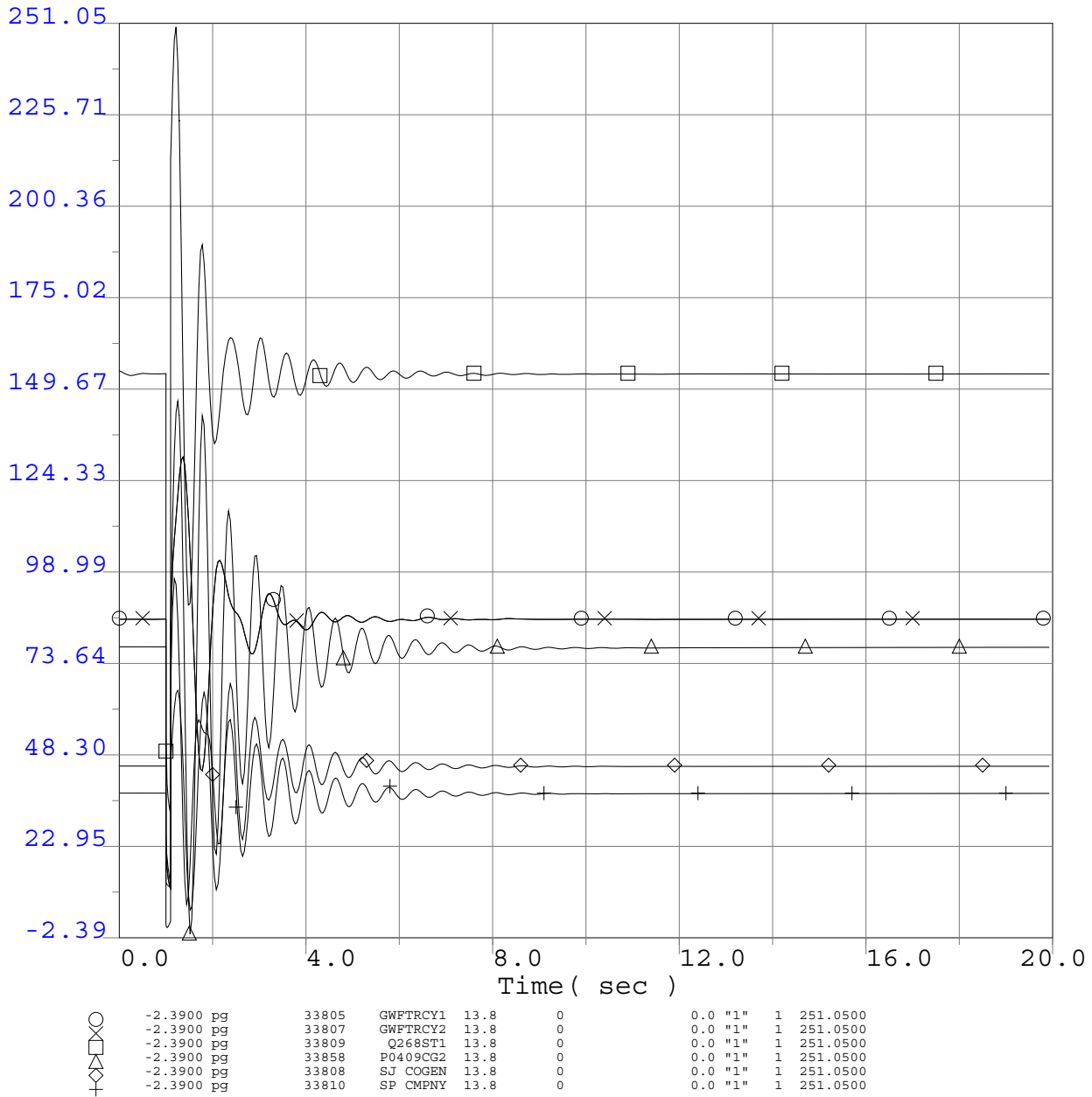
○	0.9834 spd	33805	GWFTRCY1	13.8	0	0.0	"1"	1	1.0158
×	0.9834 spd	33807	GWFTRCY2	13.8	0	0.0	"1"	1	1.0158
□	0.9834 spd	33809	Q268ST1	13.8	0	0.0	"1"	1	1.0158
△	0.9834 spd	33858	P0409CG2	13.8	0	0.0	"1"	1	1.0158
◇	0.9834 spd	33808	SJ COGEN	13.8	0	0.0	"1"	1	1.0158
+	0.9834 spd	33810	SP CMPNY	13.8	0	0.0	"1"	1	1.0158

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
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 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Terminal Power

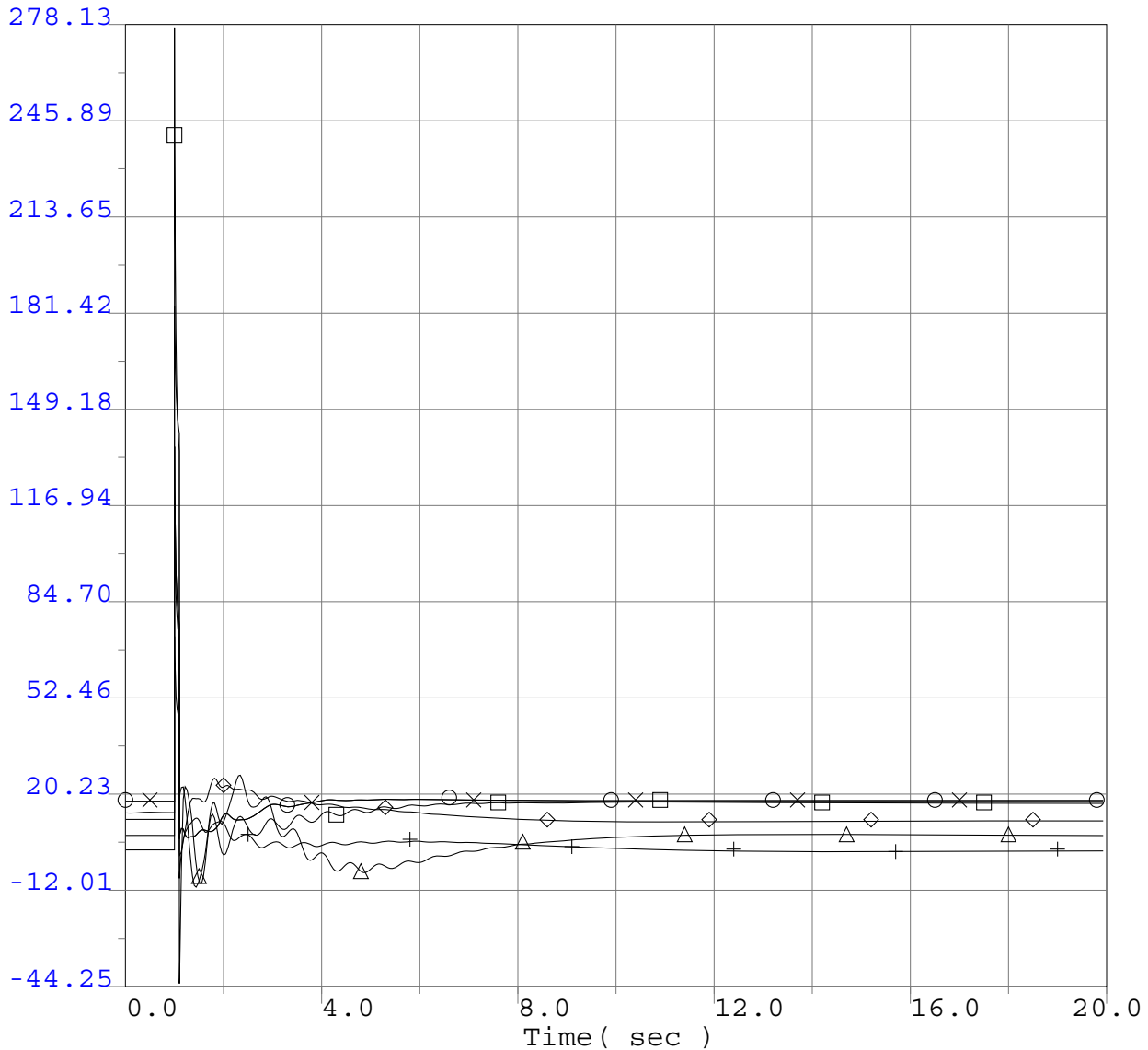


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Terminal Reactive Power



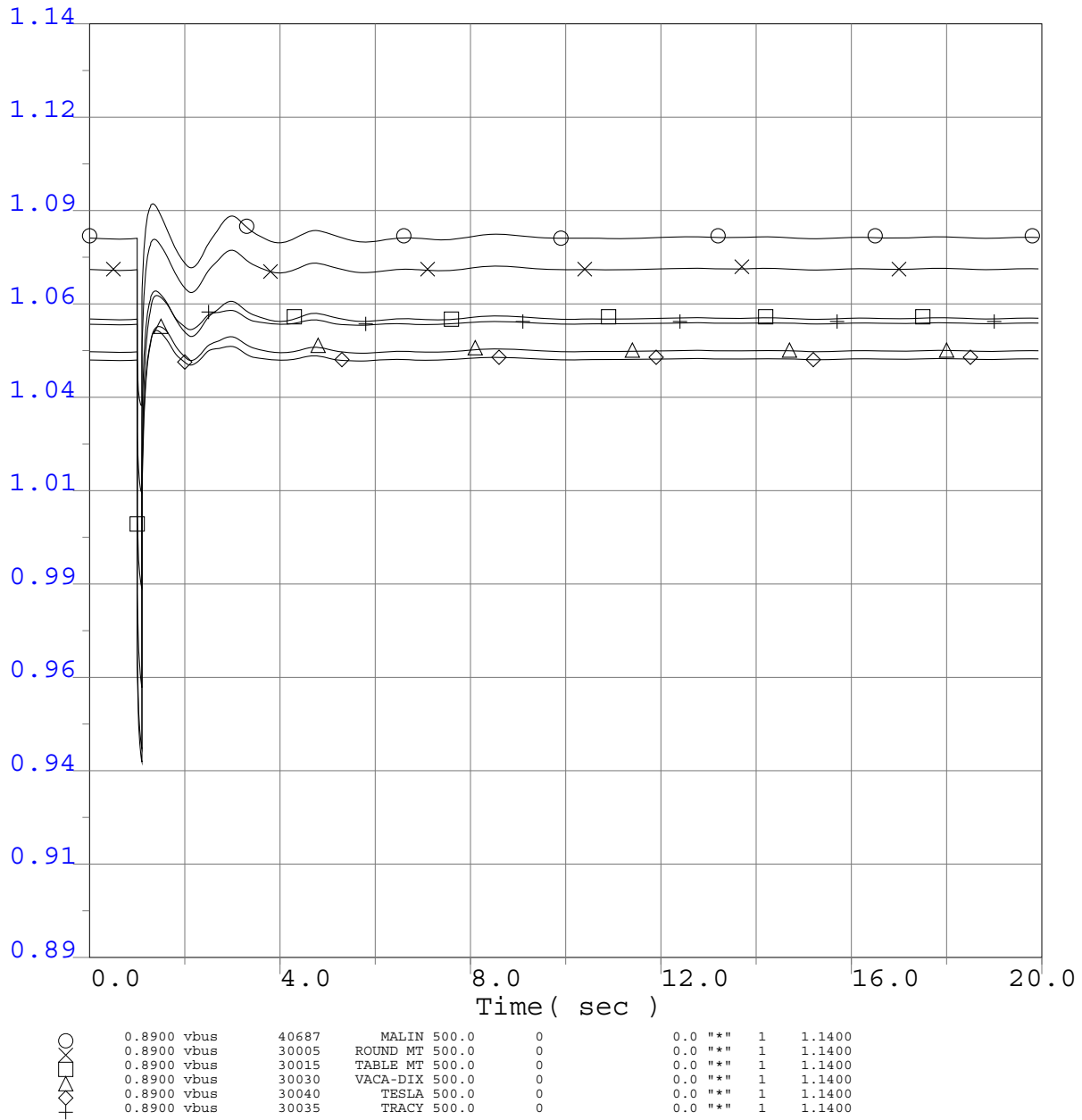
○	-44.2500	gg	33805	GWFTRCY1	13.8	0	0.0	"1"	1	278.1300
×	-44.2500	gg	33807	GWFTRCY2	13.8	0	0.0	"1"	1	278.1300
□	-44.2500	gg	33809	Q268ST1	13.8	0	0.0	"1"	1	278.1300
◇	-44.2500	gg	33858	P0409CG2	13.8	0	0.0	"1"	1	278.1300
△	-44.2500	gg	33808	SJ COGEN	13.8	0	0.0	"1"	1	278.1300
+	-44.2500	gg	33810	SP CMPNY	13.8	0	0.0	"1"	1	278.1300

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

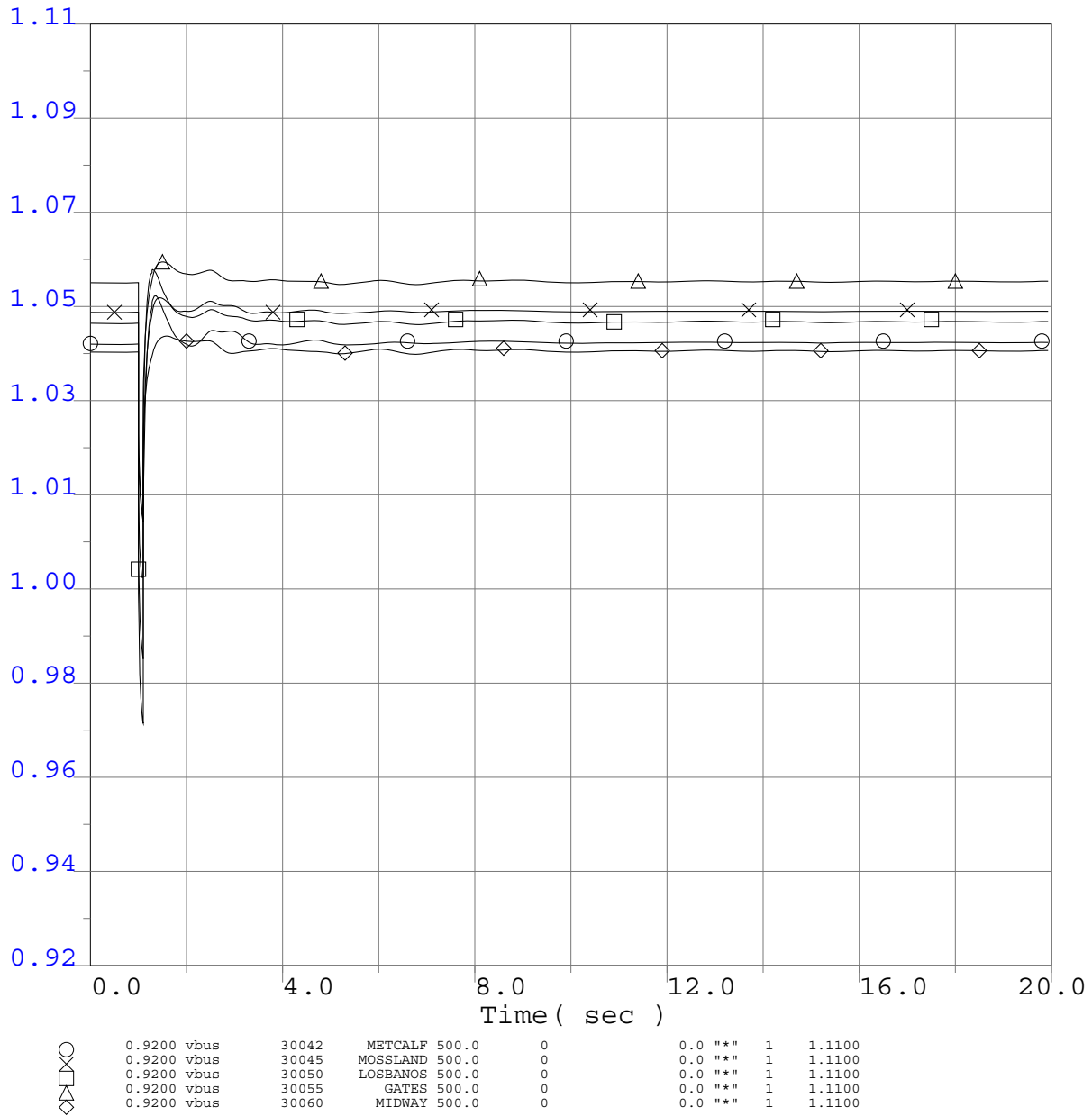


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

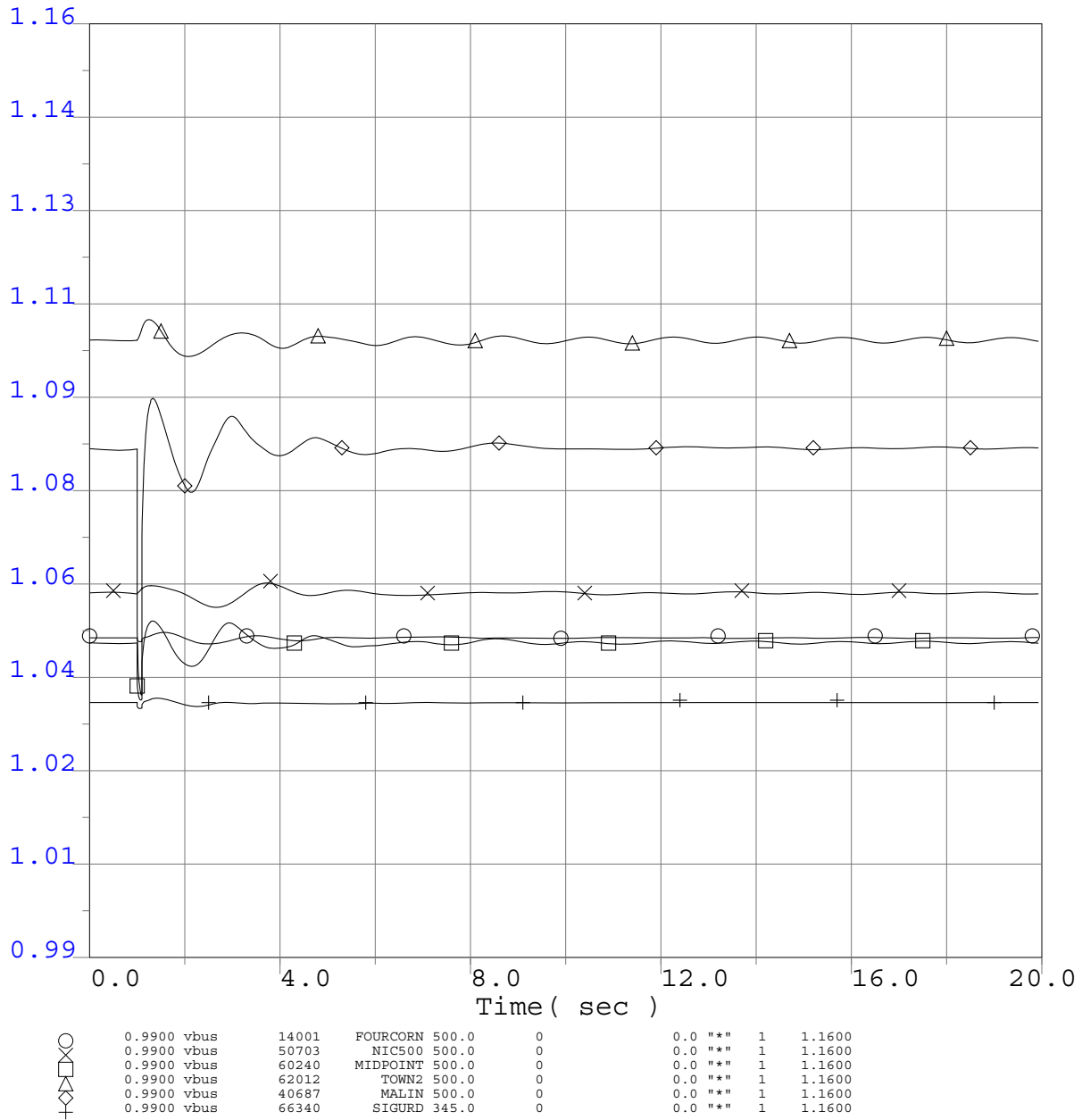


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

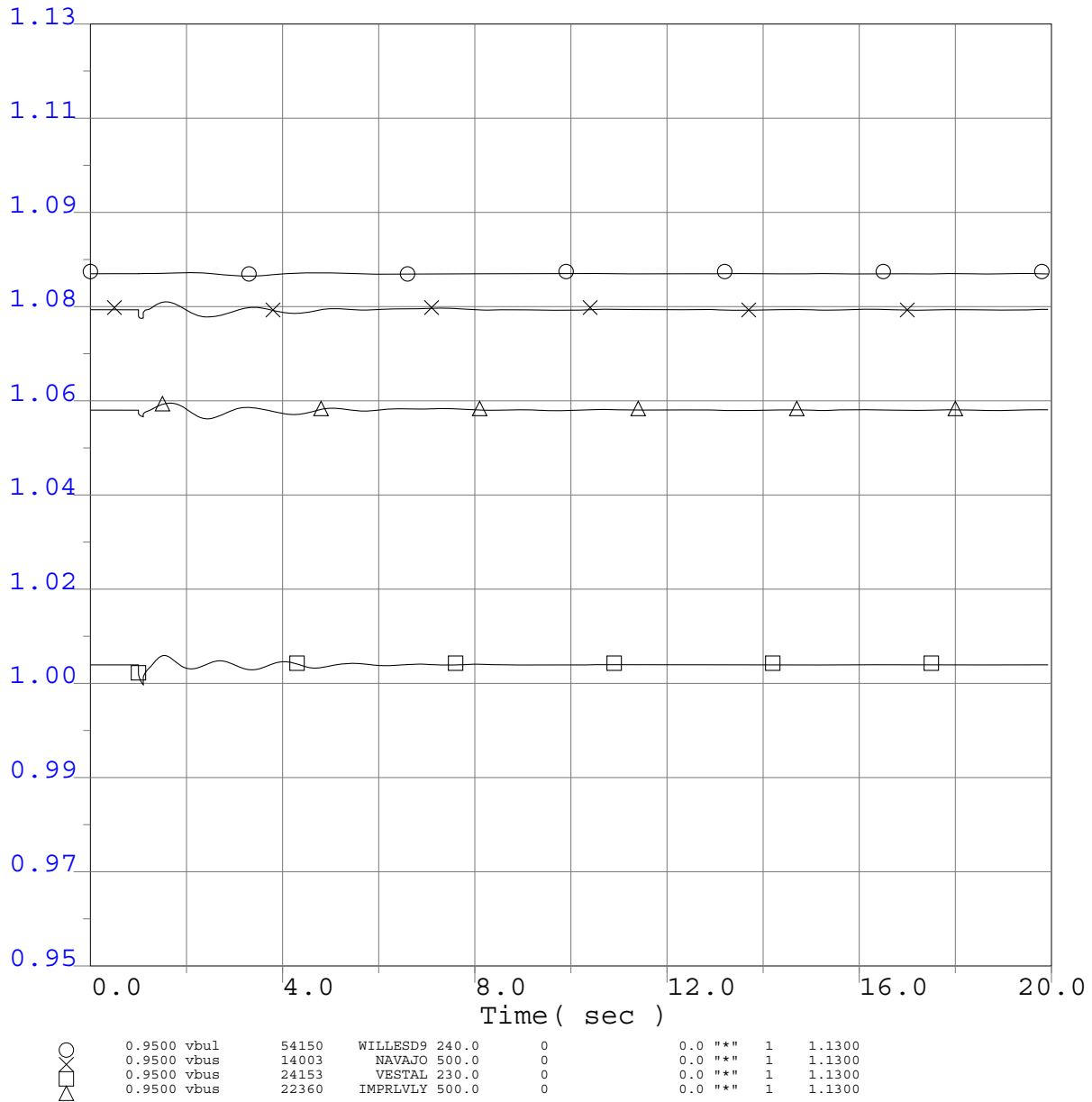


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

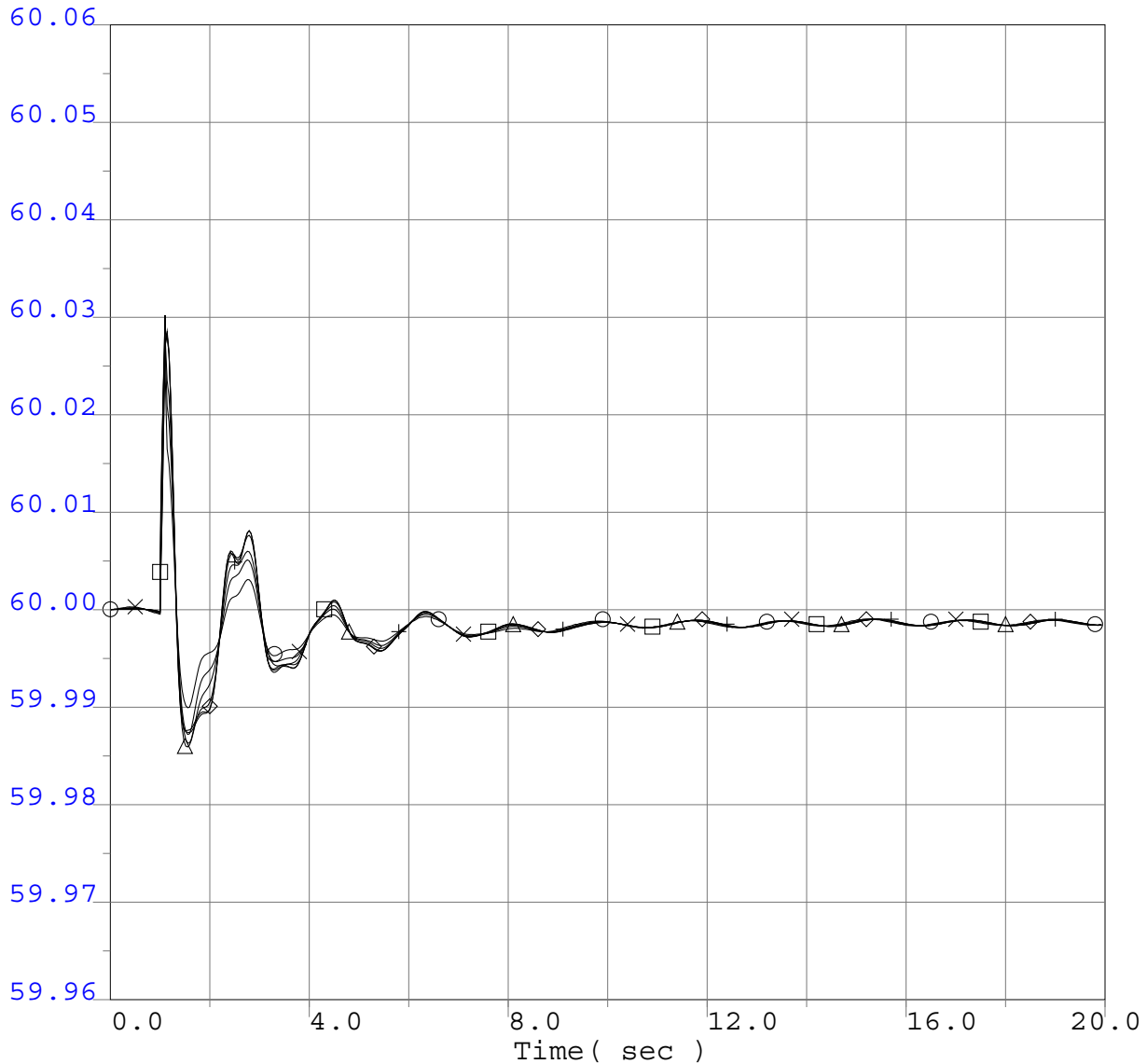


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



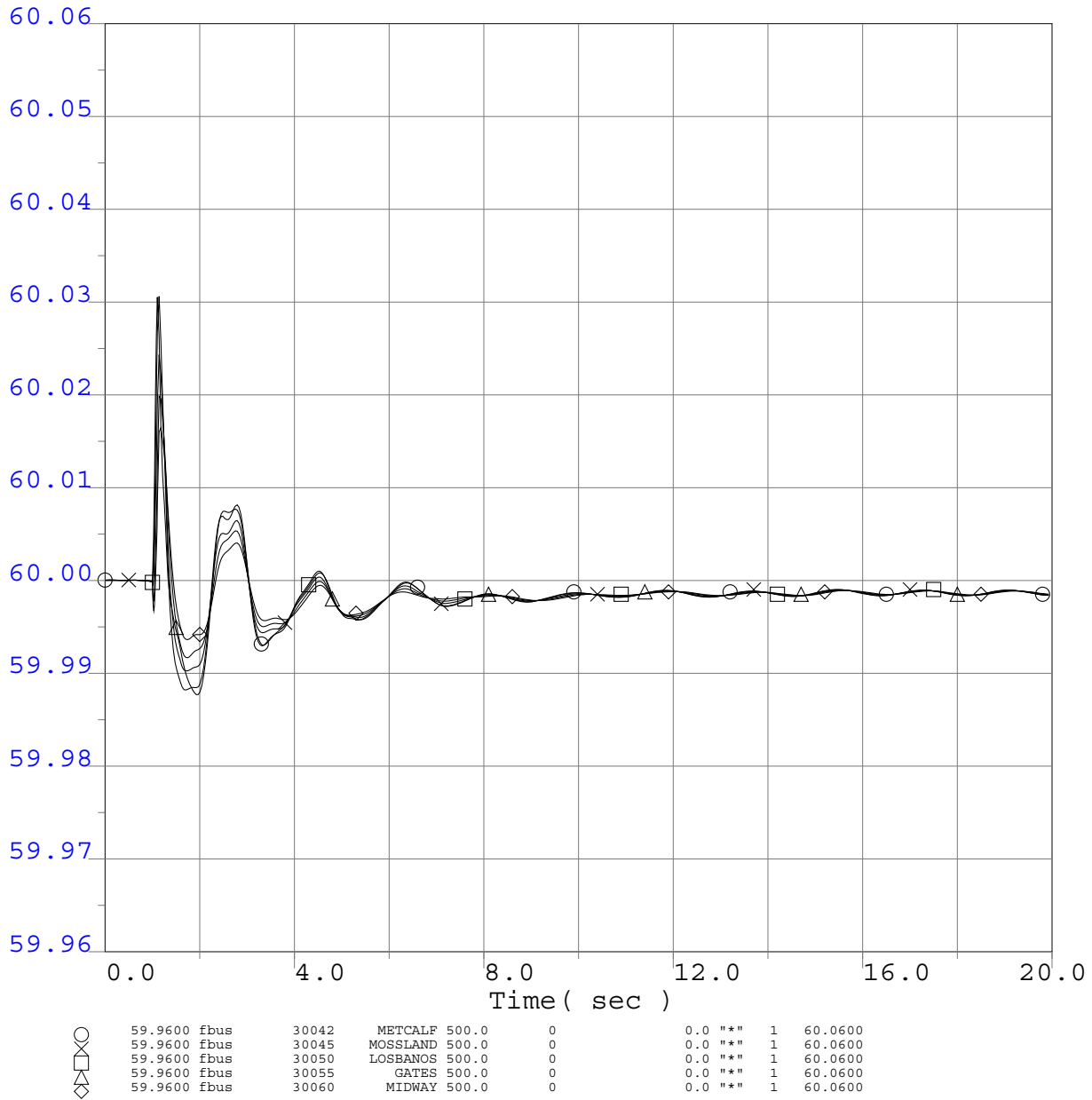
○	59.9600 Ebus	40687	MALIN 500.0	0	0.0	"	1	60.0600
□	59.9600 Ebus	30005	ROUND MT 500.0	0	0.0	"	1	60.0600
△	59.9600 Ebus	30015	TABLE MT 500.0	0	0.0	"	1	60.0600
◇	59.9600 Ebus	30030	VACA-DIX 500.0	0	0.0	"	1	60.0600
+	59.9600 Ebus	30040	TESLA 500.0	0	0.0	"	1	60.0600
×	59.9600 Ebus	30035	TRACY 500.0	0	0.0	"	1	60.0600

Q268 Project Interconnection System Impact Study
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Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots

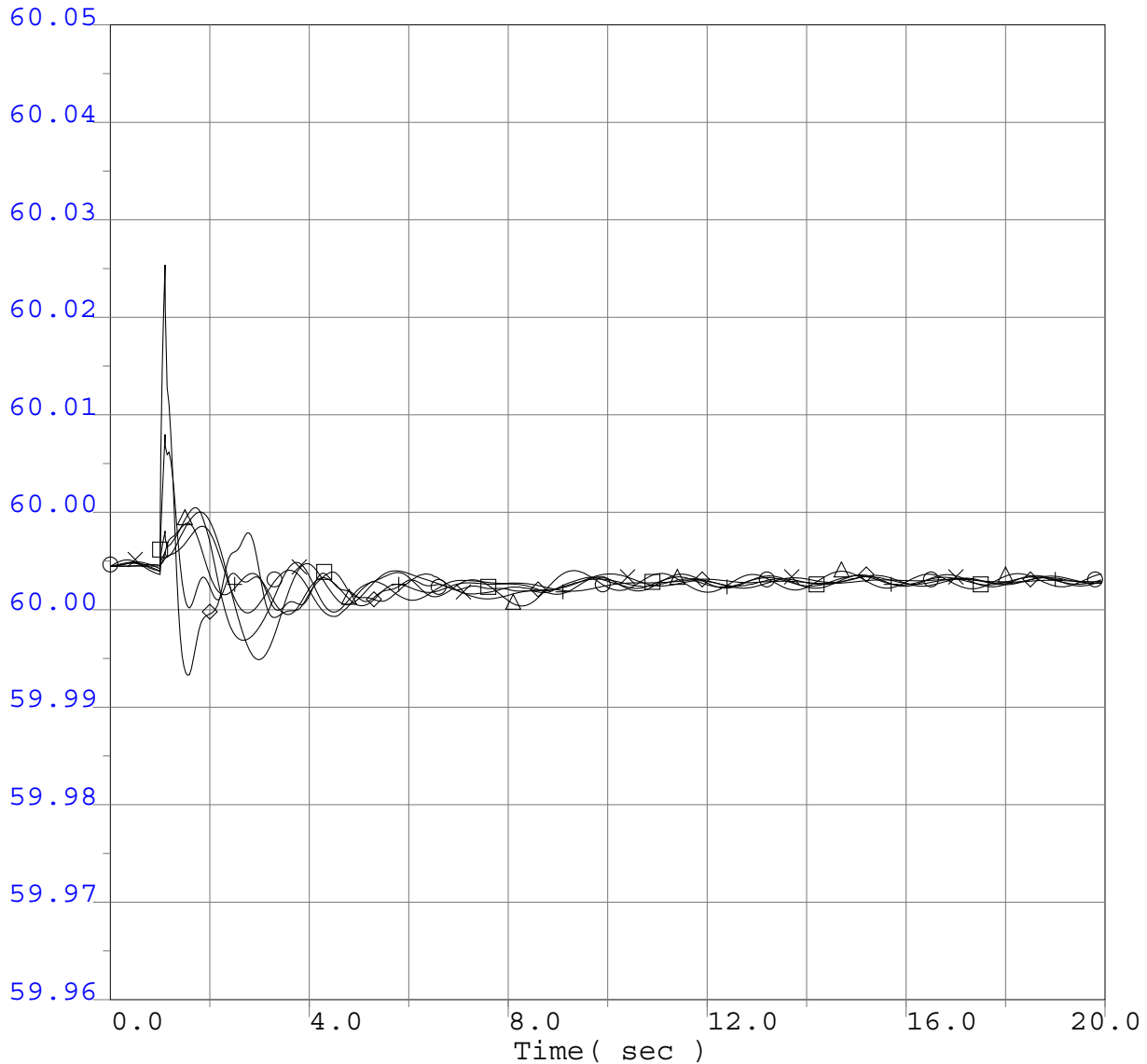


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
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 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



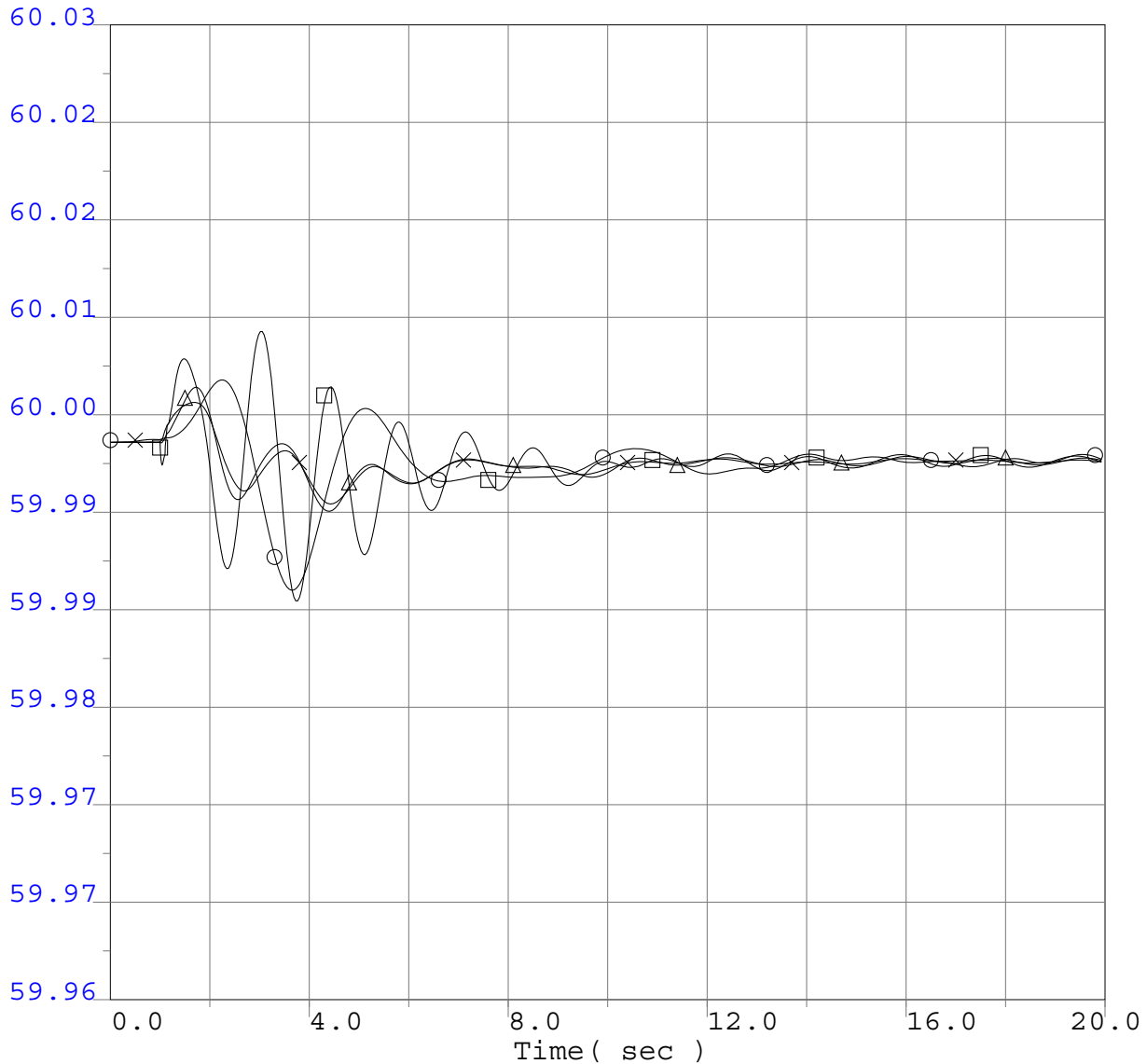
○	59.9600 Ebus	14001	FOURCORN	500.0	0	0.0	""	1	60.0500
□	59.9600 Ebus	50703	NIC500	500.0	0	0.0	""	1	60.0500
△	59.9600 Ebus	60240	MIDPOINT	500.0	0	0.0	""	1	60.0500
◇	59.9600 Ebus	62012	TOWN2	500.0	0	0.0	""	1	60.0500
+	59.9600 Ebus	40687	MALIN	500.0	0	0.0	""	1	60.0500
	59.9600 Ebus	66340	SIGURD	345.0	0	0.0	""	1	60.0500

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
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 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



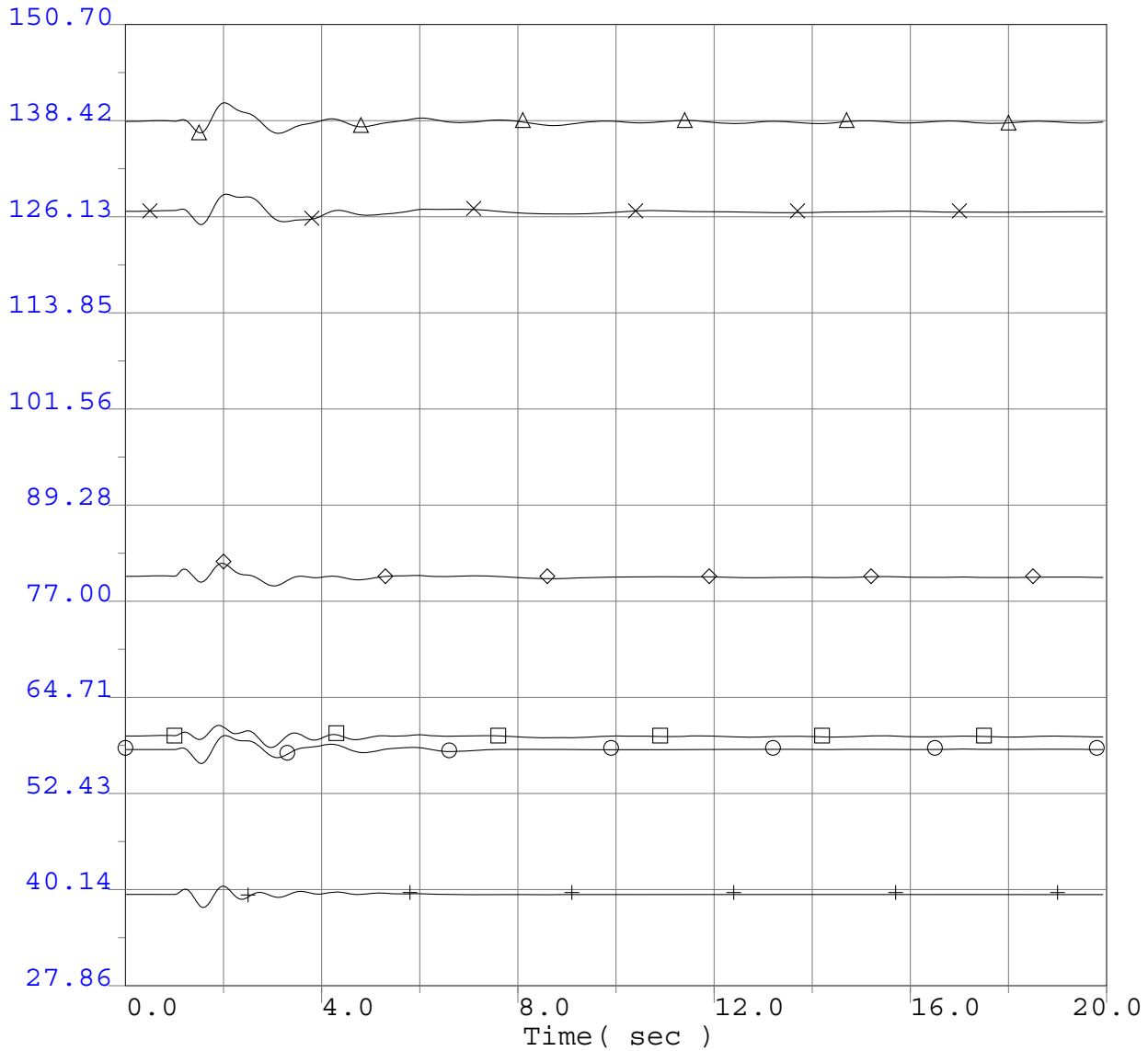
○	59.9600 Fbul	54150	WILLES9 240.0	0	0.0	""	1	60.0300
□	59.9600 Fbus	14003	NAVAJO 500.0	0	0.0	""	1	60.0300
×	59.9600 Fbus	24153	VESTAL 230.0	0	0.0	""	1	60.0300
△	59.9600 Fbus	22360	IMPRLVLY 500.0	0	0.0	""	1	60.0300

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle



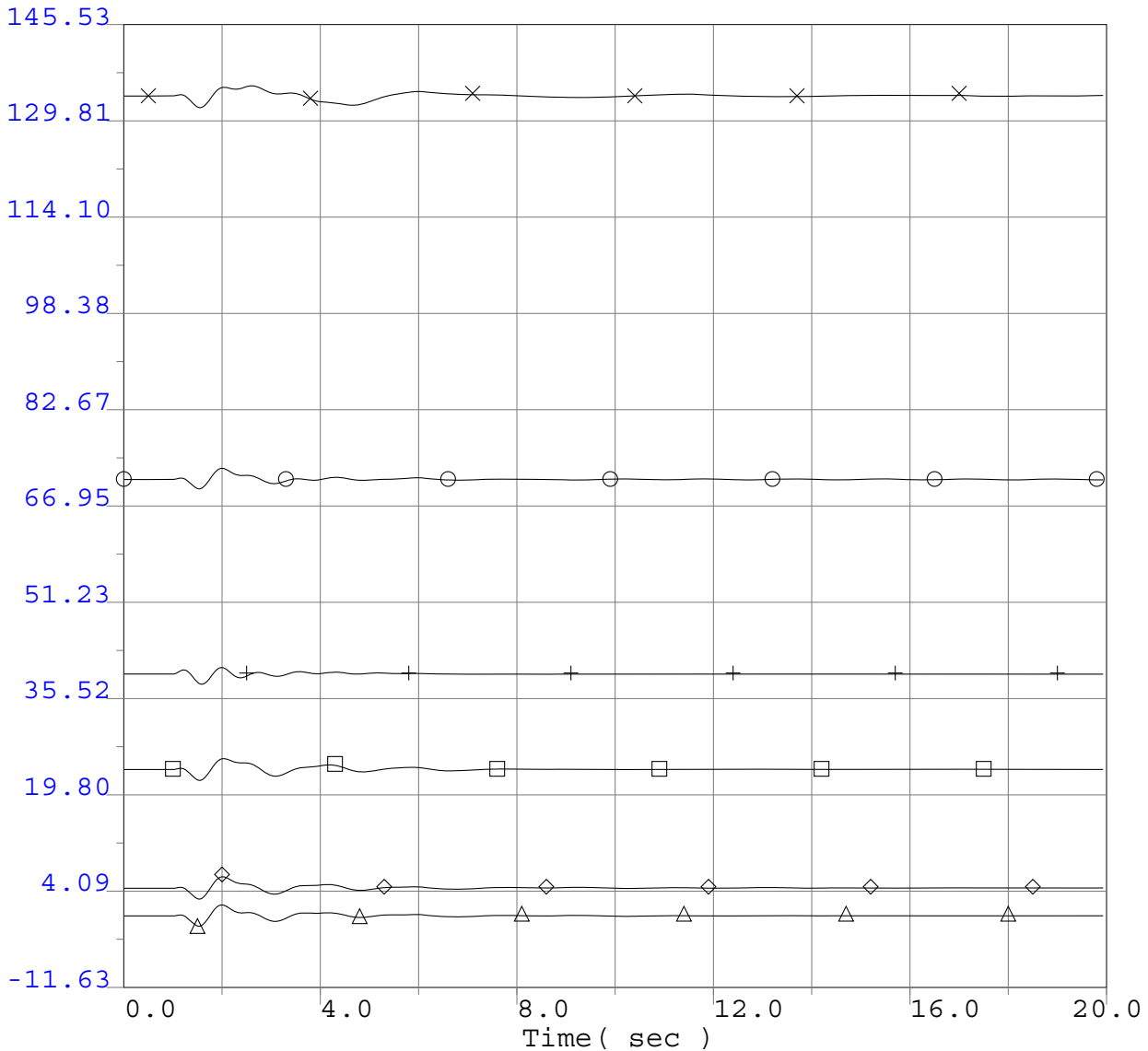
○	27.8600 ang	14914	FCNGN4CC	22.0	0	0.0 "H"	1	150.7000
×	27.8600 ang	50499	GMS G5	13.8	0	0.0 "1"	1	150.7000
◇	27.8600 ang	60100	BRWNL 5	13.8	0	0.0 "1"	1	150.7000
△	27.8600 ang	62048	COLSTP 3	26.0	0	0.0 "1"	1	150.7000
○	27.8600 ang	44071	JDA 0102	13.8	0	0.0"01"	1	150.7000
+	27.8600 ang	36411	DIABLO 1	25.0	0	0.0 "1"	1	150.7000

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle



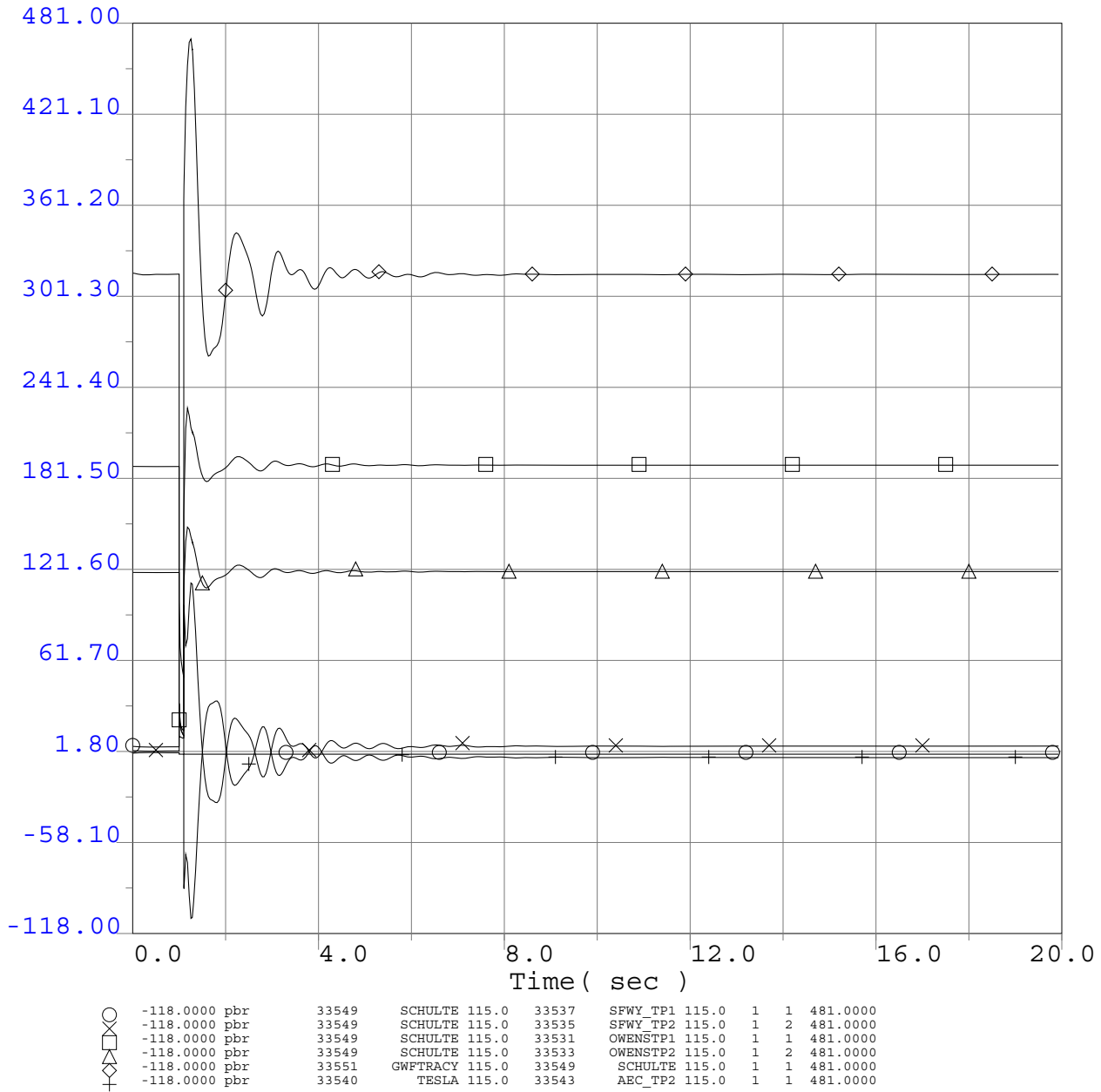
○	-11.6300 ang	65490	EHUNTR 1	24.0	0	0.0 "1"	1	145.5300
○	-11.6300 ang	54338	SUND#2GN	18.0	0	0.0 "2"	1	145.5300
□	-11.6300 ang	79151	GLENC3-4	13.8	0	0.0 "3"	1	145.5300
□	-11.6300 ang	24130	S.ONOPR3	22.0	0	0.0 "3"	1	145.5300
△	-11.6300 ang	22244	ENCINA 5	24.0	0	0.0 "1"	1	145.5300
△	-11.6300 ang	36411	DIABLO 1	25.0	0	0.0 "1"	1	145.5300

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)

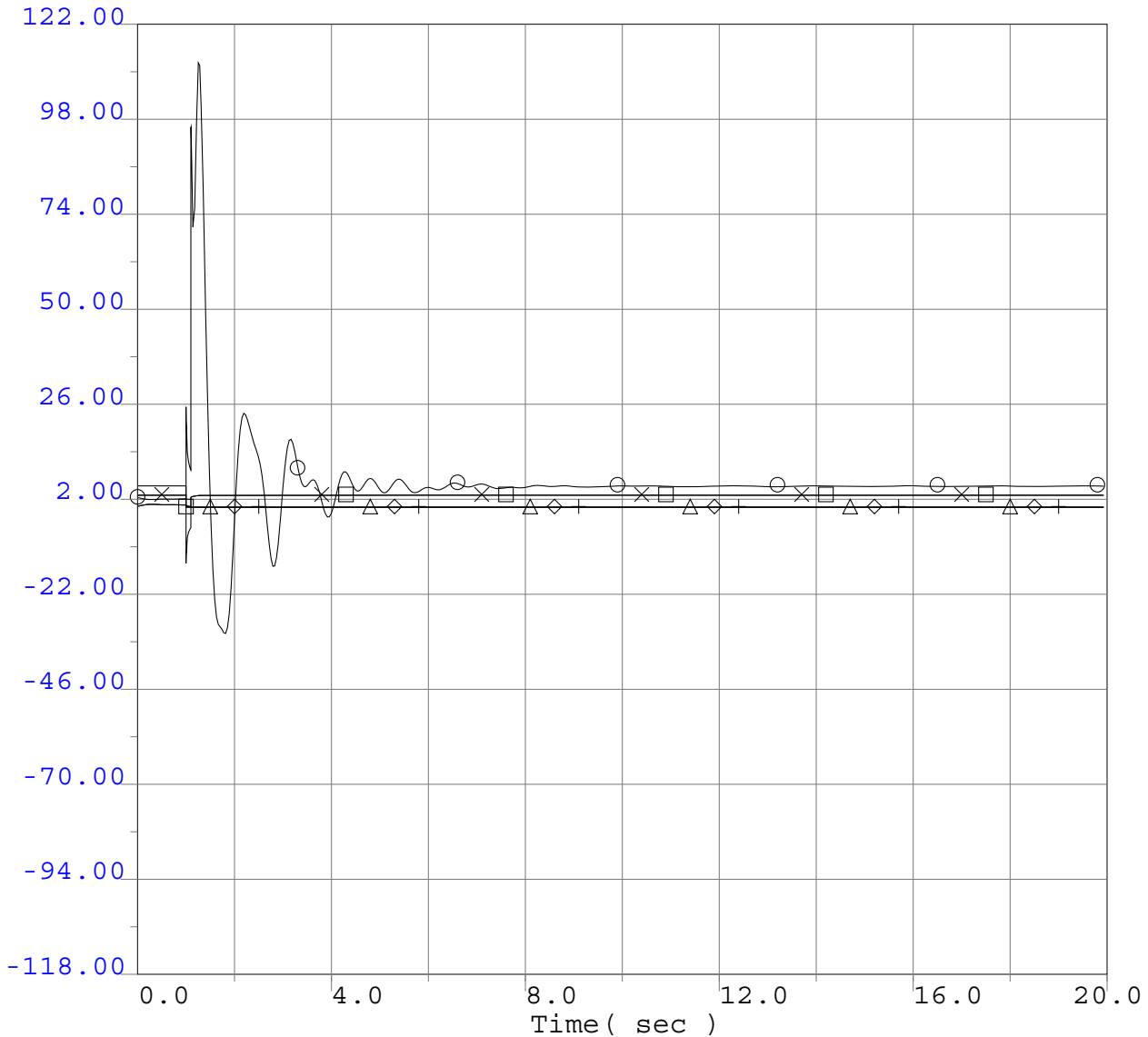


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)



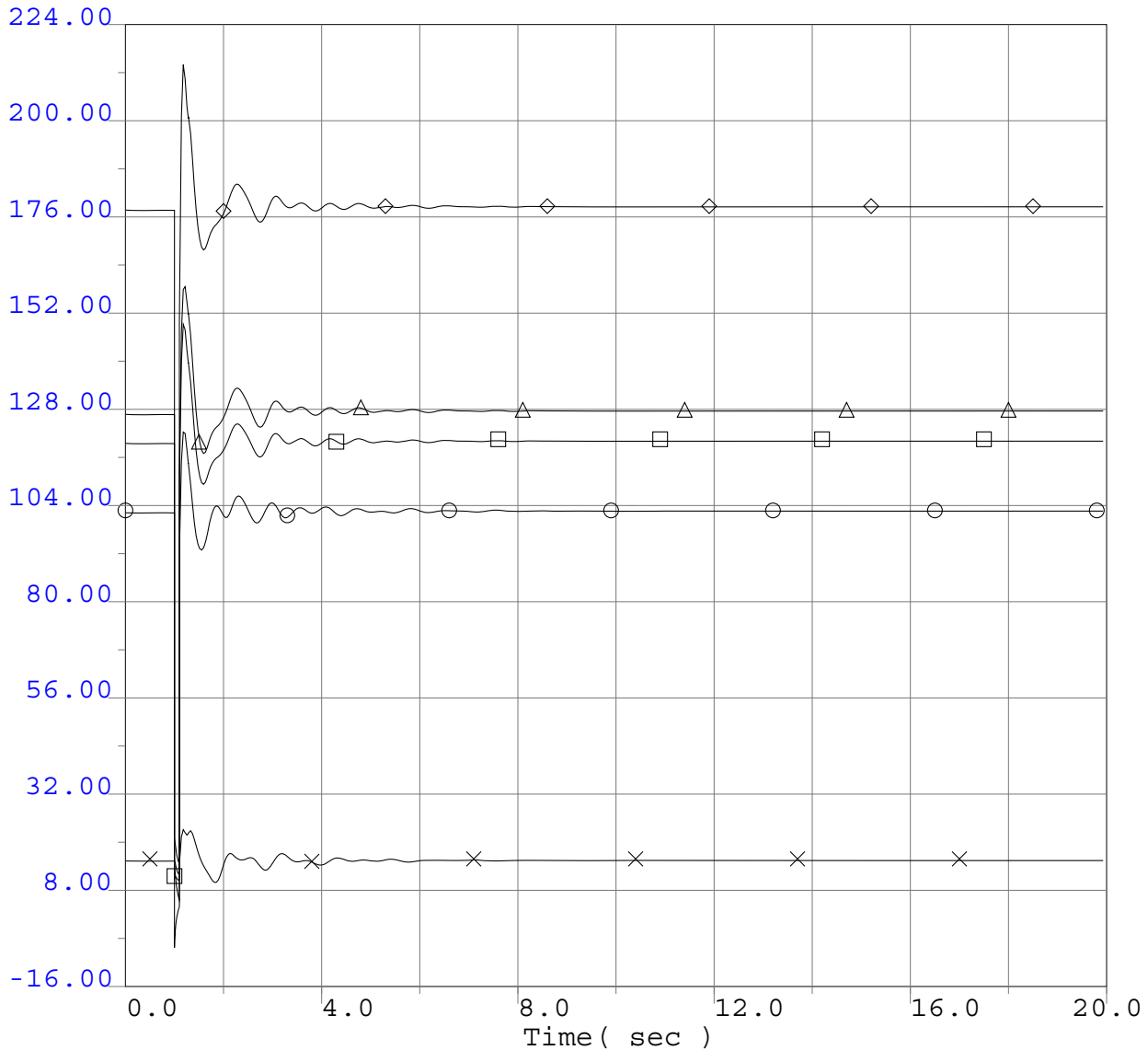
○	-118.0000 pbr	33535	SFWY_TP2 115.0	33543	AEC_TP2 115.0	1	1	122.0000
□	-118.0000 pbr	33543	AEC_TP2 115.0	33545	AEC_JCT 115.0	1	1	122.0000
△	-118.0000 pbr	33545	AEC_JCT 115.0	33547	AEC_300 115.0	1	1	122.0000
◇	-118.0000 pbr	33537	SFWY_TP1 115.0	33534	SAFEWAY 115.0	1	1	122.0000
×	-118.0000 pbr	33541	AEC_TP1 115.0	33537	SFWY_TP1 115.0	1	1	122.0000
+	-118.0000 pbr	33540	TESLA 115.0	33541	AEC_TP1 115.0	1	1	122.0000

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)



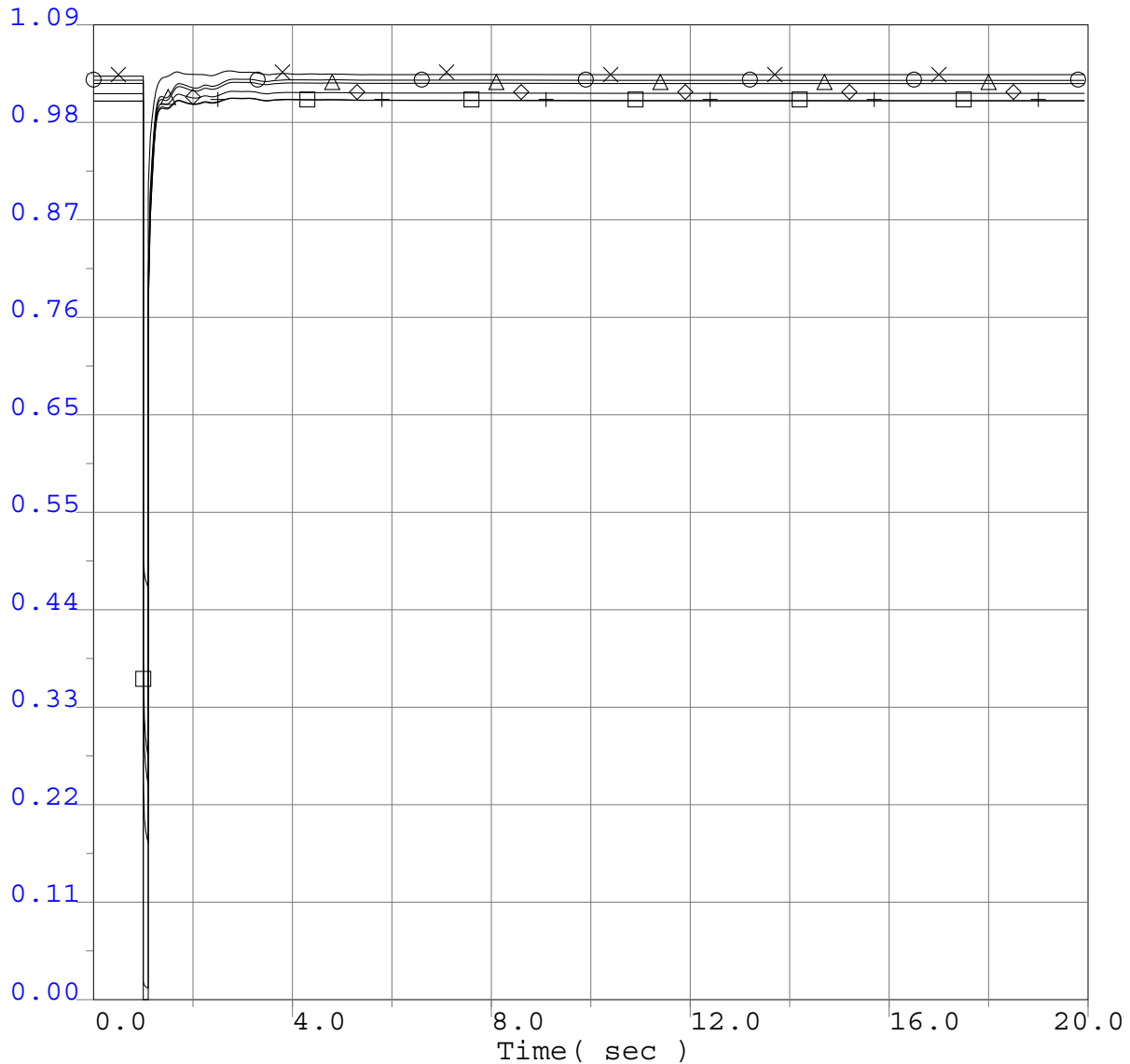
○	-16.0000 pbr	33526	KSSN-JC1	115.0	33514	MANTECA	115.0	1	1	224.0000
□	-16.0000 pbr	33526	KSSN-JC1	115.0	33528	KASSON	115.0	1	1	224.0000
△	-16.0000 pbr	33533	OWENSTP2	115.0	33526	KSSN-JC1	115.0	1	1	224.0000
◇	-16.0000 pbr	33529	LAMMERS	115.0	33528	KASSON	115.0	1	1	224.0000
×	-16.0000 pbr	33531	OWENSTP1	115.0	33529	LAMMERS	115.0	1	1	224.0000

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Voltage Plots Adjacent to Fault

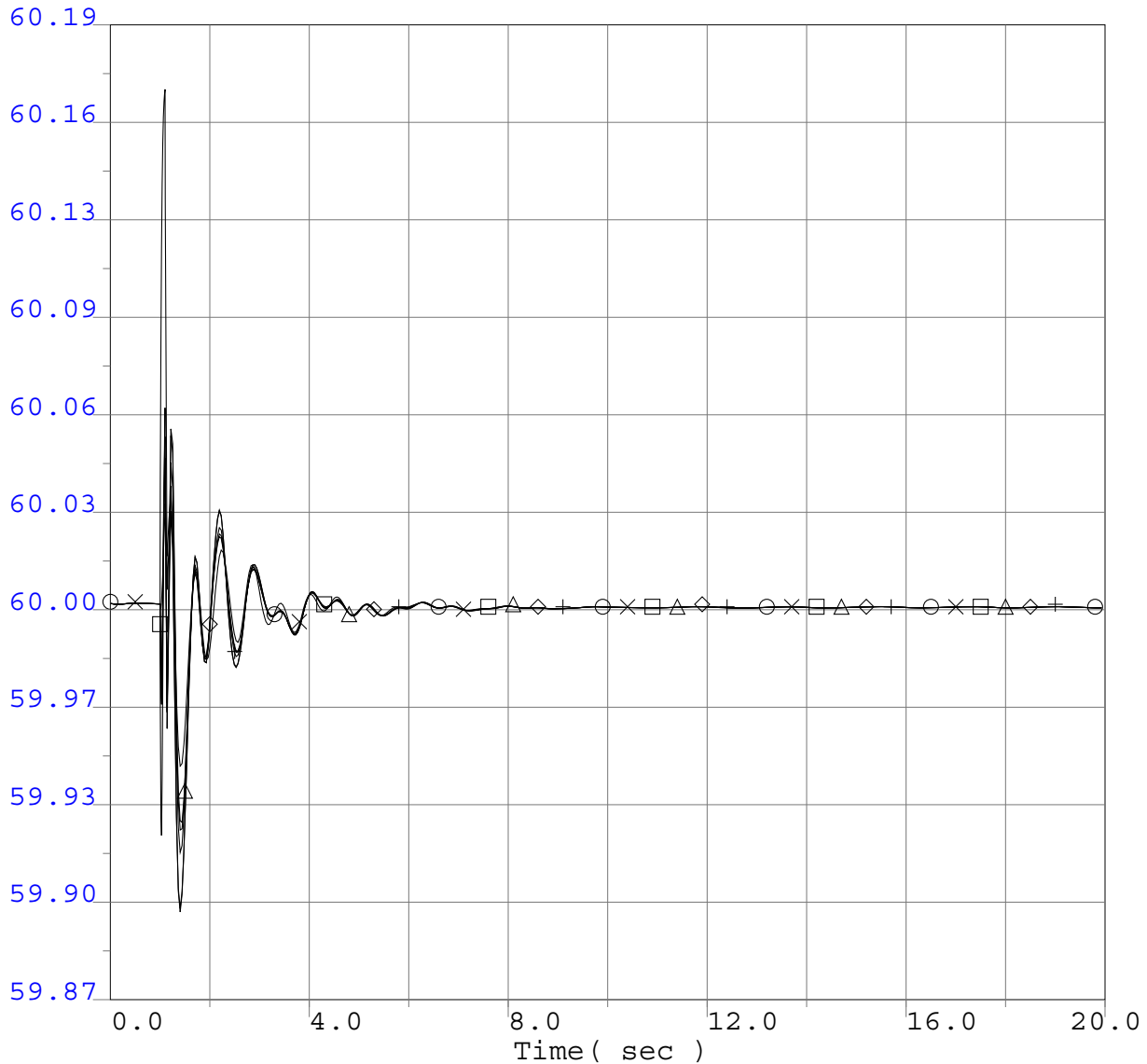


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Frequency Plots Adjacent to Fault



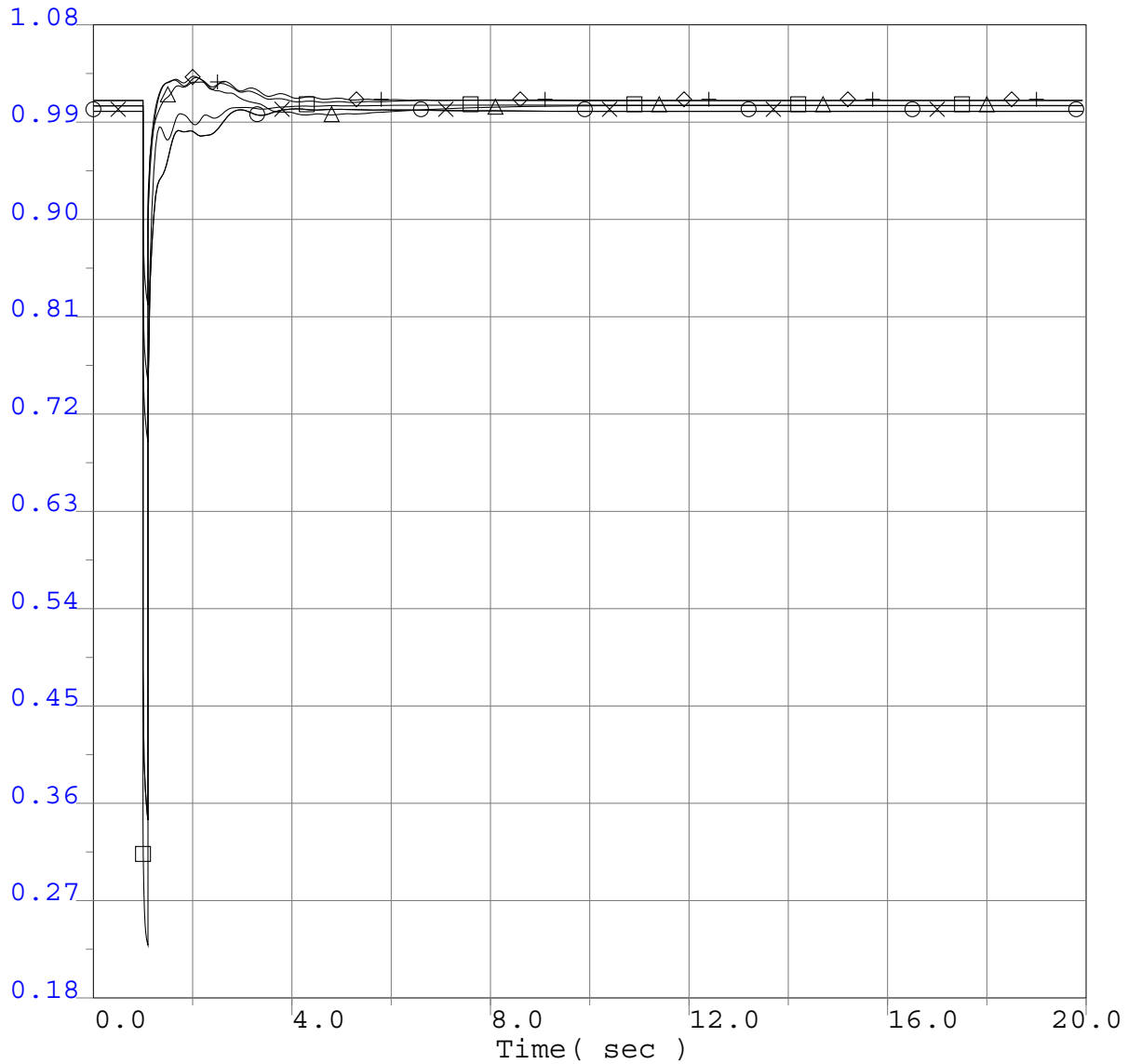
○	59.8700 Fbus	33549	SCHULTE 115.0	0	0.0	""	1	60.1900
×	59.8700 Fbus	33540	TESLA 115.0	0	0.0	""	1	60.1900
□	59.8700 Fbul	33514	MANTECA 115.0	0	0.0	""	1	60.1900
△	59.8700 Fbul	33529	LAMMERS 115.0	0	0.0	""	1	60.1900
◇	59.8700 Fbus	33528	KASSON 115.0	0	0.0	""	1	60.1900
+	59.8700 Fbul	33518	VIERRA 115.0	0	0.0	""	1	60.1900

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Terminal Voltages



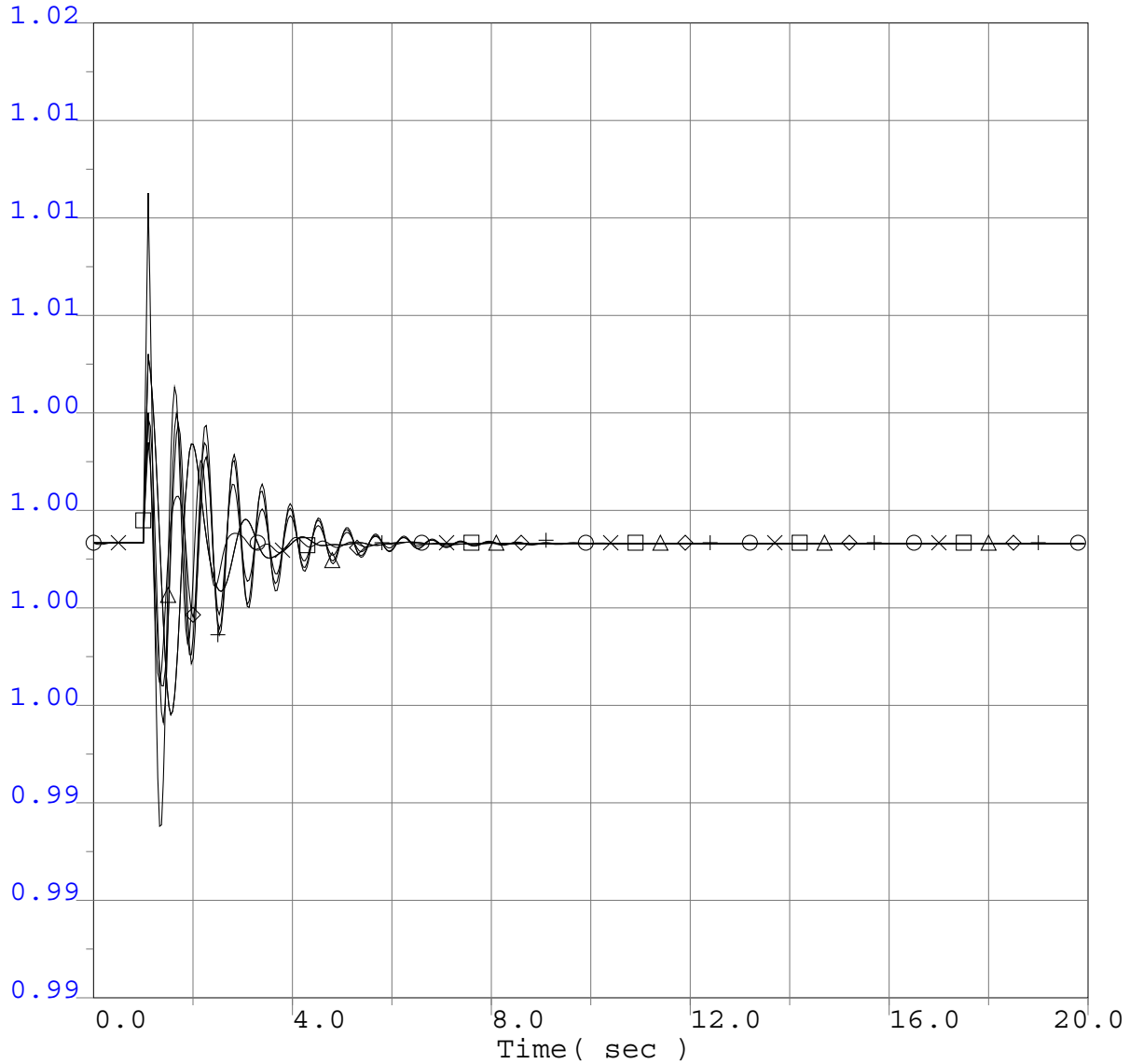
○	0.1800 vt	33805	GWTRCY1	13.8	0	0.0	"1"	1	1.0800
□	0.1800 vt	33807	GWTRCY2	13.8	0	0.0	"1"	1	1.0800
△	0.1800 vt	33809	Q268ST1	13.8	0	0.0	"1"	1	1.0800
◇	0.1800 vt	33858	P0409CG2	13.8	0	0.0	"1"	1	1.0800
+	0.1800 vt	33808	SJ COGEN	13.8	0	0.0	"1"	1	1.0800
×	0.1800 vt	33810	SP CMPNY	13.8	0	0.0	"1"	1	1.0800

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Rotor Speed



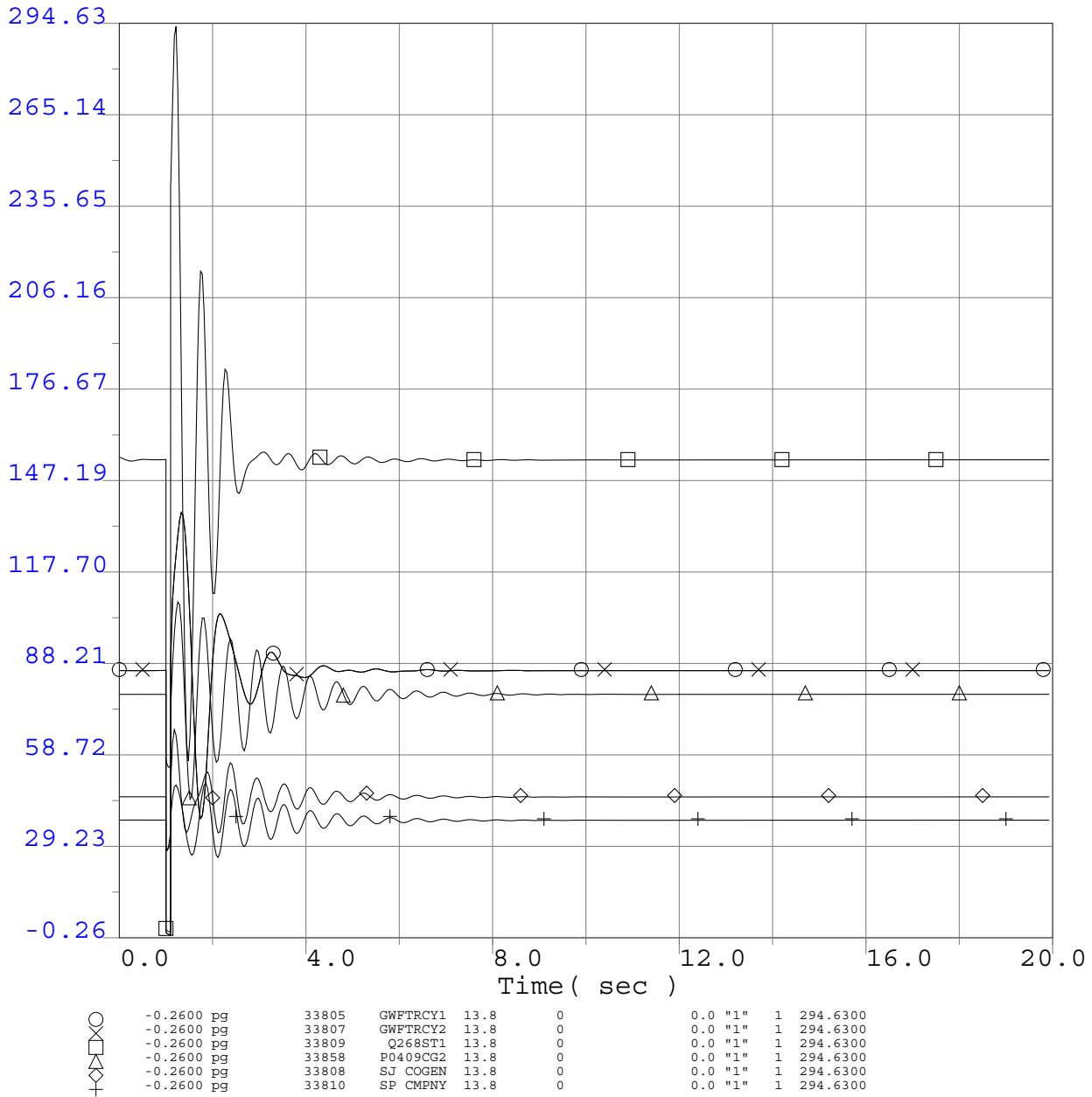
○	0.9867 spd	33805	GWTRCY1	13.8	0	0.0	"1"	1	1.0152
□	0.9867 spd	33807	GWTRCY2	13.8	0	0.0	"1"	1	1.0152
△	0.9867 spd	33809	Q268ST1	13.8	0	0.0	"1"	1	1.0152
◇	0.9867 spd	33858	P0409CG2	13.8	0	0.0	"1"	1	1.0152
+	0.9867 spd	33808	SJ COGEN	13.8	0	0.0	"1"	1	1.0152
×	0.9867 spd	33810	SP CMPNY	13.8	0	0.0	"1"	1	1.0152

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Terminal Power

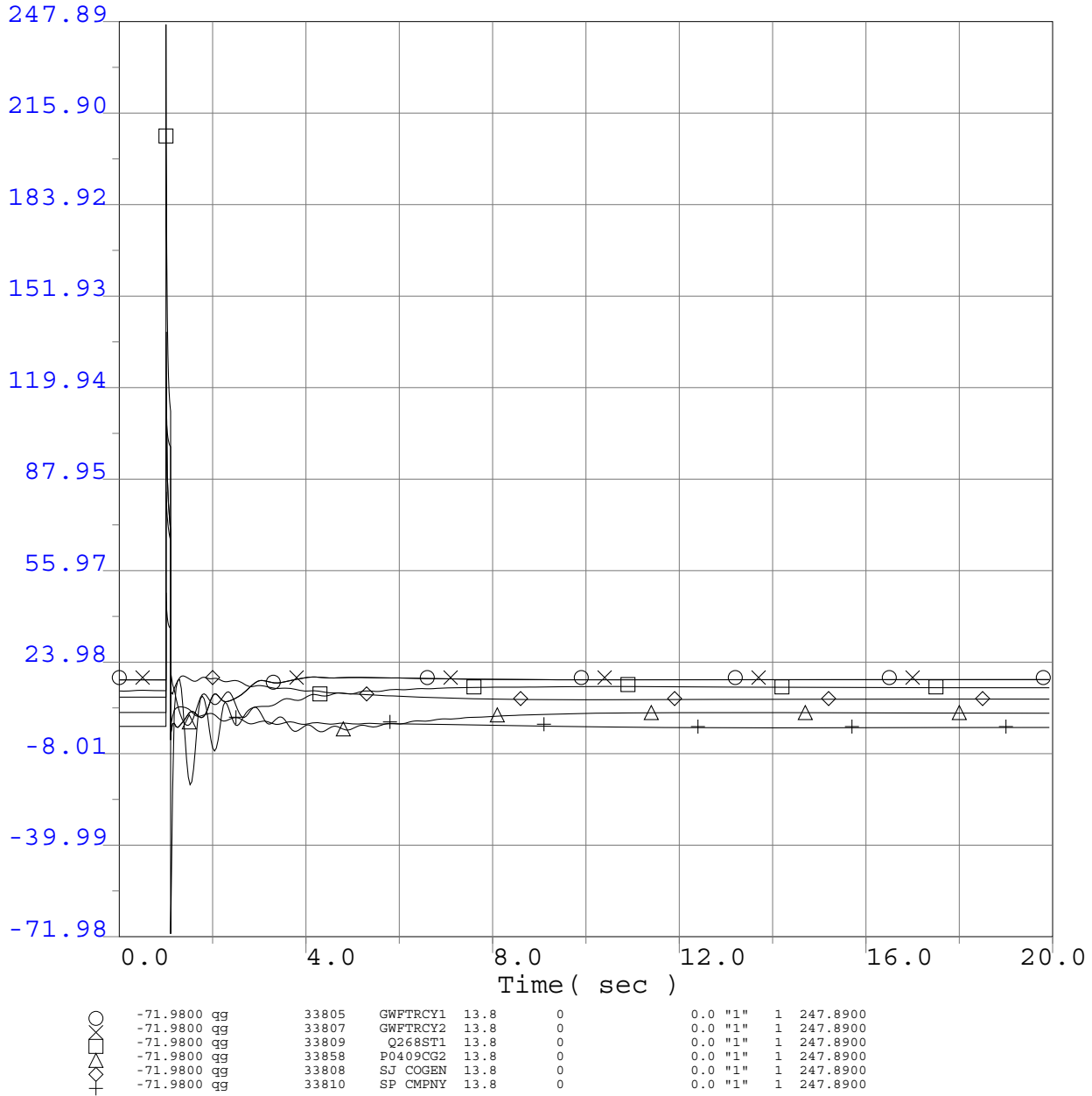


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Terminal Reactive Power

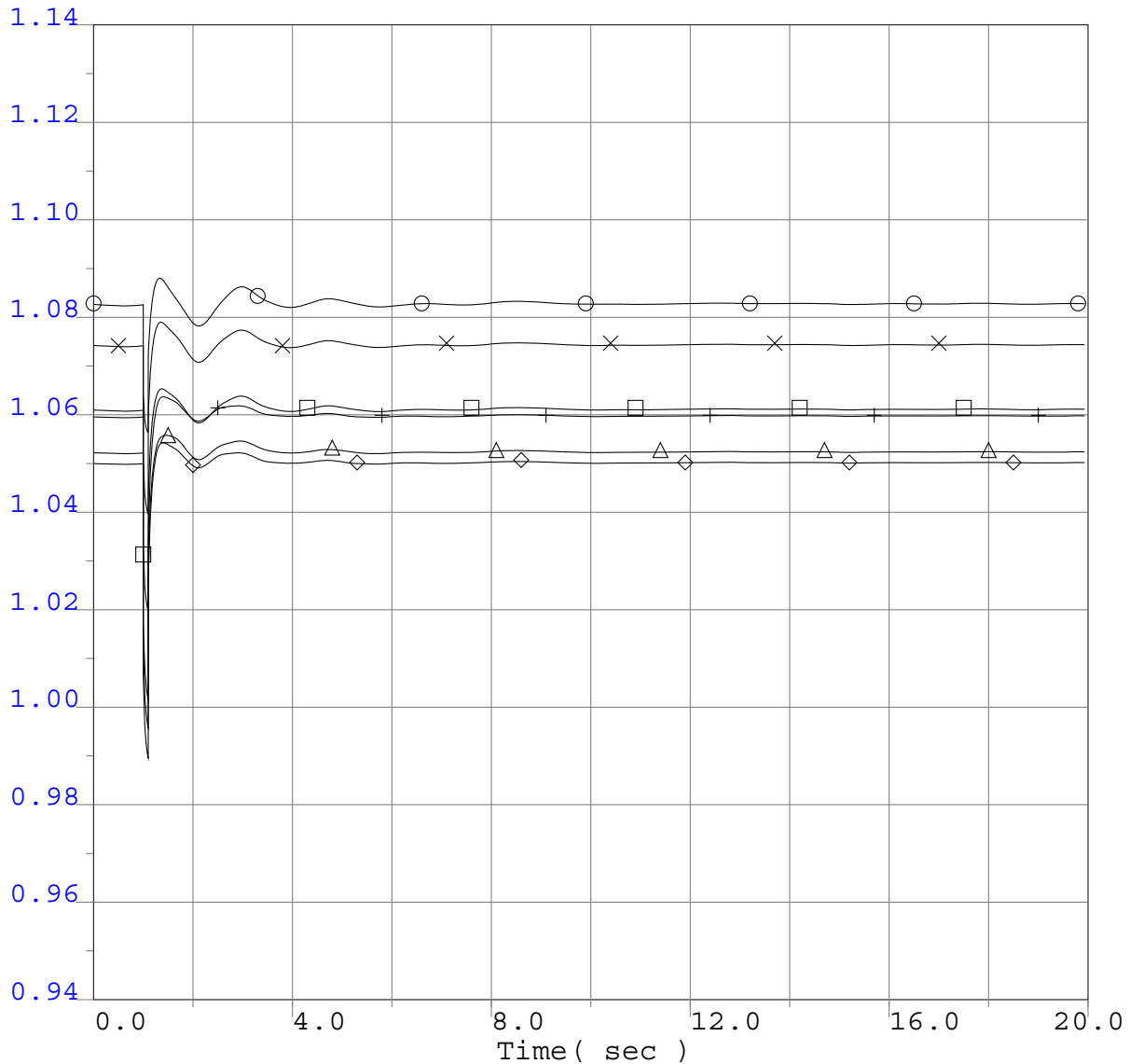


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots



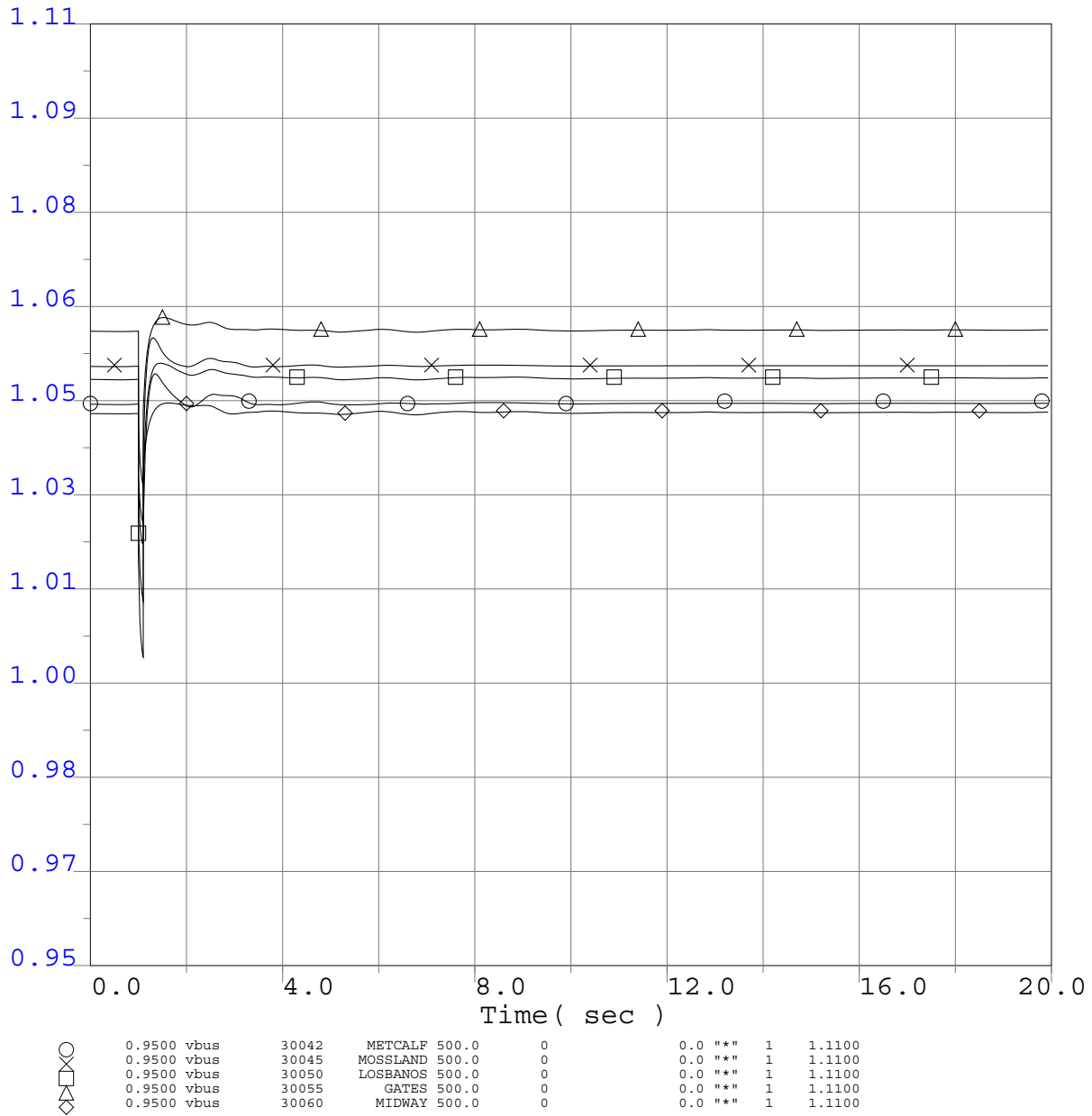
○	0.9400 vbus	40687	MALIN 500.0	0	0.0	""	1	1.1400
×	0.9400 vbus	30005	ROUND MT 500.0	0	0.0	""	1	1.1400
□	0.9400 vbus	30015	TABLE MT 500.0	0	0.0	""	1	1.1400
△	0.9400 vbus	30030	VACA-DIX 500.0	0	0.0	""	1	1.1400
◇	0.9400 vbus	30040	TESLA 500.0	0	0.0	""	1	1.1400
+	0.9400 vbus	30035	TRACY 500.0	0	0.0	""	1	1.1400

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

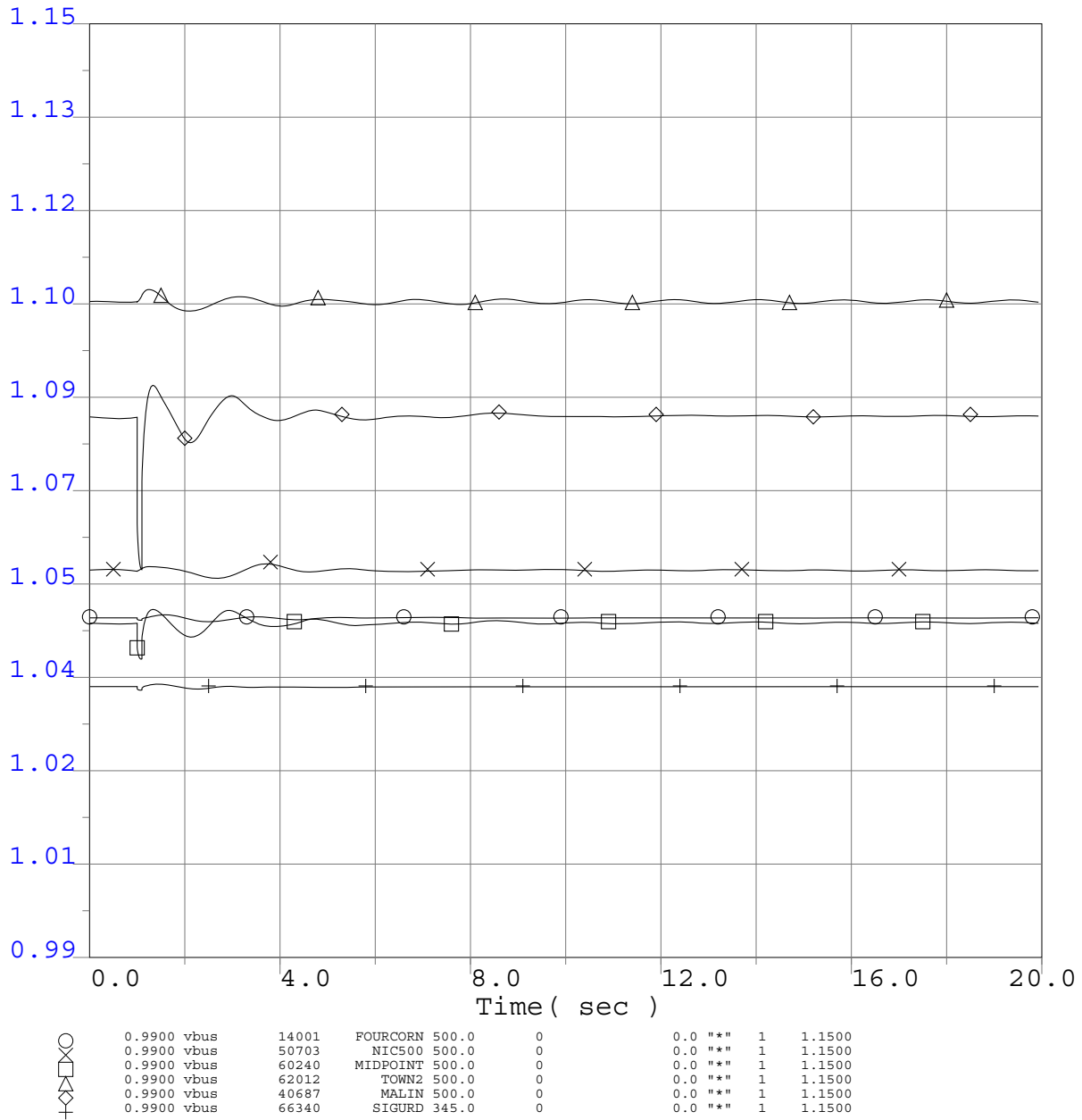


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

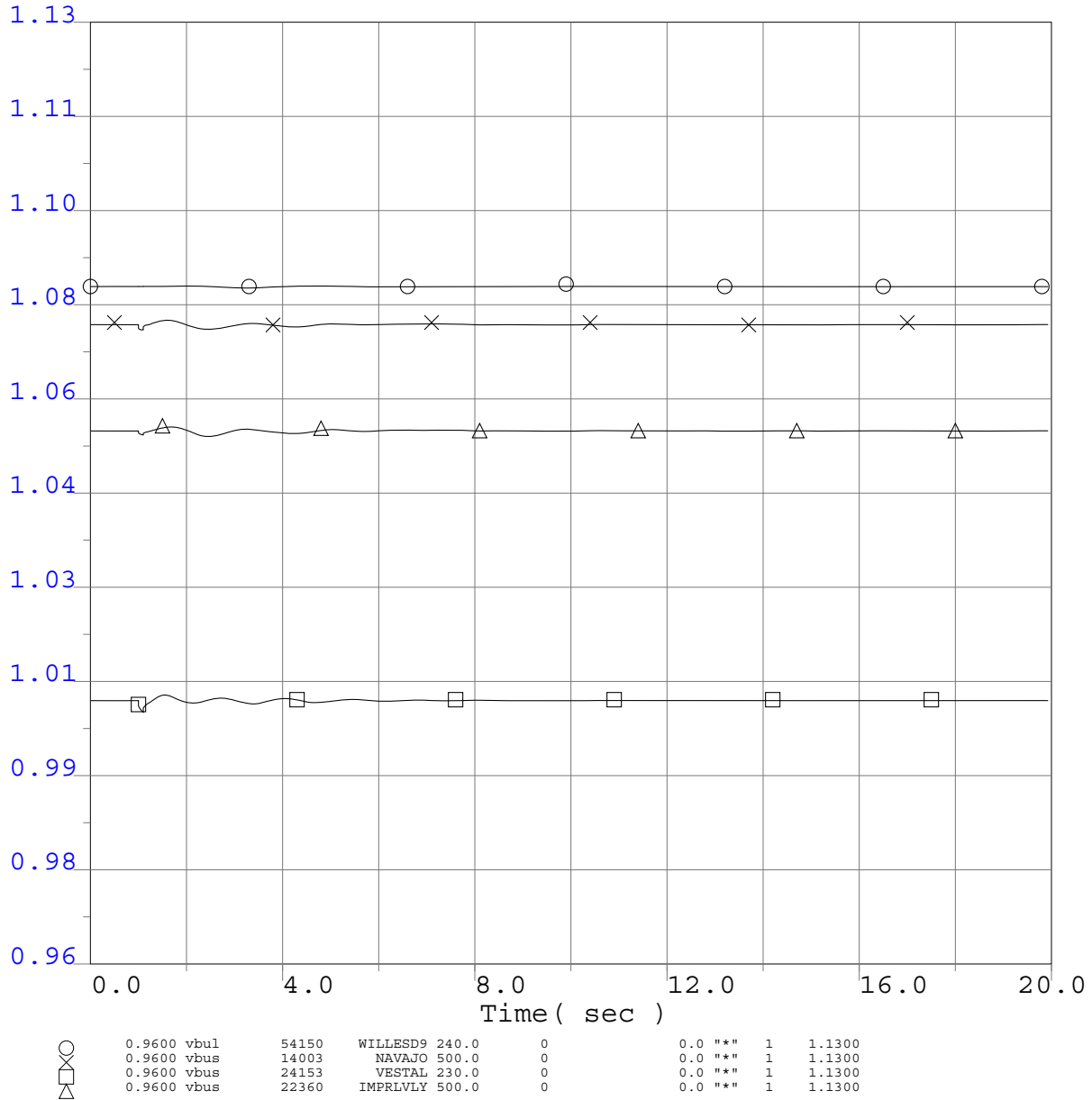


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

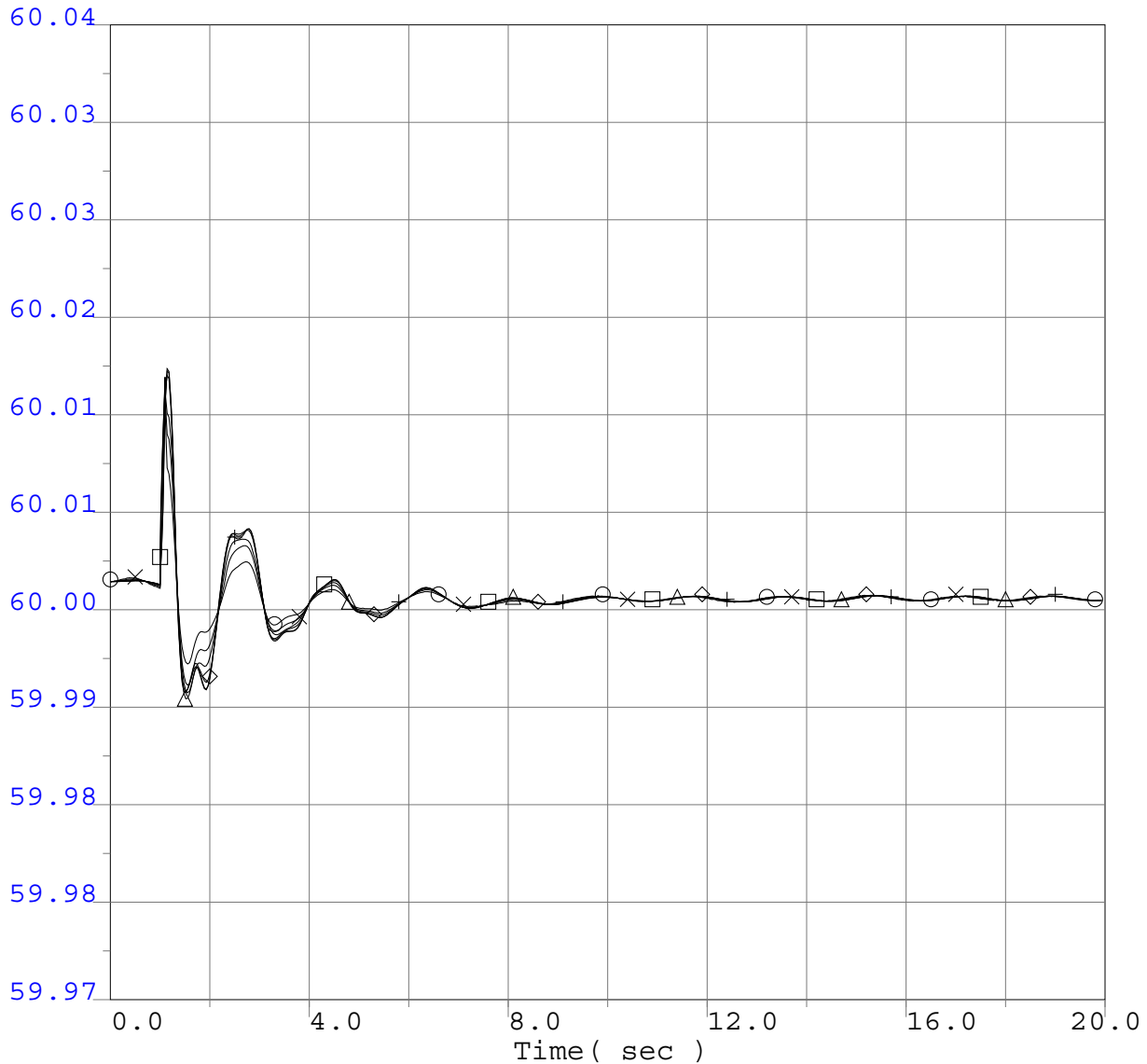


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



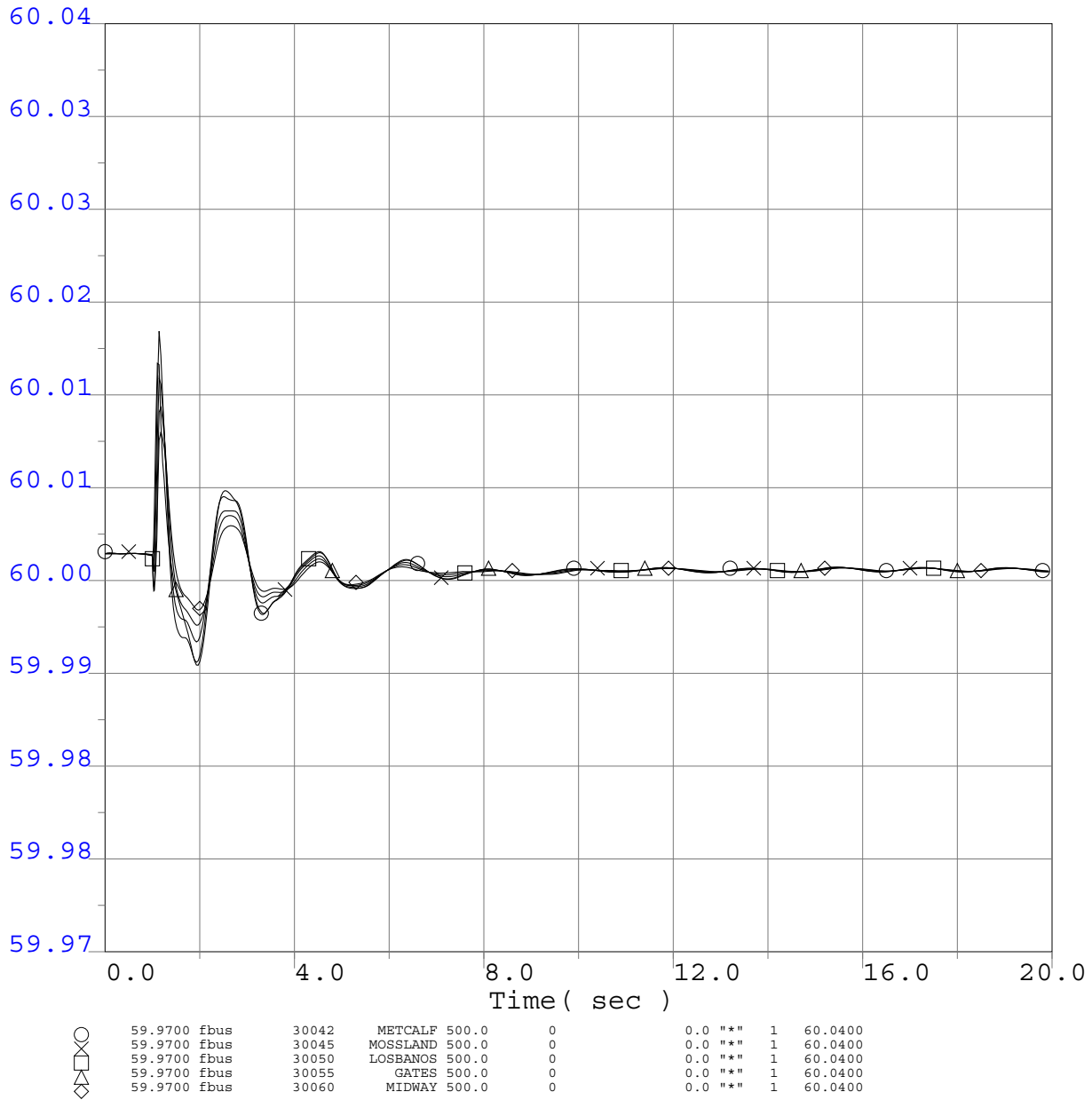
○	59.9700 Ebus	40687	MALIN 500.0	0	0.0	""	1	60.0400
×	59.9700 Ebus	30005	ROUND MT 500.0	0	0.0	""	1	60.0400
□	59.9700 Ebus	30015	TABLE MT 500.0	0	0.0	""	1	60.0400
△	59.9700 Ebus	30030	VACA-DIX 500.0	0	0.0	""	1	60.0400
◇	59.9700 Ebus	30040	TESLA 500.0	0	0.0	""	1	60.0400
+	59.9700 Ebus	30035	TRACY 500.0	0	0.0	""	1	60.0400

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots

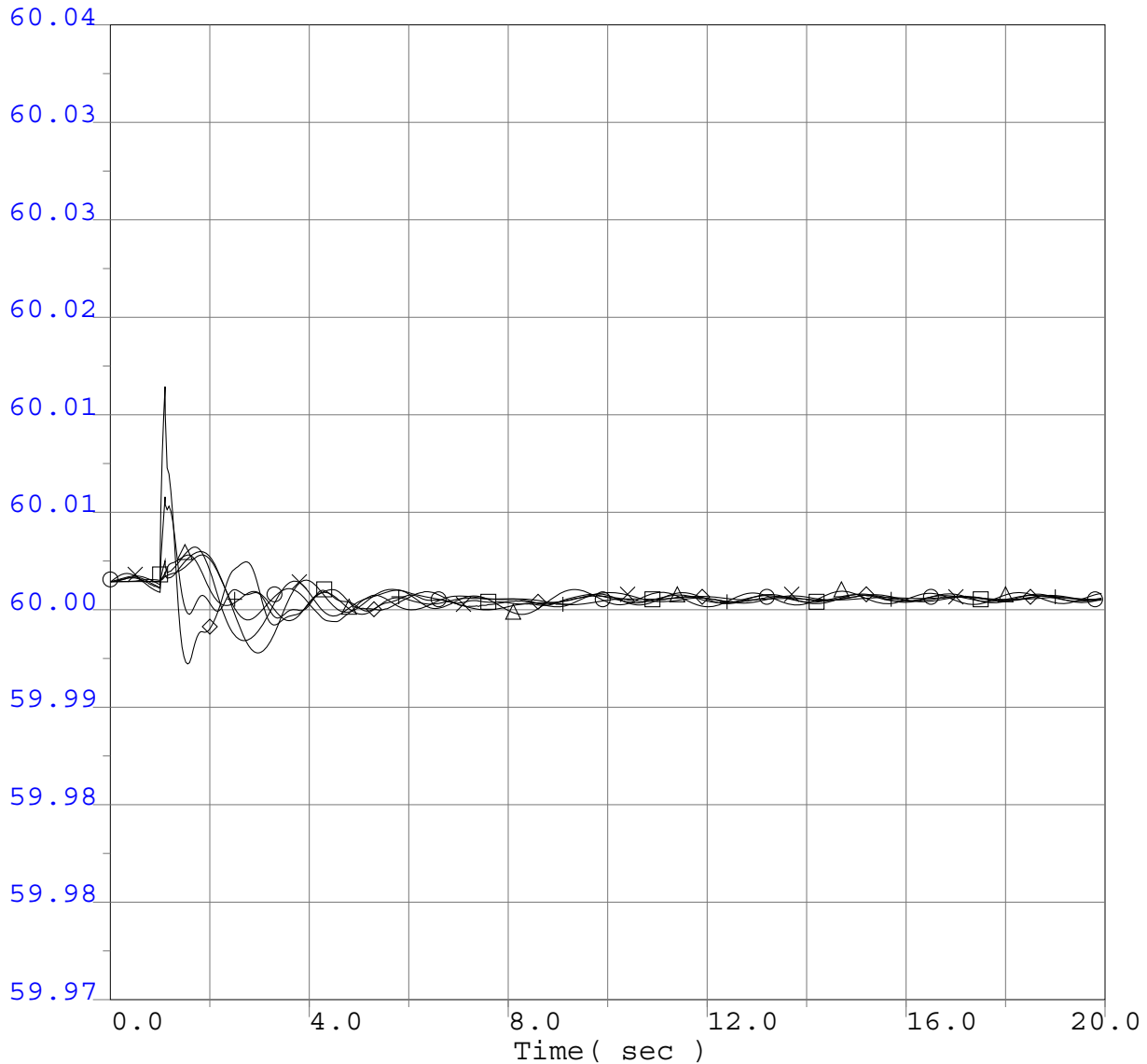


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



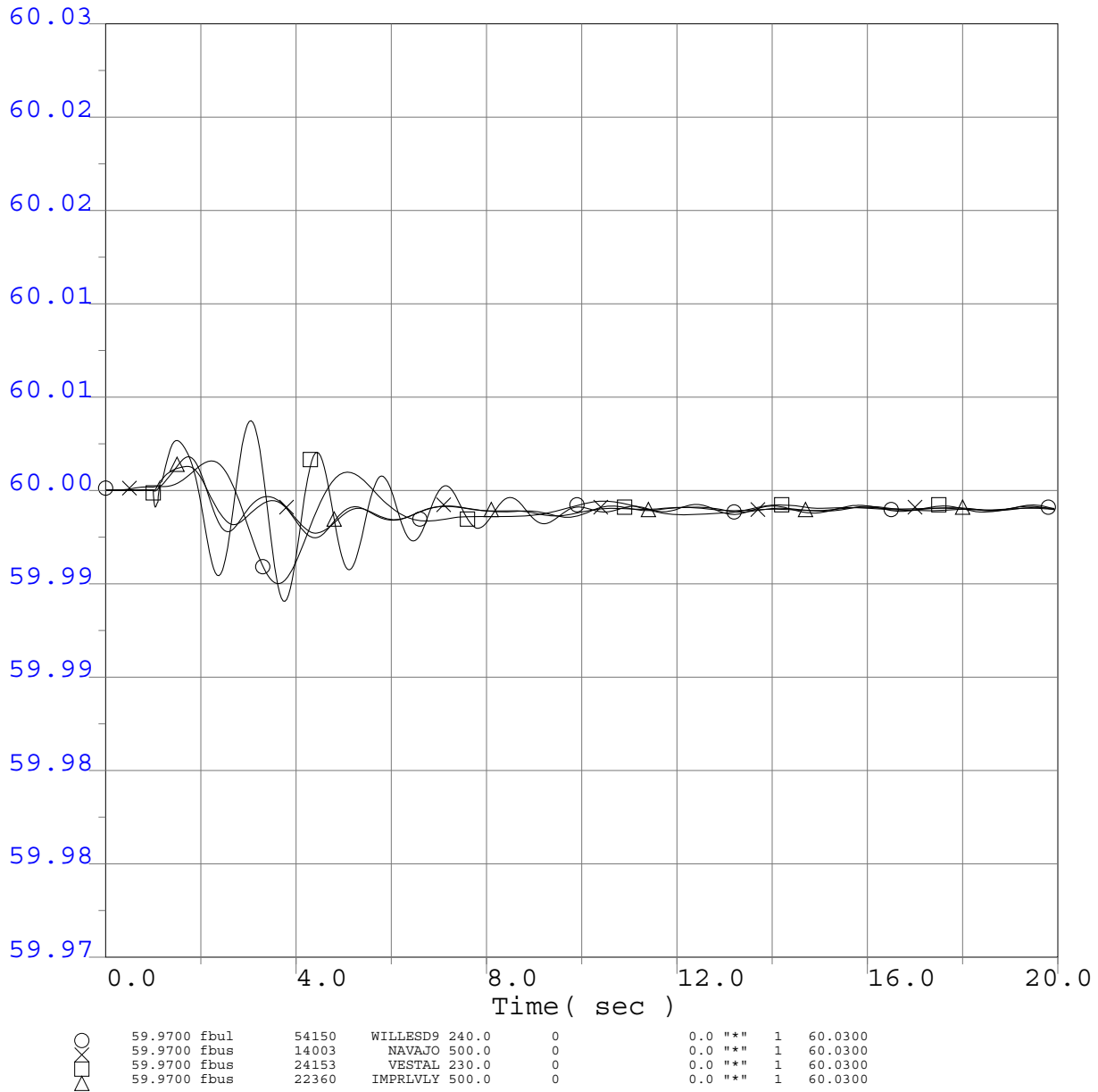
○	59.9700 Ebus	14001	FOURCORN	500.0	0	0.0	"**"	1	60.0400
□	59.9700 Ebus	50703	NIC500	500.0	0	0.0	"**"	1	60.0400
△	59.9700 Ebus	60240	MIDPOINT	500.0	0	0.0	"**"	1	60.0400
◇	59.9700 Ebus	62012	TOWN2	500.0	0	0.0	"**"	1	60.0400
+	59.9700 Ebus	40687	MALIN	500.0	0	0.0	"**"	1	60.0400
	59.9700 Ebus	66340	SIGURD	345.0	0	0.0	"**"	1	60.0400

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots

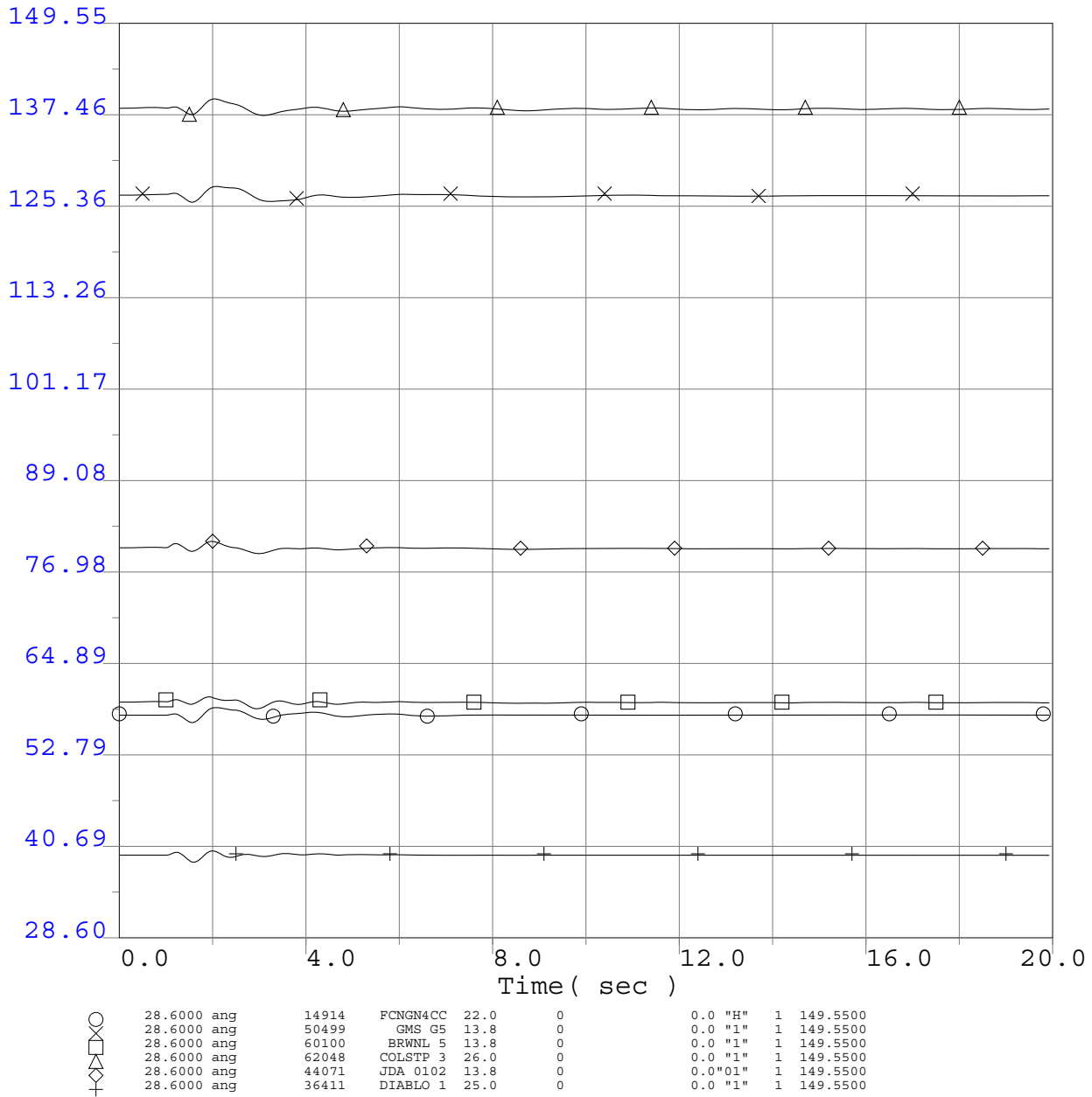


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle

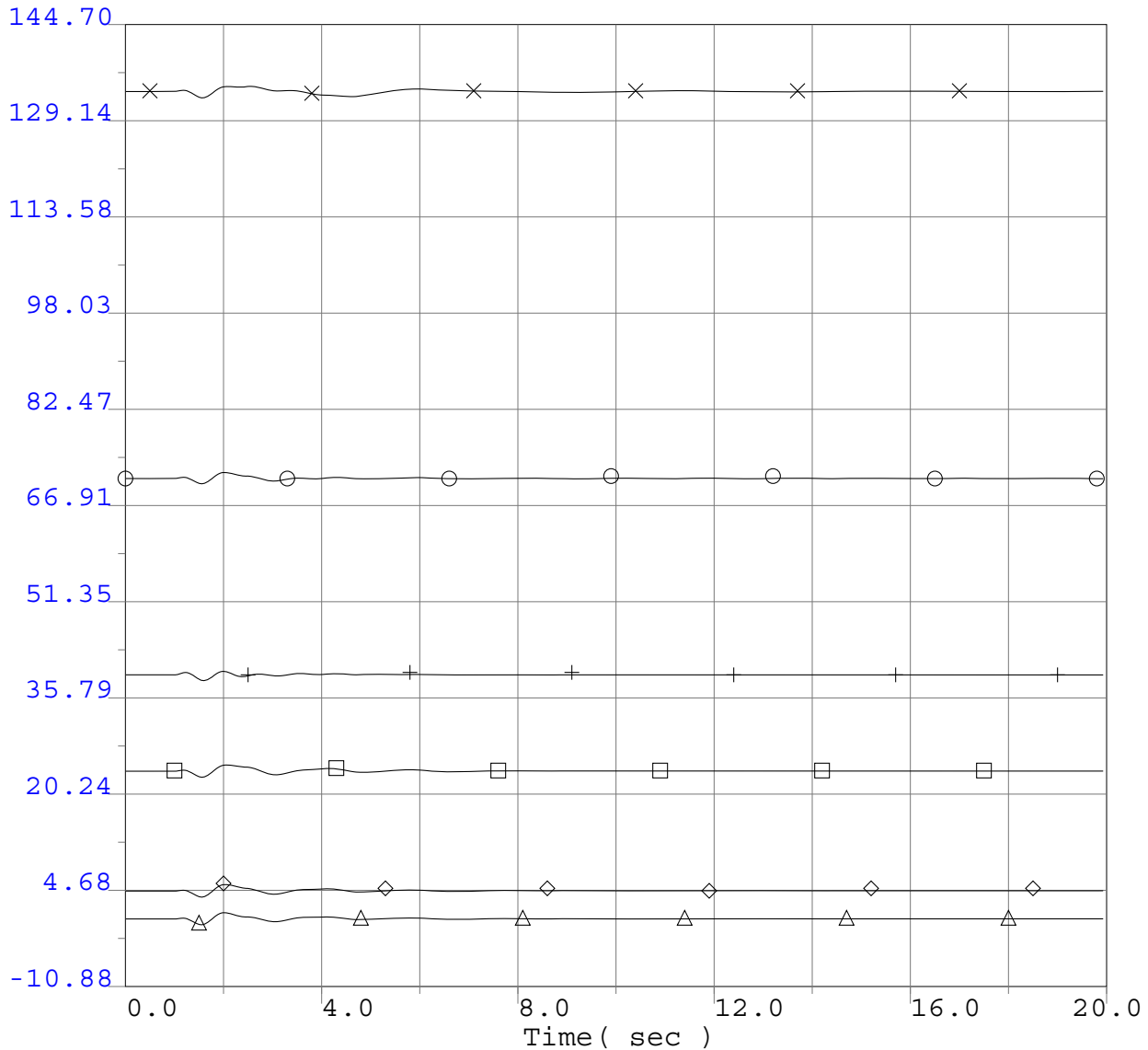


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
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 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle



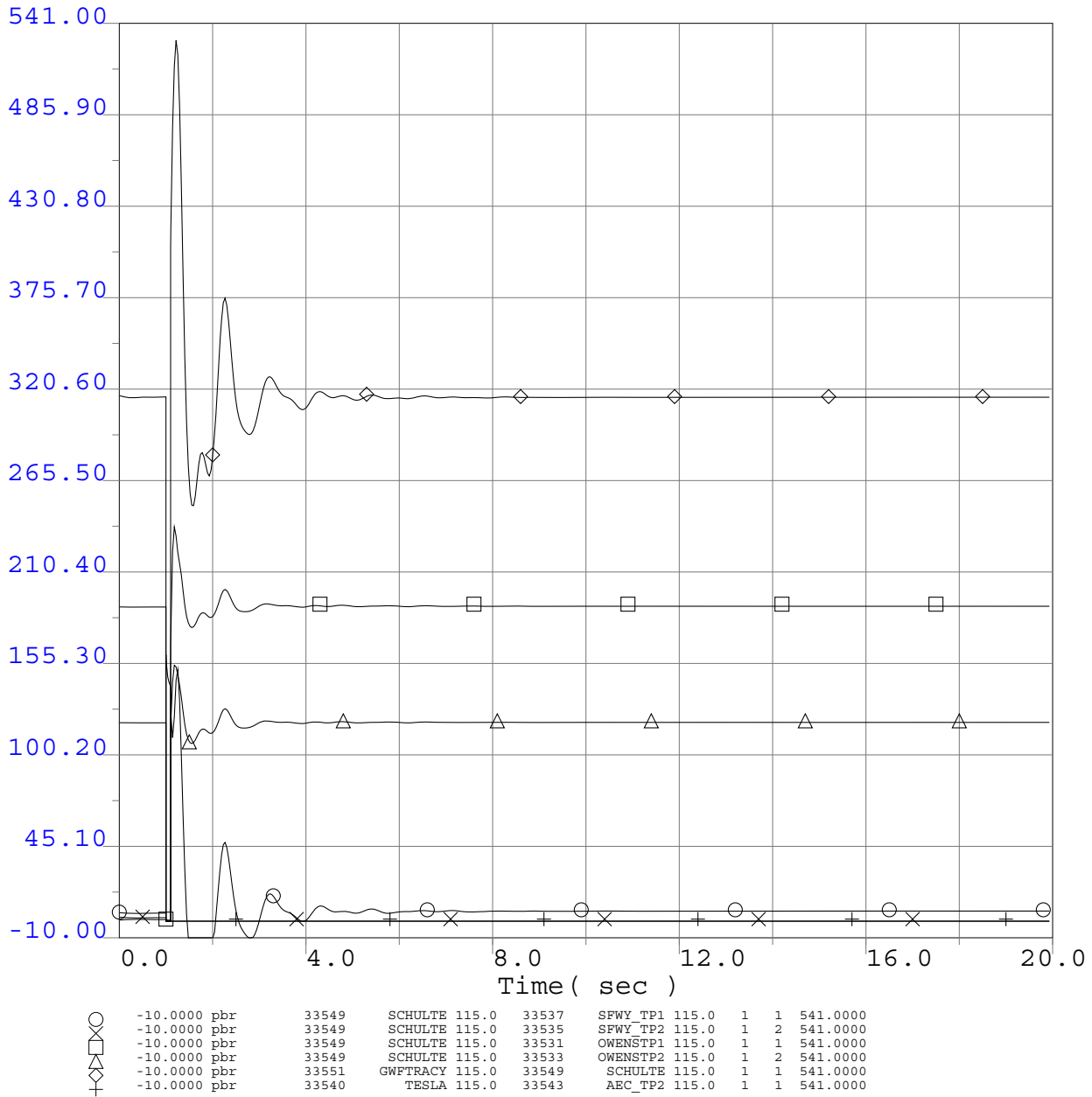
○	-10.8800 ang	65490	EHUNTR 1	24.0	0	0.0 "1"	1	144.7000
○	-10.8800 ang	54338	SUND#2GN	18.0	0	0.0 "2"	1	144.7000
□	-10.8800 ang	79151	GLENC3-4	13.8	0	0.0 "3"	1	144.7000
△	-10.8800 ang	24130	S.ONOPR3	22.0	0	0.0 "3"	1	144.7000
◇	-10.8800 ang	22244	ENCINA 5	24.0	0	0.0 "1"	1	144.7000
+	-10.8800 ang	36411	DIABLO 1	25.0	0	0.0 "1"	1	144.7000

Q268 Project Interconnection System Impact Study
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 Q268 @ 154.7MW
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 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)

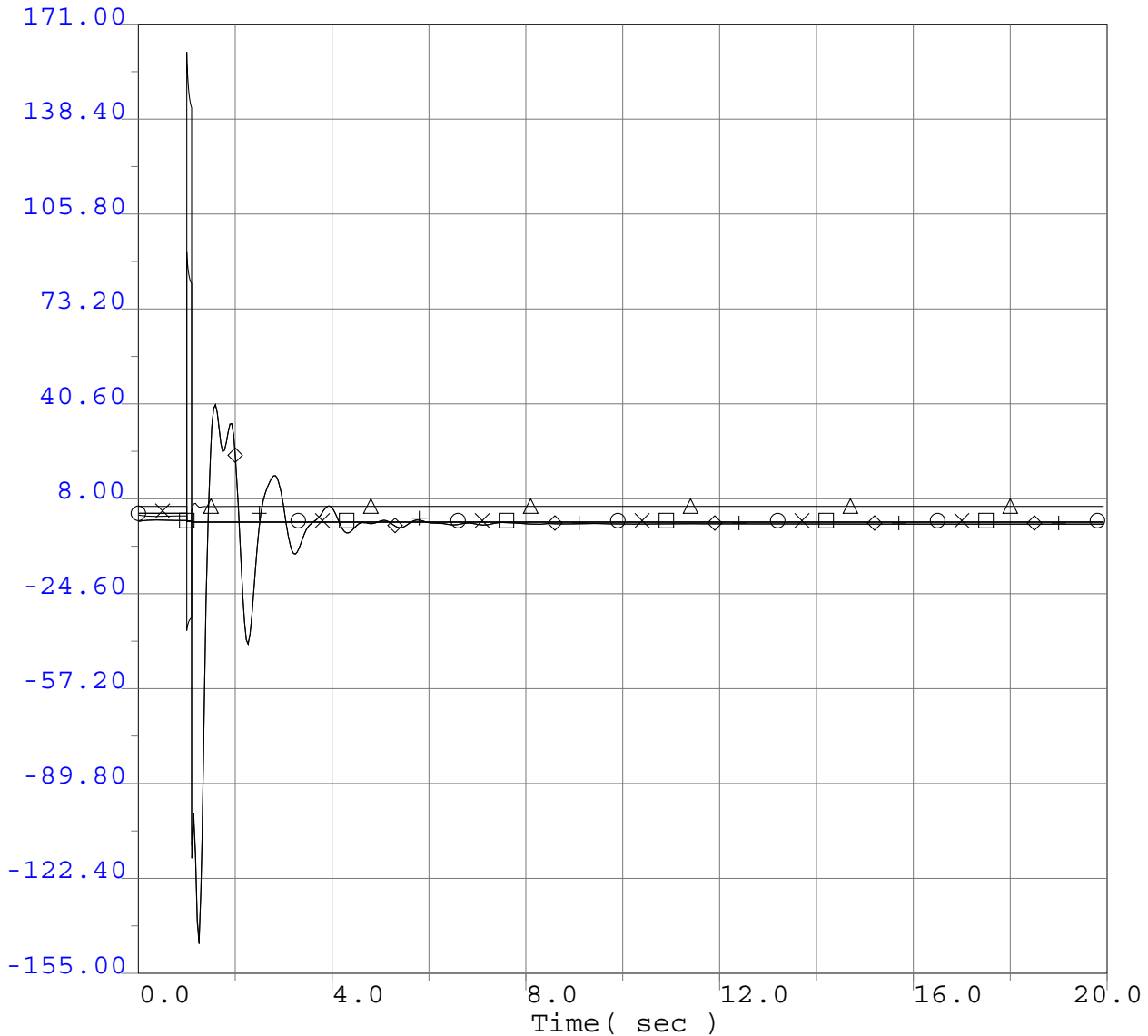


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)



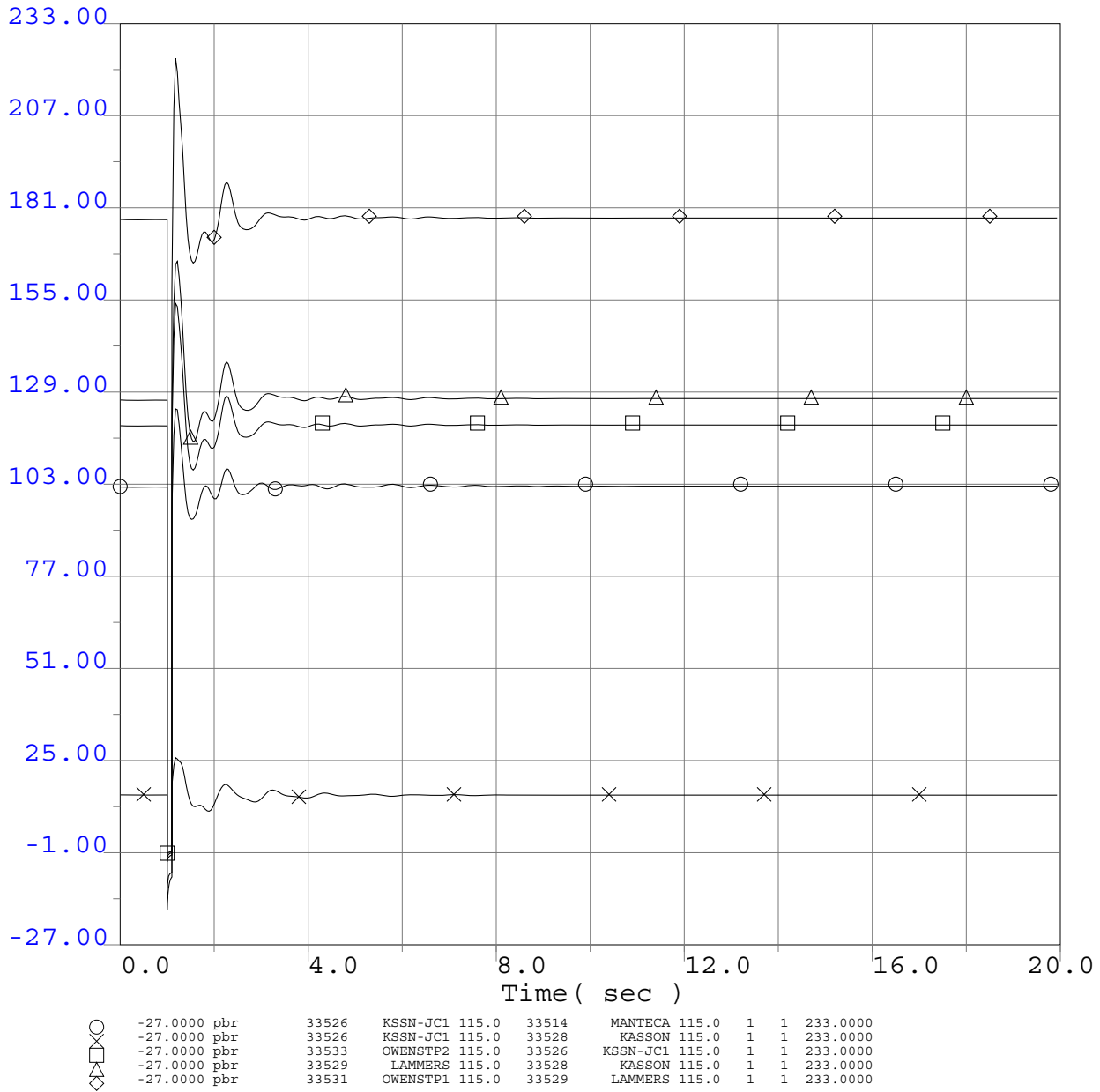
○	-155.0000 pbr	33535	SFWY_TP2 115.0	33543	AEC_TP2 115.0	1	1	171.0000
□	-155.0000 pbr	33543	AEC_TP2 115.0	33545	AEC_JCT 115.0	1	1	171.0000
△	-155.0000 pbr	33545	AEC_JCT 115.0	33547	AEC_300 115.0	1	1	171.0000
◇	-155.0000 pbr	33537	SFWY_TP1 115.0	33534	SAFEWAY 115.0	1	1	171.0000
+	-155.0000 pbr	33541	AEC_TP1 115.0	33537	SFWY_TP1 115.0	1	1	171.0000
×	-155.0000 pbr	33540	TESLA 115.0	33541	AEC_TP1 115.0	1	1	171.0000

Q268 Project Interconnection System Impact Study
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Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)

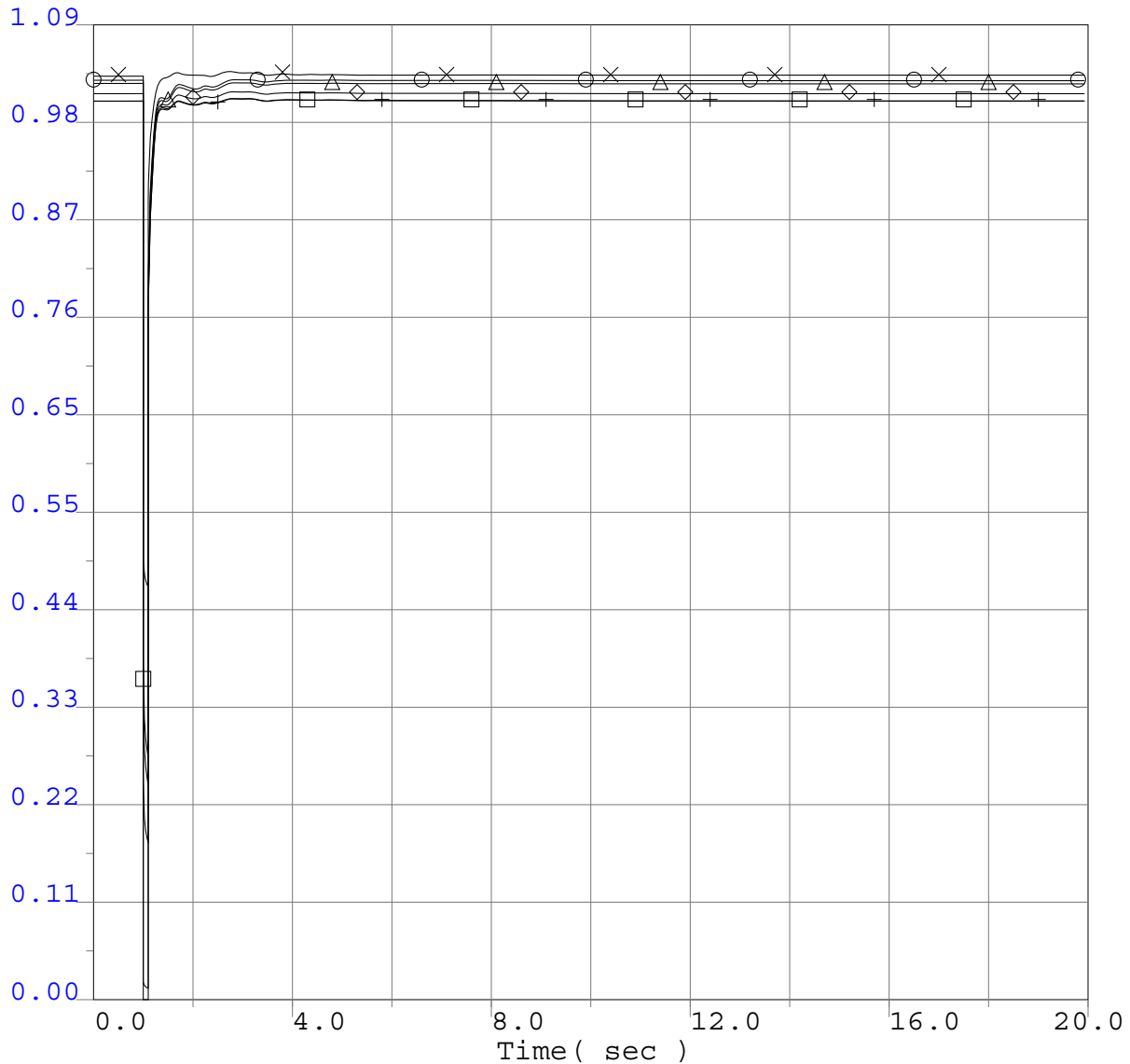


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 112-412+512
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Voltage Plots Adjacent to Fault



○	0.0000 vbus	33549	SCHULTE 115.0	0	0.0	"**	1	1.0900
□	0.0000 vbus	33540	TESLA 115.0	0	0.0	"**	1	1.0900
△	0.0000 vbus	33514	MANTECA 115.0	0	0.0	"**	1	1.0900
◇	0.0000 vbus	33529	LAMMERS 115.0	0	0.0	"**	1	1.0900
+	0.0000 vbus	33528	KASSON 115.0	0	0.0	"**	1	1.0900
×	0.0000 vbus	33518	VIERRA 115.0	0	0.0	"**	1	1.0900

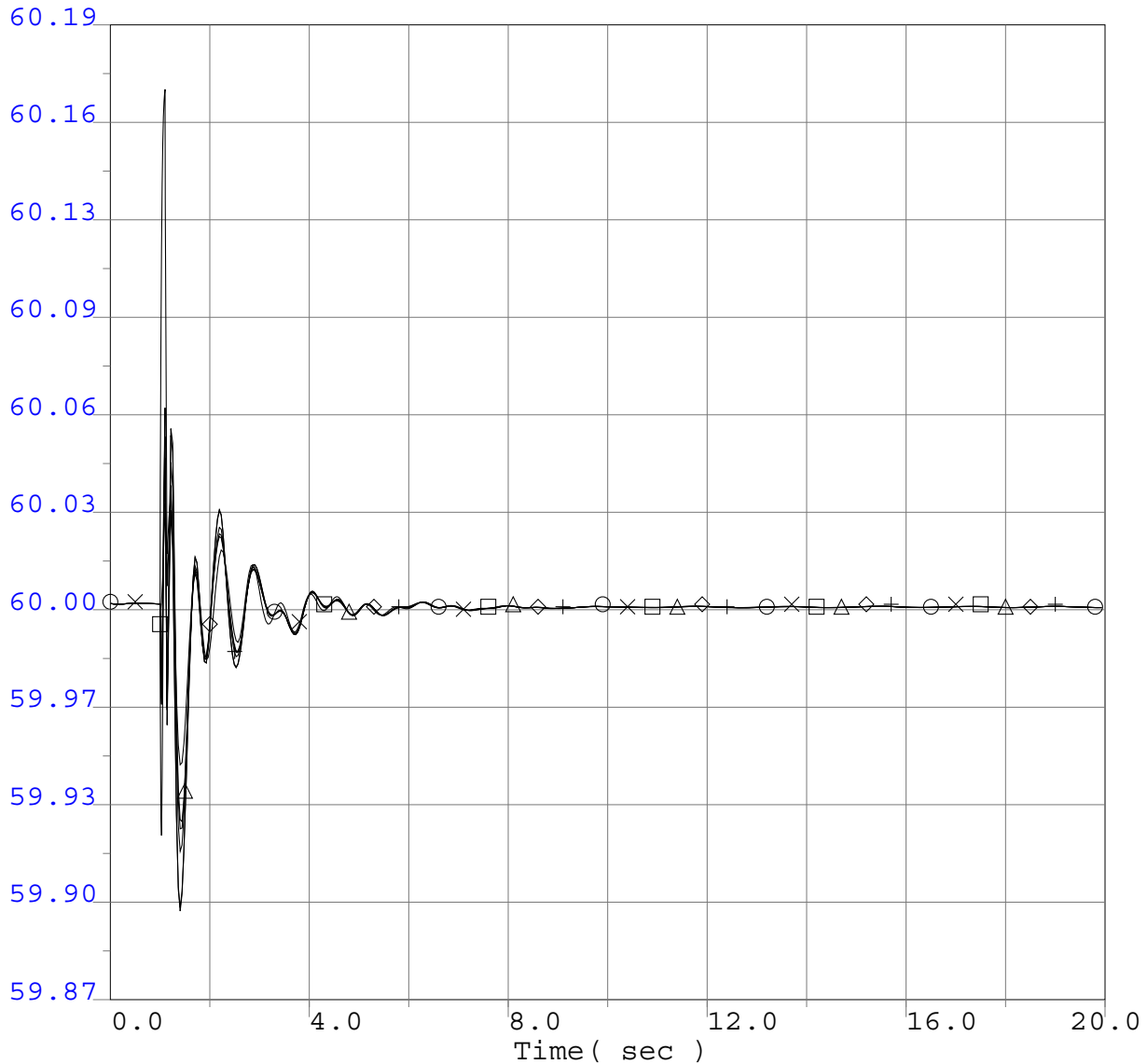


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
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 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Frequency Plots Adjacent to Fault



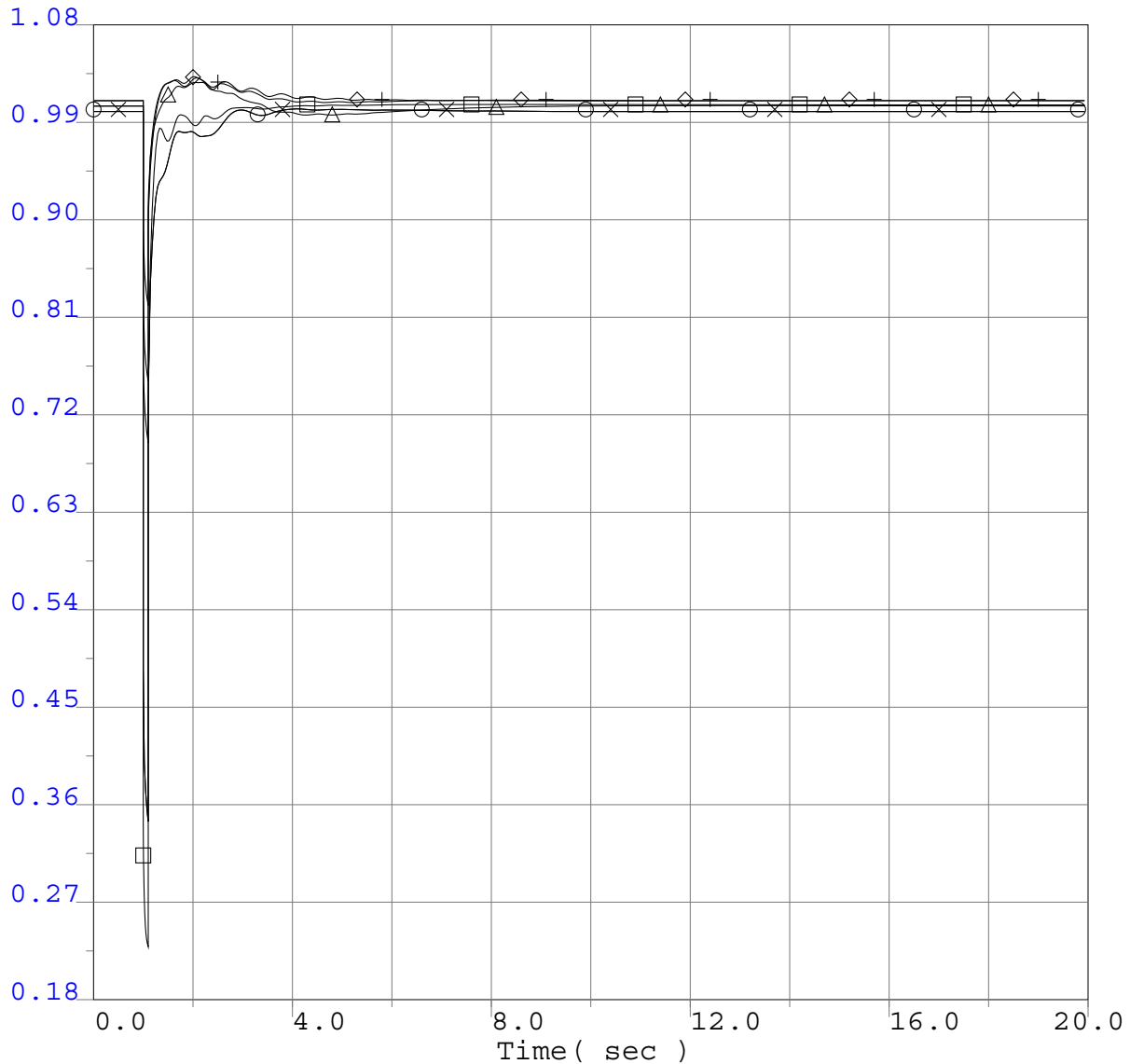
○	59.8700 Fbus	33549	SCHULTE 115.0	0	0.0	""	1	60.1900
×	59.8700 Fbus	33540	TESLA 115.0	0	0.0	""	1	60.1900
□	59.8700 Fbul	33514	MANTECA 115.0	0	0.0	""	1	60.1900
△	59.8700 Fbul	33529	LAMMERS 115.0	0	0.0	""	1	60.1900
◇	59.8700 Fbus	33528	KASSON 115.0	0	0.0	""	1	60.1900
+	59.8700 Fbul	33518	VIERRA 115.0	0	0.0	""	1	60.1900

Q268 Project Interconnection System Impact Study
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Q268 Project Interconnection System Impact Study

Project Generator Terminal Voltages



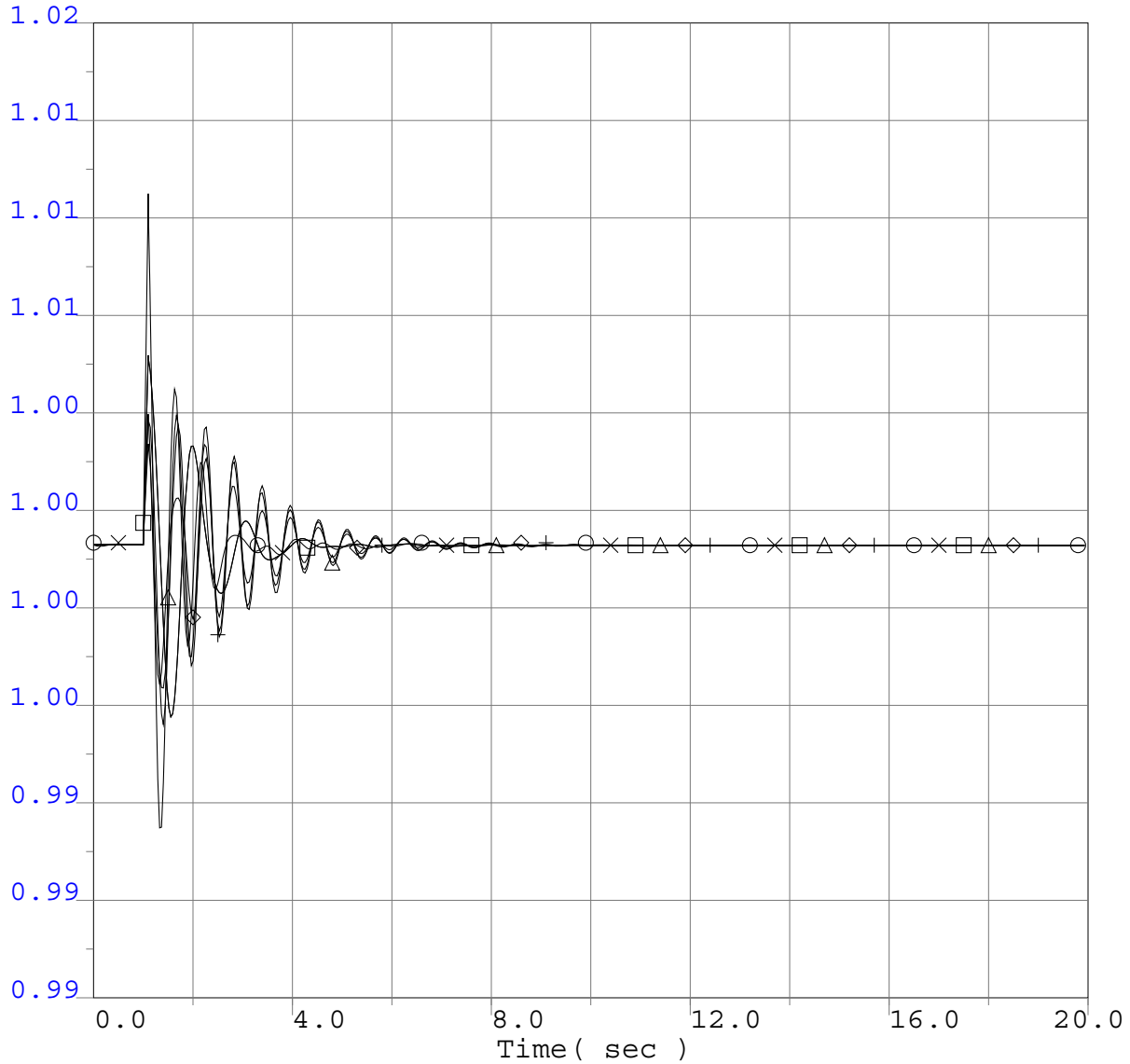
○	0.1800 vt	33805	GWTRCY1	13.8	0	0.0	"1"	1	1.0800
□	0.1800 vt	33807	GWTRCY2	13.8	0	0.0	"1"	1	1.0800
△	0.1800 vt	33809	Q268ST1	13.8	0	0.0	"1"	1	1.0800
◇	0.1800 vt	33858	P0409CG2	13.8	0	0.0	"1"	1	1.0800
+	0.1800 vt	33808	SJ COGEN	13.8	0	0.0	"1"	1	1.0800
×	0.1800 vt	33810	SP CMPNY	13.8	0	0.0	"1"	1	1.0800

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Rotor Speed



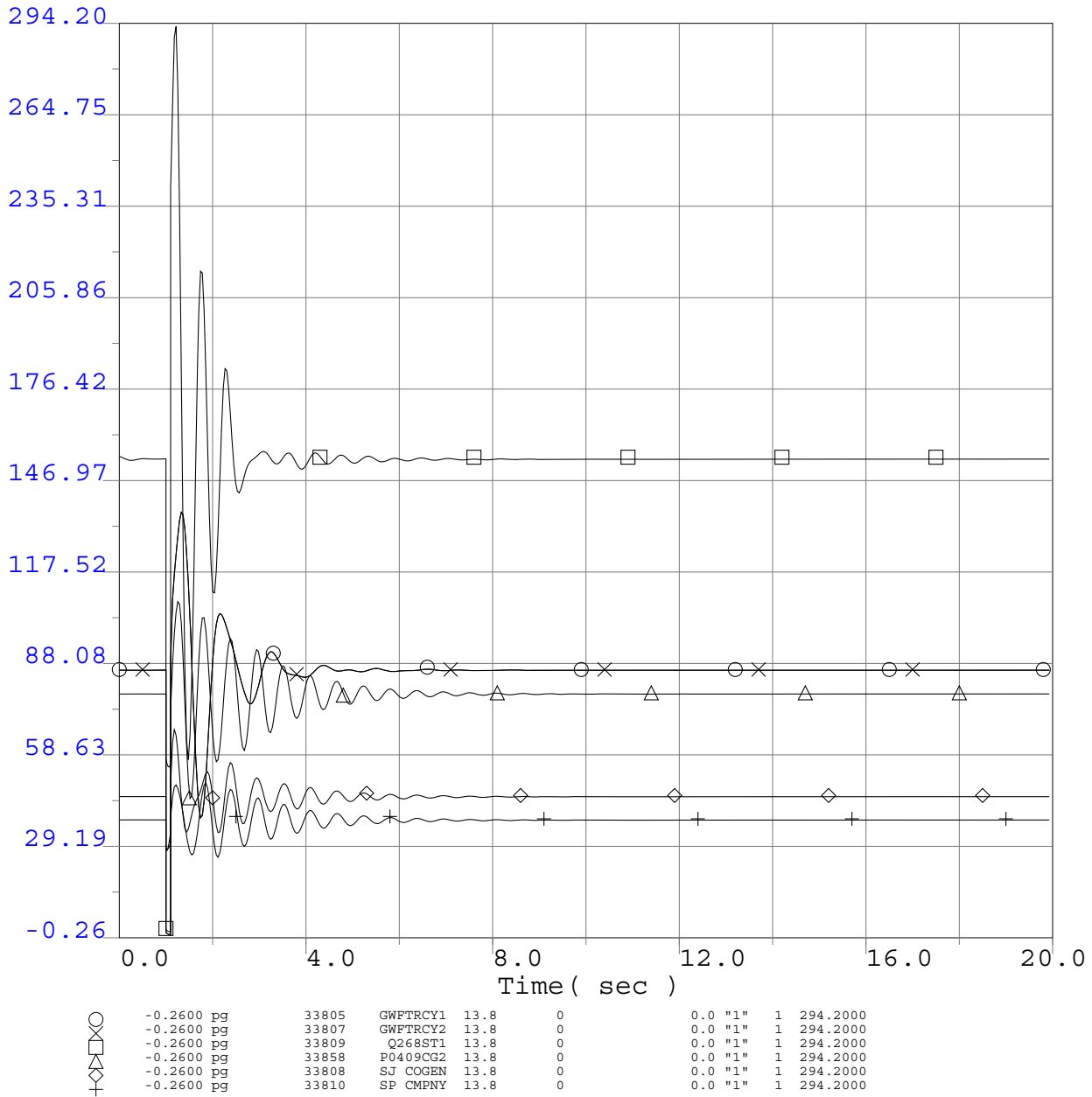
○	0.9868 spd	33805	GWTRCY1	13.8	0	0.0	"1"	1	1.0152
□	0.9868 spd	33807	GWTRCY2	13.8	0	0.0	"1"	1	1.0152
△	0.9868 spd	33809	Q268ST1	13.8	0	0.0	"1"	1	1.0152
◇	0.9868 spd	33858	P0409CG2	13.8	0	0.0	"1"	1	1.0152
+	0.9868 spd	33808	SJ COGEN	13.8	0	0.0	"1"	1	1.0152
×	0.9868 spd	33810	SP CMPNY	13.8	0	0.0	"1"	1	1.0152

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Terminal Power

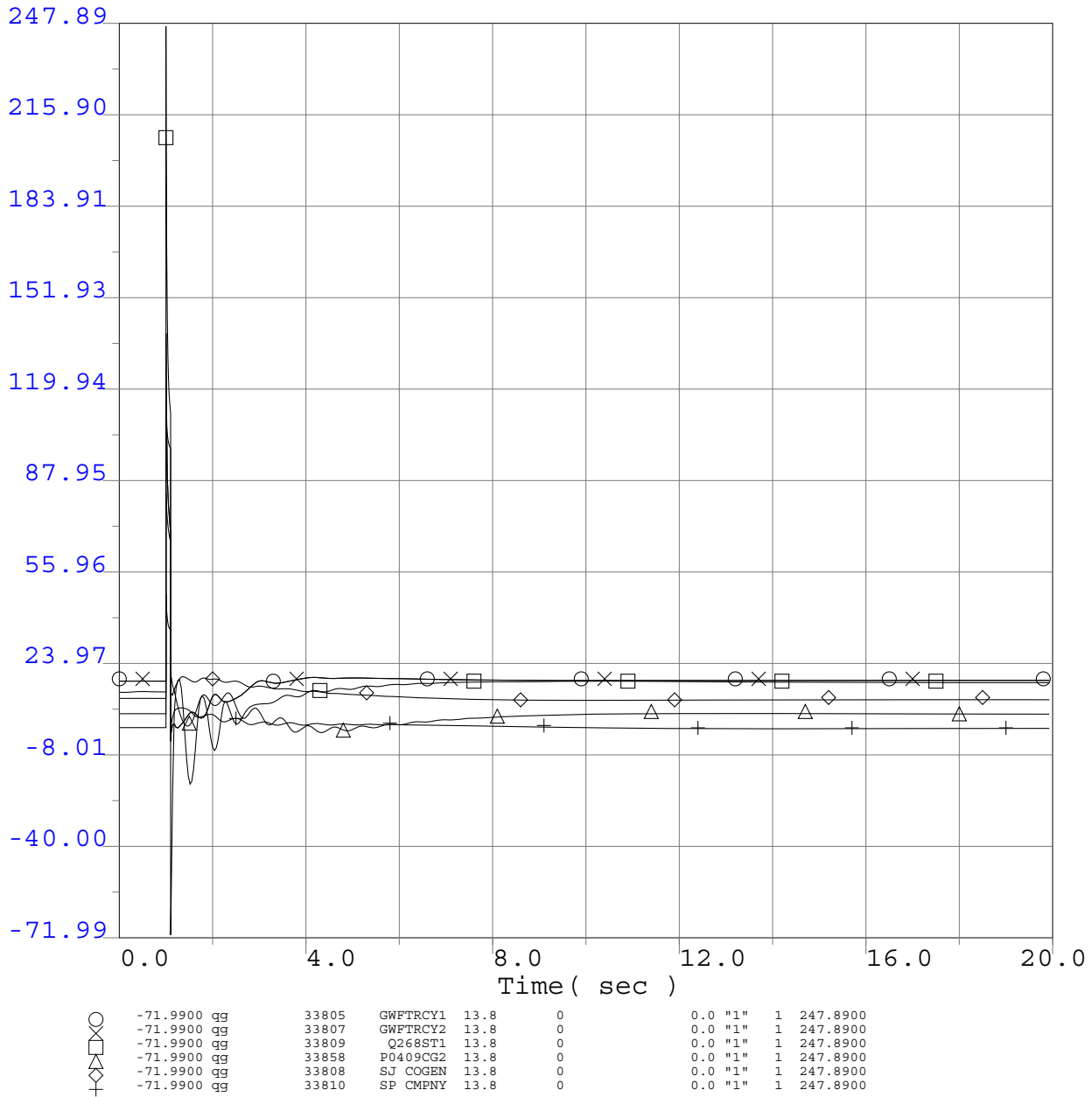


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Terminal Reactive Power

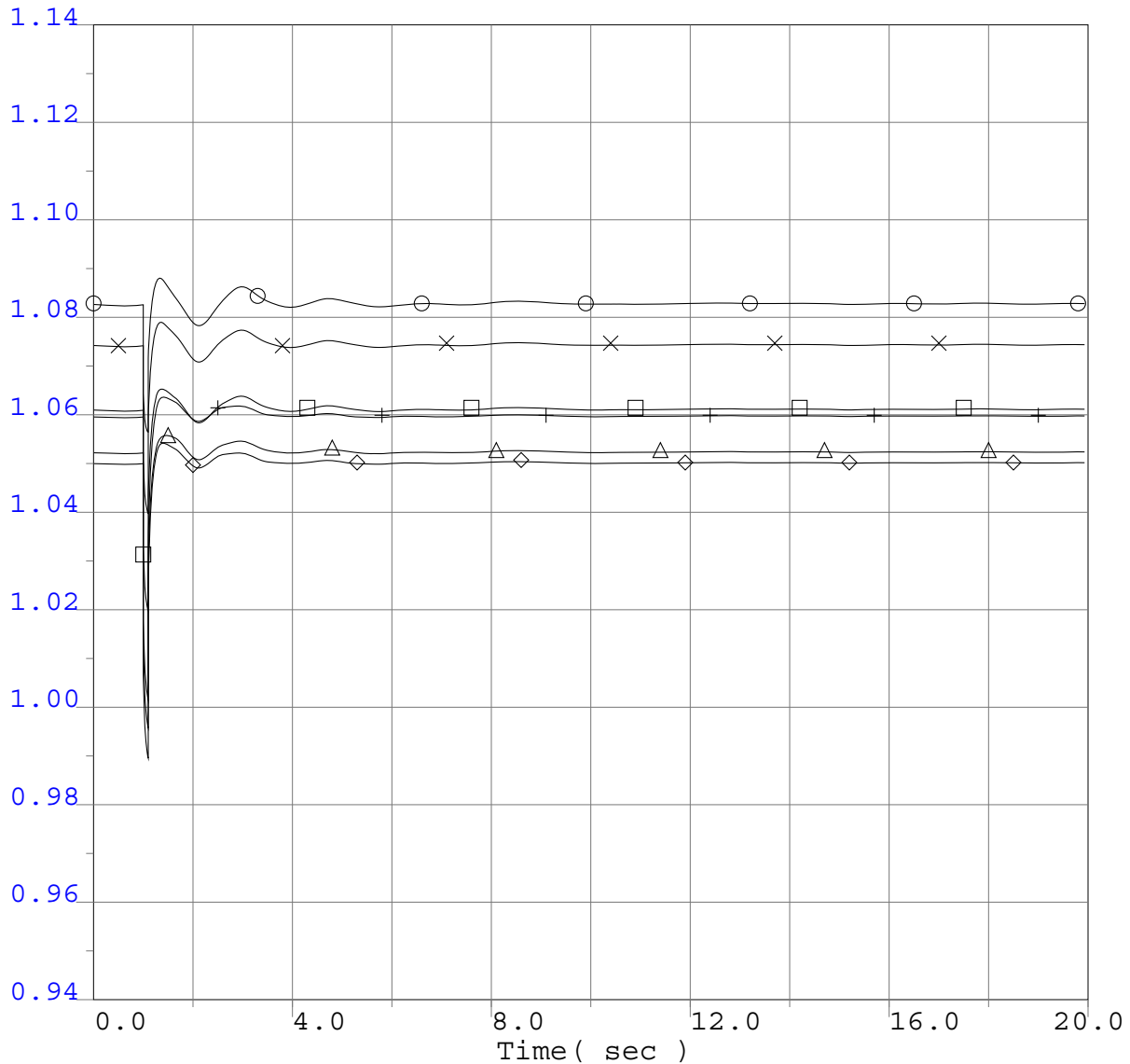


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots



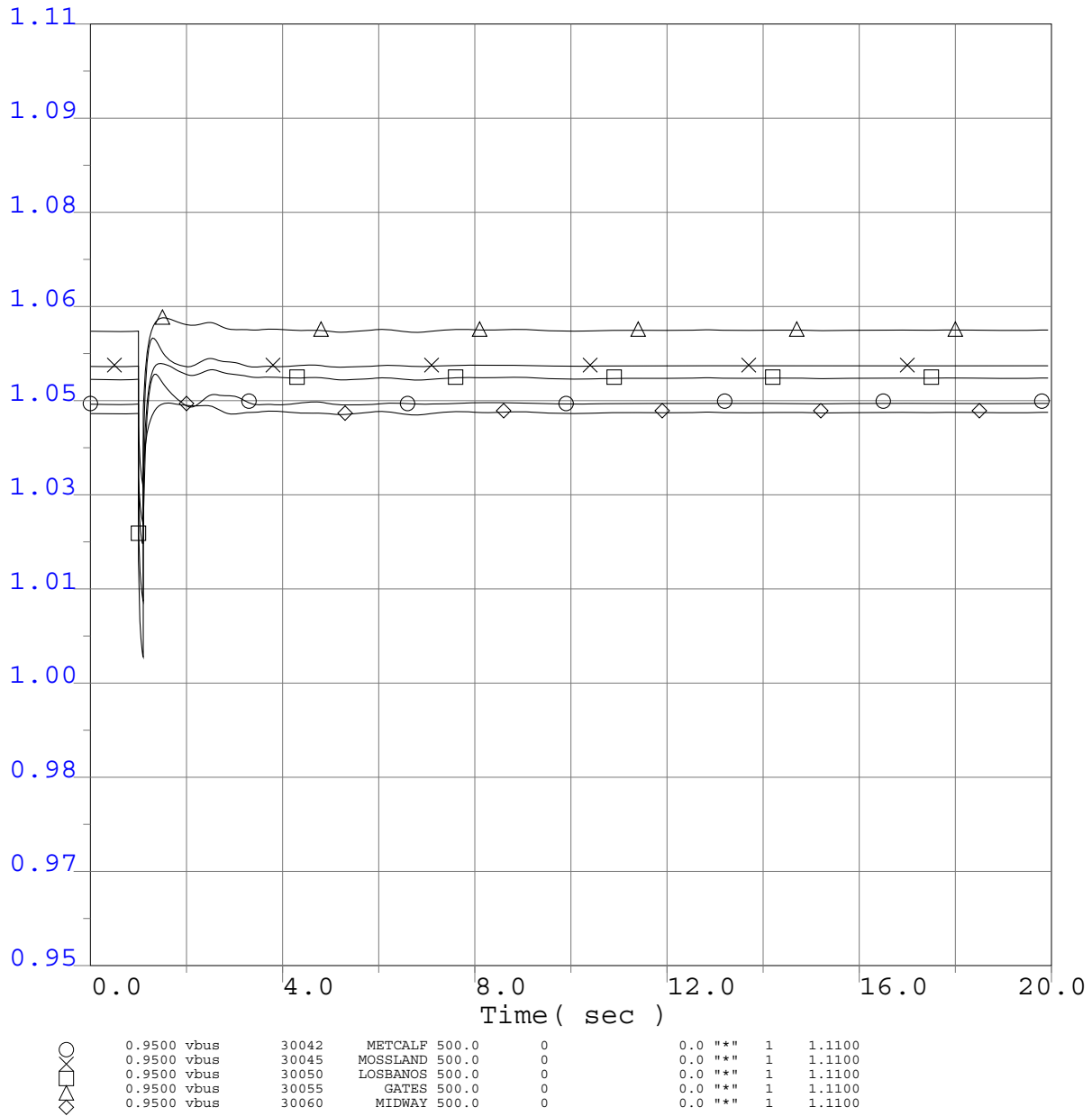
○	0.9400 vbus	40687	MALIN 500.0	0	0.0	""	1	1.1400
×	0.9400 vbus	30005	ROUND MT 500.0	0	0.0	""	1	1.1400
□	0.9400 vbus	30015	TABLE MT 500.0	0	0.0	""	1	1.1400
△	0.9400 vbus	30030	VACA-DIX 500.0	0	0.0	""	1	1.1400
◇	0.9400 vbus	30040	TESLA 500.0	0	0.0	""	1	1.1400
+	0.9400 vbus	30035	TRACY 500.0	0	0.0	""	1	1.1400

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

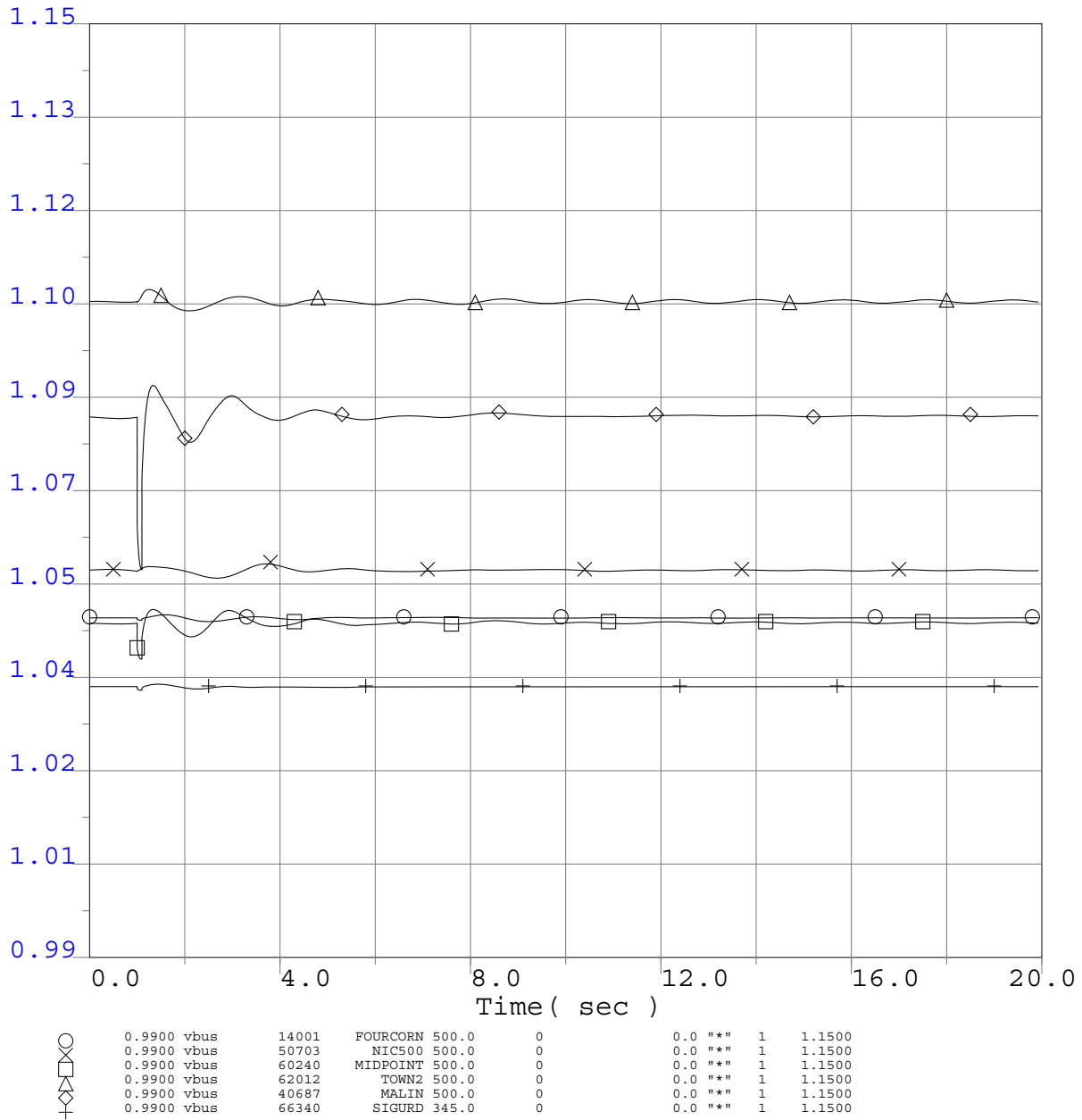


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

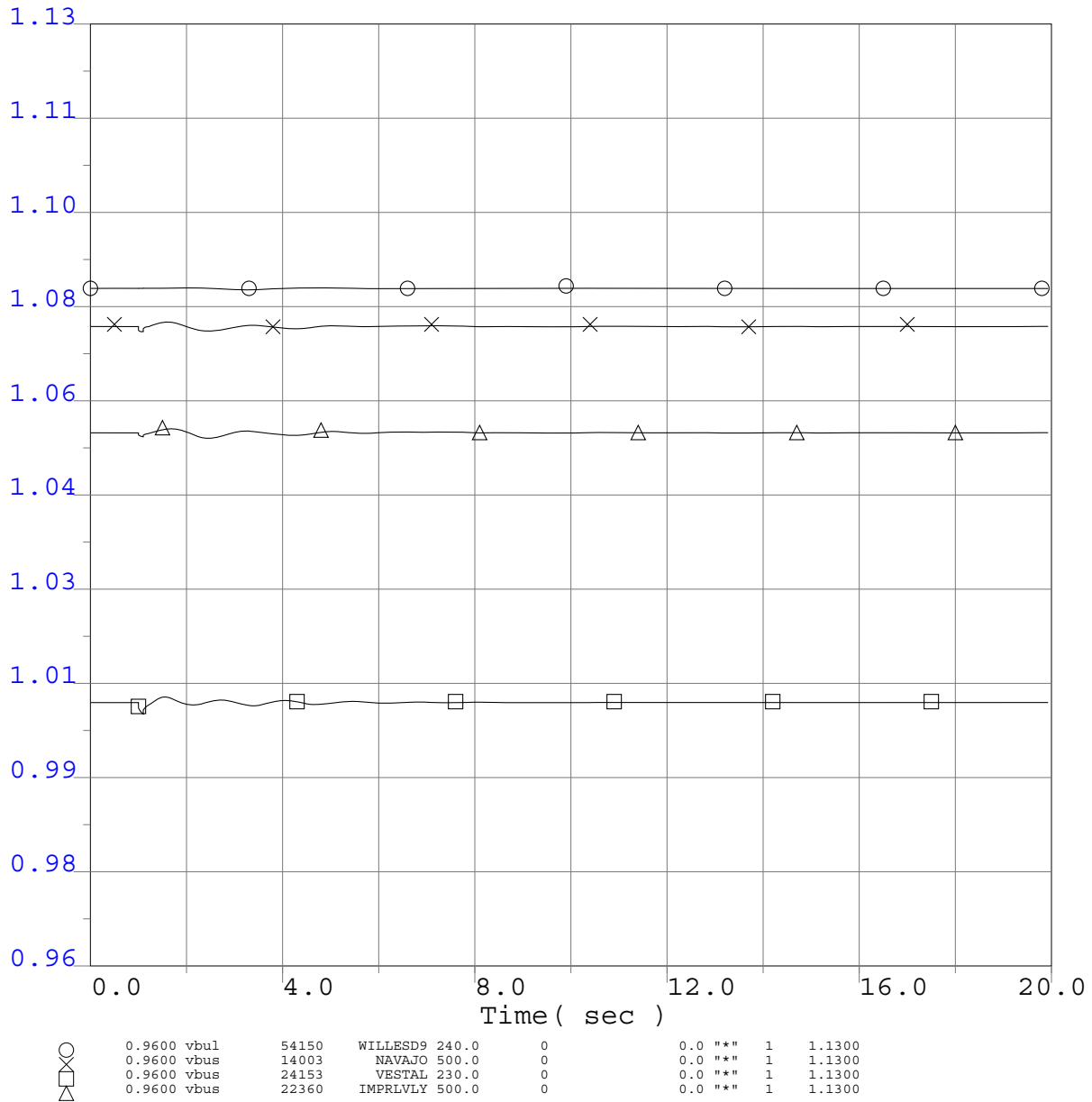


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

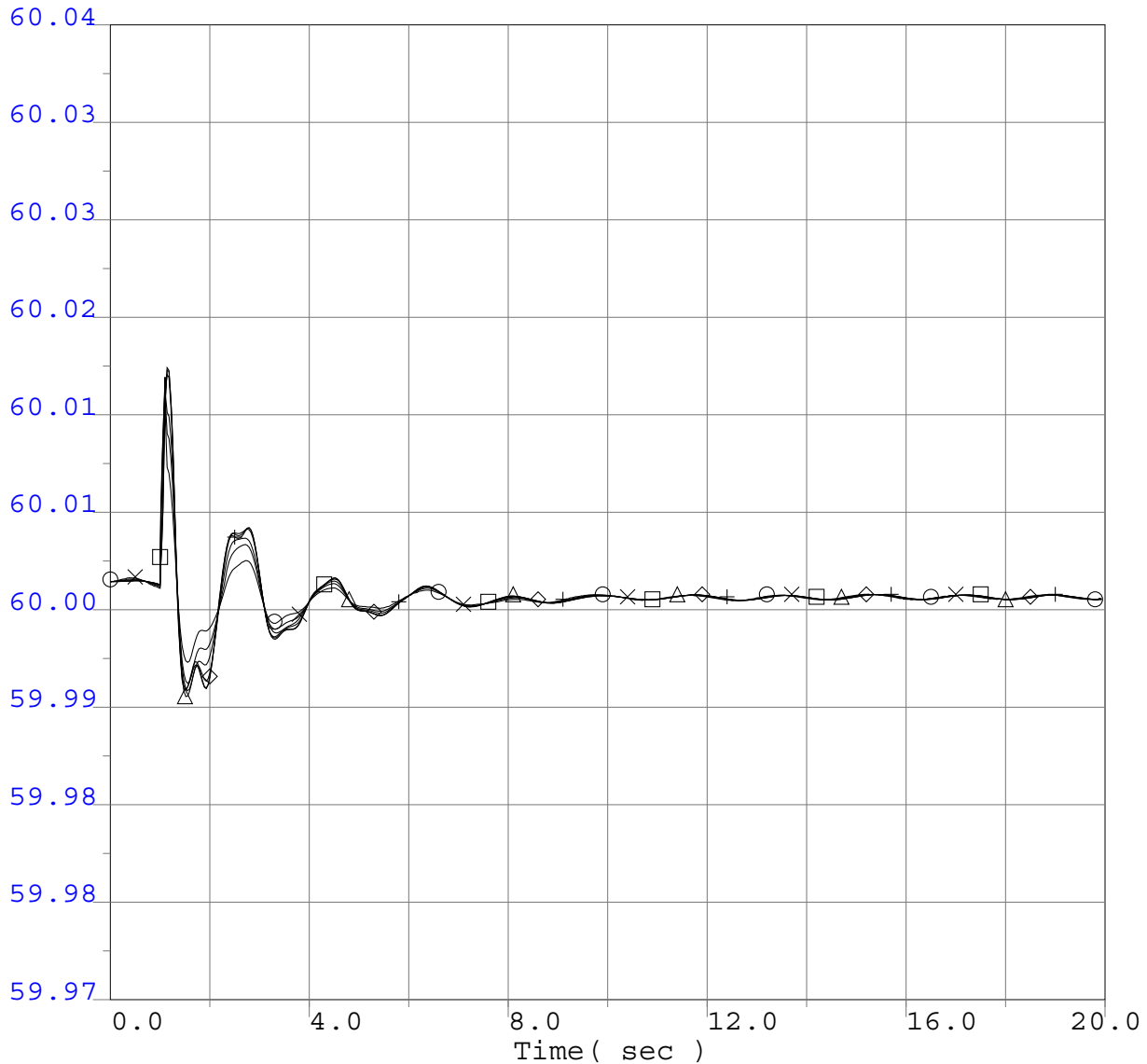


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



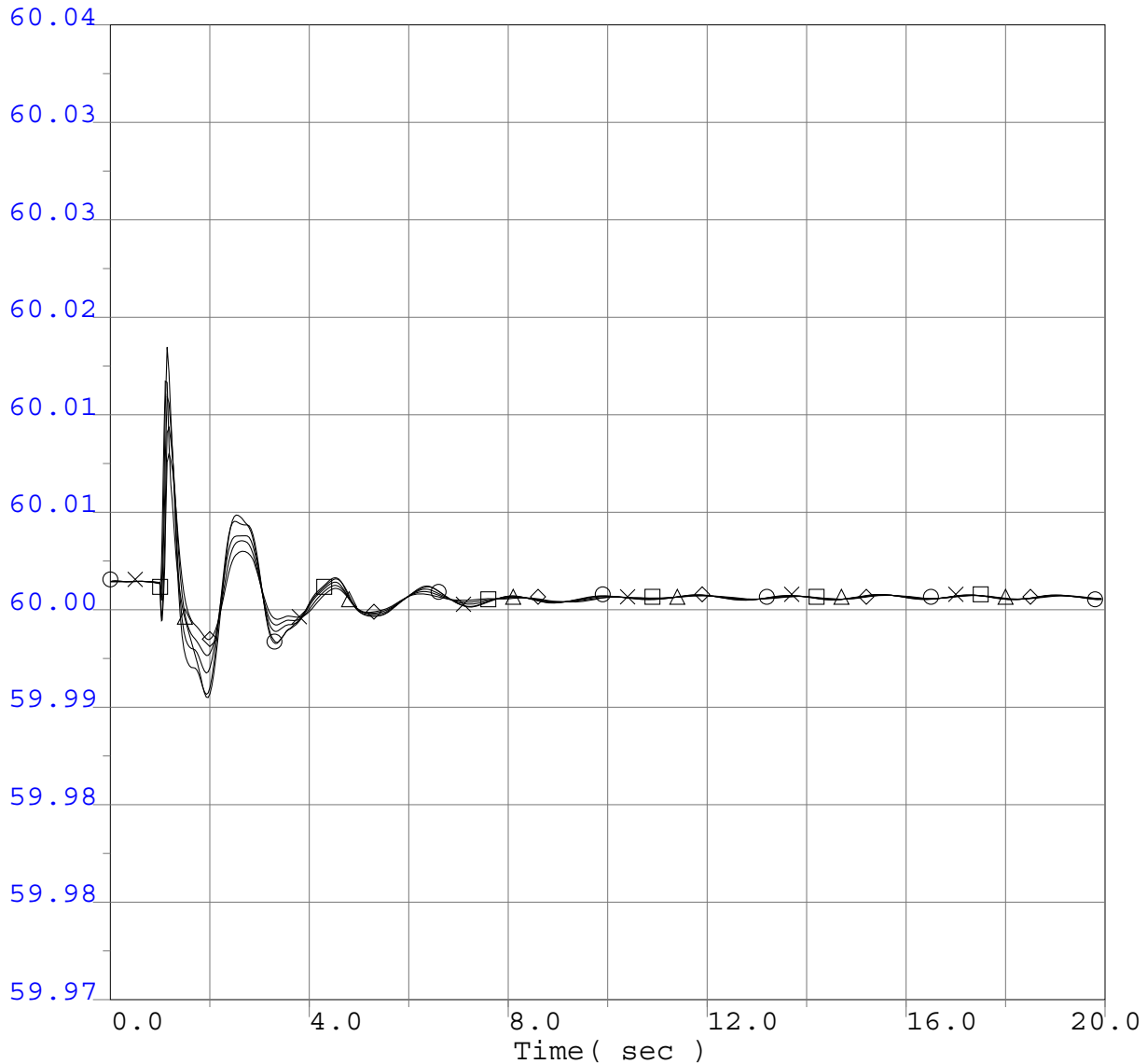
○	59.9700 Ebus	40687	MALIN 500.0	0	0.0	""	1	60.0400
□	59.9700 Ebus	30005	ROUND MT 500.0	0	0.0	""	1	60.0400
△	59.9700 Ebus	30015	TABLE MT 500.0	0	0.0	""	1	60.0400
◇	59.9700 Ebus	30030	VACA-DIX 500.0	0	0.0	""	1	60.0400
+	59.9700 Ebus	30040	TESLA 500.0	0	0.0	""	1	60.0400
×	59.9700 Ebus	30035	TRACY 500.0	0	0.0	""	1	60.0400

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
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 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



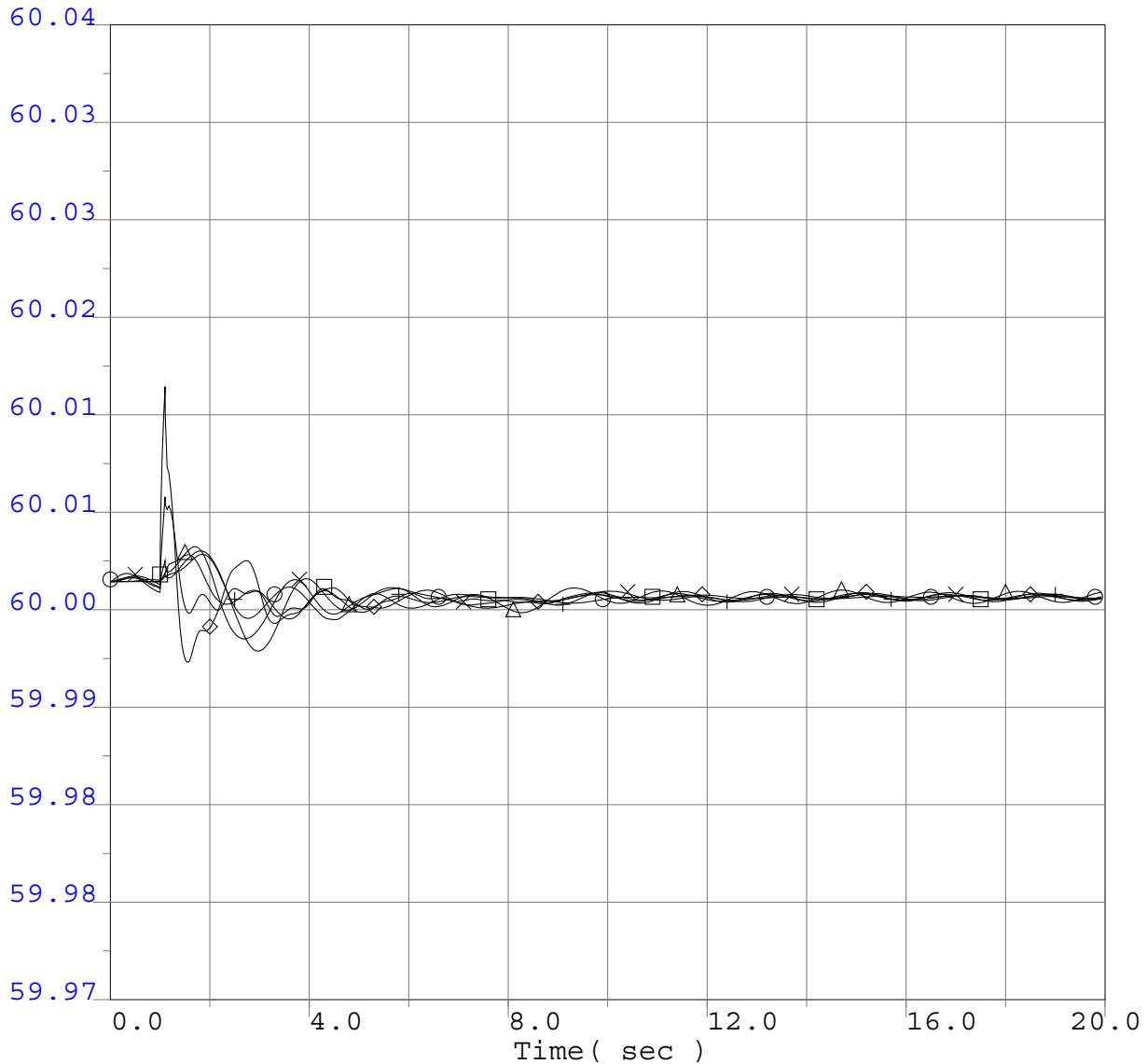
○	59.9700 Ebus	30042	METCALF 500.0	0	0.0	"	1	60.0400
□	59.9700 Ebus	30045	MOSSLAND 500.0	0	0.0	"	1	60.0400
△	59.9700 Ebus	30050	LOSBANOS 500.0	0	0.0	"	1	60.0400
◇	59.9700 Ebus	30055	GATES 500.0	0	0.0	"	1	60.0400
◇	59.9700 Ebus	30060	MIDWAY 500.0	0	0.0	"	1	60.0400

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
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Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



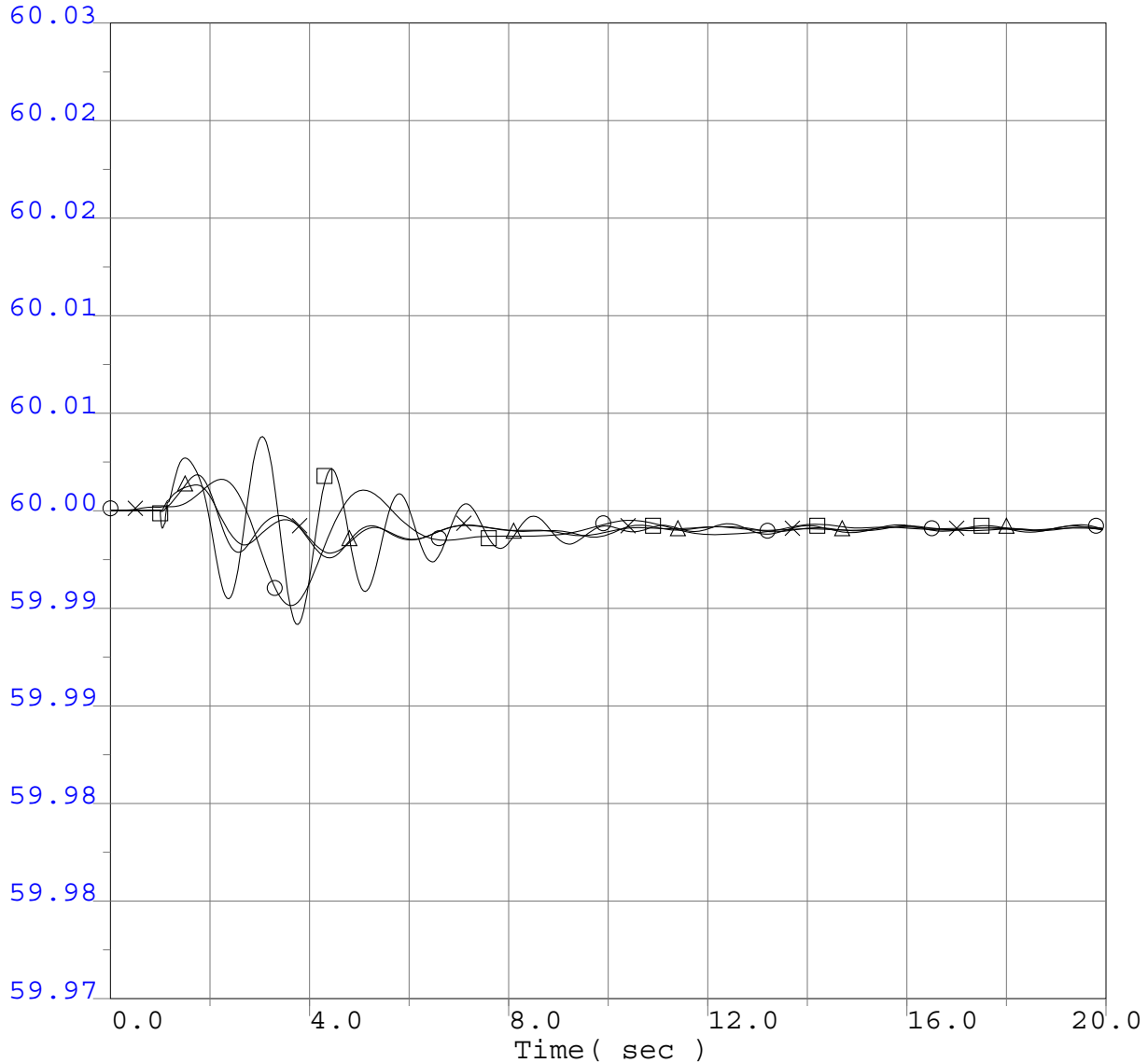
○	59.9700 Ebus	14001	FOURCORN	500.0	0	0.0	"**"	1	60.0400
□	59.9700 Ebus	50703	NIC500	500.0	0	0.0	"**"	1	60.0400
△	59.9700 Ebus	60240	MIDPOINT	500.0	0	0.0	"**"	1	60.0400
◇	59.9700 Ebus	62012	TOWN2	500.0	0	0.0	"**"	1	60.0400
+	59.9700 Ebus	40687	MALIN	500.0	0	0.0	"**"	1	60.0400
	59.9700 Ebus	66340	SIGURD	345.0	0	0.0	"**"	1	60.0400

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



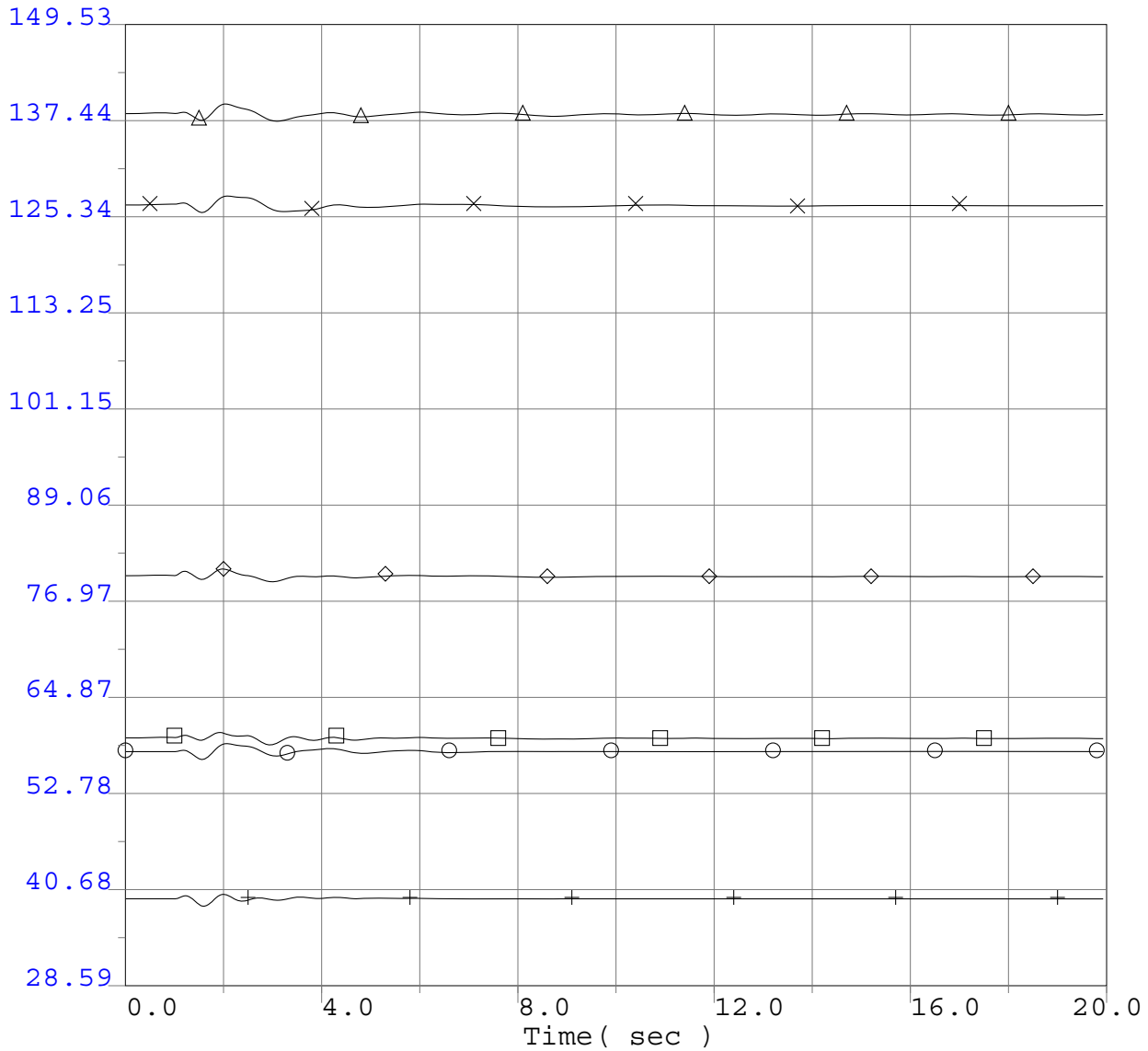
○	59.9700 Fbul	54150	WILLES9	240.0	0	0.0	""	1	60.0300
×	59.9700 Fbus	14003	NAVAJO	500.0	0	0.0	""	1	60.0300
□	59.9700 Fbus	24153	VESTAL	230.0	0	0.0	""	1	60.0300
△	59.9700 Fbus	22360	IMPRLVLY	500.0	0	0.0	""	1	60.0300

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle



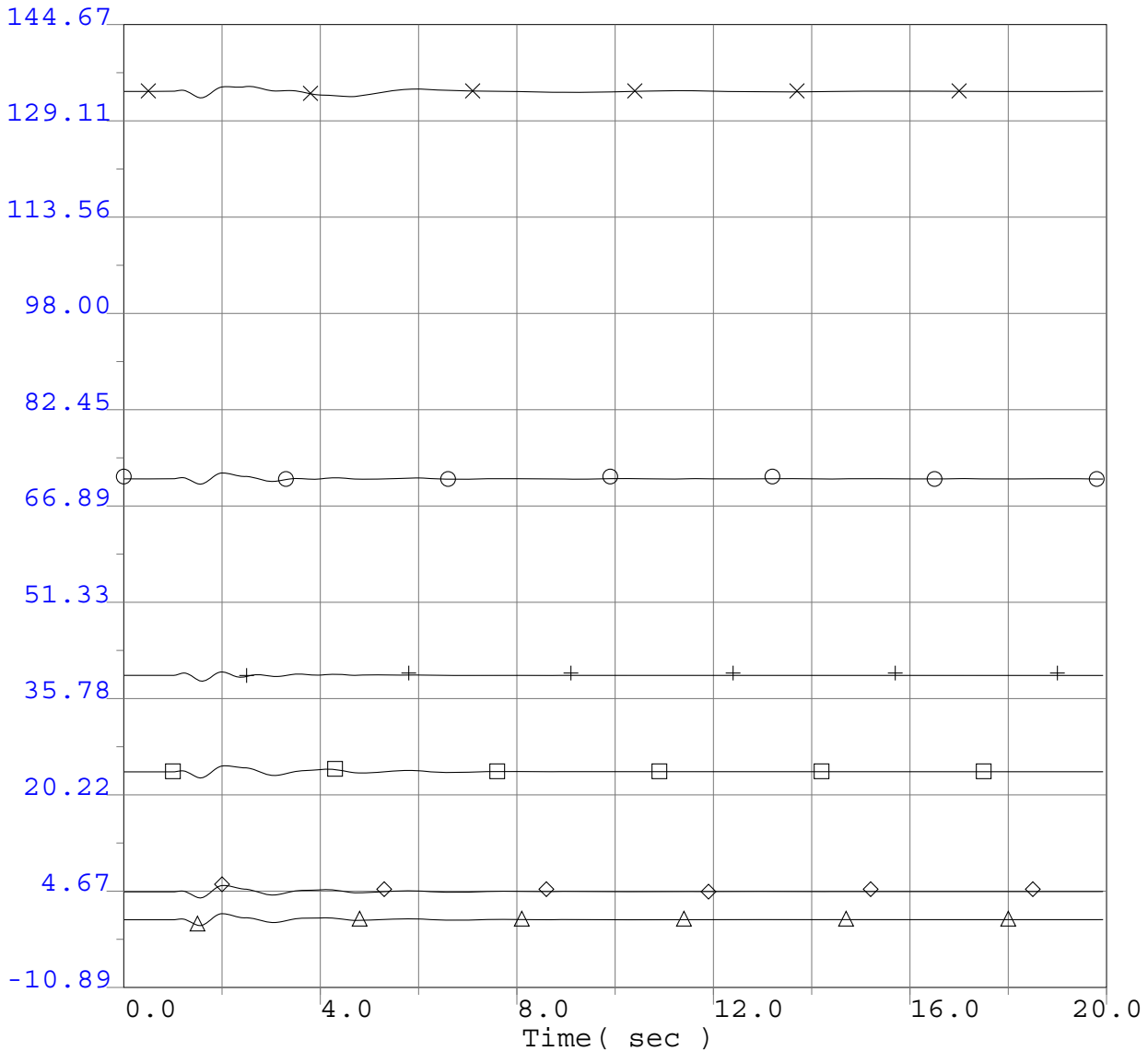
○	28.5900 ang	14914	FCNGN4CC	22.0	0	0.0 "H"	1	149.5300
□	28.5900 ang	50499	GMS G5	13.8	0	0.0 "1"	1	149.5300
△	28.5900 ang	60100	BRWNL 5	13.8	0	0.0 "1"	1	149.5300
×	28.5900 ang	62048	COLSTP 3	26.0	0	0.0 "1"	1	149.5300
◇	28.5900 ang	44071	JDA 0102	13.8	0	0.0"01"	1	149.5300
+	28.5900 ang	36411	DIABLO 1	25.0	0	0.0 "1"	1	149.5300

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle



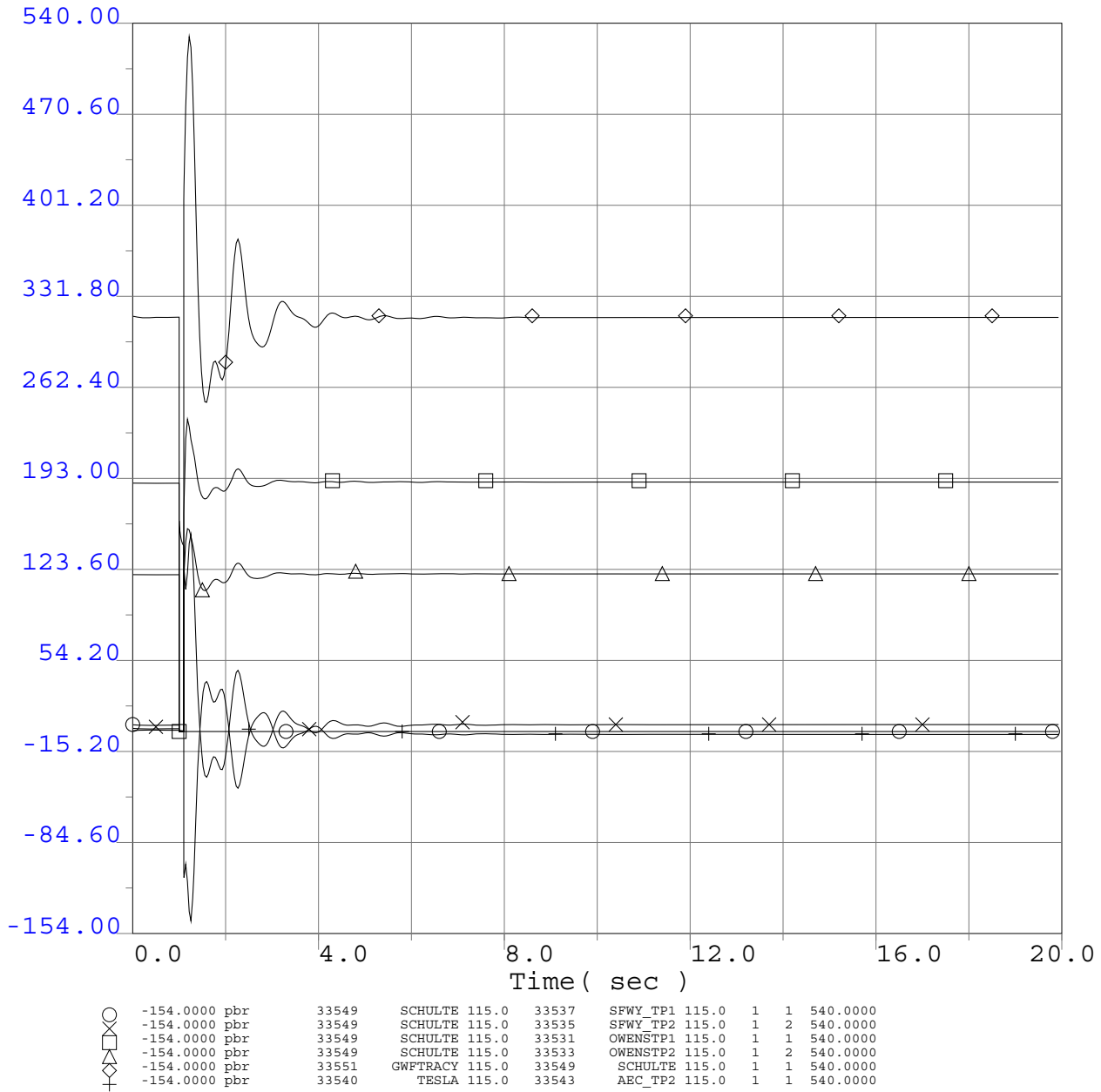
○	-10.8900 ang	65490	EHUNTR 1	24.0	0	0.0 "1"	1	144.6700
○	-10.8900 ang	54338	SUND#2GN	18.0	0	0.0 "2"	1	144.6700
□	-10.8900 ang	79151	GLENC3-4	13.8	0	0.0 "3"	1	144.6700
△	-10.8900 ang	24130	S.ONOPR3	22.0	0	0.0 "3"	1	144.6700
◇	-10.8900 ang	22244	ENCINA 5	24.0	0	0.0 "1"	1	144.6700
+	-10.8900 ang	36411	DIABLO 1	25.0	0	0.0 "1"	1	144.6700

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
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Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)

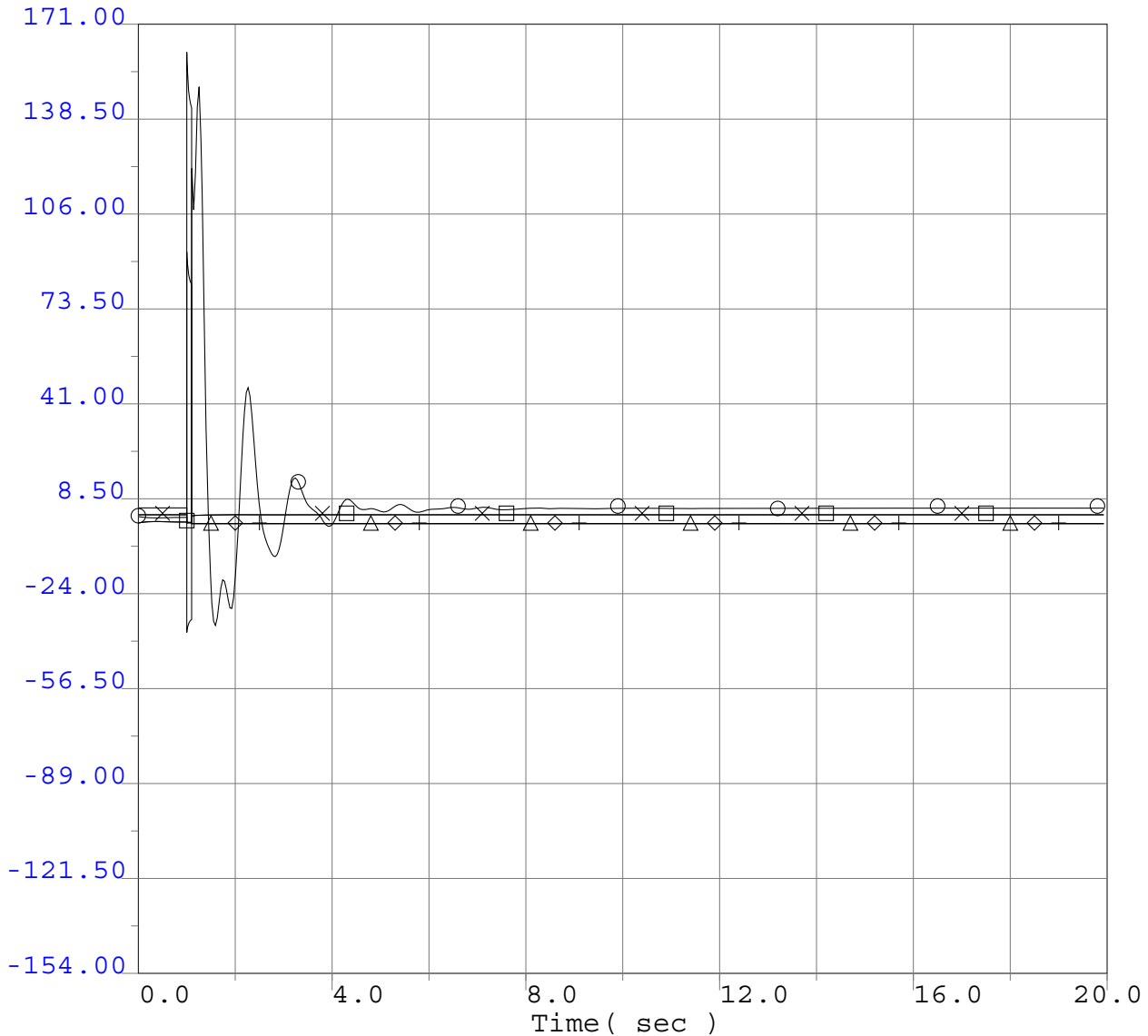


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
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Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)



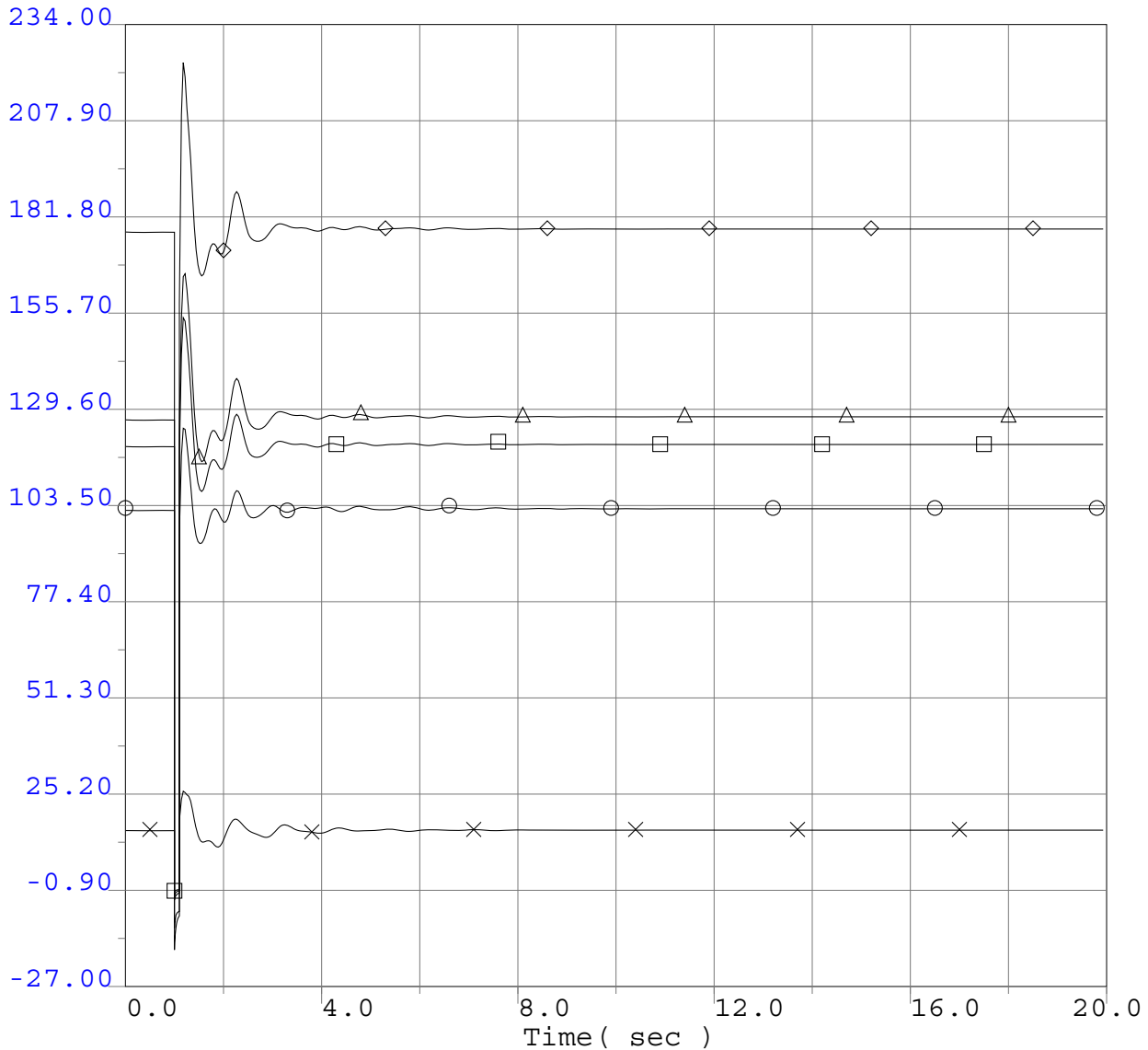
○	-154.0000 pbr	33535	SFWY_TP2 115.0	33543	AEC_TP2 115.0	1	1	171.0000
□	-154.0000 pbr	33543	AEC_TP2 115.0	33545	AEC_JCT 115.0	1	1	171.0000
△	-154.0000 pbr	33545	AEC_JCT 115.0	33547	AEC_300 115.0	1	1	171.0000
◇	-154.0000 pbr	33537	SFWY_TP1 115.0	33534	SAFEWAY 115.0	1	1	171.0000
+	-154.0000 pbr	33541	AEC_TP1 115.0	33537	SFWY_TP1 115.0	1	1	171.0000
	-154.0000 pbr	33540	TESLA 115.0	33541	AEC_TP1 115.0	1	1	171.0000

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)



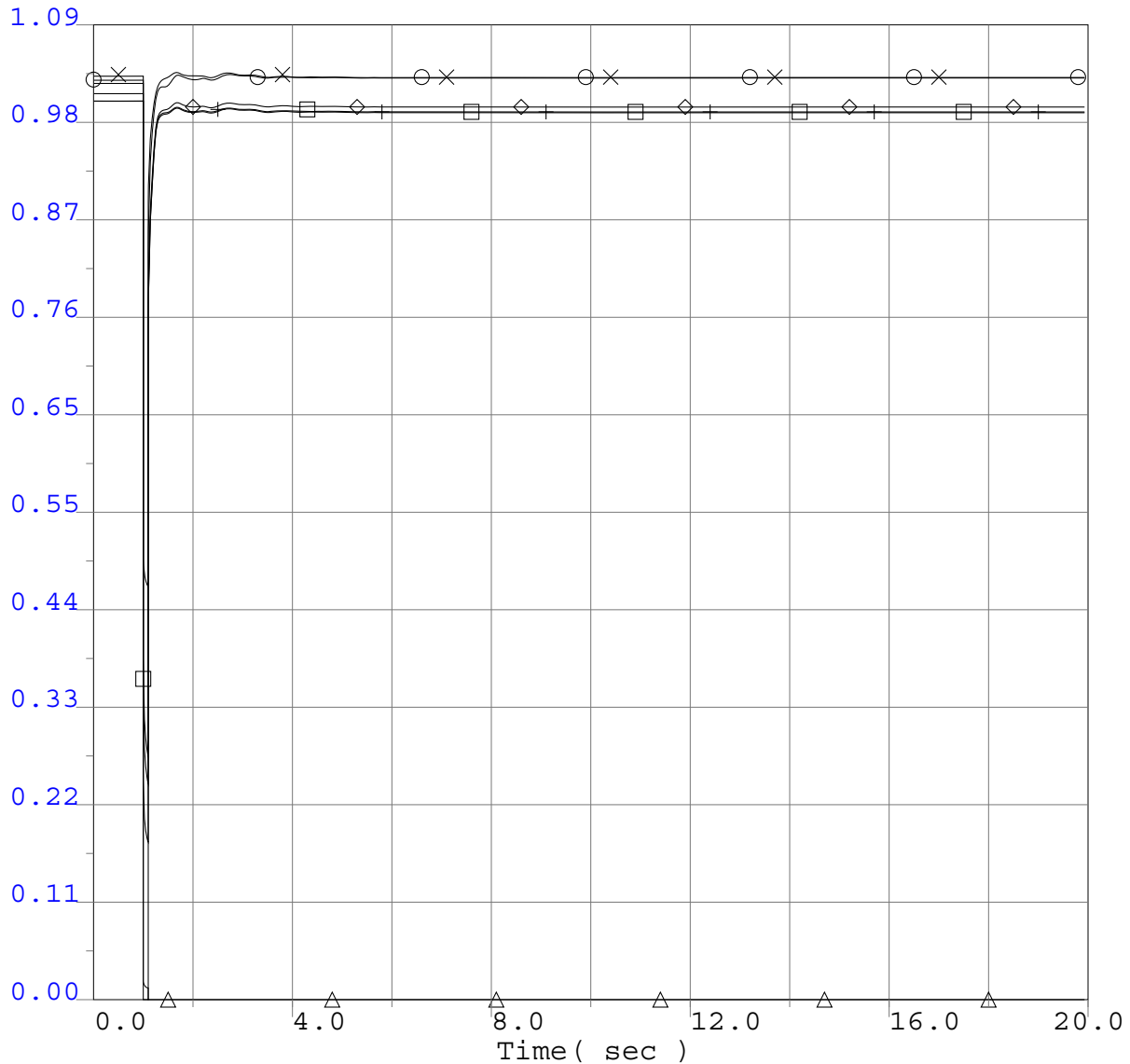
○	-27.0000 pbr	33526	KSSN-JC1	115.0	33514	MANTECA	115.0	1	1	234.0000
□	-27.0000 pbr	33526	KSSN-JC1	115.0	33528	KASSON	115.0	1	1	234.0000
△	-27.0000 pbr	33533	OWENSTP2	115.0	33526	KSSN-JC1	115.0	1	1	234.0000
◇	-27.0000 pbr	33529	LAMMERS	115.0	33528	KASSON	115.0	1	1	234.0000
×	-27.0000 pbr	33531	OWENSTP1	115.0	33529	LAMMERS	115.0	1	1	234.0000

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 115kV line outage; Breakers 122-522+622
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Voltage Plots Adjacent to Fault



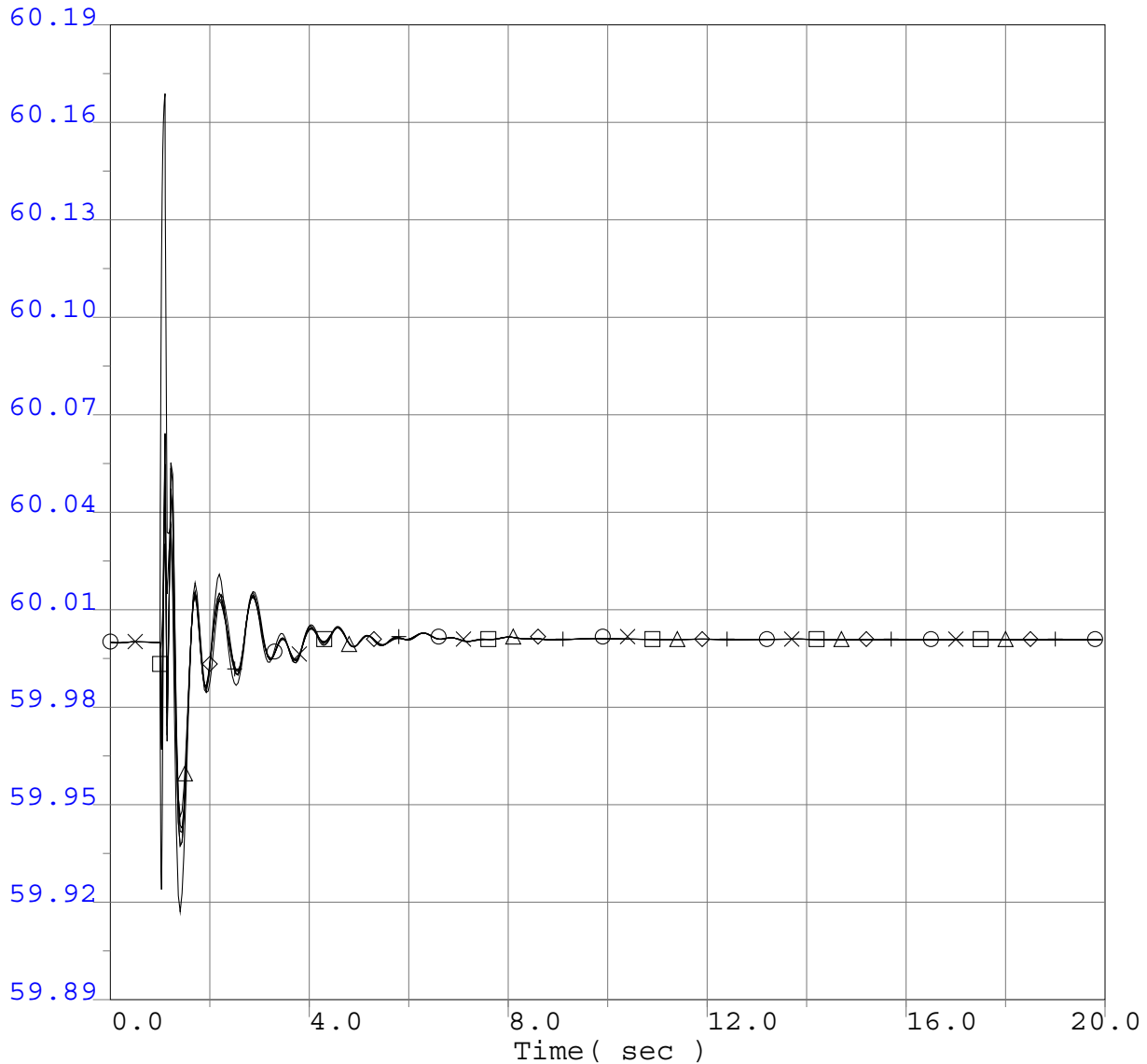
○	0.0000 vbus	33549	SCHULTE 115.0	0	0.0	""	1	1.0900
□	0.0000 vbus	33540	TESLA 115.0	0	0.0	""	1	1.0900
△	0.0000 vbul	33514	MANTECA 115.0	0	0.0	""	1	1.0900
◇	0.0000 vbul	33529	LAMMERS 115.0	0	0.0	""	1	1.0900
+	0.0000 vbus	33528	KASSON 115.0	0	0.0	""	1	1.0900
+	0.0000 vbul	33518	VIERRA 115.0	0	0.0	""	1	1.0900

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 142-422+522
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Frequency Plots Adjacent to Fault



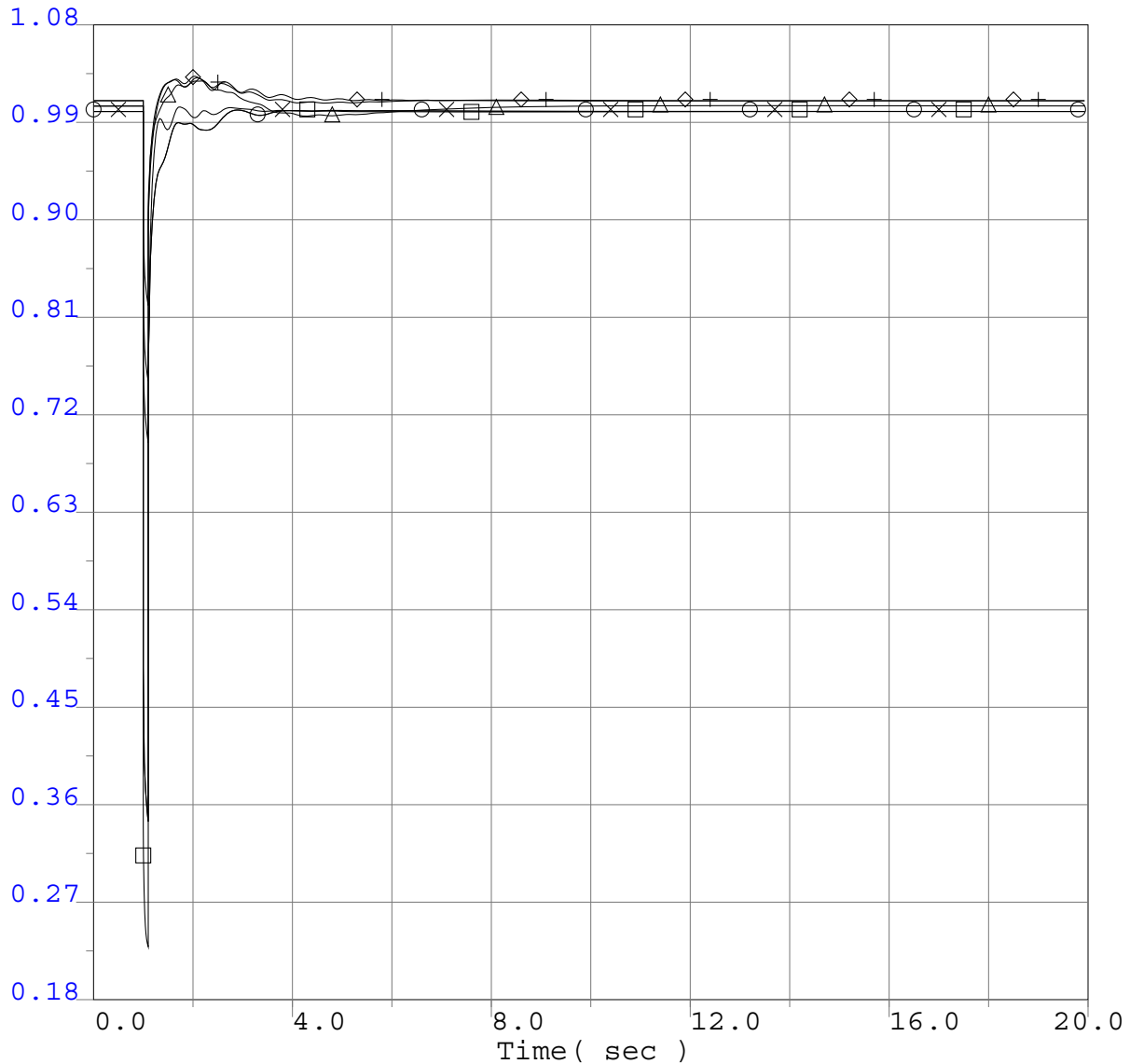
○	59.8900 Fbus	33549	SCHULTE 115.0	0	0.0	"**"	1	60.1900
□	59.8900 Fbus	33540	TESLA 115.0	0	0.0	"**"	1	60.1900
△	59.8900 Fbul	33514	MANTECA 115.0	0	0.0	"**"	1	60.1900
◇	59.8900 Fbul	33529	LAMMERS 115.0	0	0.0	"**"	1	60.1900
+	59.8900 Fbus	33528	KASSON 115.0	0	0.0	"**"	1	60.1900
×	59.8900 Fbul	33518	VIERRA 115.0	0	0.0	"**"	1	60.1900

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 142-422+522
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Terminal Voltages

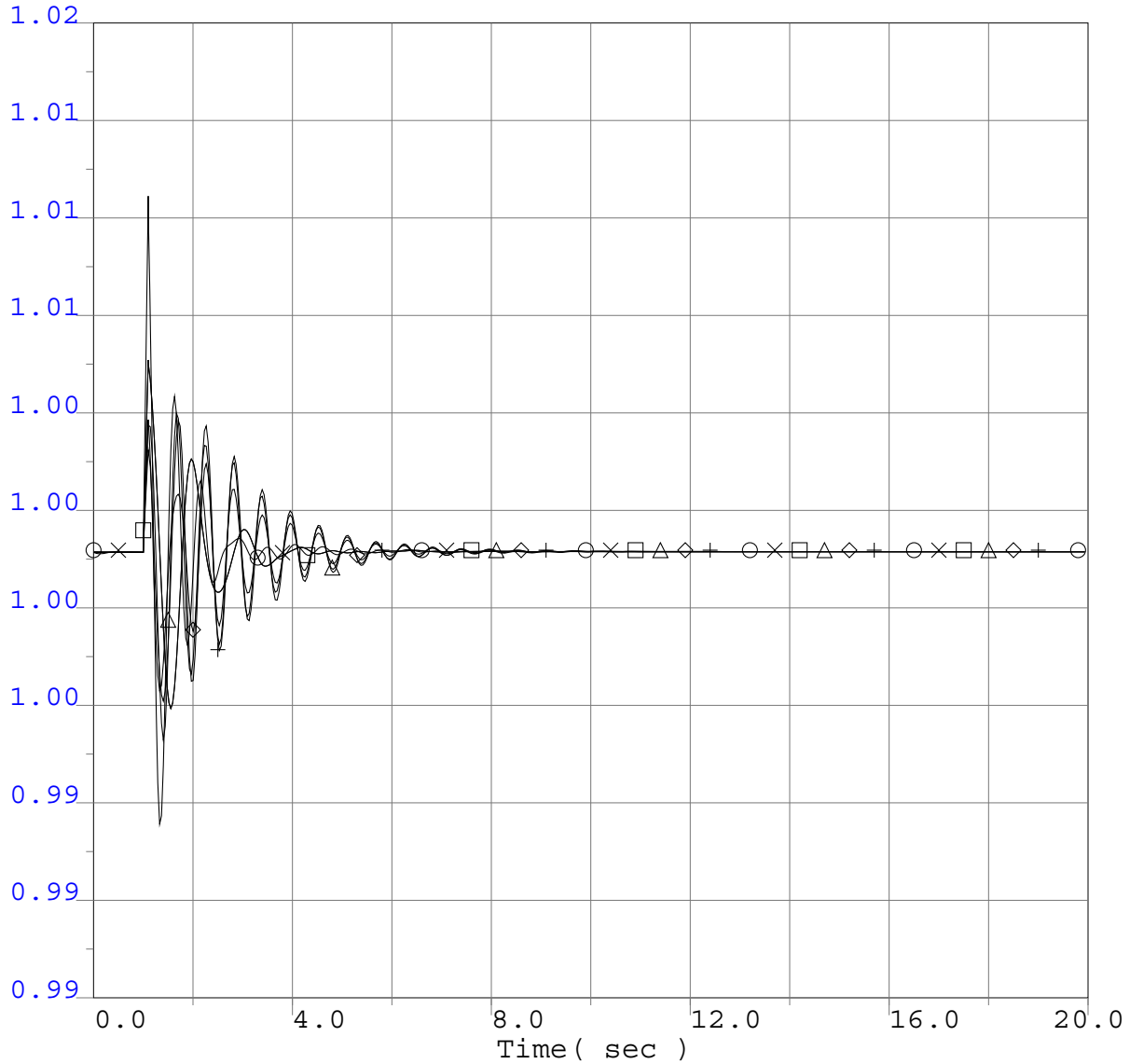


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 142-422+522
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Rotor Speed



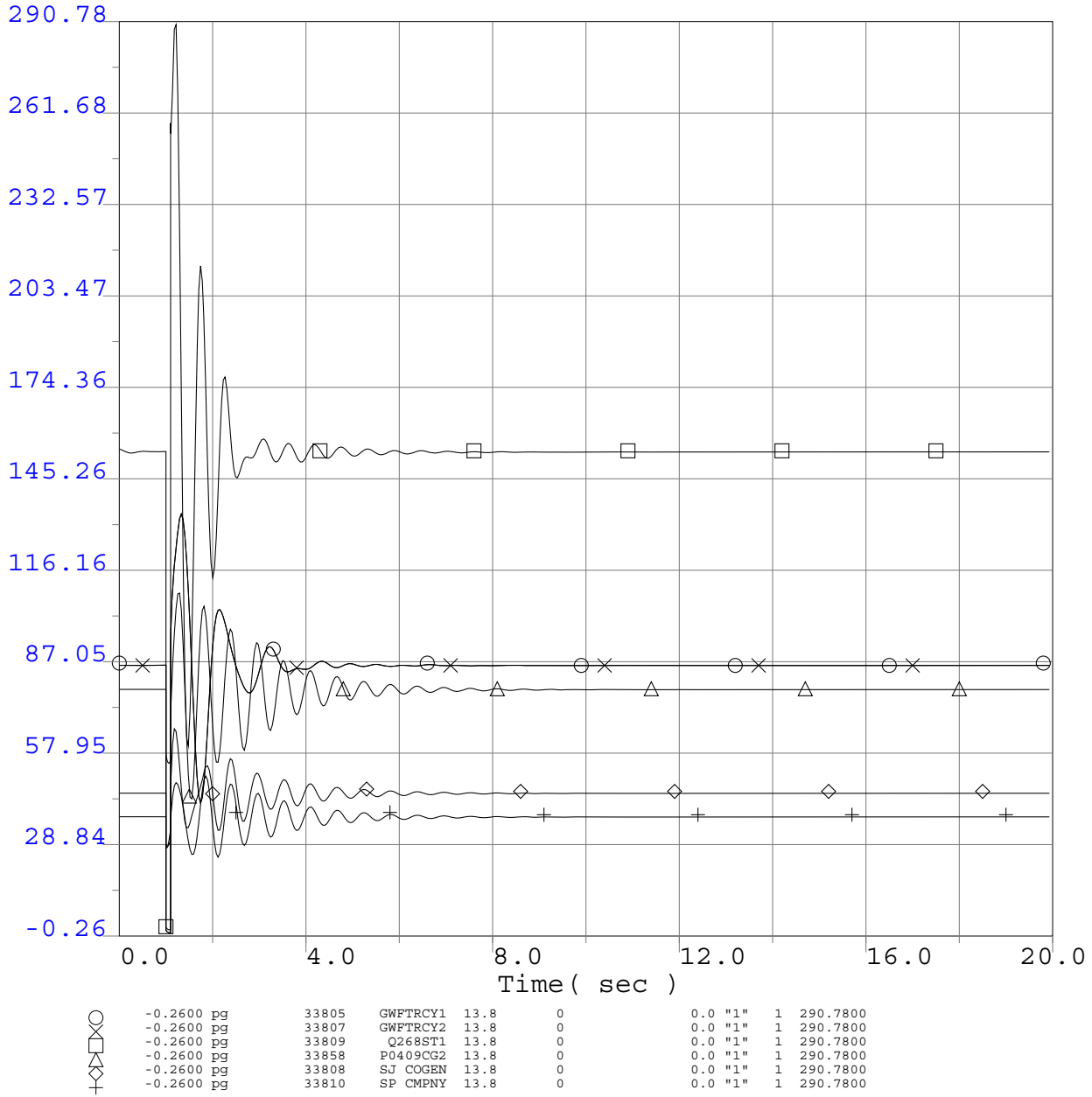
○	0.9872 spd	33805	GWTRCY1	13.8	0	0.0	"1"	1	1.0152
□	0.9872 spd	33807	GWTRCY2	13.8	0	0.0	"1"	1	1.0152
△	0.9872 spd	33809	Q268ST1	13.8	0	0.0	"1"	1	1.0152
◇	0.9872 spd	33858	P0409CG2	13.8	0	0.0	"1"	1	1.0152
+	0.9872 spd	33808	SJ COGEN	13.8	0	0.0	"1"	1	1.0152
×	0.9872 spd	33810	SP CMPNY	13.8	0	0.0	"1"	1	1.0152

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 142-422+522
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Terminal Power

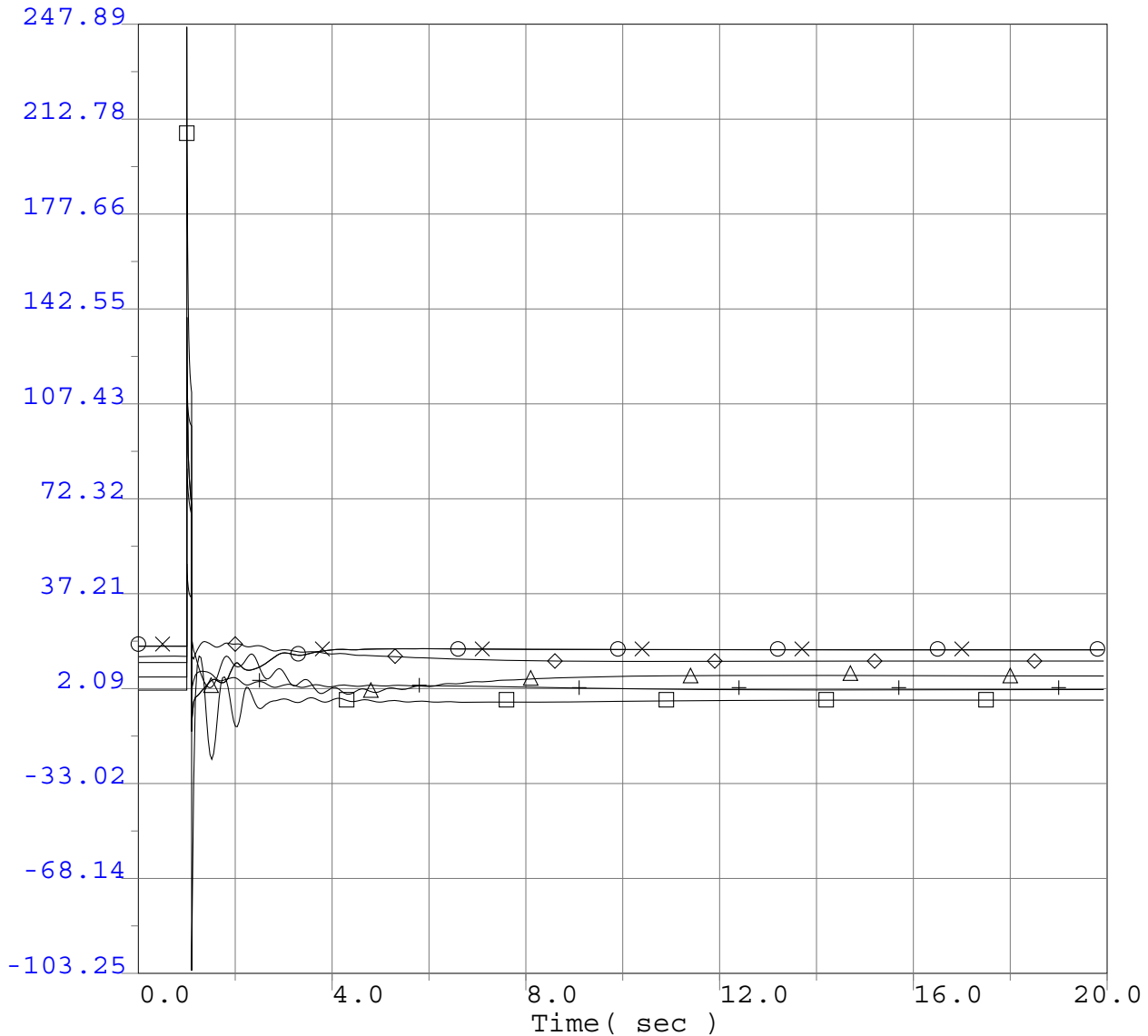


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 142-422+522
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Terminal Reactive Power



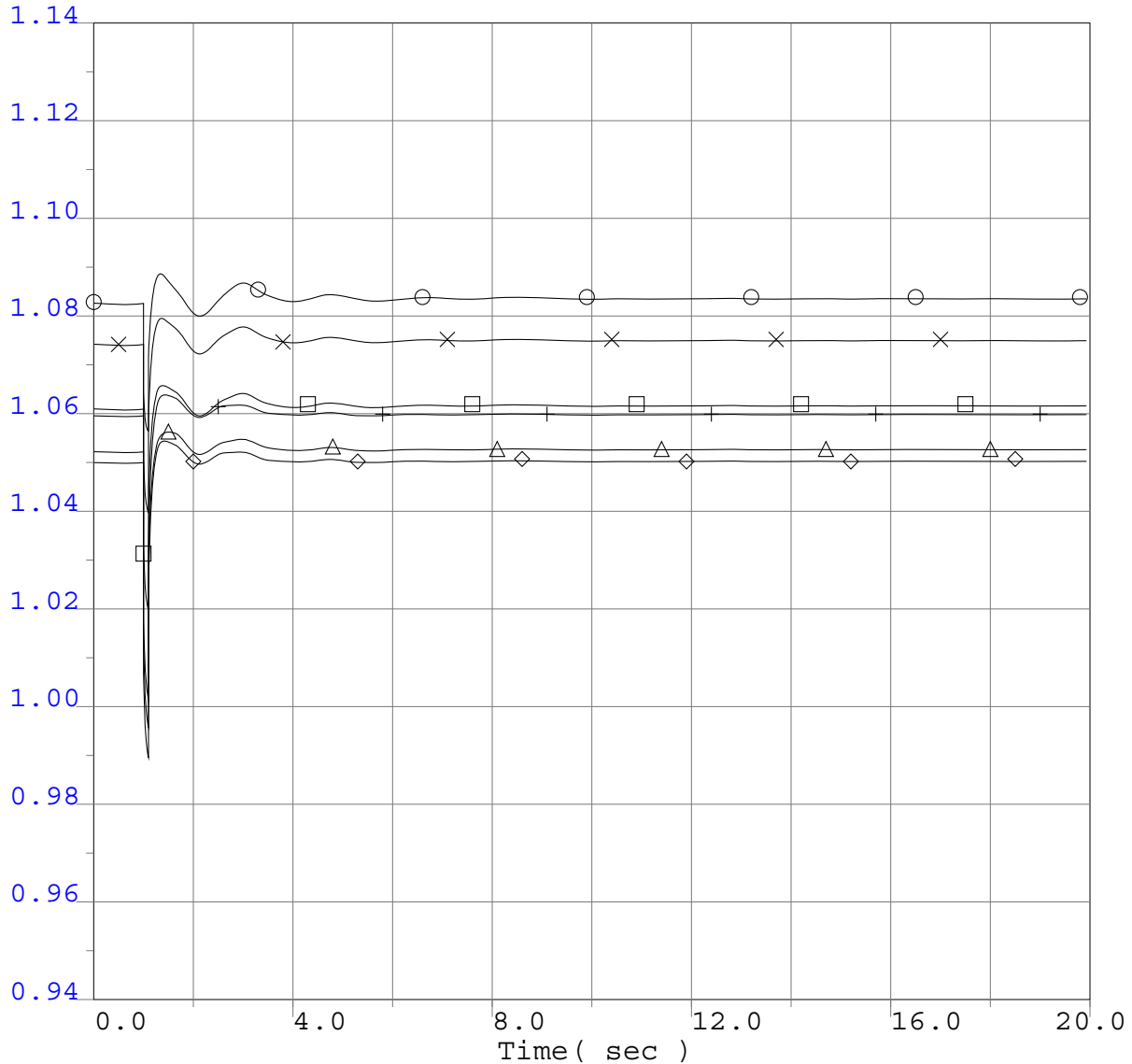
○	-103.2000	gg	33805	GWTRCY1	13.8	0	0.0	"1"	1	247.8900
×	-103.2000	gg	33807	GWTRCY2	13.8	0	0.0	"1"	1	247.8900
□	-103.2000	gg	33809	Q268ST1	13.8	0	0.0	"1"	1	247.8900
◇	-103.2000	gg	33858	P0409CG2	13.8	0	0.0	"1"	1	247.8900
△	-103.2000	gg	33808	SJ COGEN	13.8	0	0.0	"1"	1	247.8900
+	-103.2000	gg	33810	SP CMPNY	13.8	0	0.0	"1"	1	247.8900

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 142-422+522
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots



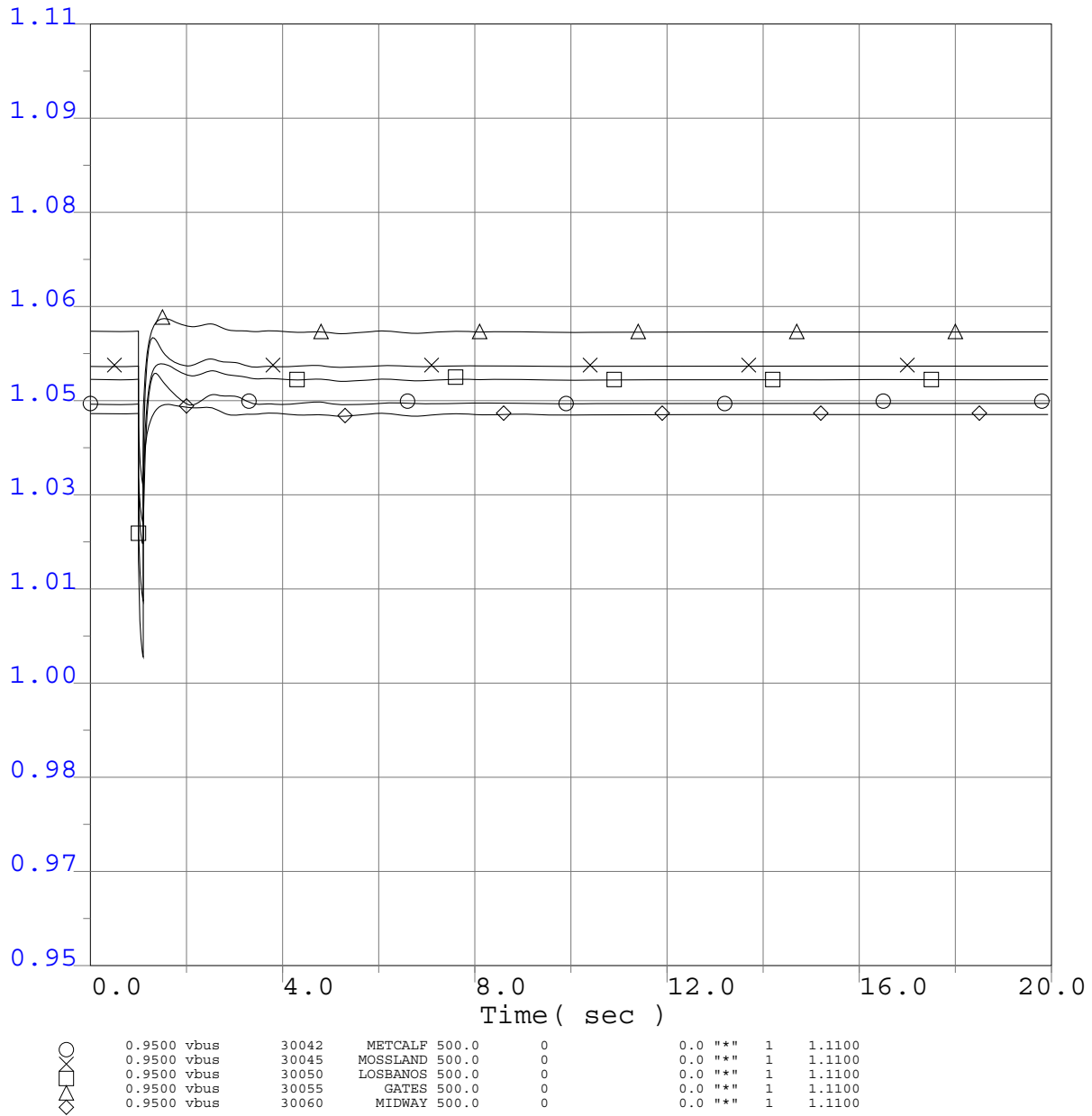
○	0.9400 vbus	40687	MALIN 500.0	0	0.0	""	1	1.1400
×	0.9400 vbus	30005	ROUND MT 500.0	0	0.0	""	1	1.1400
□	0.9400 vbus	30015	TABLE MT 500.0	0	0.0	""	1	1.1400
△	0.9400 vbus	30030	VACA-DIX 500.0	0	0.0	""	1	1.1400
◇	0.9400 vbus	30040	TESLA 500.0	0	0.0	""	1	1.1400
+	0.9400 vbus	30035	TRACY 500.0	0	0.0	""	1	1.1400

Q268 Project Interconnection System Impact Study
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Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

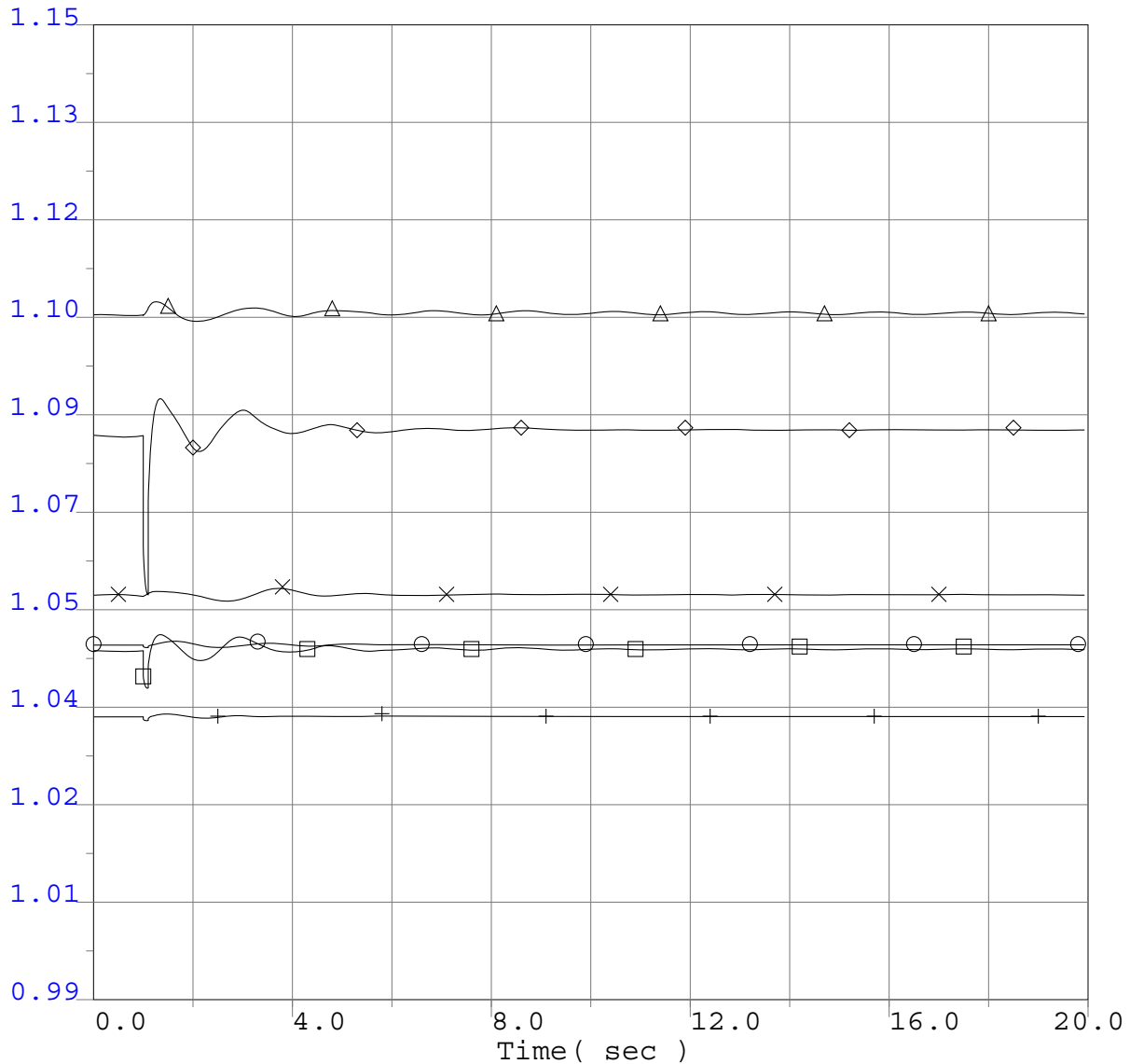


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
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 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots



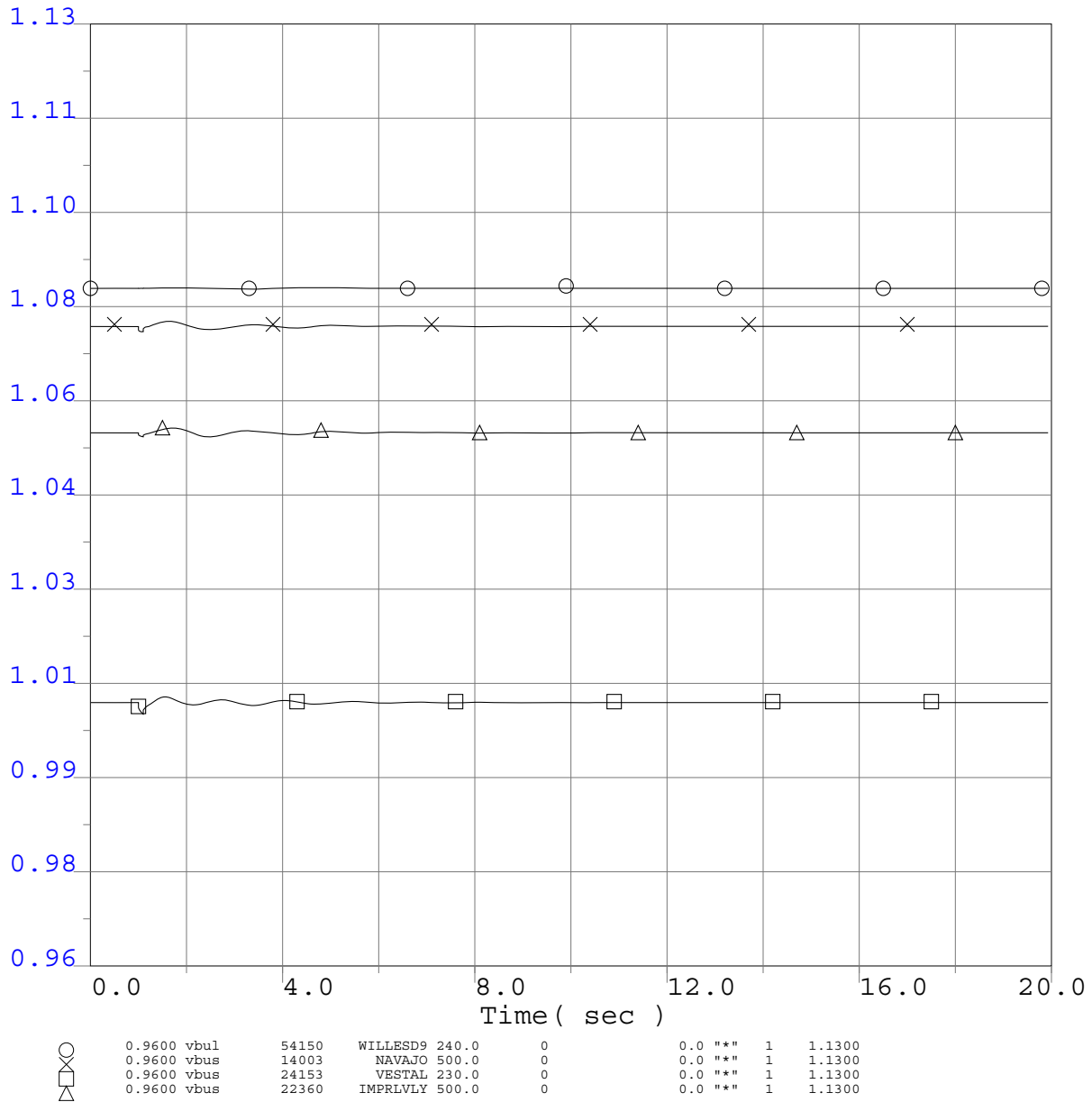
○	0.9900 vbus	14001	FOURCORN	500.0	0	0.0	""	1	1.1500
□	0.9900 vbus	50703	NIC500	500.0	0	0.0	""	1	1.1500
△	0.9900 vbus	60240	MIDPOINT	500.0	0	0.0	""	1	1.1500
◇	0.9900 vbus	62012	TOWN2	500.0	0	0.0	""	1	1.1500
×	0.9900 vbus	40687	MALIN	500.0	0	0.0	""	1	1.1500
+	0.9900 vbus	66340	SIGURD	345.0	0	0.0	""	1	1.1500

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 142-422+522
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

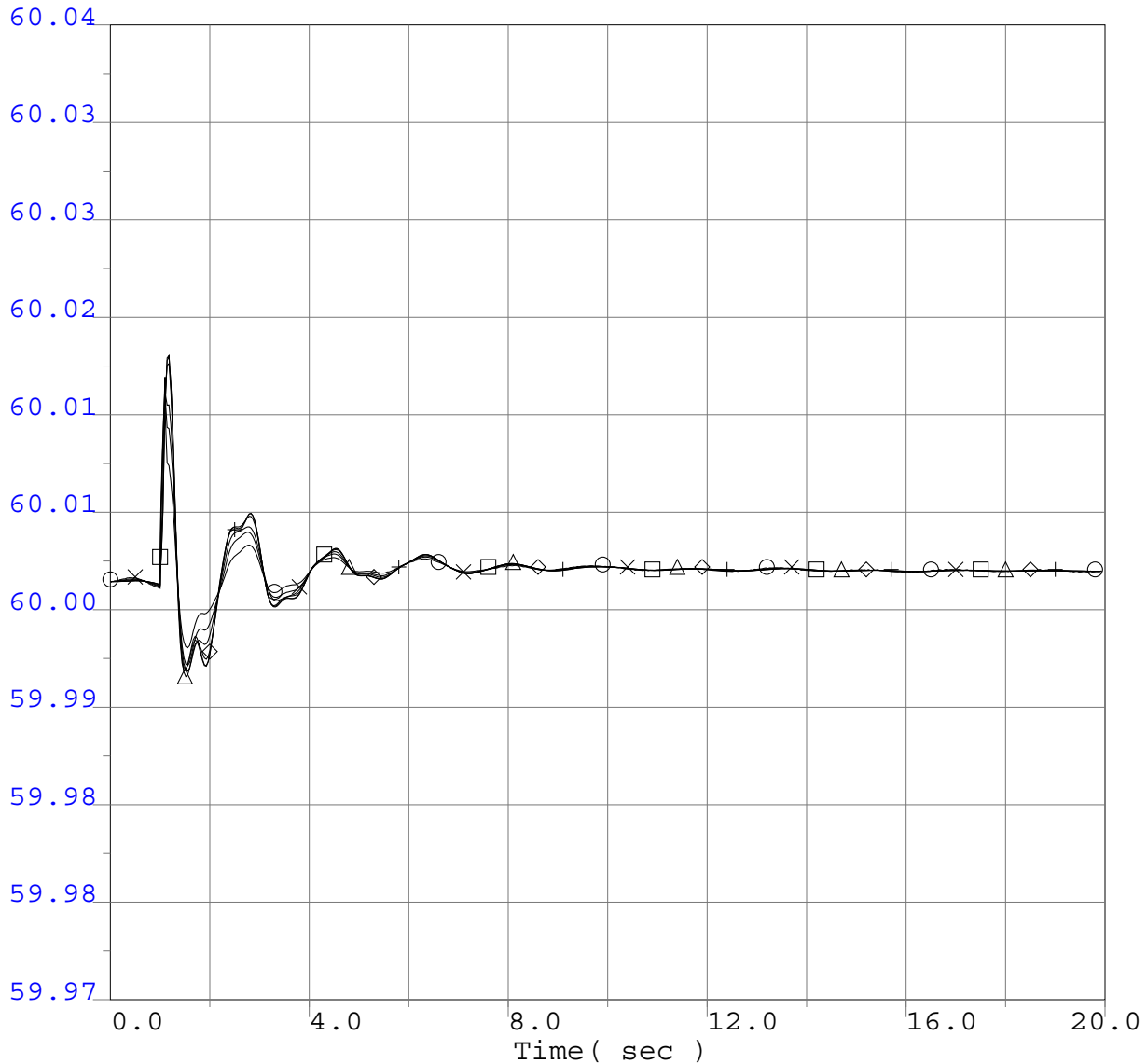


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 142-422+522
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



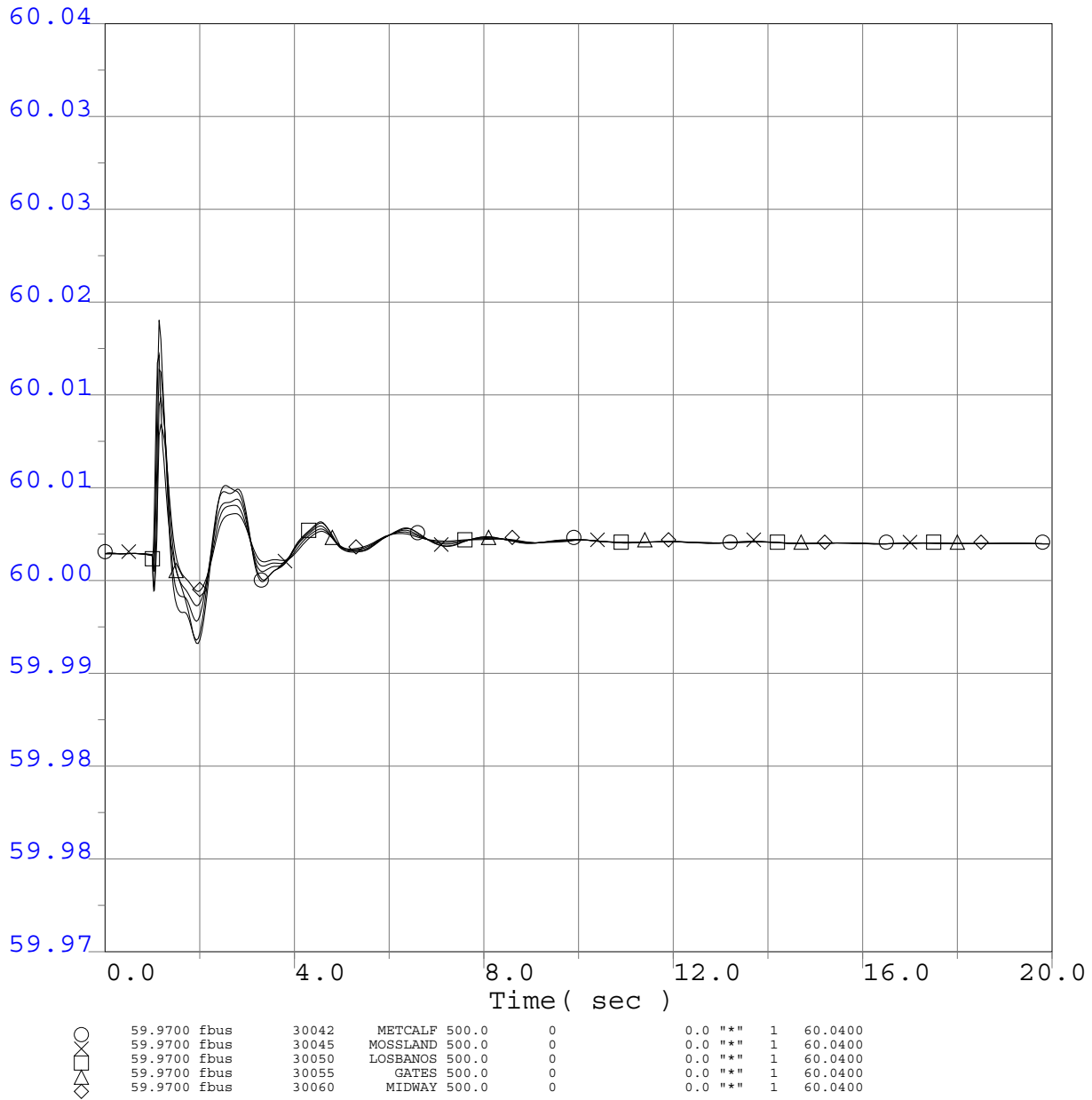
○	59.9700 Ebus	40687	MALIN 500.0	0	0.0	"	1	60.0400
□	59.9700 Ebus	30005	ROUND MT 500.0	0	0.0	"	1	60.0400
△	59.9700 Ebus	30015	TABLE MT 500.0	0	0.0	"	1	60.0400
◇	59.9700 Ebus	30030	VACA-DIX 500.0	0	0.0	"	1	60.0400
+	59.9700 Ebus	30040	TESLA 500.0	0	0.0	"	1	60.0400
×	59.9700 Ebus	30035	TRACY 500.0	0	0.0	"	1	60.0400

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 142-422+522
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots

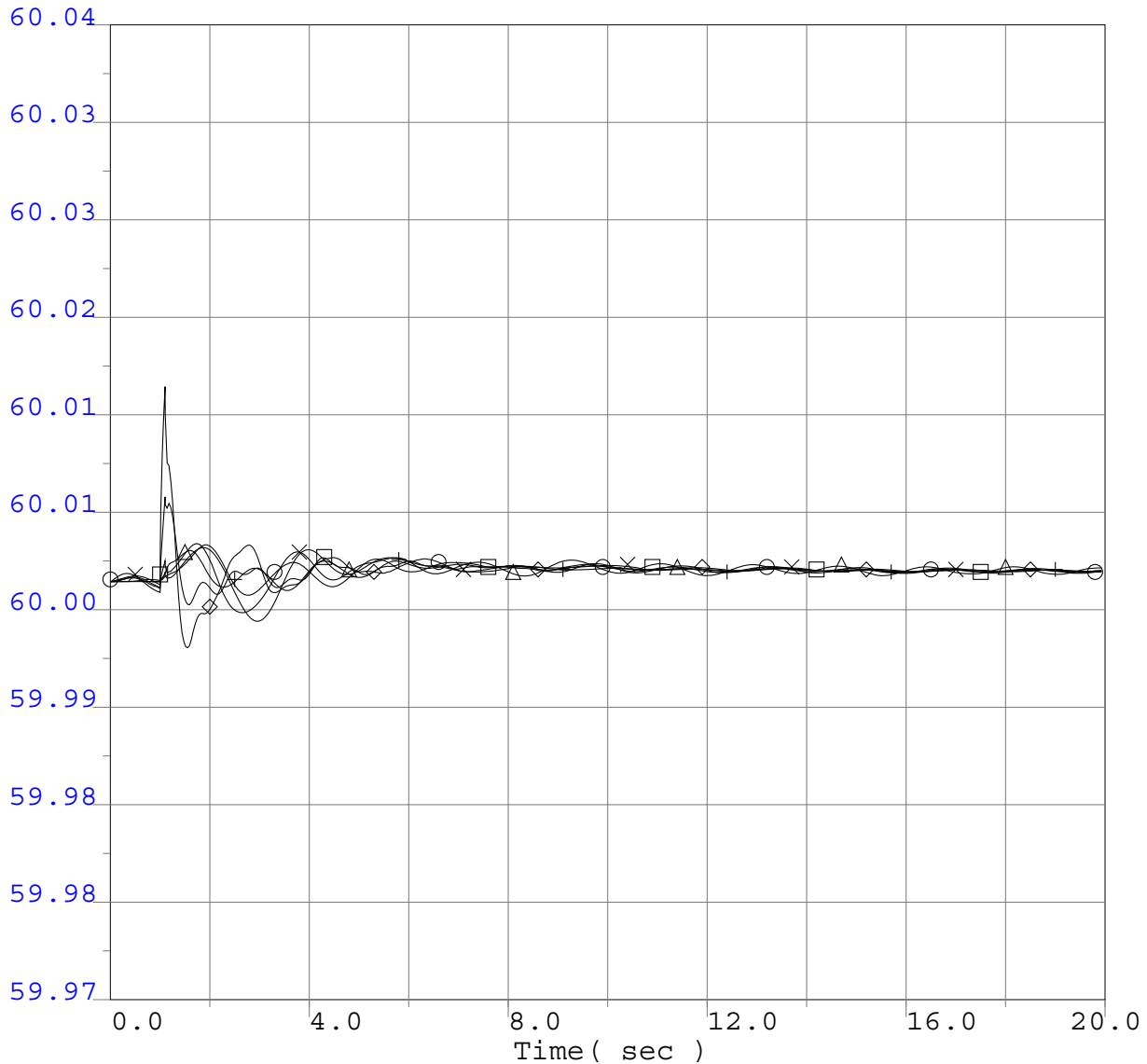


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 142-422+522
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



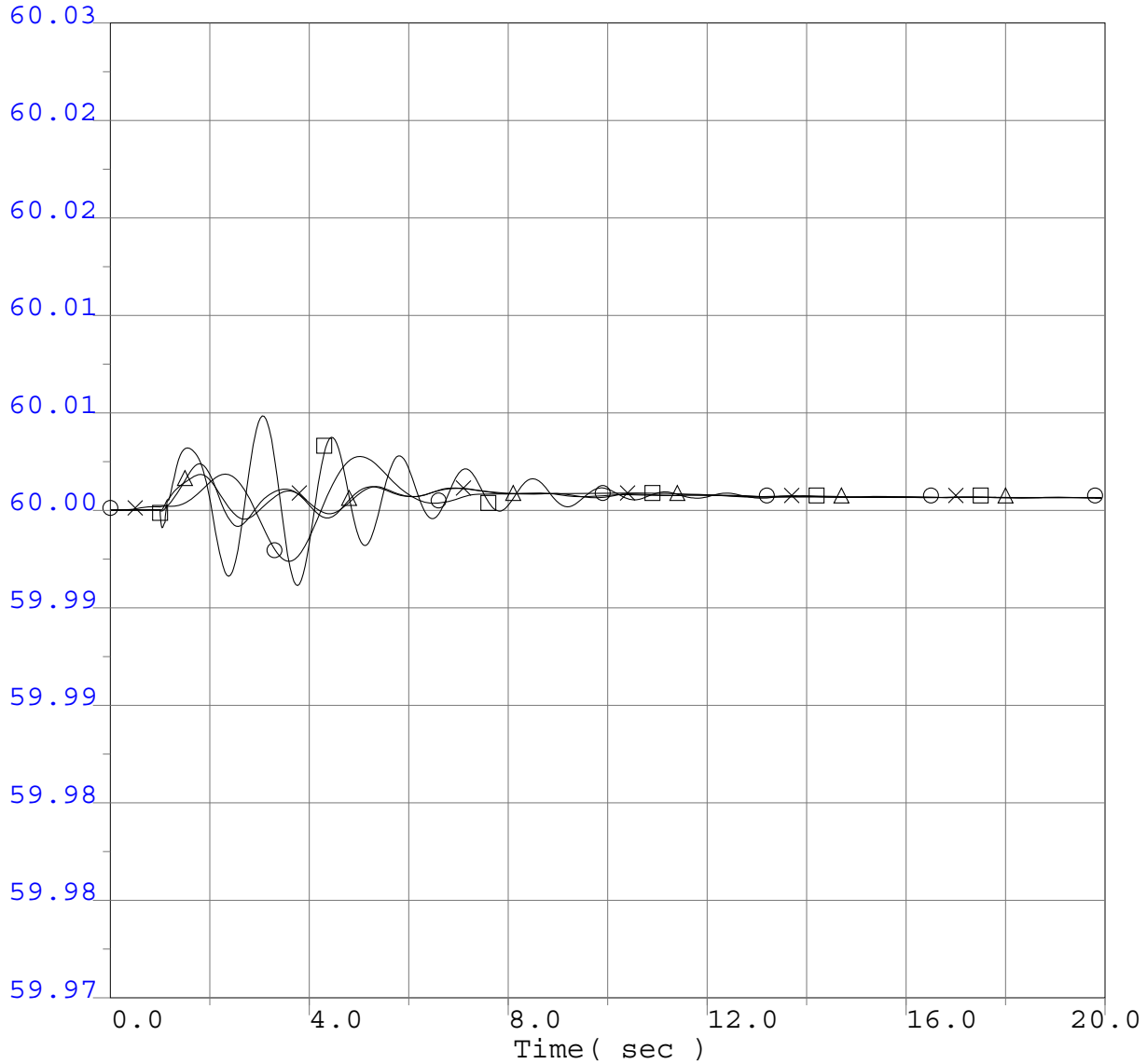
○	59.9700 Ebus	14001	FOURCORN	500.0	0	0.0	"	1	60.0400
□	59.9700 Ebus	50703	NIC500	500.0	0	0.0	"	1	60.0400
△	59.9700 Ebus	60240	MIDPOINT	500.0	0	0.0	"	1	60.0400
◇	59.9700 Ebus	62012	TOWN2	500.0	0	0.0	"	1	60.0400
+	59.9700 Ebus	40687	MALIN	500.0	0	0.0	"	1	60.0400
	59.9700 Ebus	66340	SIGURD	345.0	0	0.0	"	1	60.0400

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 142-422+522
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



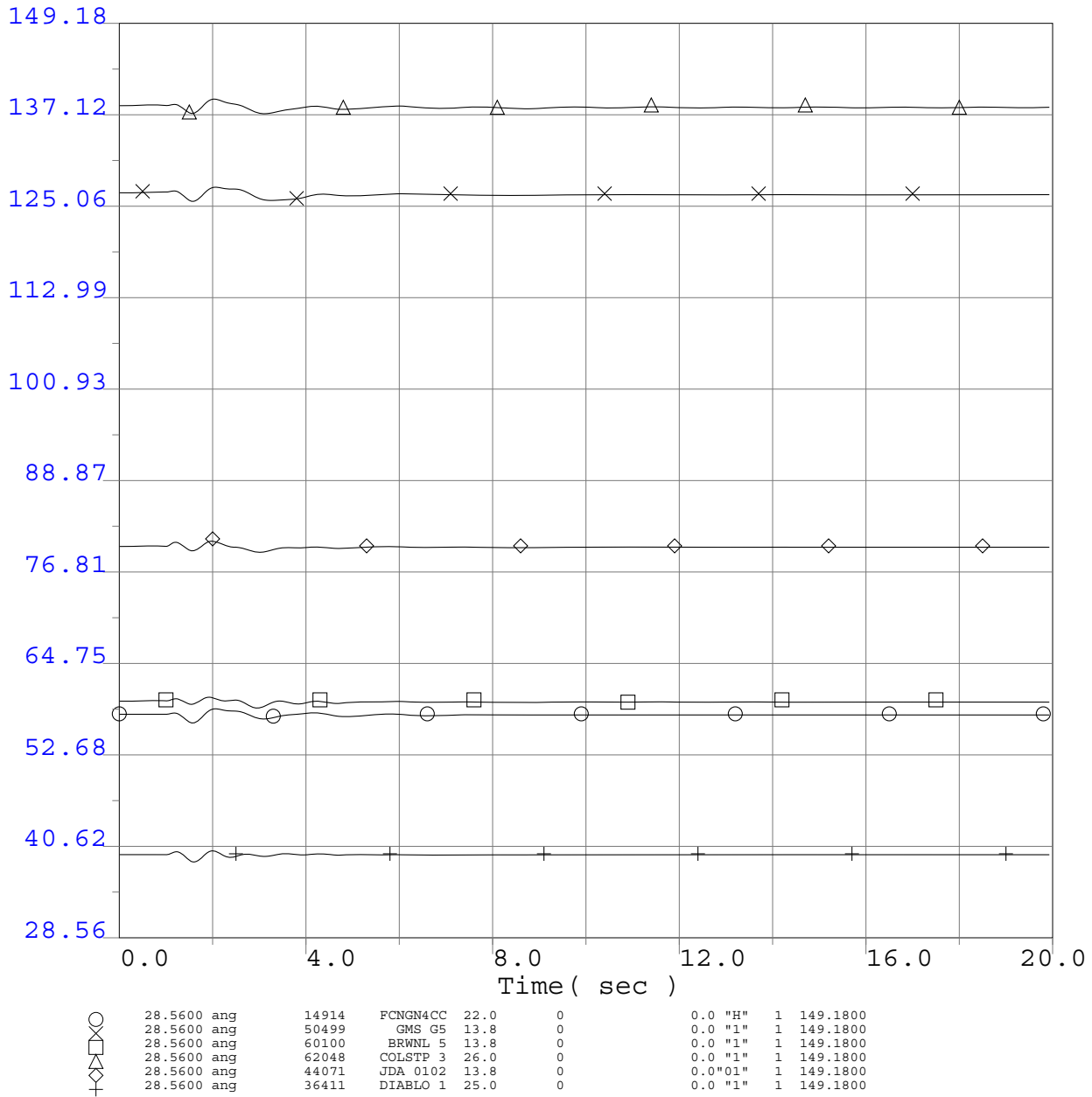
○	59.9700 Fbul	54150	WILLES9	240.0	0	0.0	"	1	60.0300
□	59.9700 Fbus	14003	NAVAJO	500.0	0	0.0	"	1	60.0300
△	59.9700 Fbus	24153	VESTAL	230.0	0	0.0	"	1	60.0300
◇	59.9700 Fbus	22360	IMPRLVLY	500.0	0	0.0	"	1	60.0300

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 142-422+522
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle

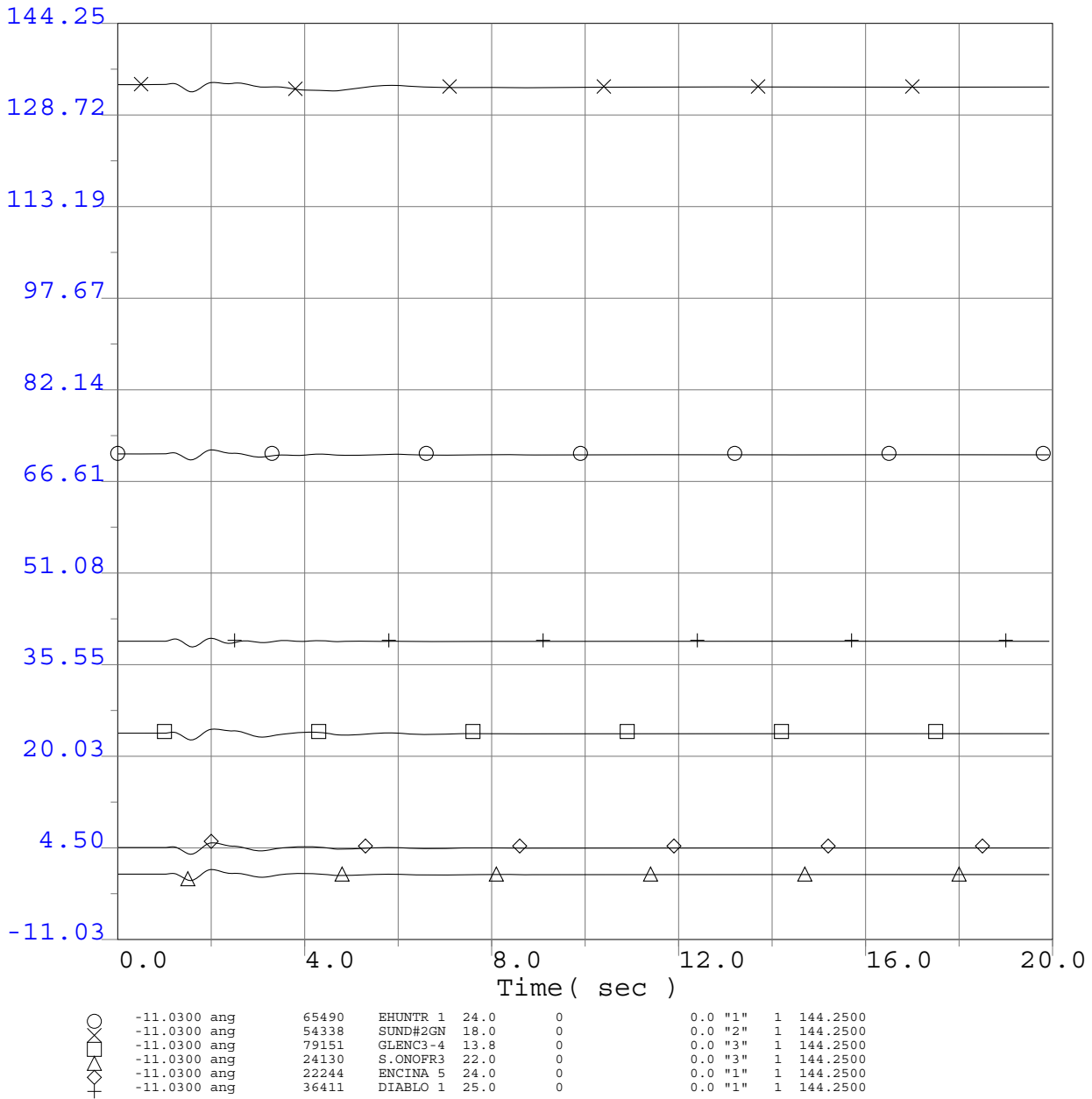


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 142-422+522
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle

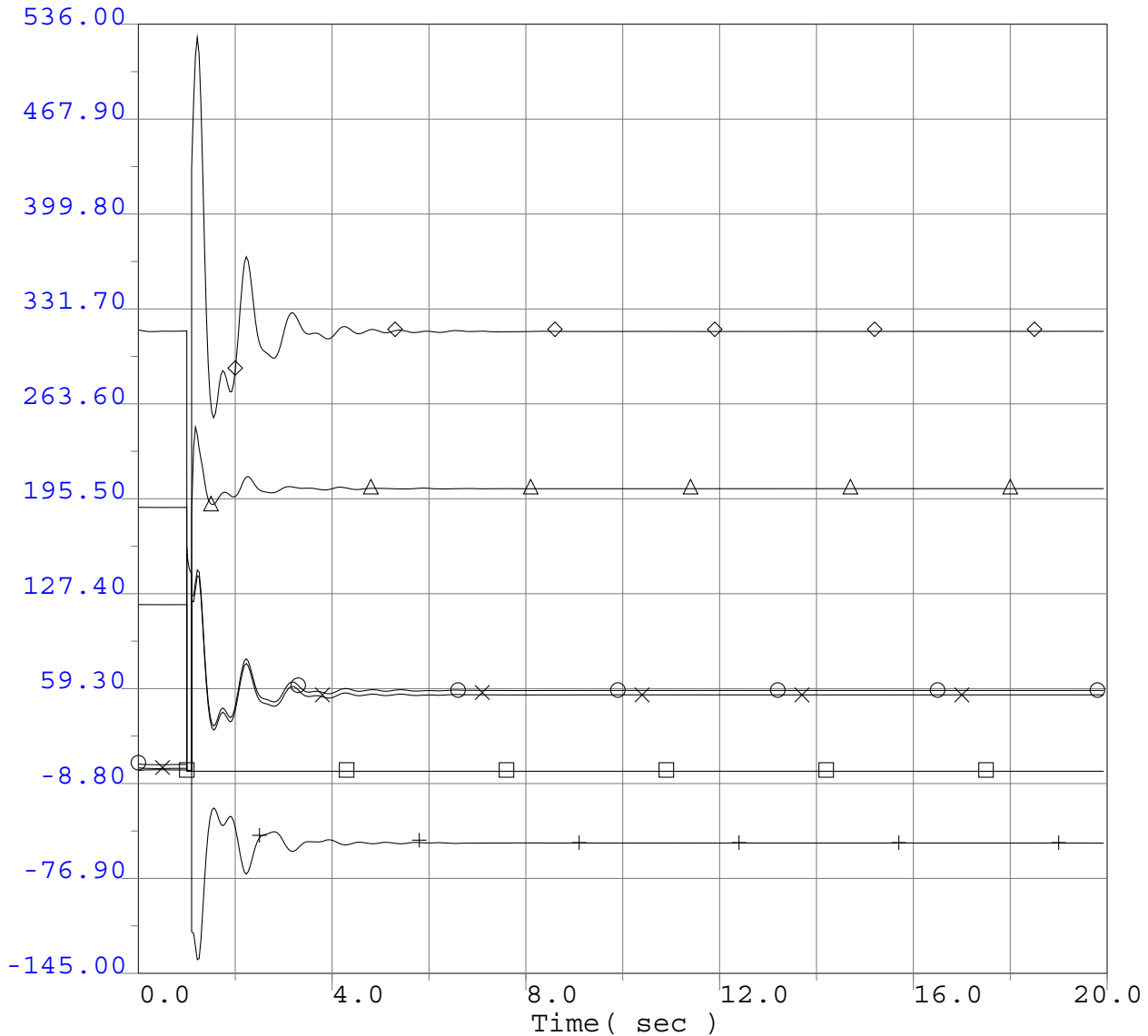


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 142-422+522
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)



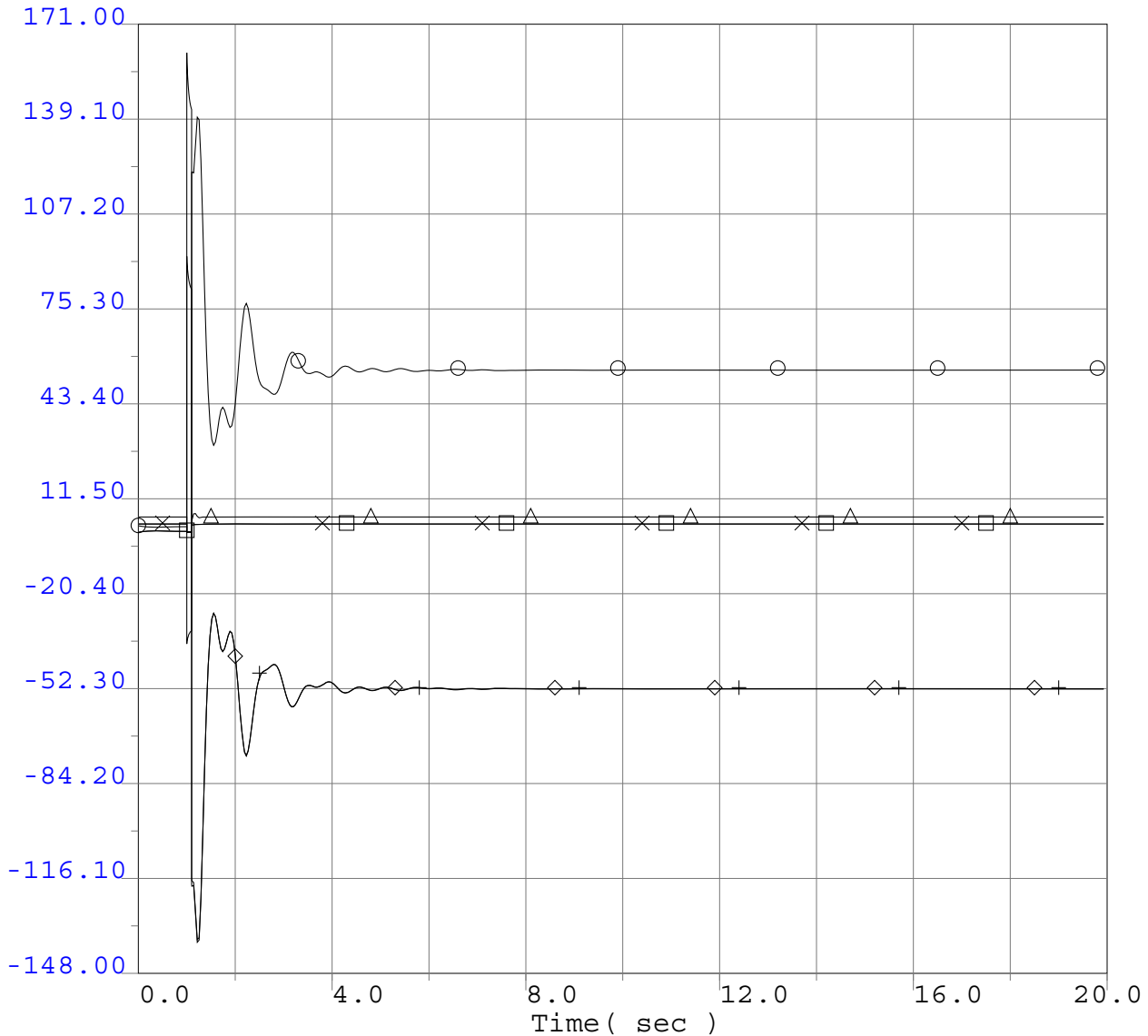
○	-145.0000 pbr	33549	SCHULTE 115.0	33537	SFWY_TP1 115.0	1	1	536.0000
□	-145.0000 pbr	33549	SCHULTE 115.0	33535	SFWY_TP2 115.0	1	2	536.0000
△	-145.0000 pbr	33549	SCHULTE 115.0	33531	OWENSTP1 115.0	1	1	536.0000
◇	-145.0000 pbr	33549	SCHULTE 115.0	33533	OWENSTP2 115.0	1	2	536.0000
×	-145.0000 pbr	33551	GWTRACY 115.0	33549	SCHULTE 115.0	1	1	536.0000
+	-145.0000 pbr	33540	TESLA 115.0	33543	AEC_TP2 115.0	1	1	536.0000

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 142-422+522
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)



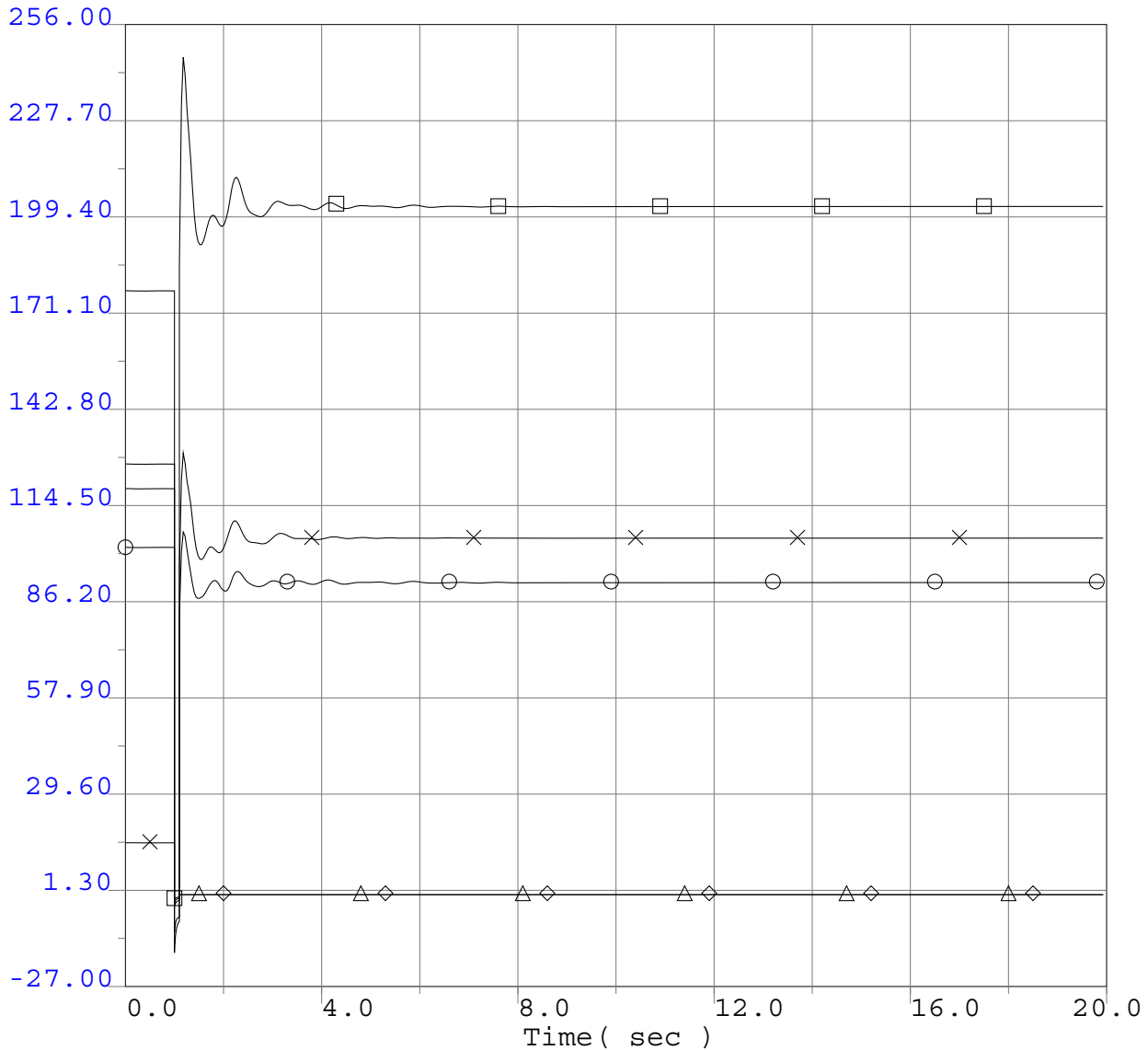
○	-148.0000 pbr	33535	SFWY_TP2 115.0	33543	AEC_TP2 115.0	1	1	171.0000
□	-148.0000 pbr	33543	AEC_TP2 115.0	33545	AEC_JCT 115.0	1	1	171.0000
△	-148.0000 pbr	33545	AEC_JCT 115.0	33547	AEC_300 115.0	1	1	171.0000
◇	-148.0000 pbr	33537	SFWY_TP1 115.0	33534	SAFEWAY 115.0	1	1	171.0000
+	-148.0000 pbr	33541	AEC_TP1 115.0	33537	SFWY_TP1 115.0	1	1	171.0000
+	-148.0000 pbr	33540	TESLA 115.0	33541	AEC_TP1 115.0	1	1	171.0000

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 142-422+522
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)



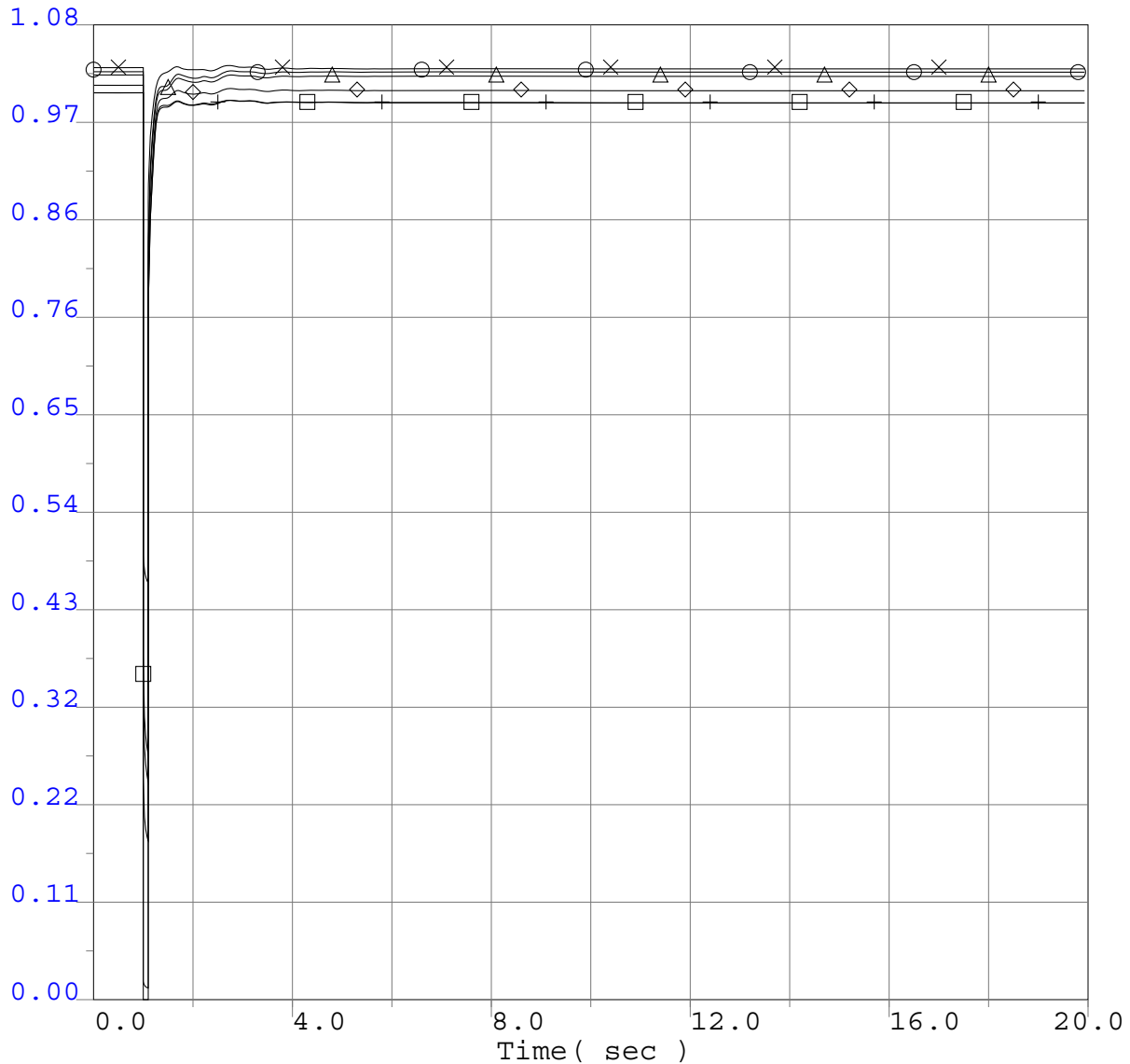
○	-27.0000 pbr	33526	KSSN-JC1	115.0	33514	MANTECA	115.0	1	1	256.0000
□	-27.0000 pbr	33526	KSSN-JC1	115.0	33528	KASSON	115.0	1	1	256.0000
△	-27.0000 pbr	33533	OWENSTP2	115.0	33526	KSSN-JC1	115.0	1	1	256.0000
◇	-27.0000 pbr	33529	LAMMERS	115.0	33528	KASSON	115.0	1	1	256.0000
◇	-27.0000 pbr	33531	OWENSTP1	115.0	33529	LAMMERS	115.0	1	1	256.0000

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 142-422+522
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Voltage Plots Adjacent to Fault



○	0.0000 vbus	33549	SCHULTE 115.0	0	0.0	"**	1	1.0800
○	0.0000 vbus	33540	TESLA 115.0	0	0.0	"**	1	1.0800
□	0.0000 vbul	33514	MANTECA 115.0	0	0.0	"**	1	1.0800
△	0.0000 vbus	33529	LAMMERS 115.0	0	0.0	"**	1	1.0800
◇	0.0000 vbus	33528	KASSON 115.0	0	0.0	"**	1	1.0800
+	0.0000 vbul	33518	VIERRA 115.0	0	0.0	"**	1	1.0800

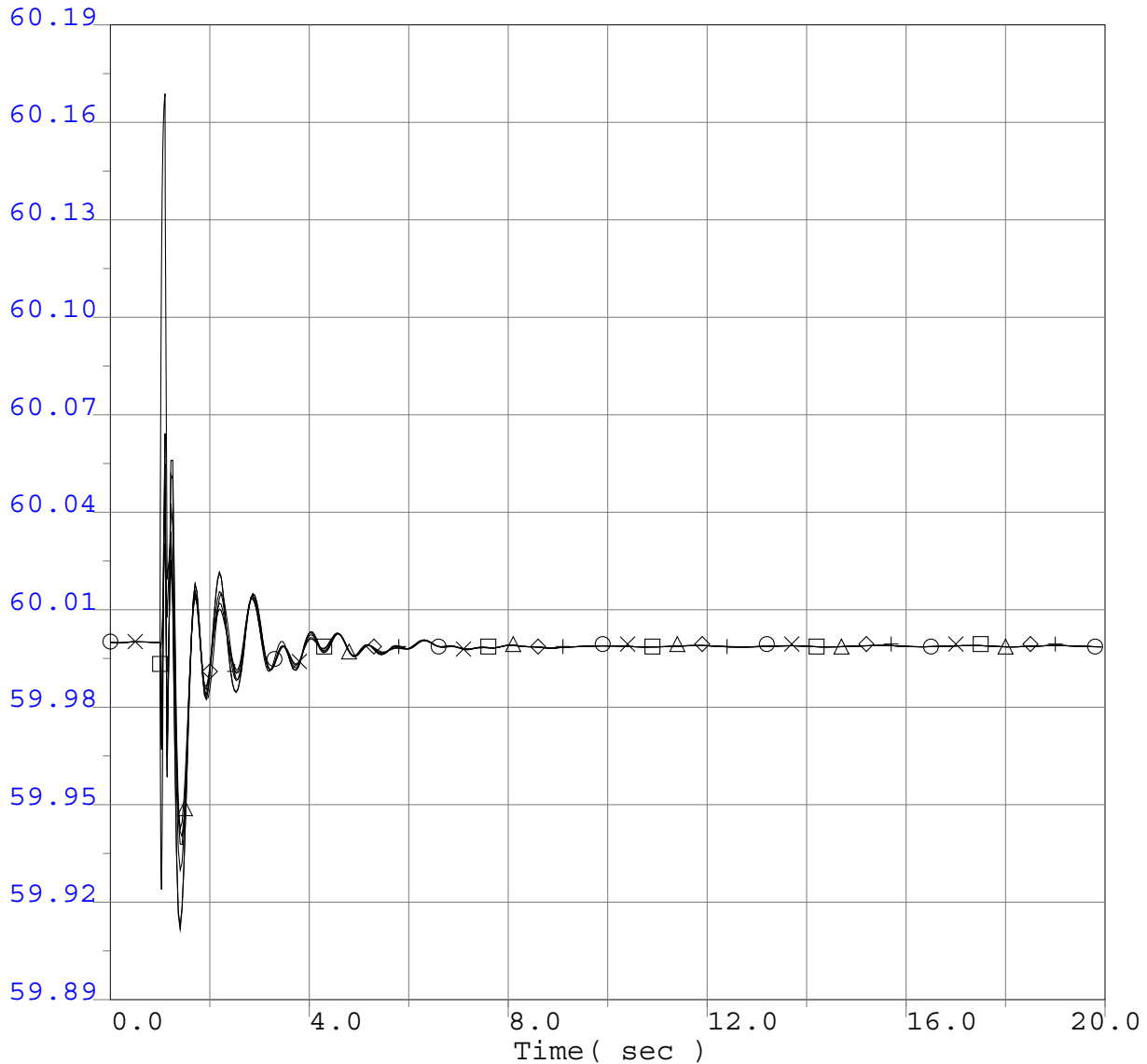


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Frequency Plots Adjacent to Fault



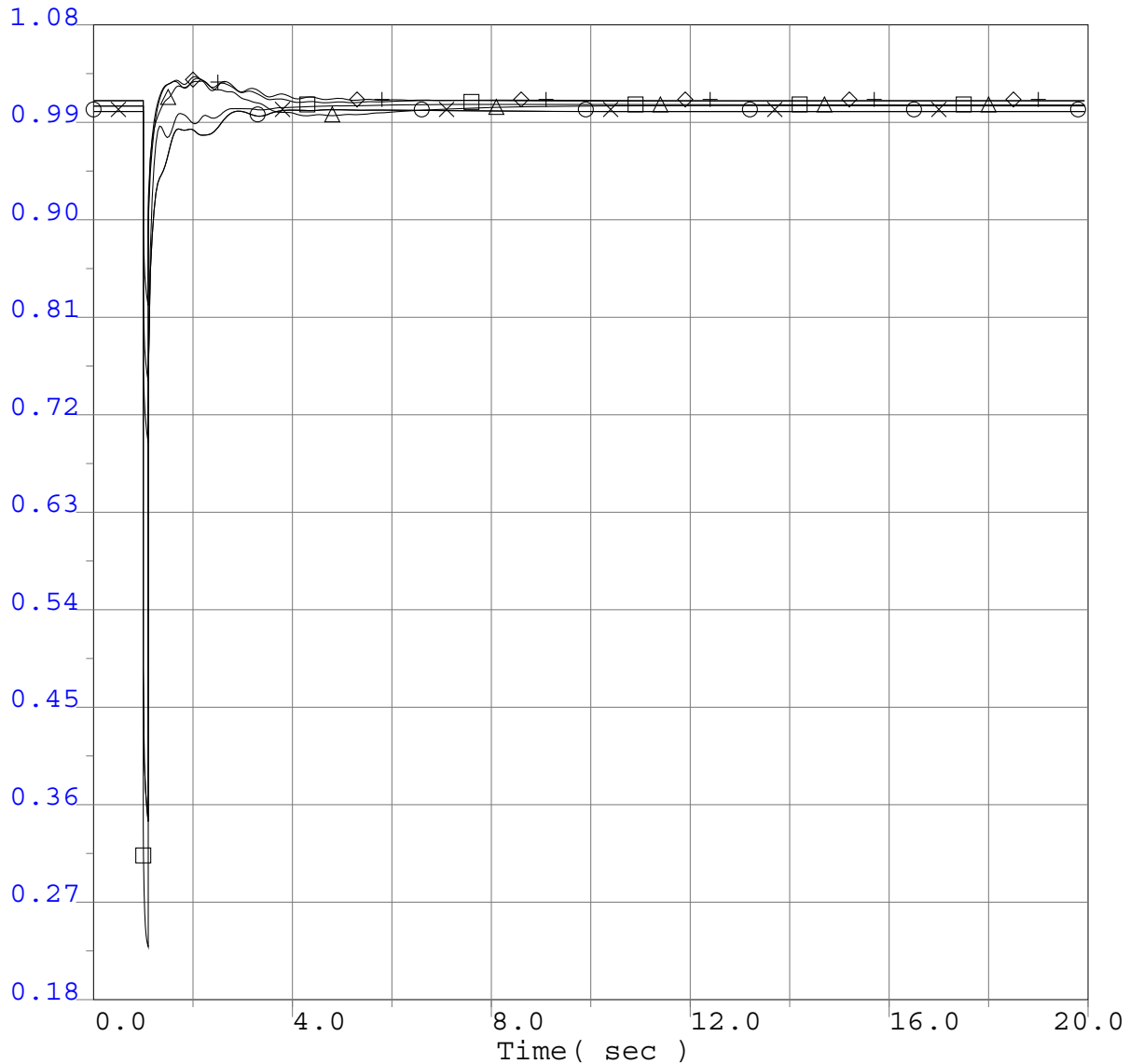
○	59.8900 Fbus	33549	SCHULTE 115.0	0	0.0	"**"	1	60.1900
□	59.8900 Fbus	33540	TESLA 115.0	0	0.0	"**"	1	60.1900
△	59.8900 Fbul	33514	MANTECA 115.0	0	0.0	"**"	1	60.1900
◇	59.8900 Fbul	33529	LAMMERS 115.0	0	0.0	"**"	1	60.1900
+	59.8900 Fbus	33528	KASSON 115.0	0	0.0	"**"	1	60.1900
×	59.8900 Fbul	33518	VIERRA 115.0	0	0.0	"**"	1	60.1900

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Terminal Voltages



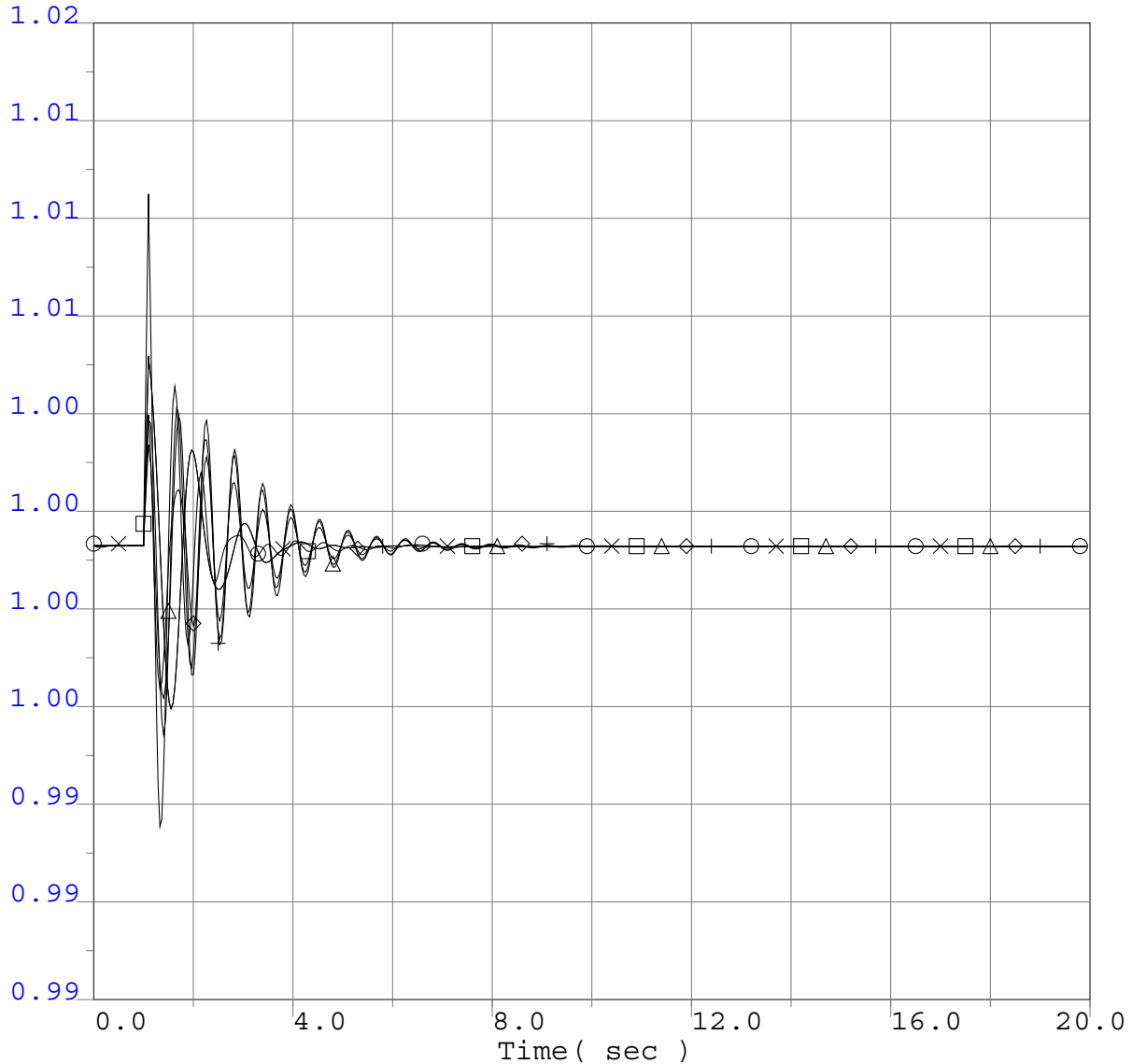
○	0.1800 vt	33805	GWTRCY1	13.8	0	0.0	"1"	1	1.0800
□	0.1800 vt	33807	GWTRCY2	13.8	0	0.0	"1"	1	1.0800
△	0.1800 vt	33809	Q268ST1	13.8	0	0.0	"1"	1	1.0800
◇	0.1800 vt	33858	P0409CG2	13.8	0	0.0	"1"	1	1.0800
+	0.1800 vt	33808	SJ COGEN	13.8	0	0.0	"1"	1	1.0800
×	0.1800 vt	33810	SP CMPNY	13.8	0	0.0	"1"	1	1.0800

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Rotor Speed



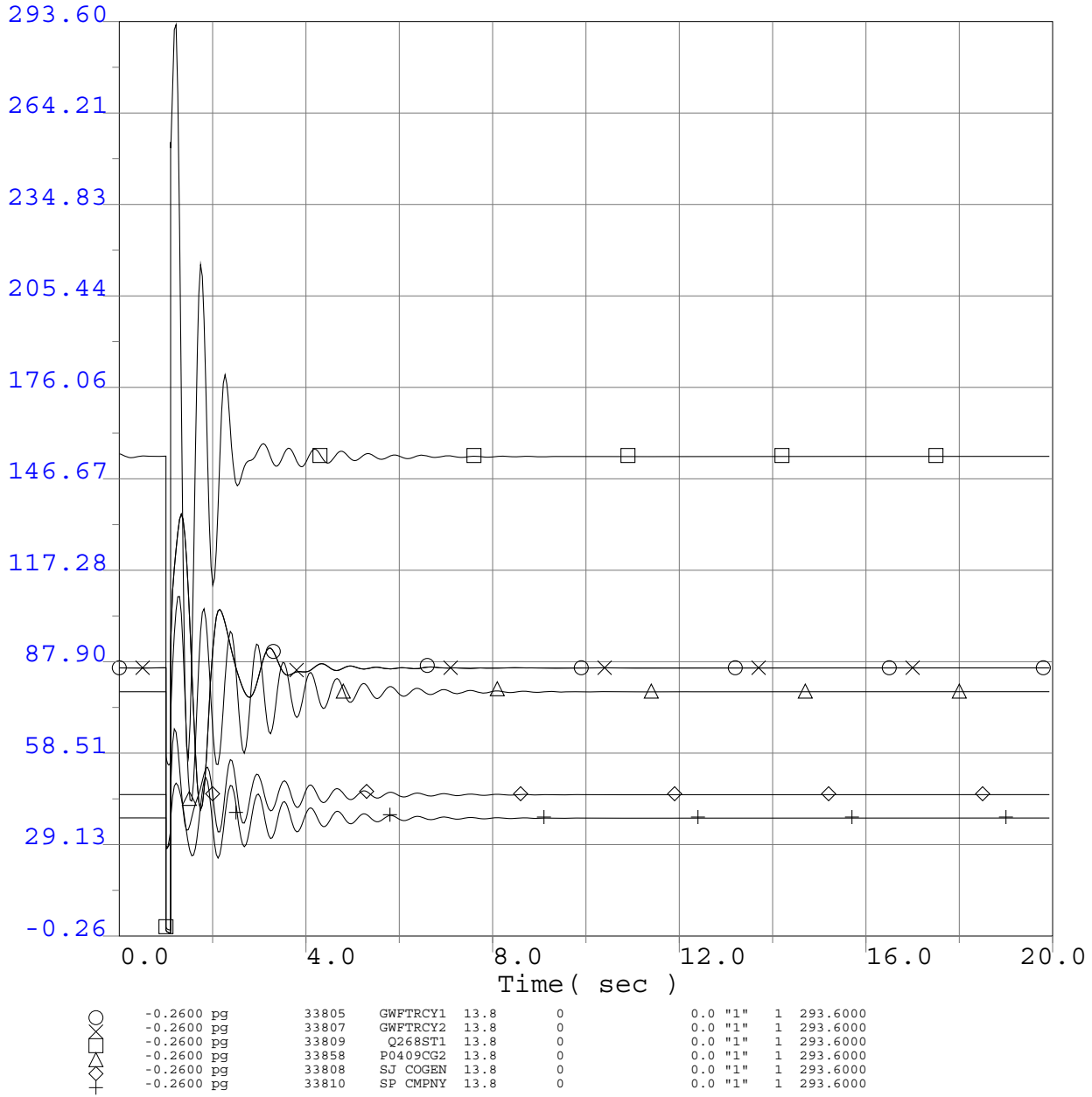
○	0.9868 spd	33805	GWTRCY1	13.8	0	0.0	"1"	1	1.0152
□	0.9868 spd	33807	GWTRCY2	13.8	0	0.0	"1"	1	1.0152
△	0.9868 spd	33809	Q268ST1	13.8	0	0.0	"1"	1	1.0152
◇	0.9868 spd	33858	P0409CG2	13.8	0	0.0	"1"	1	1.0152
+	0.9868 spd	33808	SJ COGEN	13.8	0	0.0	"1"	1	1.0152
×	0.9868 spd	33810	SP CMPNY	13.8	0	0.0	"1"	1	1.0152

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Terminal Power

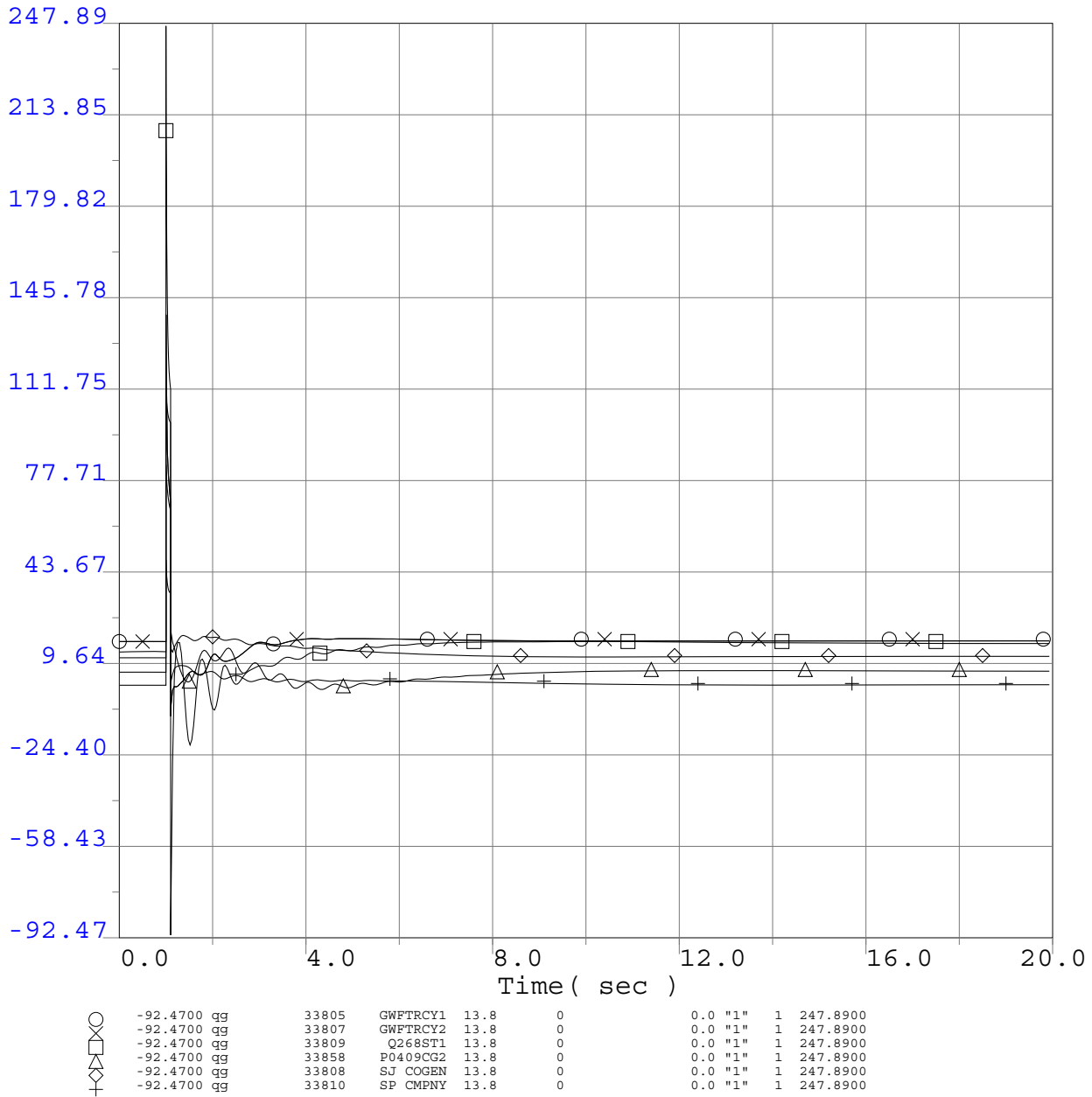


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Terminal Reactive Power

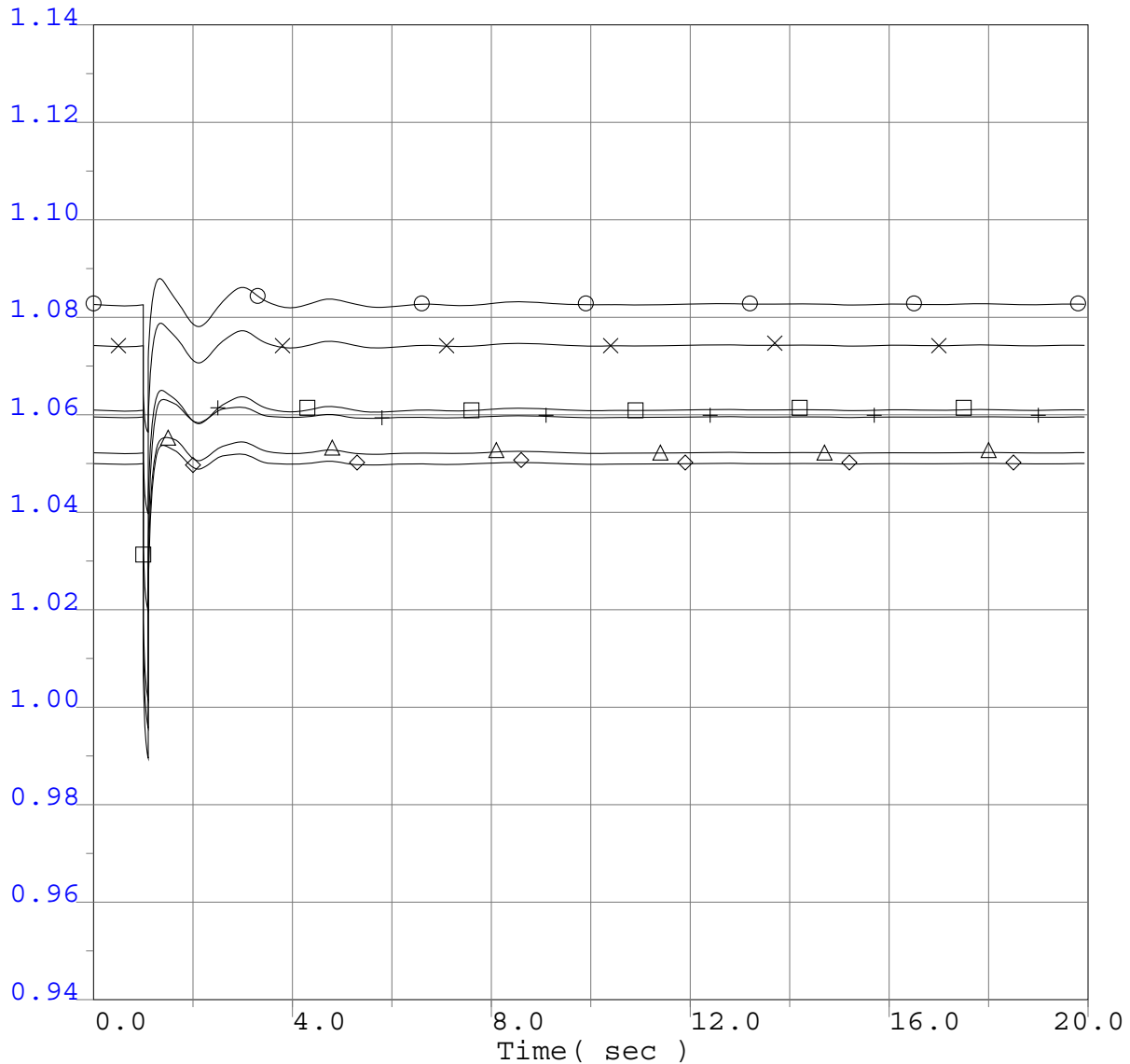


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots



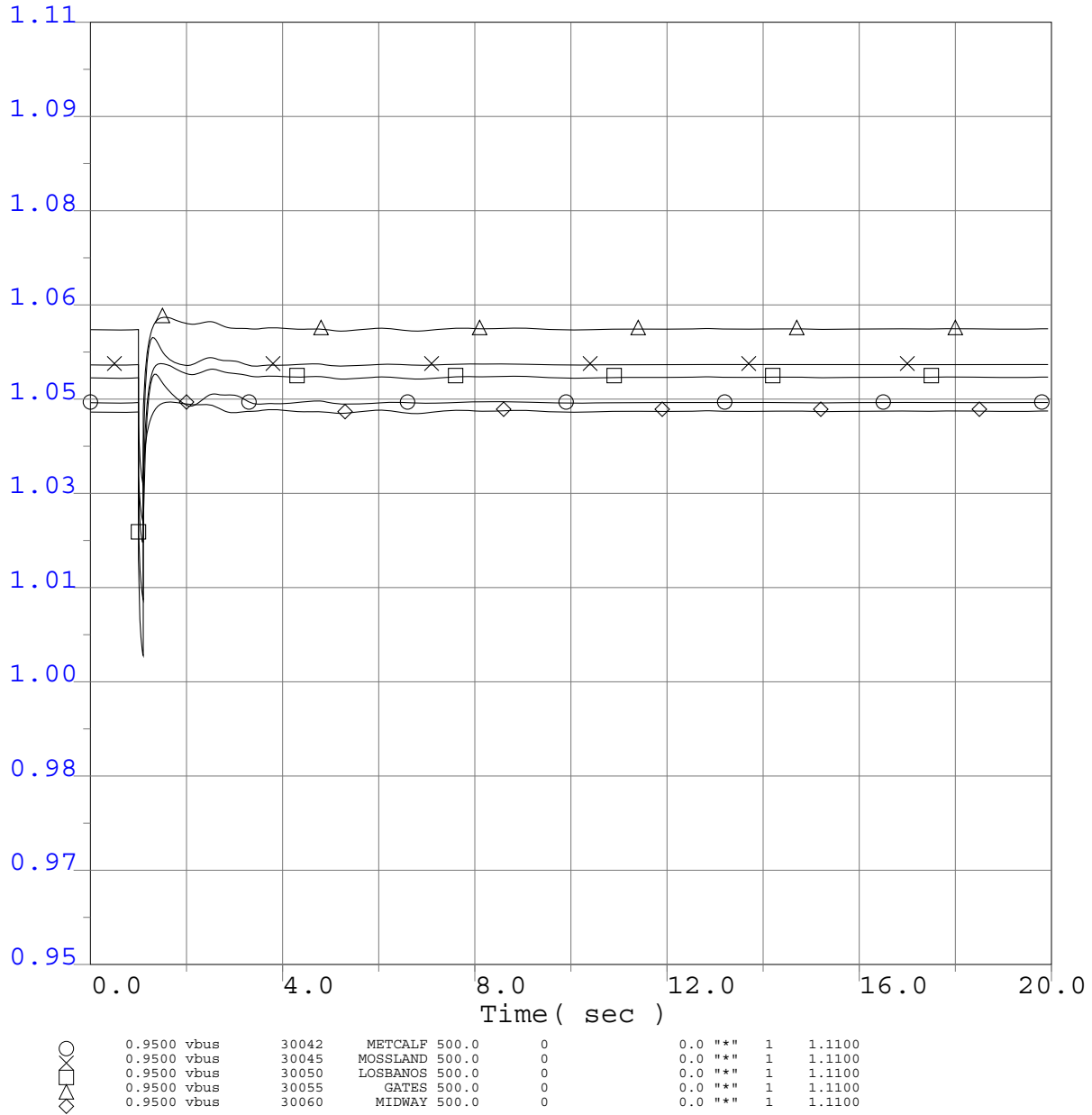
○	0.9400 vbus	40687	MALIN 500.0	0	0.0	1	1.1400
×	0.9400 vbus	30005	ROUND MT 500.0	0	0.0	1	1.1400
□	0.9400 vbus	30015	TABLE MT 500.0	0	0.0	1	1.1400
△	0.9400 vbus	30030	VACA-DIX 500.0	0	0.0	1	1.1400
◇	0.9400 vbus	30040	TESLA 500.0	0	0.0	1	1.1400
+	0.9400 vbus	30035	TRACY 500.0	0	0.0	1	1.1400

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
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 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

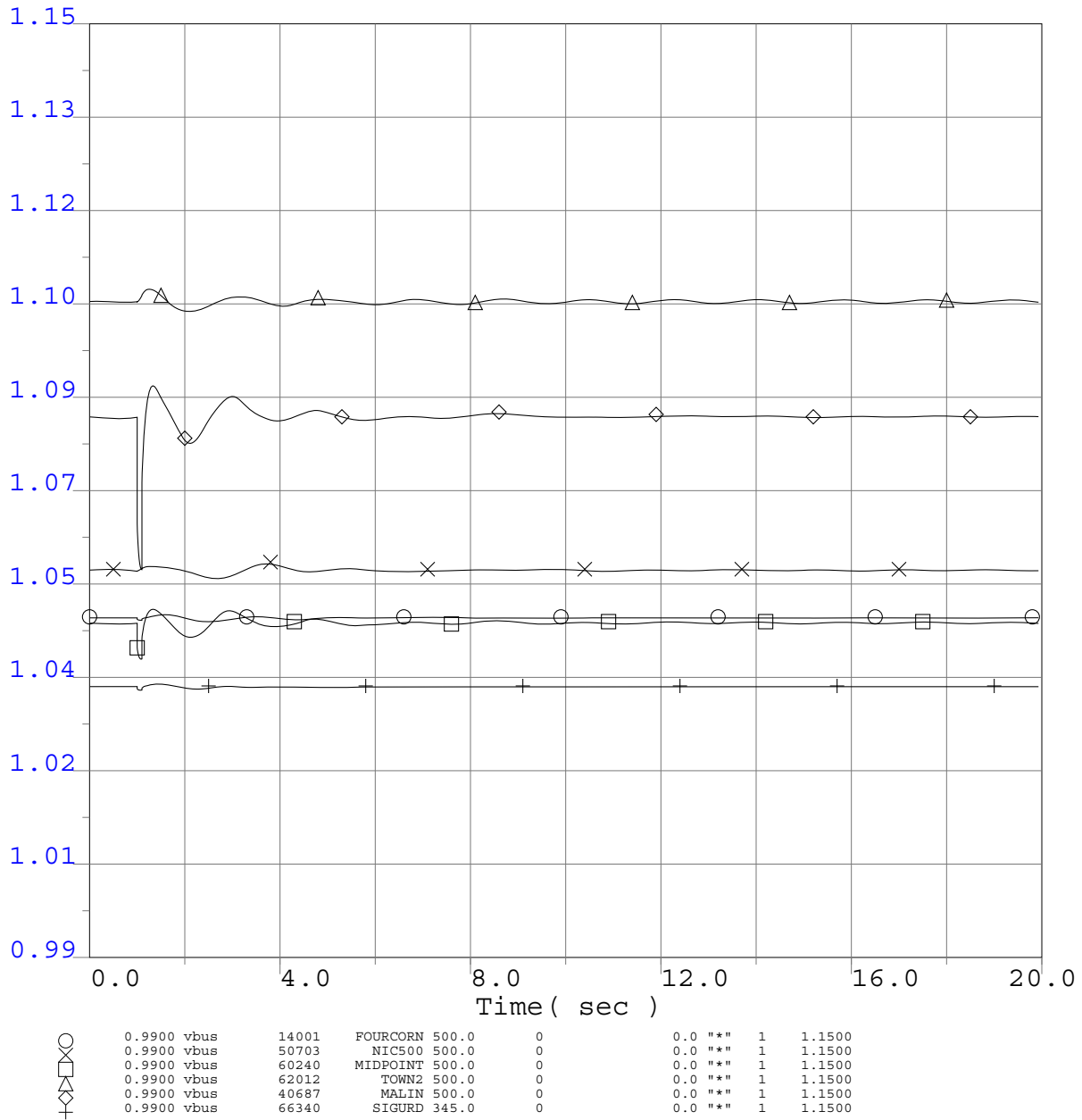


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

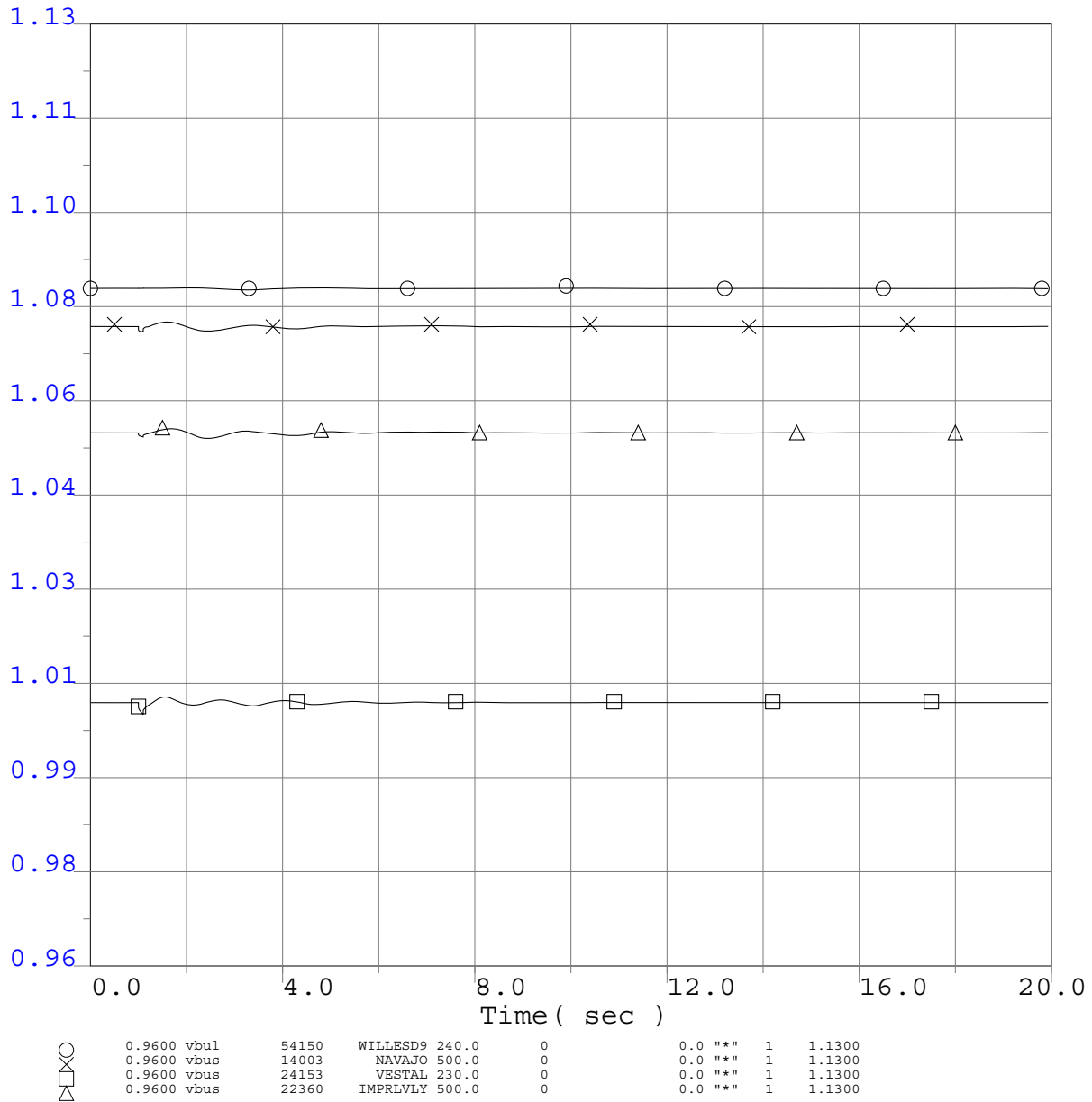


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

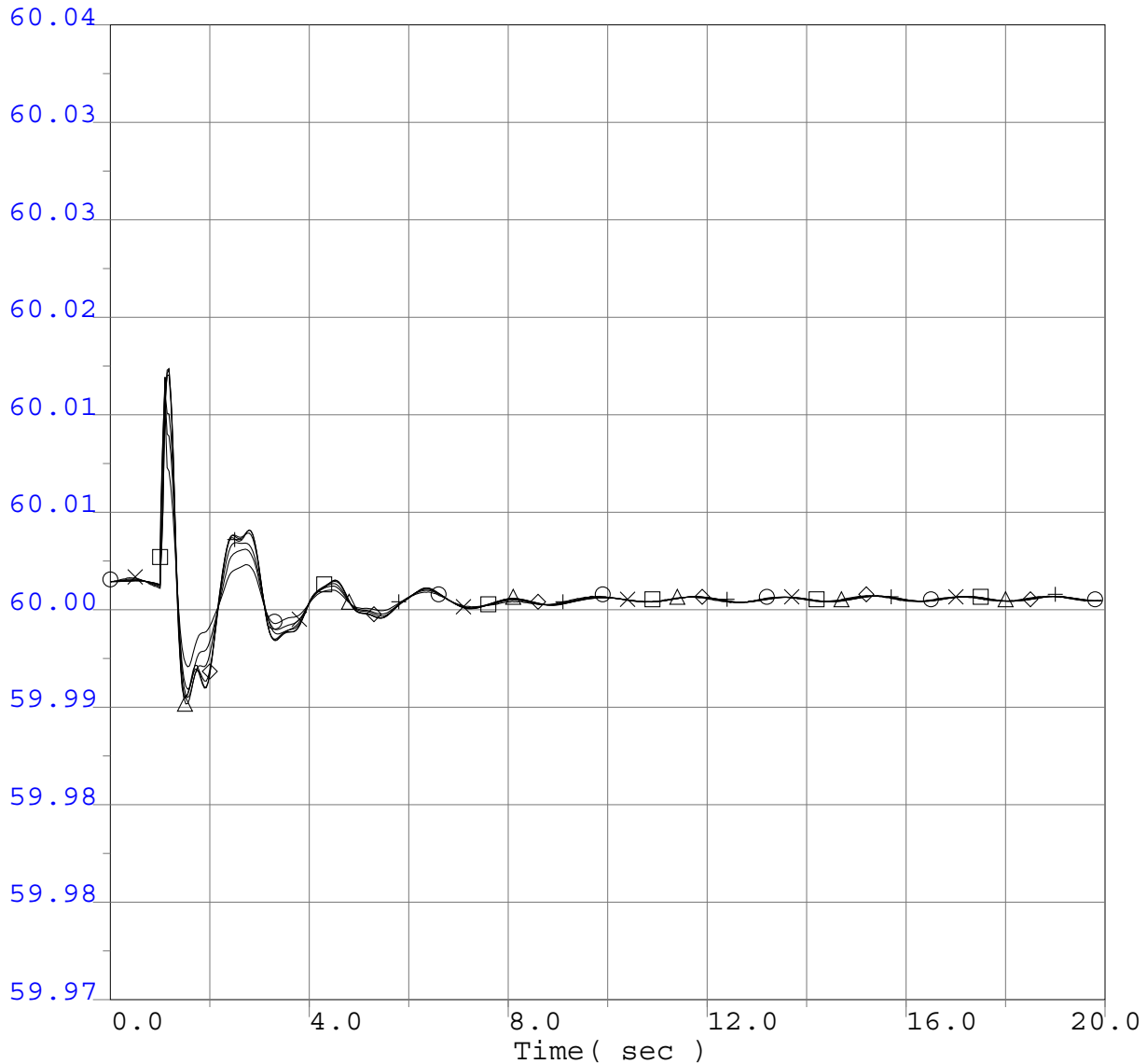


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



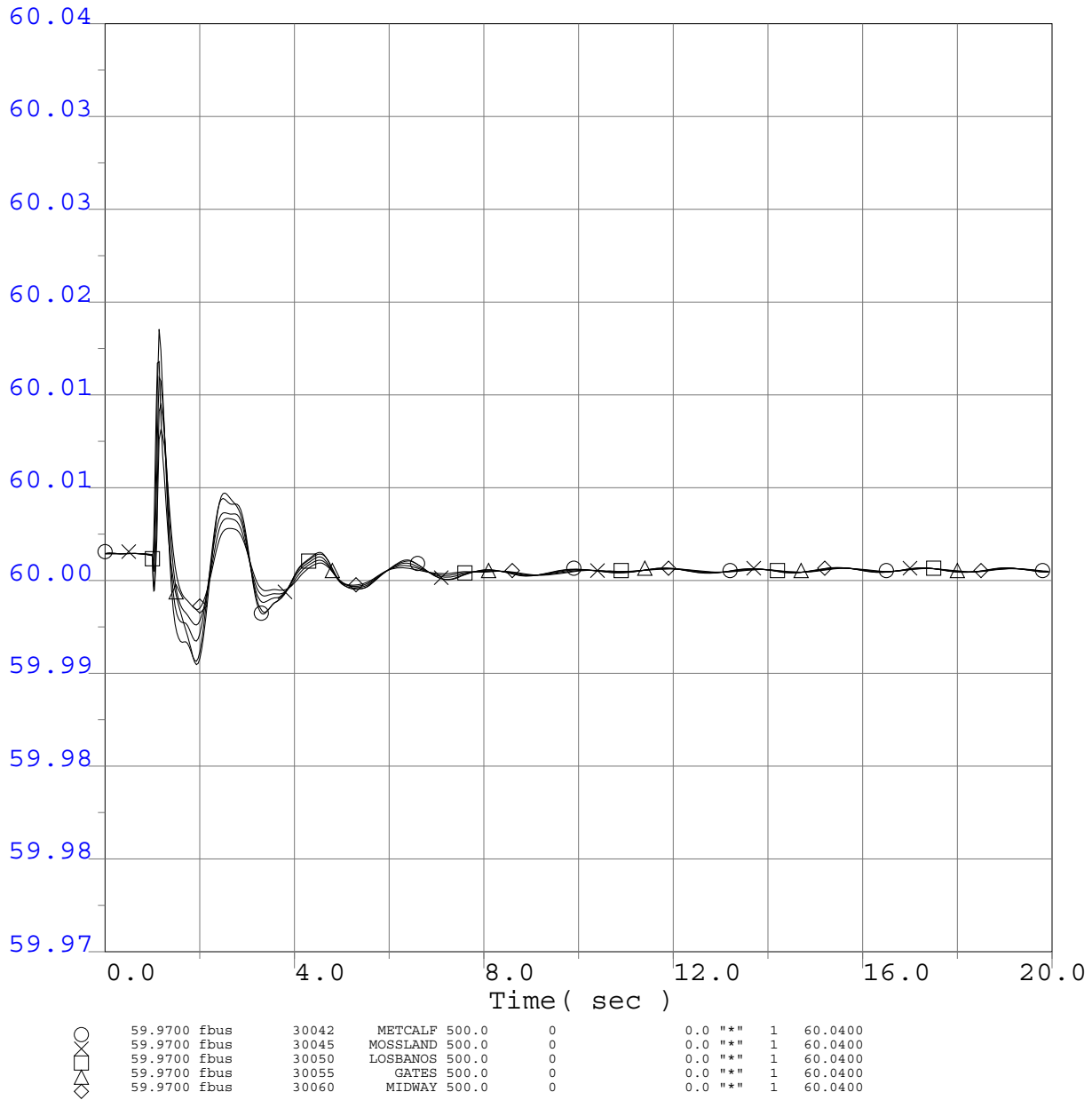
○	59.9700 Ebus	40687	MALIN 500.0	0	0.0	"	1	60.0400
×	59.9700 Ebus	30005	ROUND MT 500.0	0	0.0	"	1	60.0400
□	59.9700 Ebus	30015	TABLE MT 500.0	0	0.0	"	1	60.0400
△	59.9700 Ebus	30030	VACA-DIX 500.0	0	0.0	"	1	60.0400
◇	59.9700 Ebus	30040	TESLA 500.0	0	0.0	"	1	60.0400
+	59.9700 Ebus	30035	TRACY 500.0	0	0.0	"	1	60.0400

Q268 Project Interconnection System Impact Study
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 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots

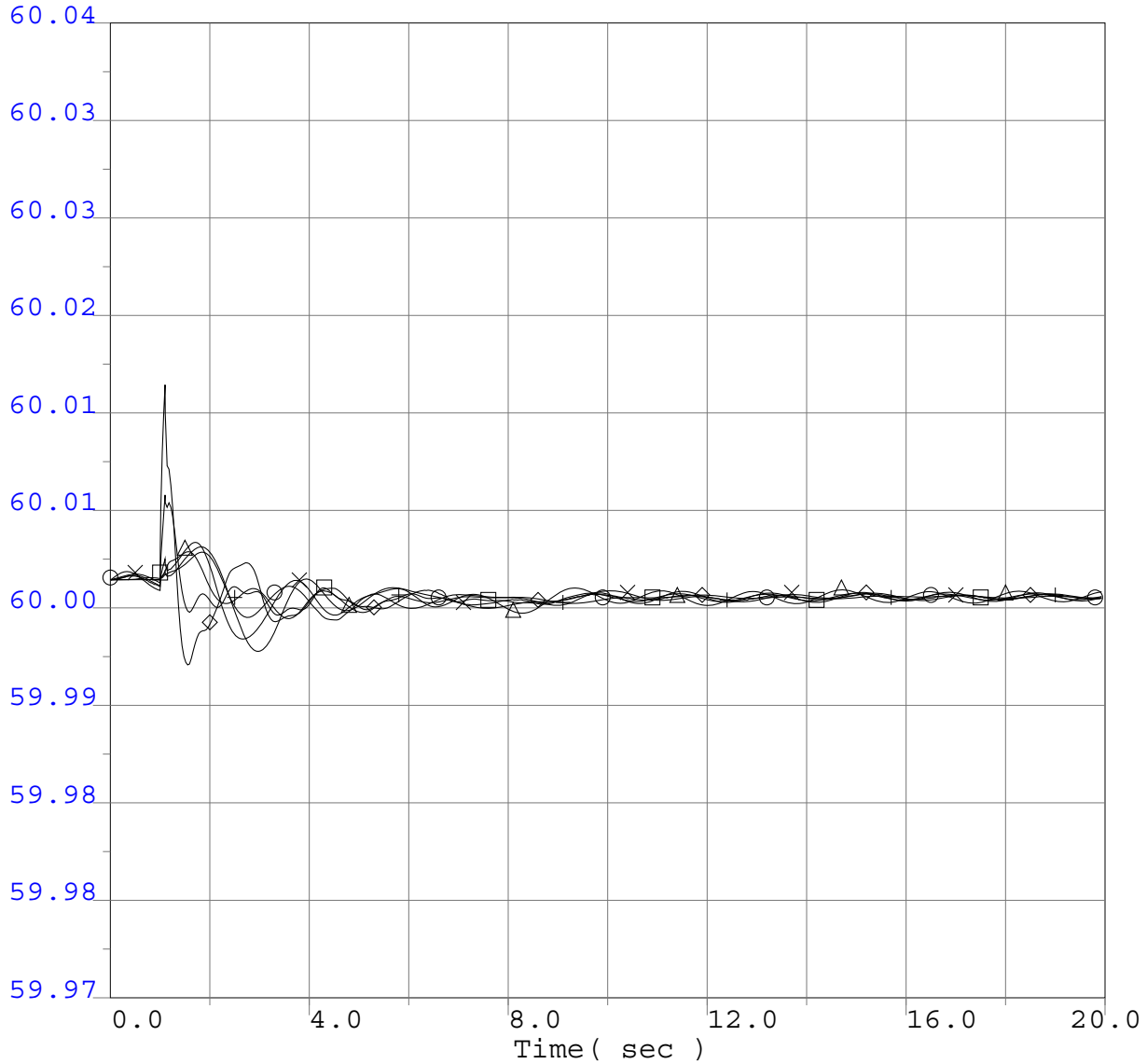


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



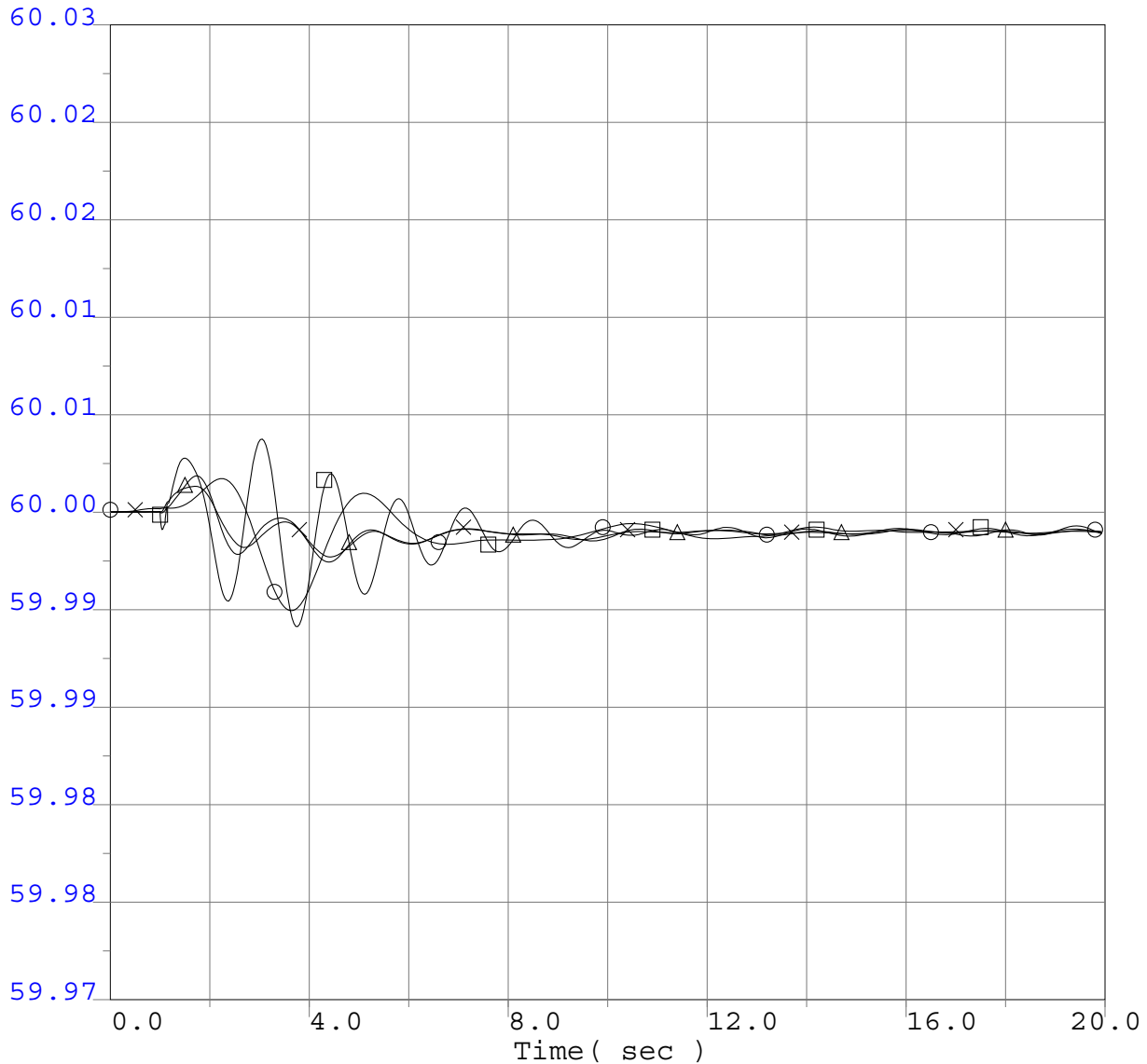
○	59.9700 Ebus	14001	FOURCORN	500.0	0	0.0	"**"	1	60.0400
□	59.9700 Ebus	50703	NIC500	500.0	0	0.0	"**"	1	60.0400
△	59.9700 Ebus	60240	MIDPOINT	500.0	0	0.0	"**"	1	60.0400
◇	59.9700 Ebus	62012	TOWN2	500.0	0	0.0	"**"	1	60.0400
+	59.9700 Ebus	40687	MALIN	500.0	0	0.0	"**"	1	60.0400
	59.9700 Ebus	66340	SIGURD	345.0	0	0.0	"**"	1	60.0400

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
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 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



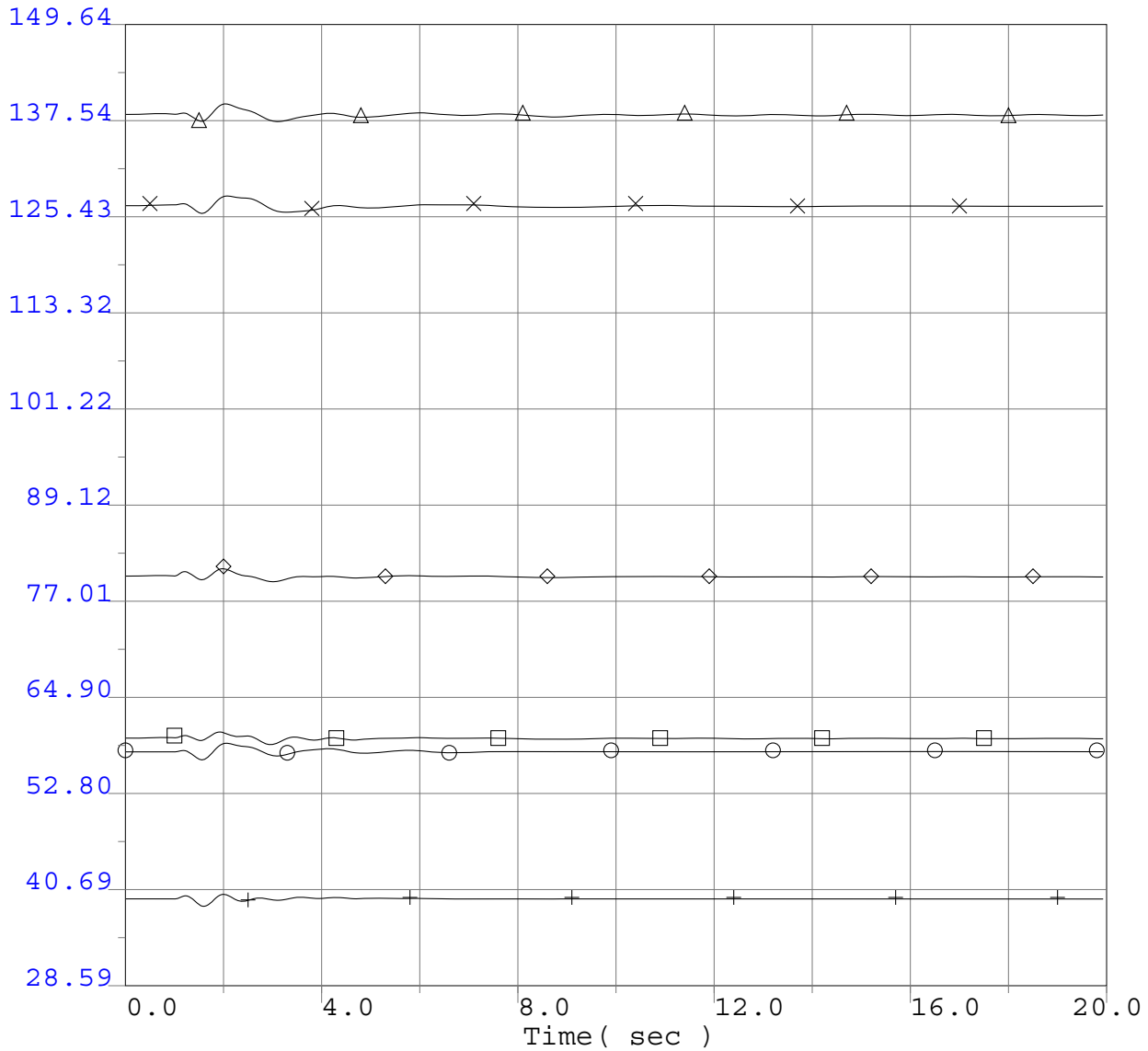
○	59.9700 Fbul	54150	WILLES9 240.0	0	0.0	"	1	60.0300
□	59.9700 Fbus	14003	NAVAJO 500.0	0	0.0	"	1	60.0300
△	59.9700 Fbus	24153	VESTAL 230.0	0	0.0	"	1	60.0300
×	59.9700 Fbus	22360	IMPRLVLY 500.0	0	0.0	"	1	60.0300

Q268 Project Interconnection System Impact Study
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 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle



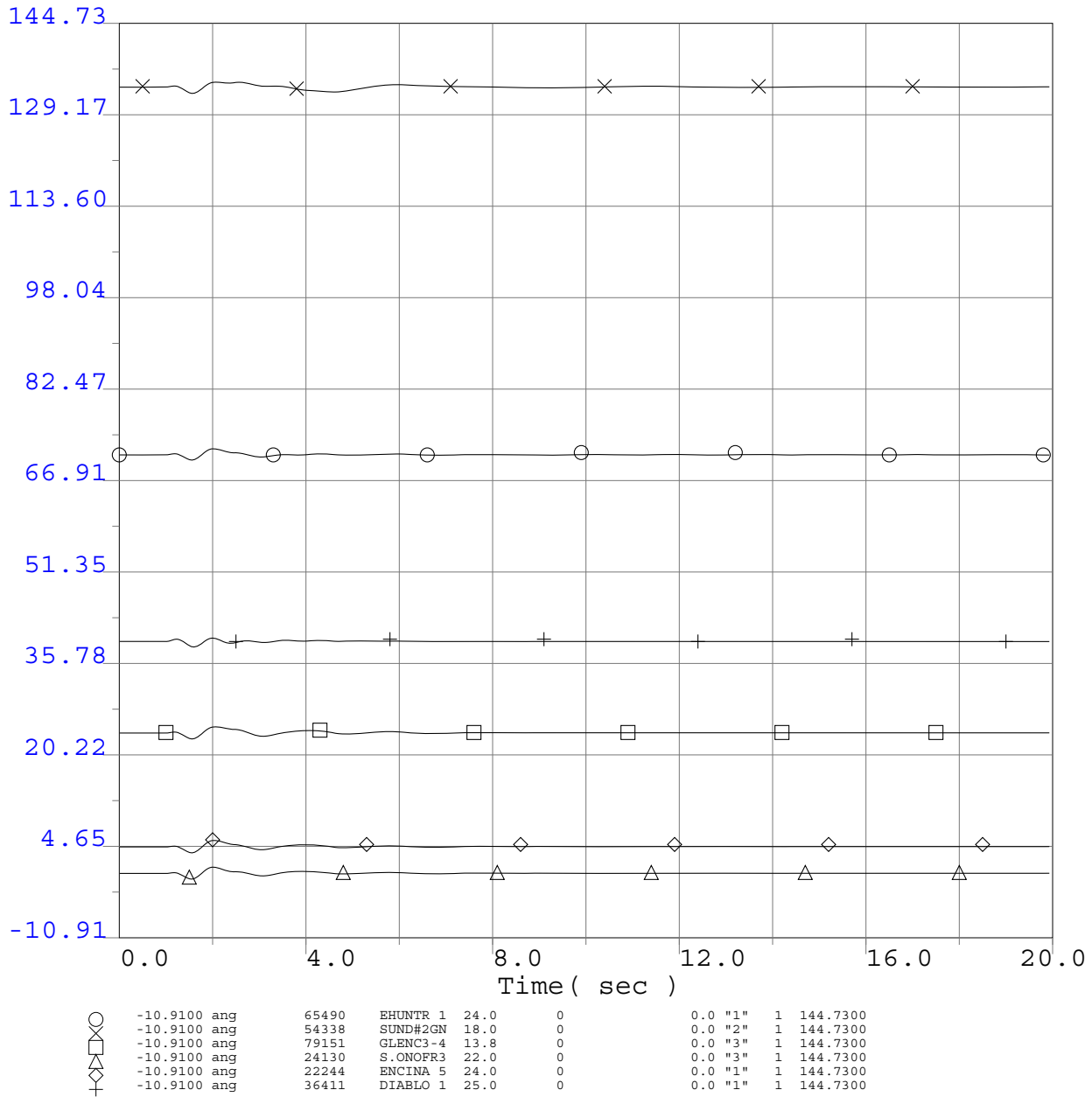
○	28.5900 ang	14914	FCNGN4CC	22.0	0	0.0 "H"	1	149.6400
□	28.5900 ang	50499	GMS G5	13.8	0	0.0 "1"	1	149.6400
△	28.5900 ang	60100	BRWNL 5	13.8	0	0.0 "1"	1	149.6400
◇	28.5900 ang	62048	COLSTP 3	26.0	0	0.0 "1"	1	149.6400
×	28.5900 ang	44071	JDA 0102	13.8	0	0.0"01"	1	149.6400
+	28.5900 ang	36411	DIABLO 1	25.0	0	0.0 "1"	1	149.6400

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
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 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle

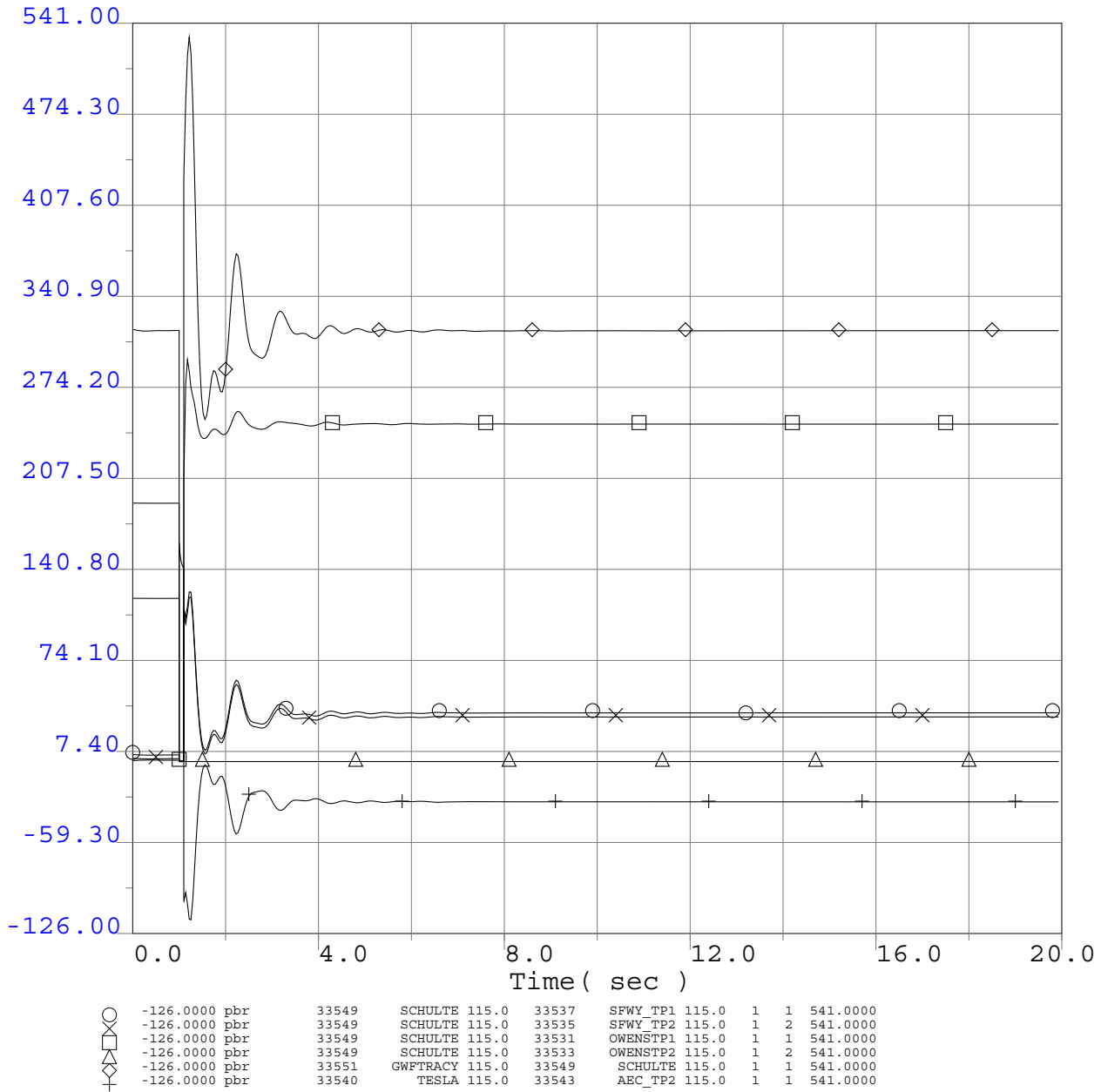


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
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 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)

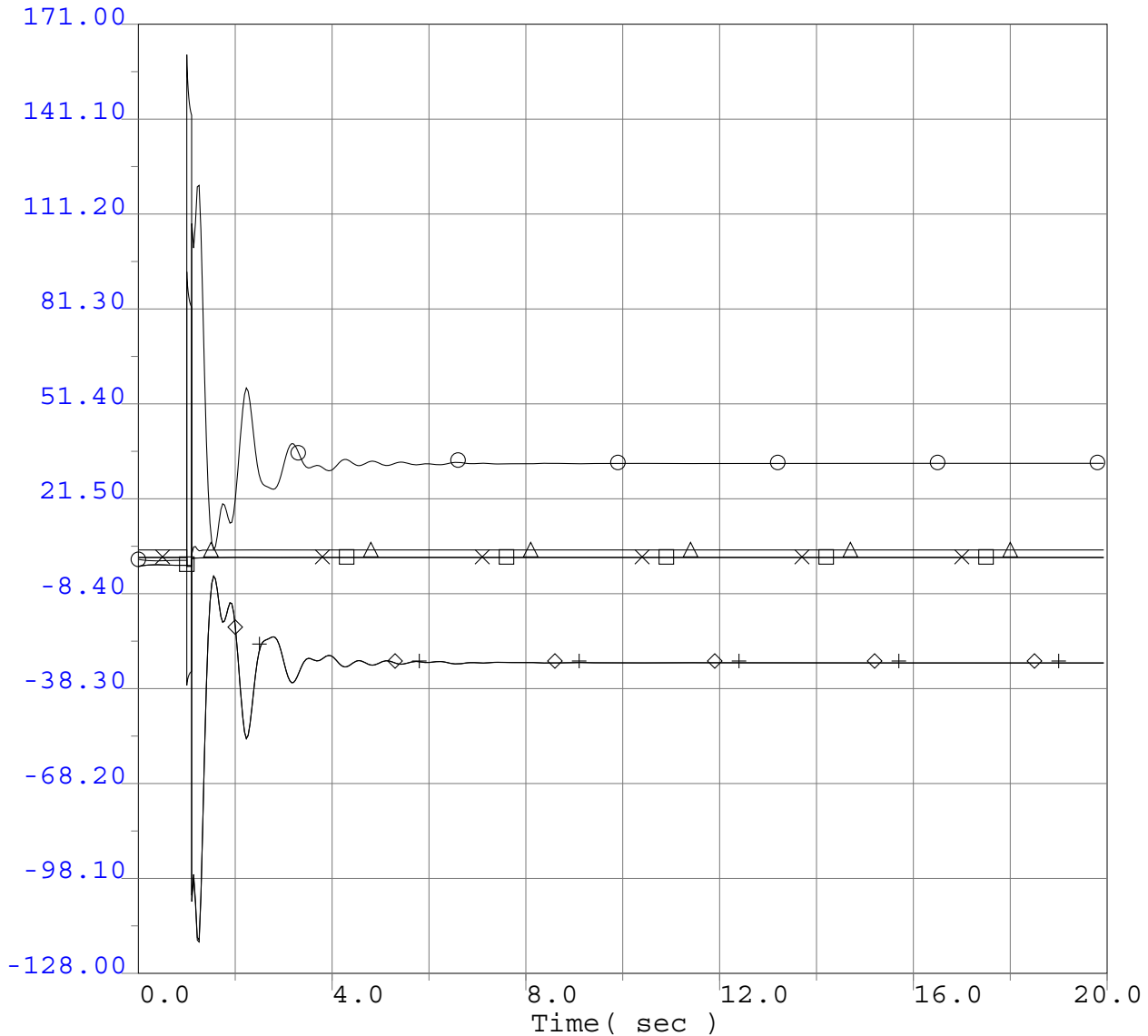


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)



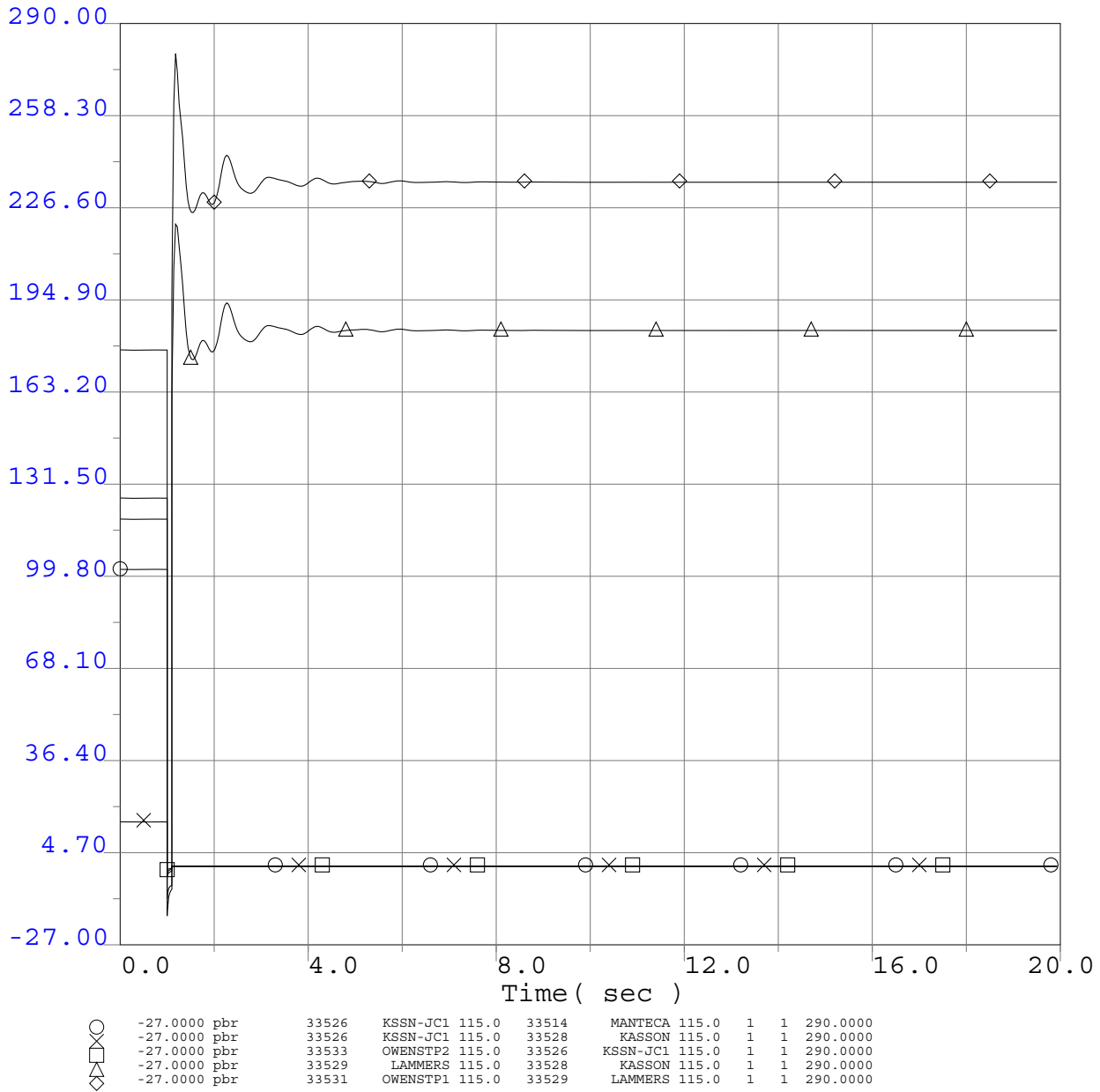
○	-128.0000 pbr	33535	SFWY_TP2 115.0	33543	AEC_TP2 115.0	1	1	171.0000
□	-128.0000 pbr	33543	AEC_TP2 115.0	33545	AEC_JCT 115.0	1	1	171.0000
△	-128.0000 pbr	33545	AEC_JCT 115.0	33547	AEC_300 115.0	1	1	171.0000
×	-128.0000 pbr	33537	SFWY_TP1 115.0	33534	SAFEWAY 115.0	1	1	171.0000
◇	-128.0000 pbr	33541	AEC_TP1 115.0	33537	SFWY_TP1 115.0	1	1	171.0000
+	-128.0000 pbr	33540	TESLA 115.0	33541	AEC_TP1 115.0	1	1	171.0000

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)

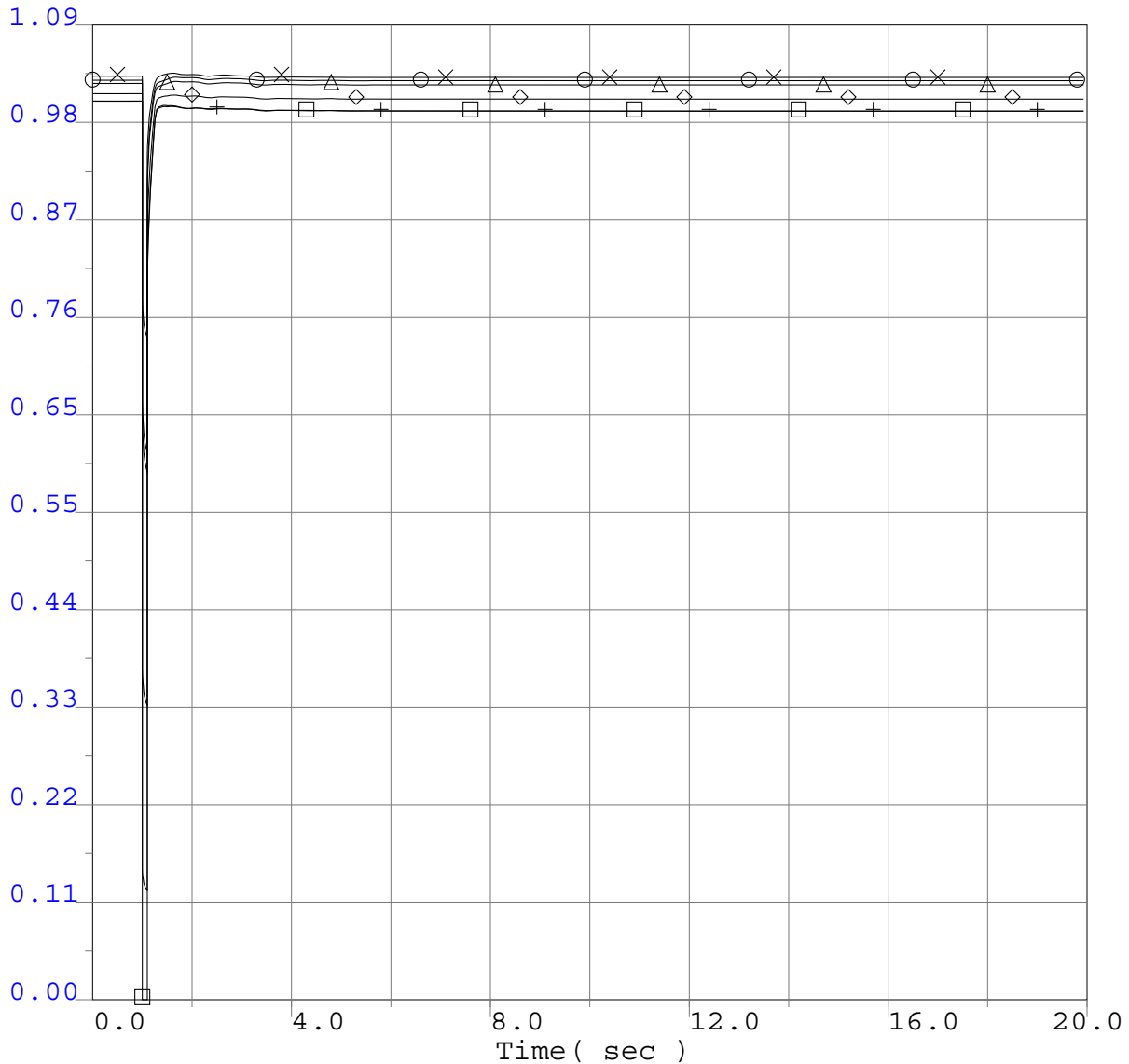


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Voltage Plots Adjacent to Fault



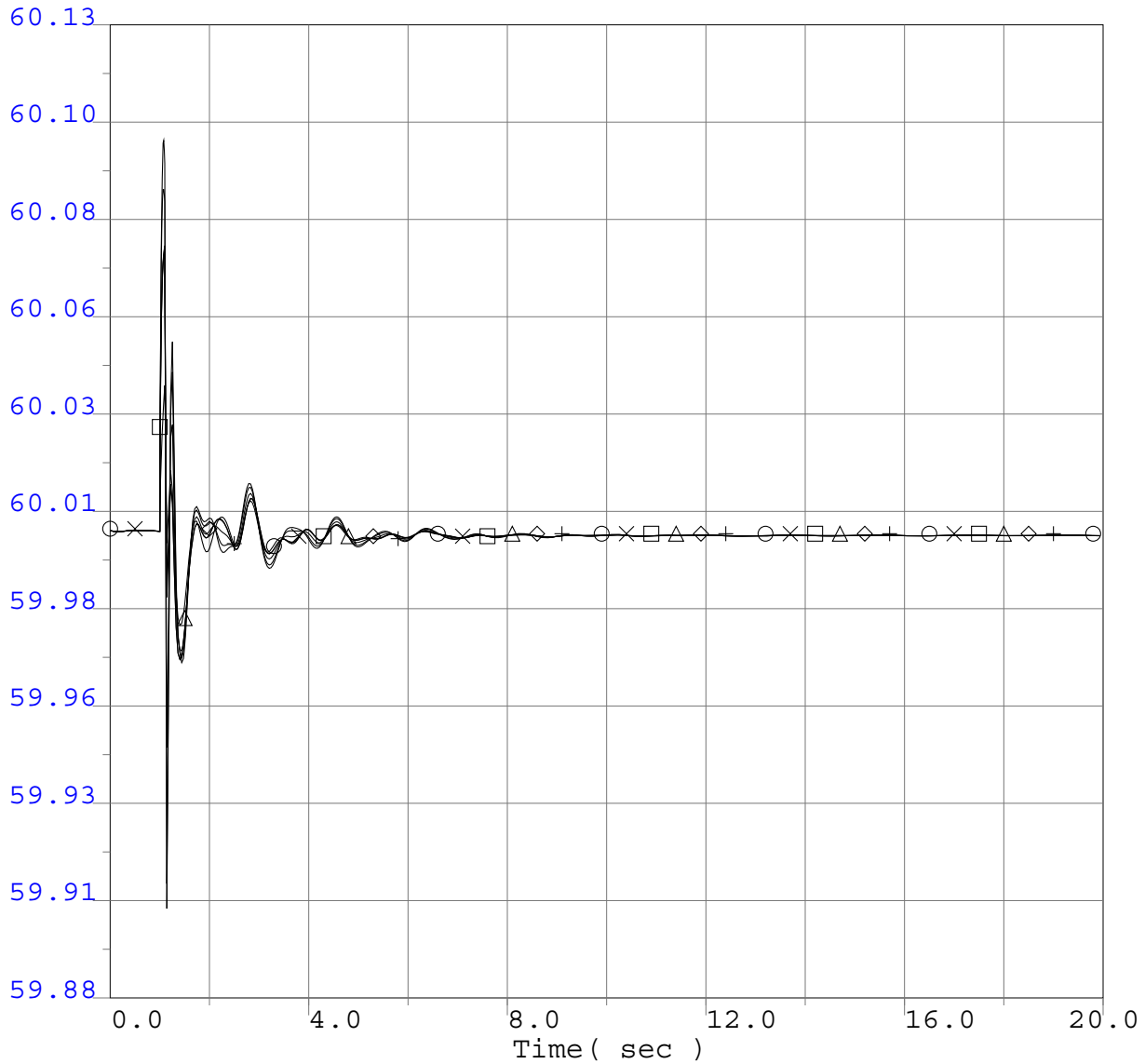
○	0.0000 vbus	33549	SCHULTE 115.0	0	0.0	""	1	1.0900
□	0.0000 vbus	33540	TESLA 115.0	0	0.0	""	1	1.0900
△	0.0000 vbus	33514	MANTECA 115.0	0	0.0	""	1	1.0900
◇	0.0000 vbus	33529	LAMMERS 115.0	0	0.0	""	1	1.0900
+	0.0000 vbus	33528	KASSON 115.0	0	0.0	""	1	1.0900
×	0.0000 vbus	33518	VIERRA 115.0	0	0.0	""	1	1.0900

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Frequency Plots Adjacent to Fault



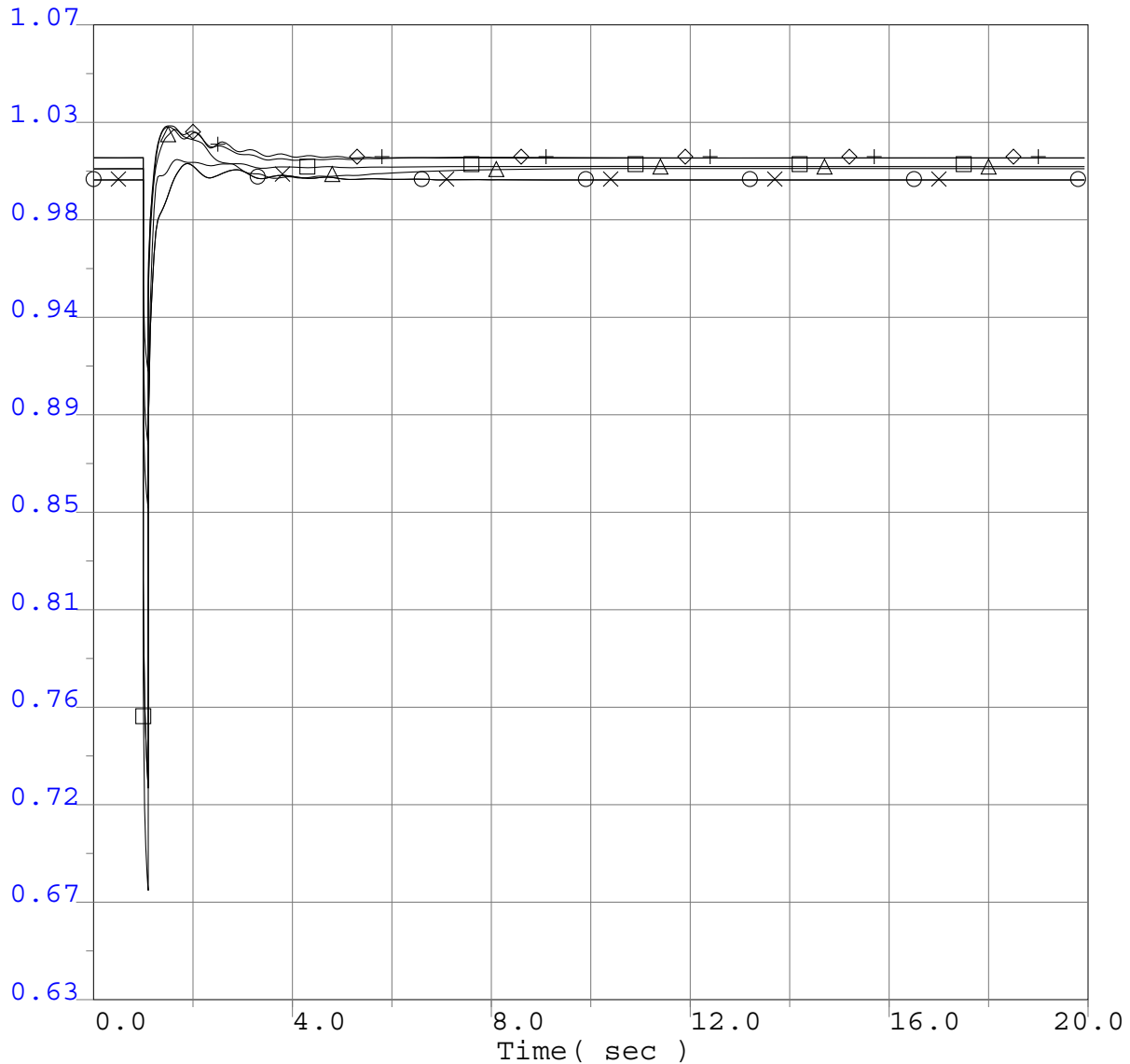
○	59.8800 Fbus	33549	SCHULTE 115.0	0	0.0	"**"	1	60.1300
□	59.8800 Fbus	33540	TESLA 115.0	0	0.0	"**"	1	60.1300
△	59.8800 Fbul	33514	MANTECA 115.0	0	0.0	"**"	1	60.1300
◇	59.8800 Fbul	33529	LAMMERS 115.0	0	0.0	"**"	1	60.1300
+	59.8800 Fbus	33528	KASSON 115.0	0	0.0	"**"	1	60.1300
×	59.8800 Fbul	33518	VIERRA 115.0	0	0.0	"**"	1	60.1300

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Terminal Voltages



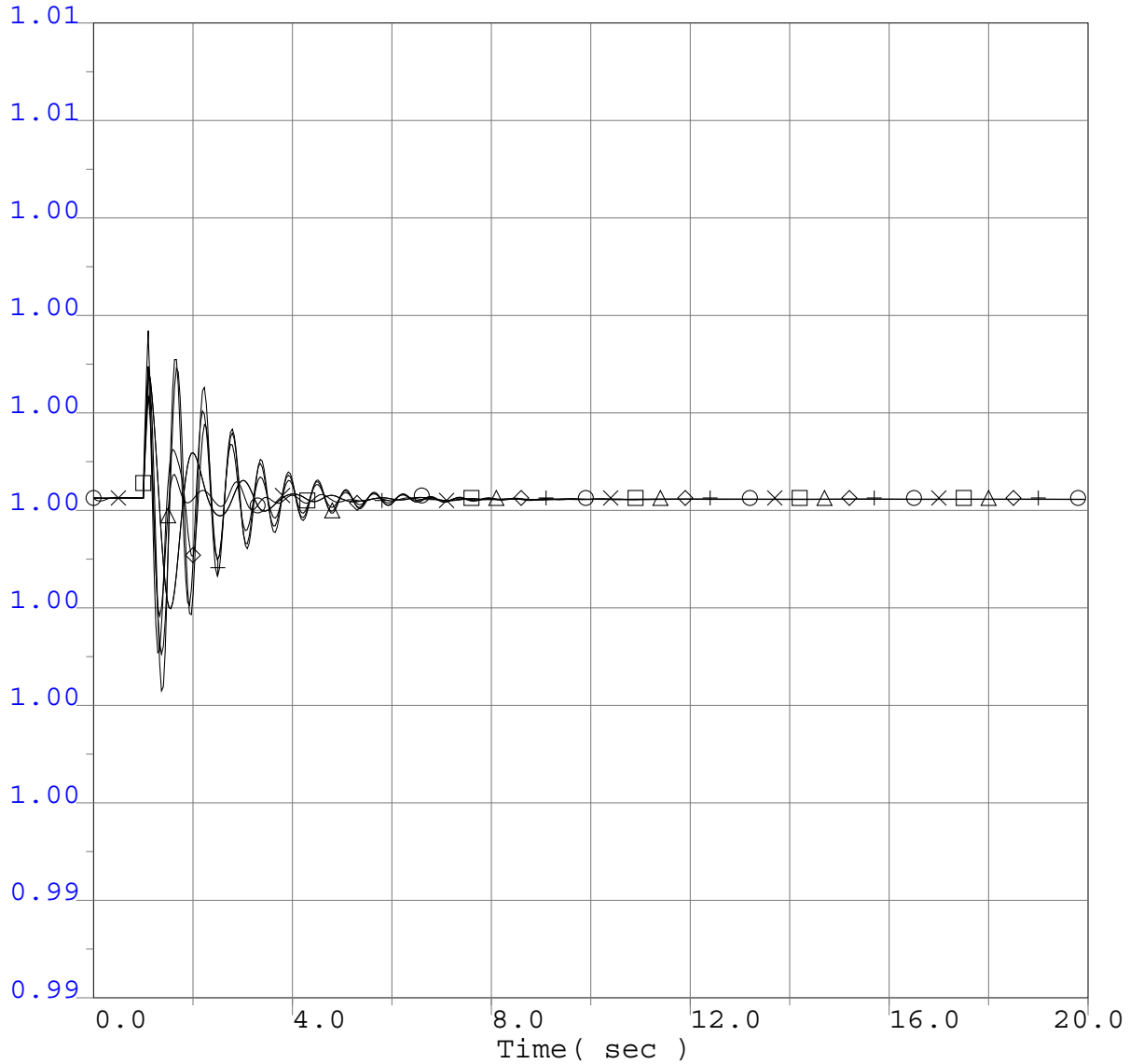
○	0.6300 vt	33805	GWTRCY1	13.8	0	0.0	"1"	1	1.0700
□	0.6300 vt	33807	GWTRCY2	13.8	0	0.0	"1"	1	1.0700
△	0.6300 vt	33809	Q268ST1	13.8	0	0.0	"1"	1	1.0700
◇	0.6300 vt	33858	P0409CG2	13.8	0	0.0	"1"	1	1.0700
+	0.6300 vt	33808	SJ COGEN	13.8	0	0.0	"1"	1	1.0700
×	0.6300 vt	33810	SP CMPNY	13.8	0	0.0	"1"	1	1.0700

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Rotor Speed



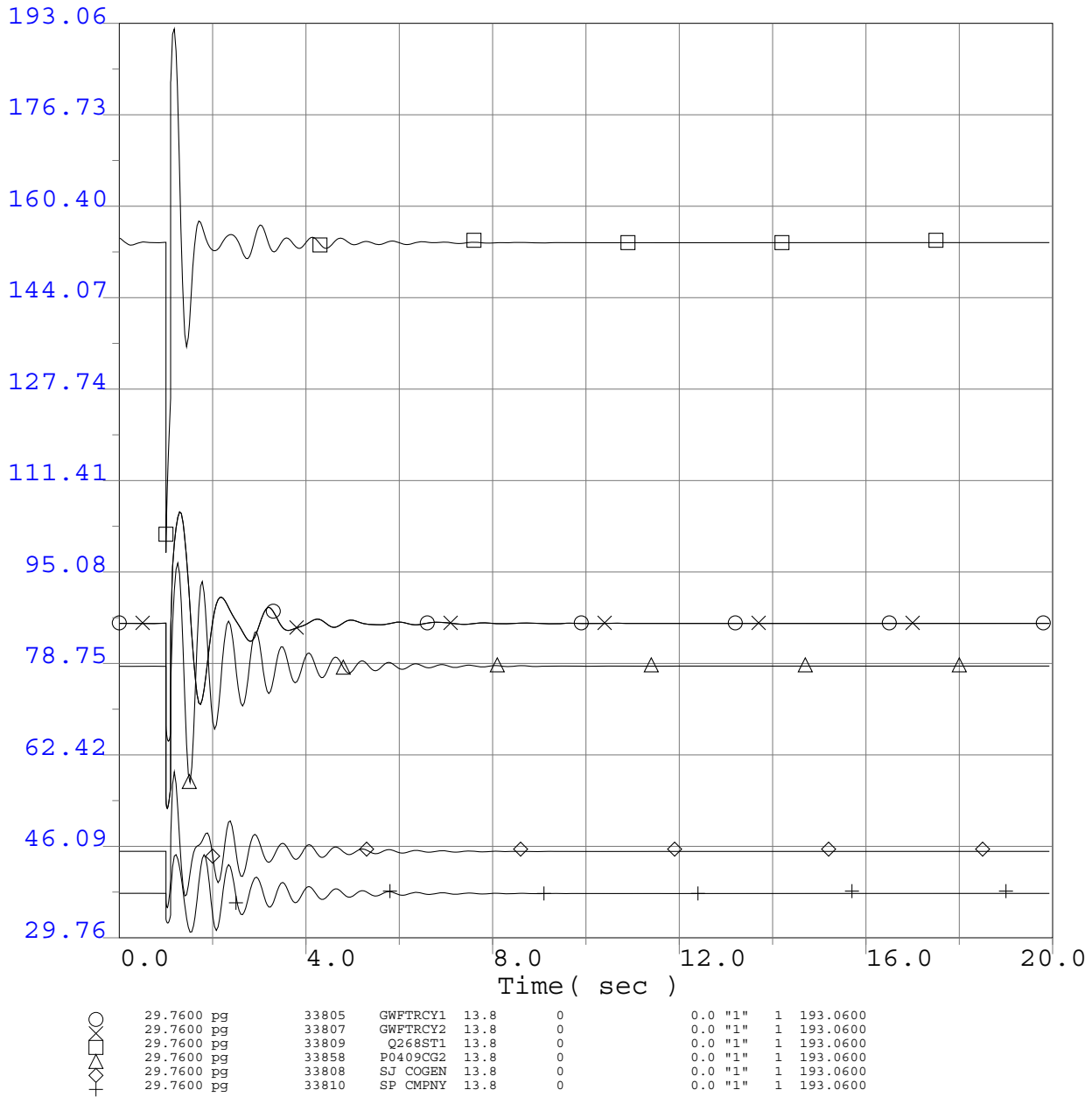
○	0.9919 spd	33805	GWTRCY1	13.8	0	0.0	"1"	1	1.0077
×	0.9919 spd	33807	GWTRCY2	13.8	0	0.0	"1"	1	1.0077
□	0.9919 spd	33809	Q268ST1	13.8	0	0.0	"1"	1	1.0077
△	0.9919 spd	33858	P0409CG2	13.8	0	0.0	"1"	1	1.0077
◇	0.9919 spd	33808	SJ COGEN	13.8	0	0.0	"1"	1	1.0077
+	0.9919 spd	33810	SF CMPNY	13.8	0	0.0	"1"	1	1.0077

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Terminal Power

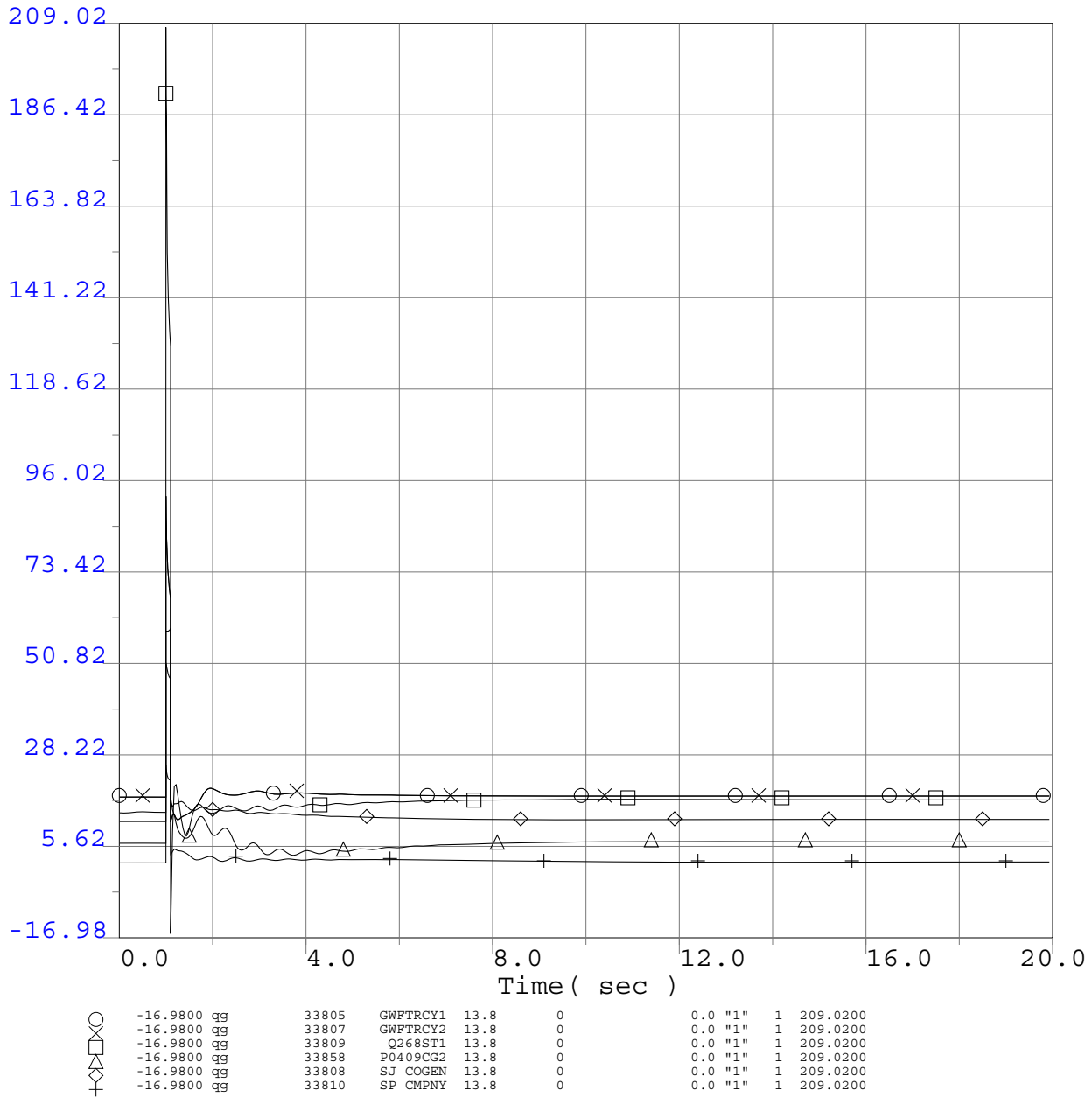


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Project Generator Terminal Reactive Power

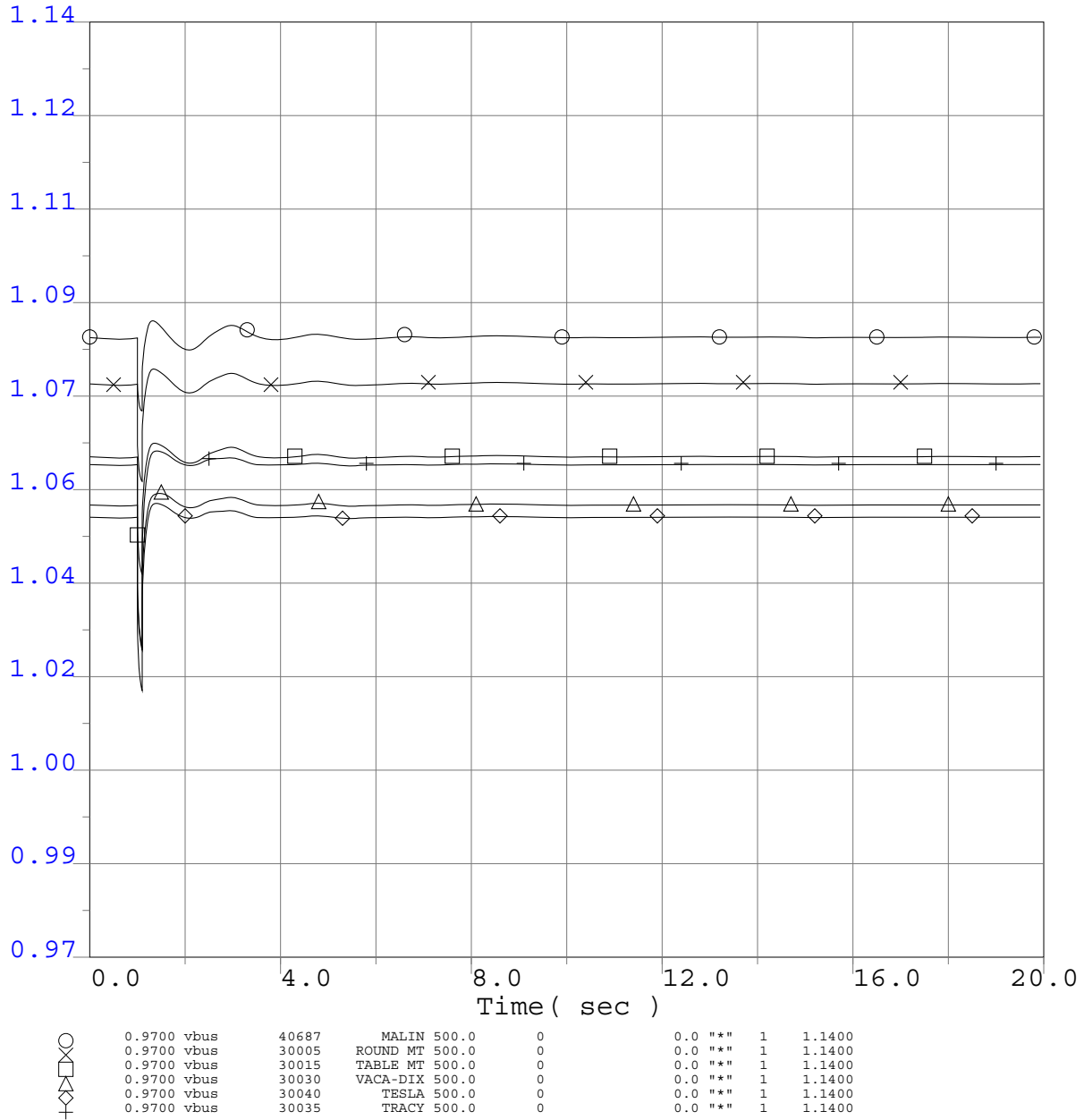


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

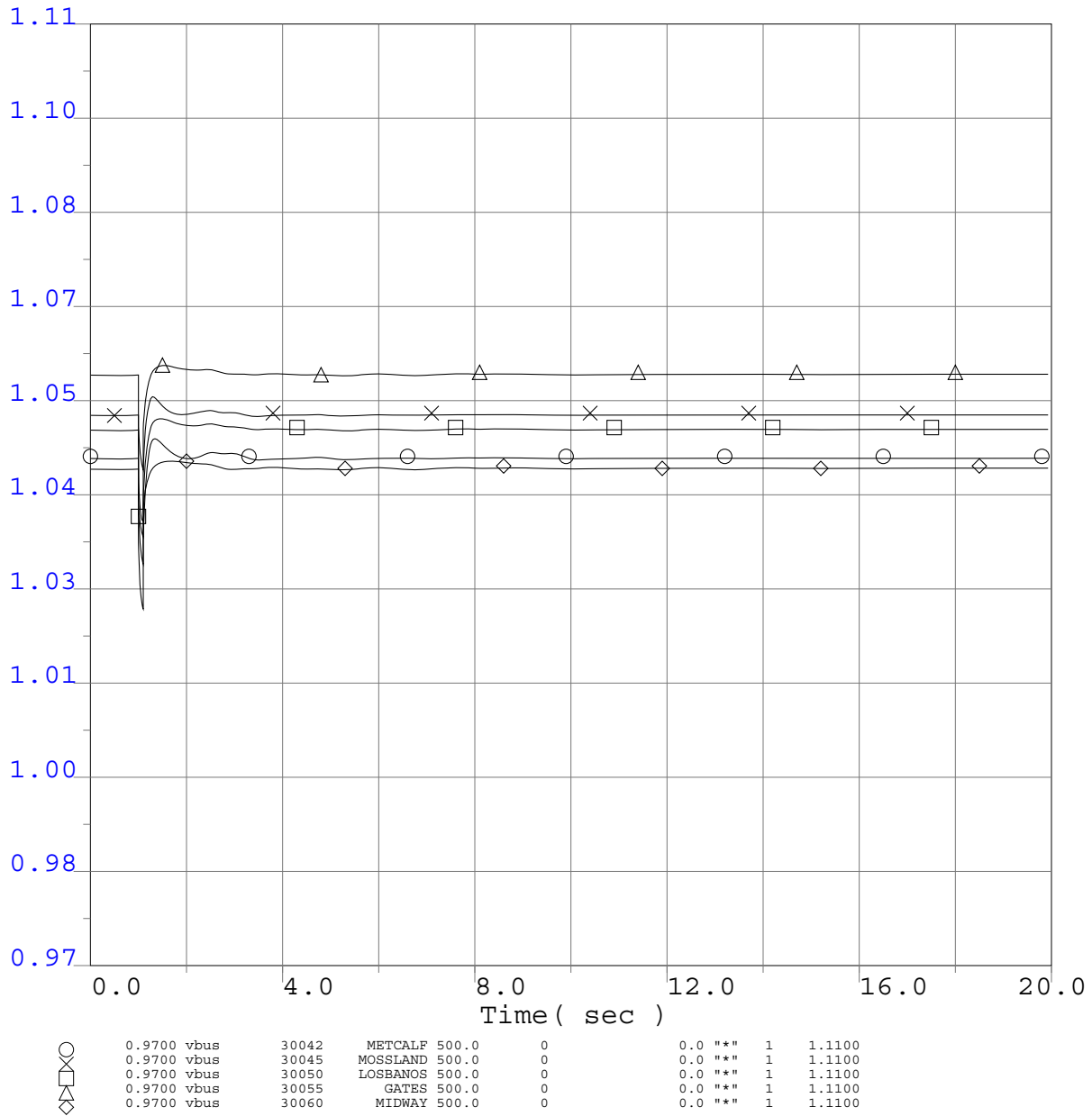


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

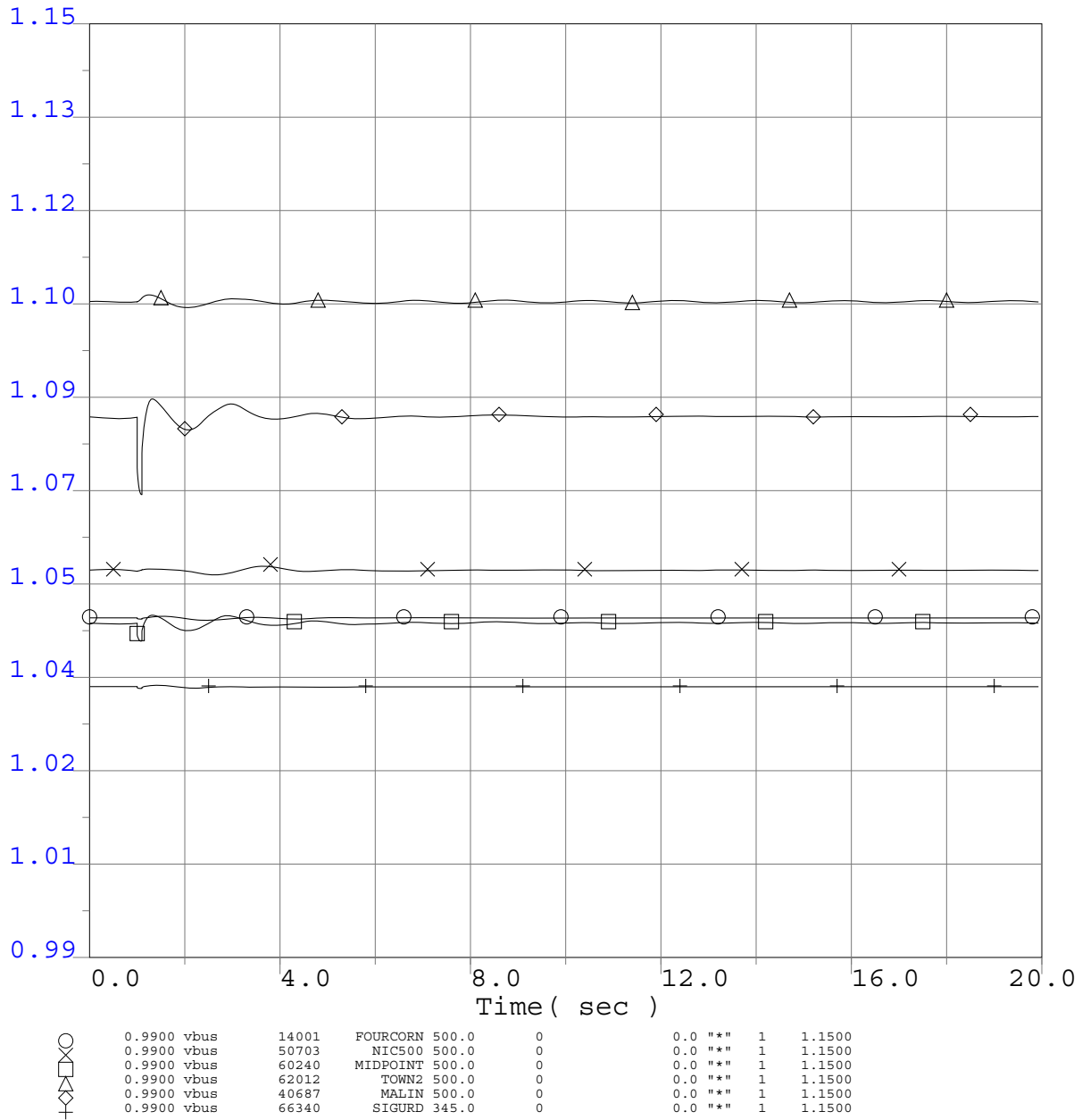


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

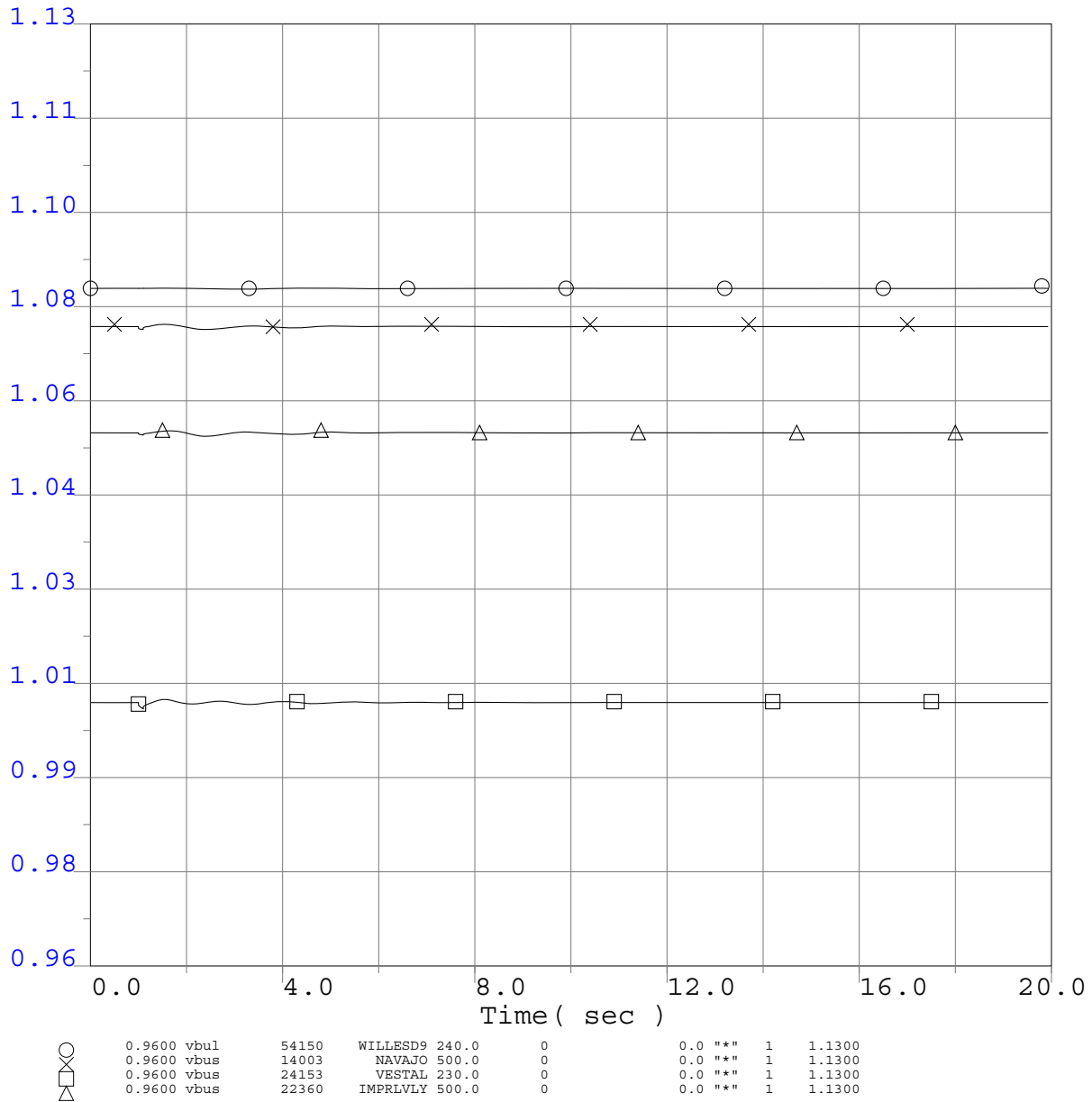


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

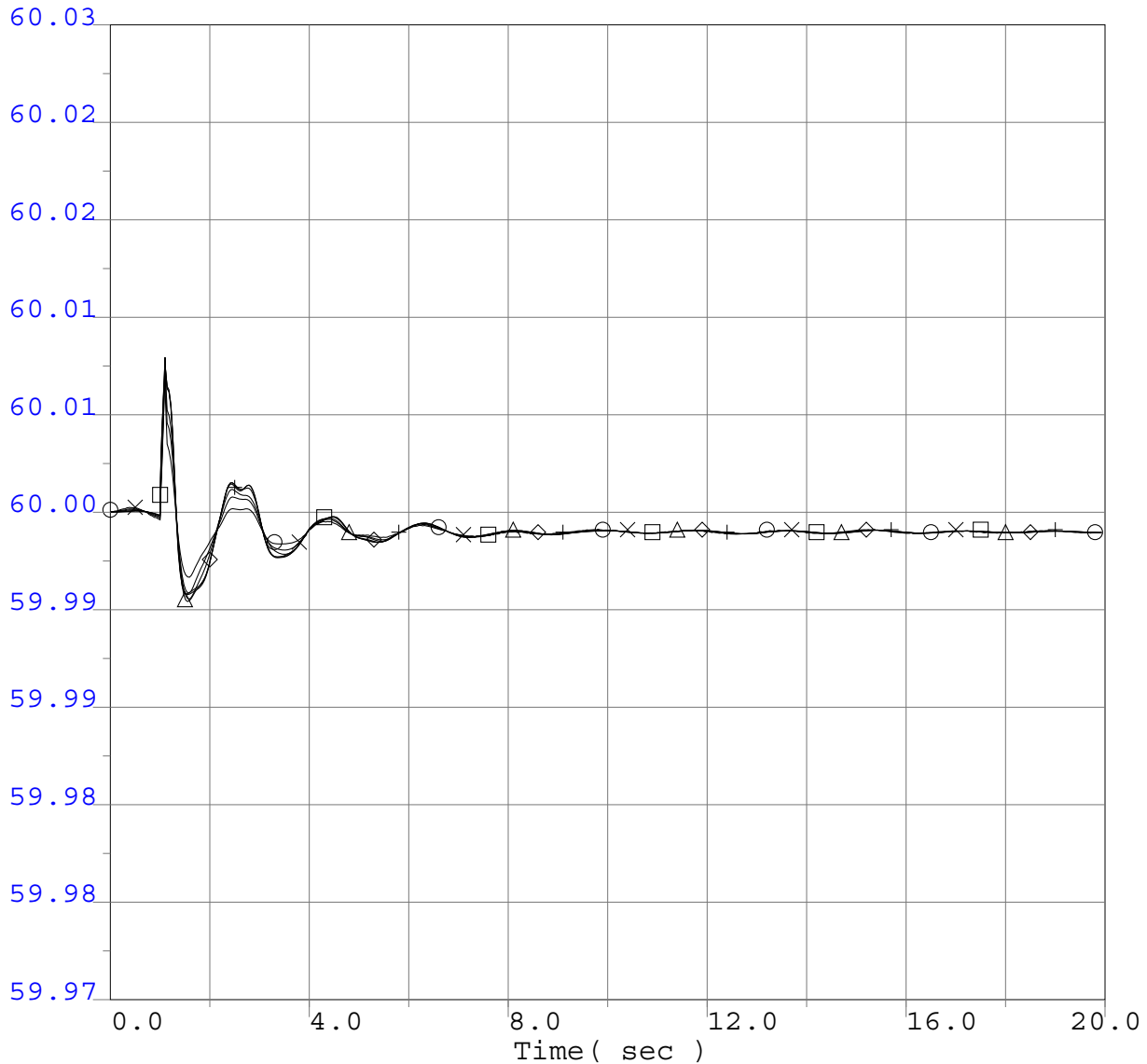


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



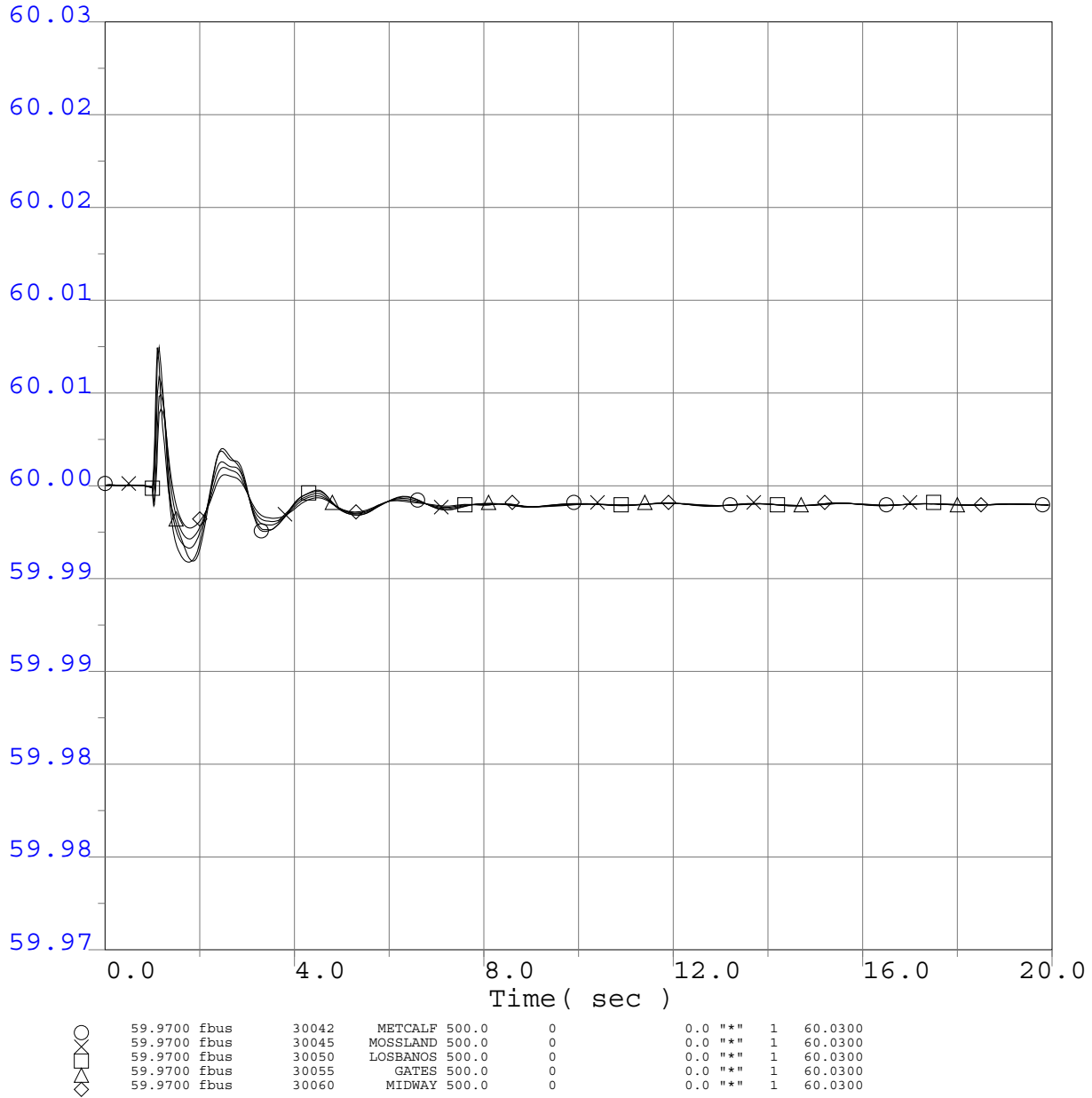
○	59.9700 Ebus	40687	MALIN 500.0	0	0.0	""	1	60.0300
×	59.9700 Ebus	30005	ROUND MT 500.0	0	0.0	""	1	60.0300
□	59.9700 Ebus	30015	TABLE MT 500.0	0	0.0	""	1	60.0300
△	59.9700 Ebus	30030	VACA-DIX 500.0	0	0.0	""	1	60.0300
◇	59.9700 Ebus	30040	TESLA 500.0	0	0.0	""	1	60.0300
+	59.9700 Ebus	30035	TRACY 500.0	0	0.0	""	1	60.0300

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots

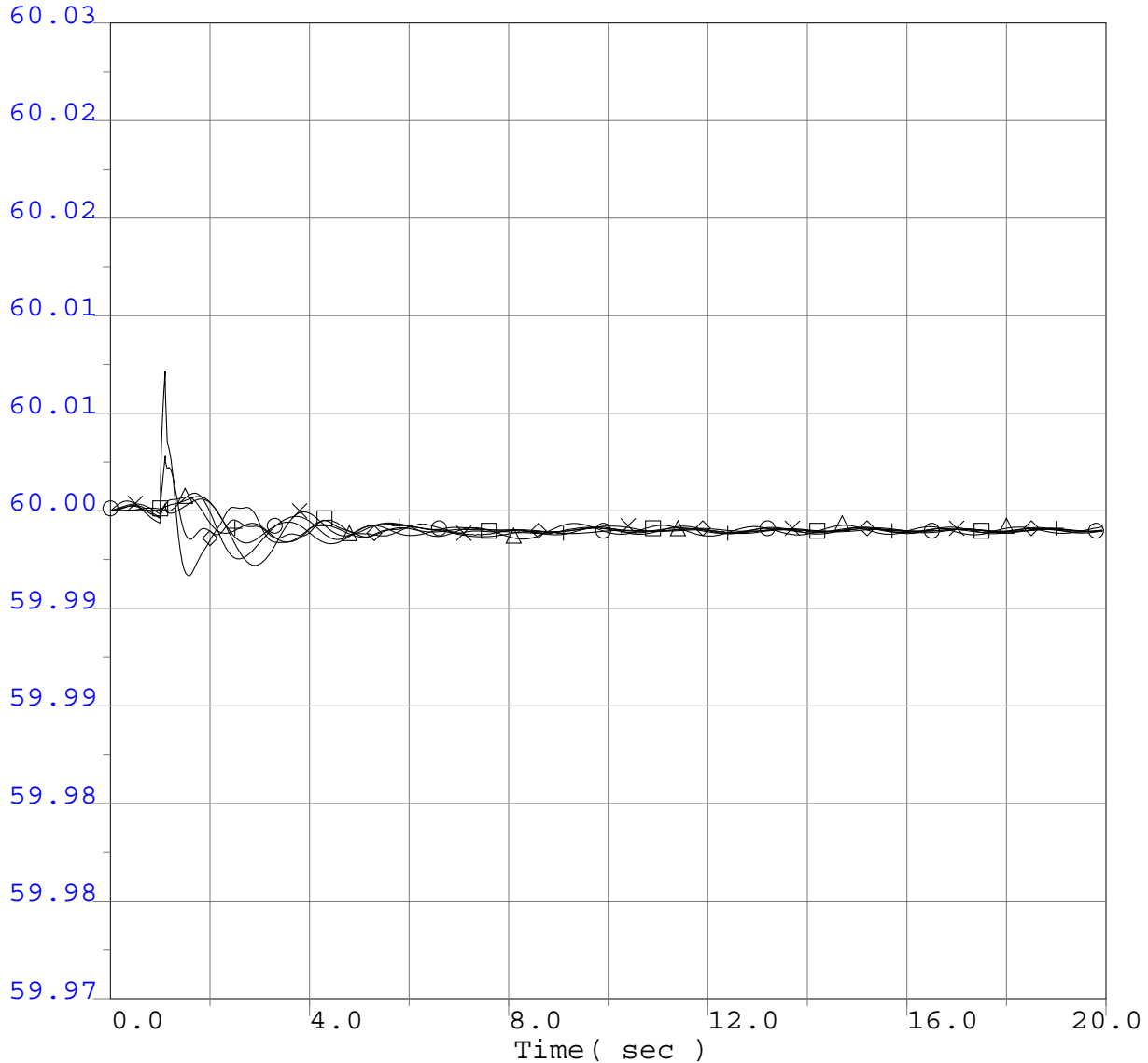


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



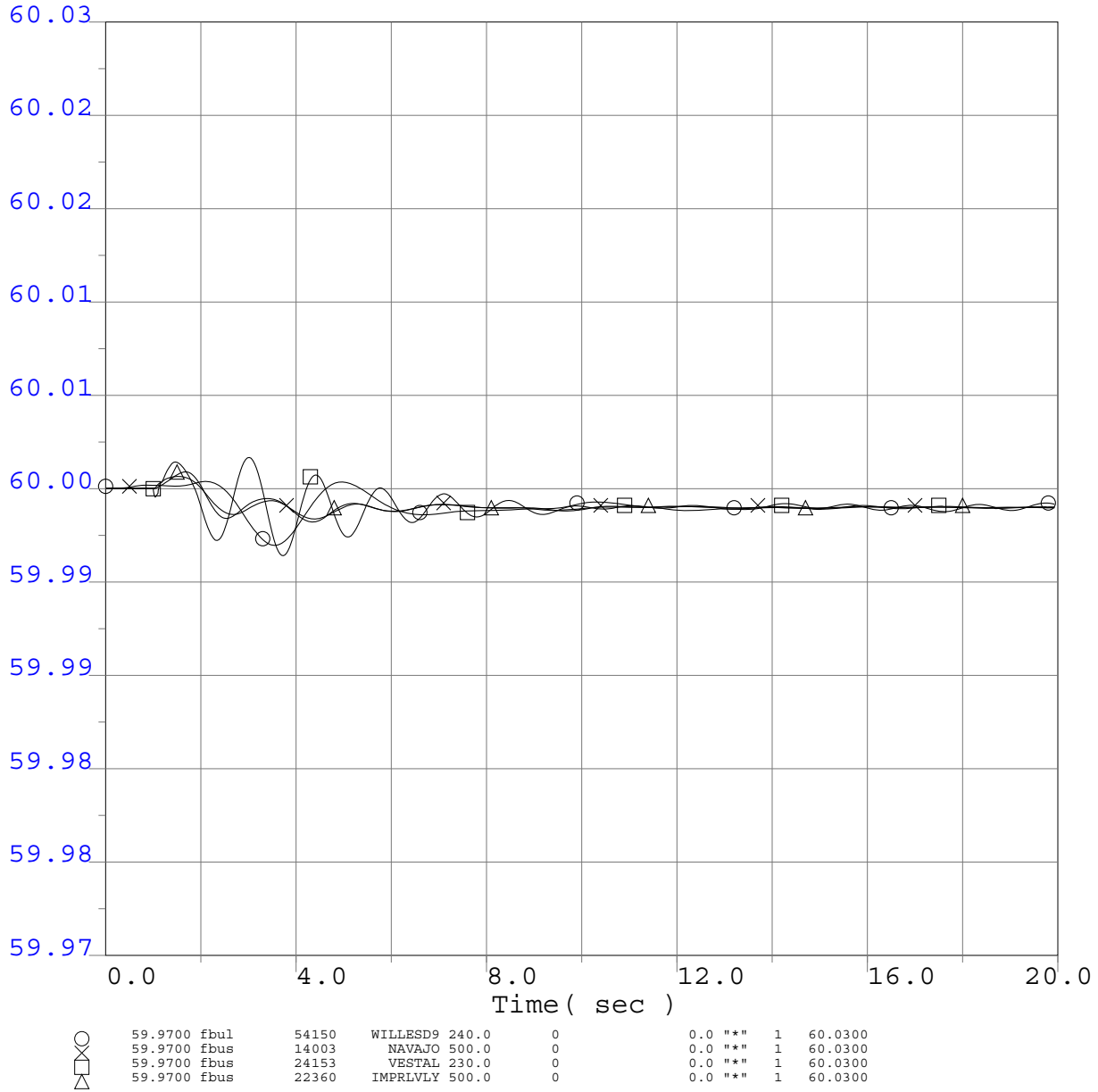
○	59.9700 Ebus	14001	FOURCORN	500.0	0	0.0	""	1	60.0300
□	59.9700 Ebus	50703	NIC500	500.0	0	0.0	""	1	60.0300
△	59.9700 Ebus	60240	MIDPOINT	500.0	0	0.0	""	1	60.0300
◇	59.9700 Ebus	62012	TOWN2	500.0	0	0.0	""	1	60.0300
+	59.9700 Ebus	40687	MALIN	500.0	0	0.0	""	1	60.0300
	59.9700 Ebus	66340	SIGURD	345.0	0	0.0	""	1	60.0300

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots

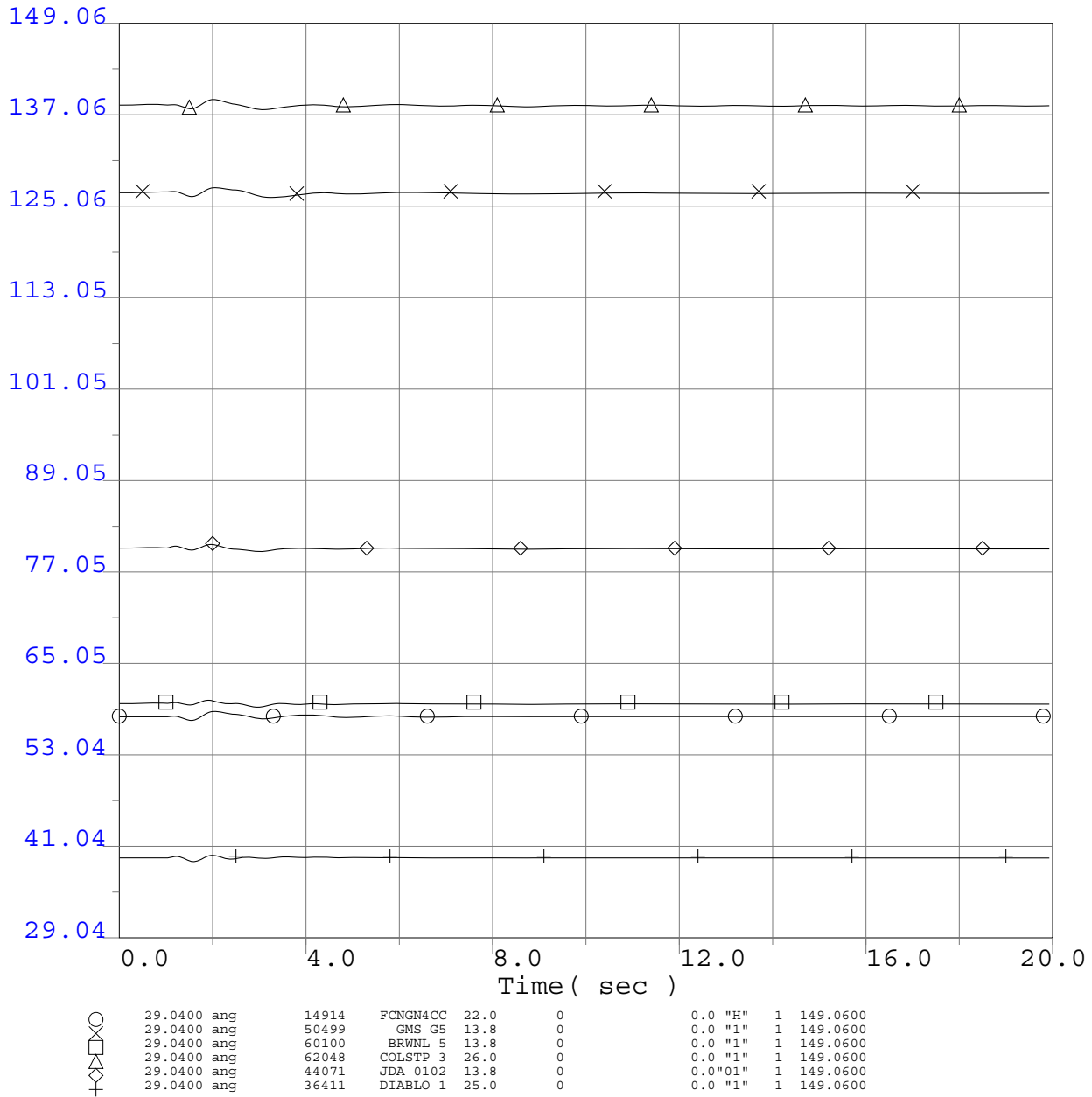


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle

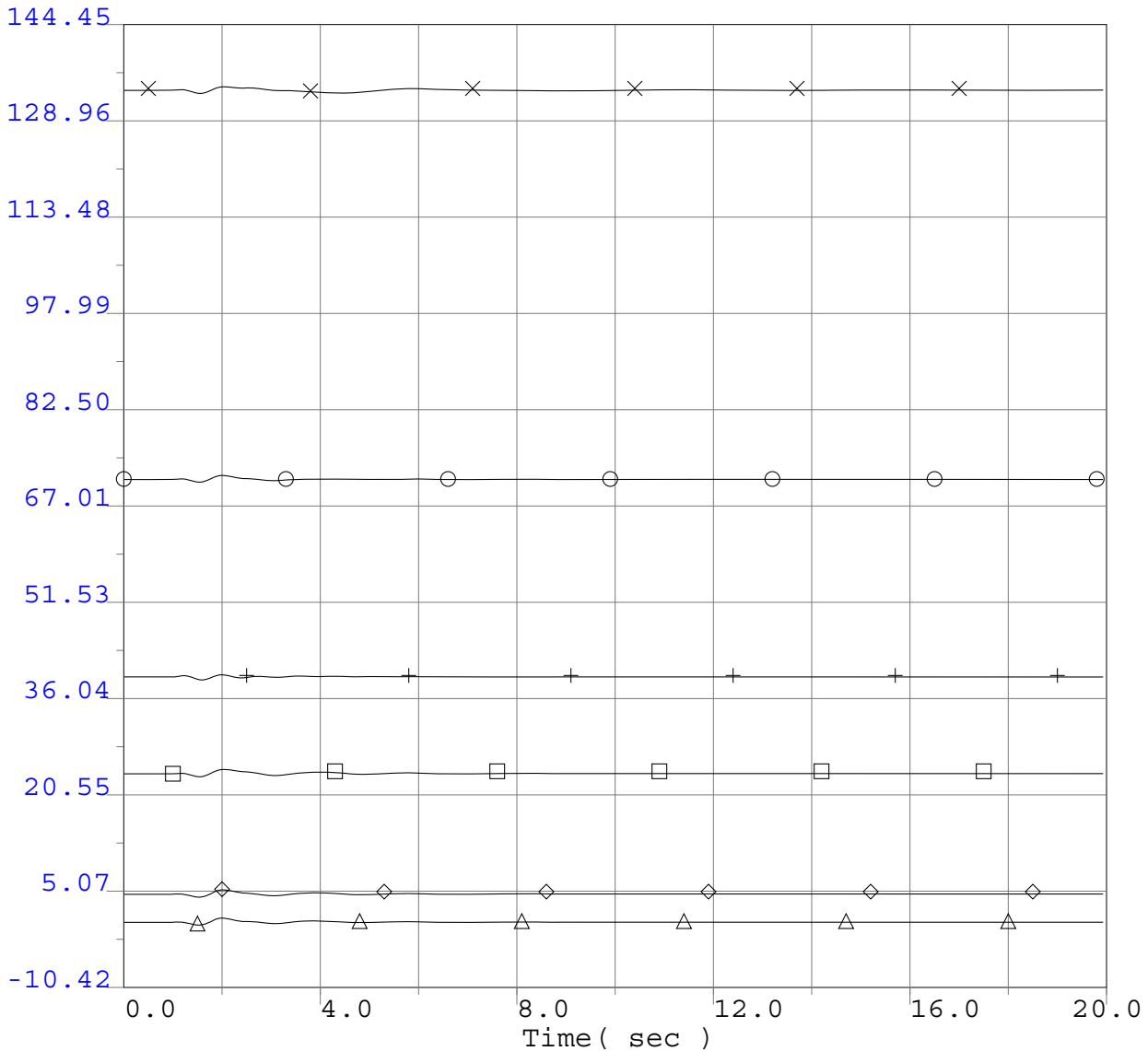


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle



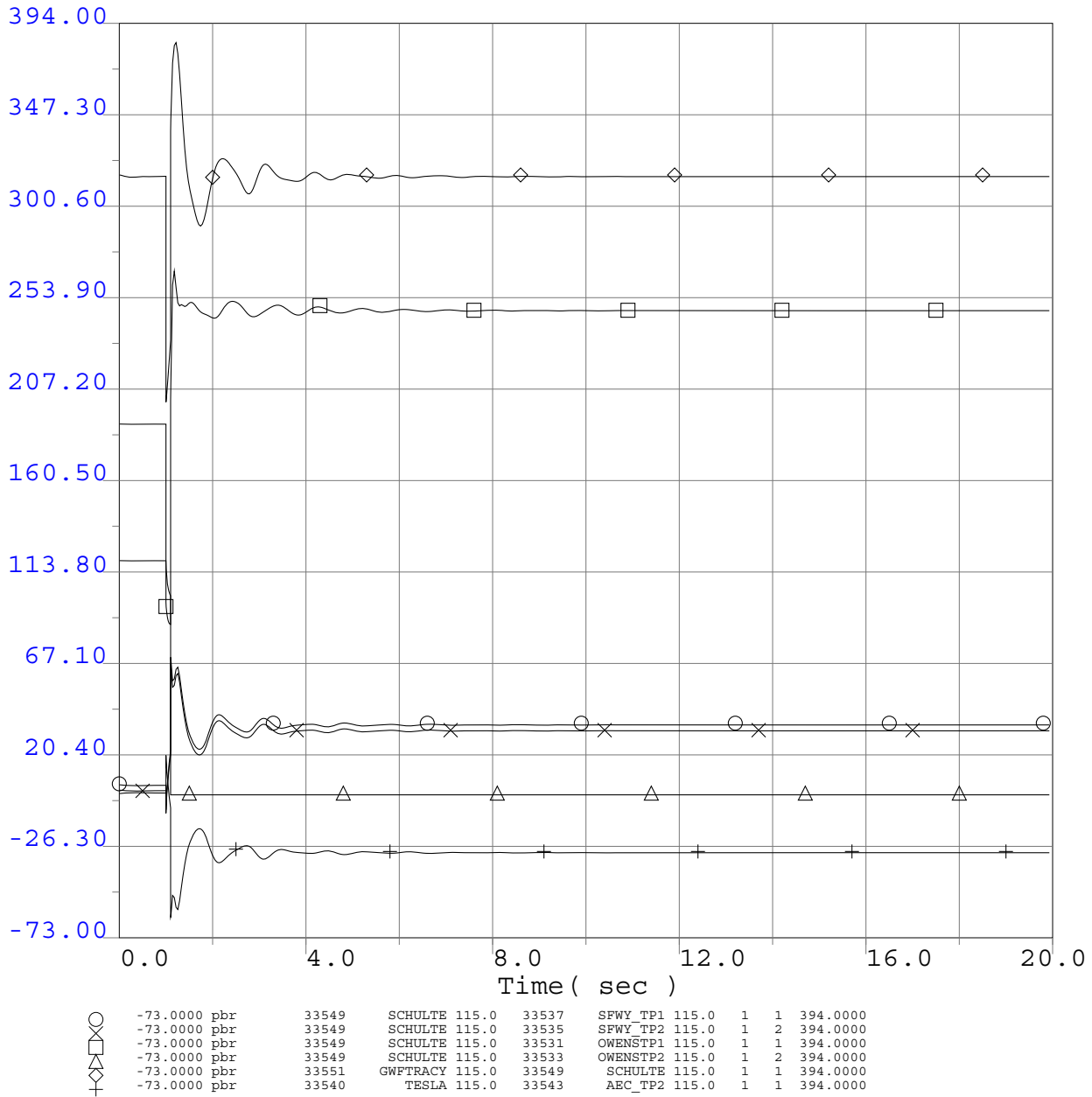
○	-10.4200 ang	65490	EHUNTR 1	24.0	0	0.0 "1"	1	144.4500
○	-10.4200 ang	54338	SUND#2GN	18.0	0	0.0 "2"	1	144.4500
□	-10.4200 ang	79151	GLENC3-4	13.8	0	0.0 "3"	1	144.4500
△	-10.4200 ang	24130	S.ONOPR3	22.0	0	0.0 "3"	1	144.4500
◇	-10.4200 ang	22244	ENCINA 5	24.0	0	0.0 "1"	1	144.4500
+	-10.4200 ang	36411	DIABLO 1	25.0	0	0.0 "1"	1	144.4500

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)

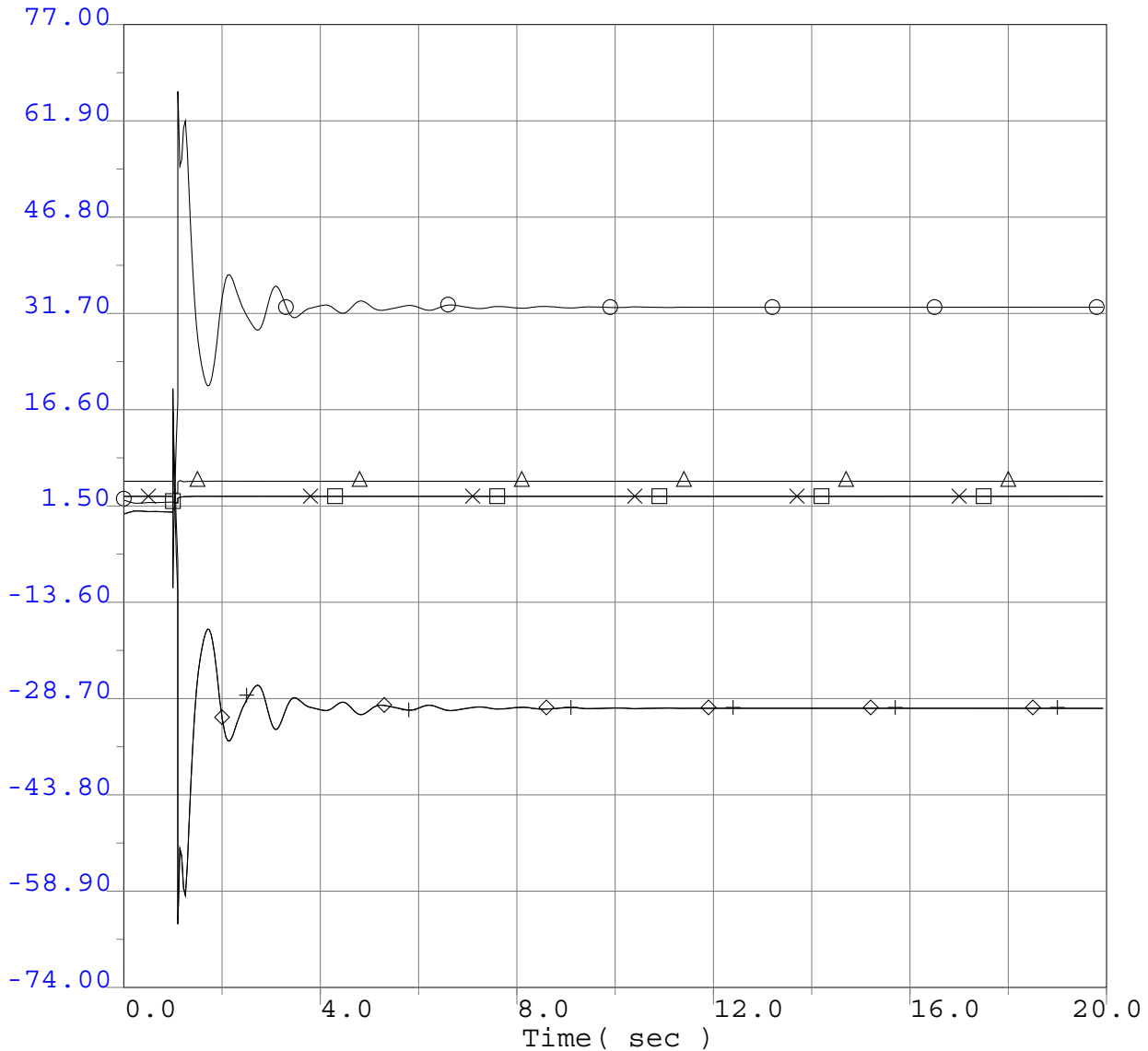


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)



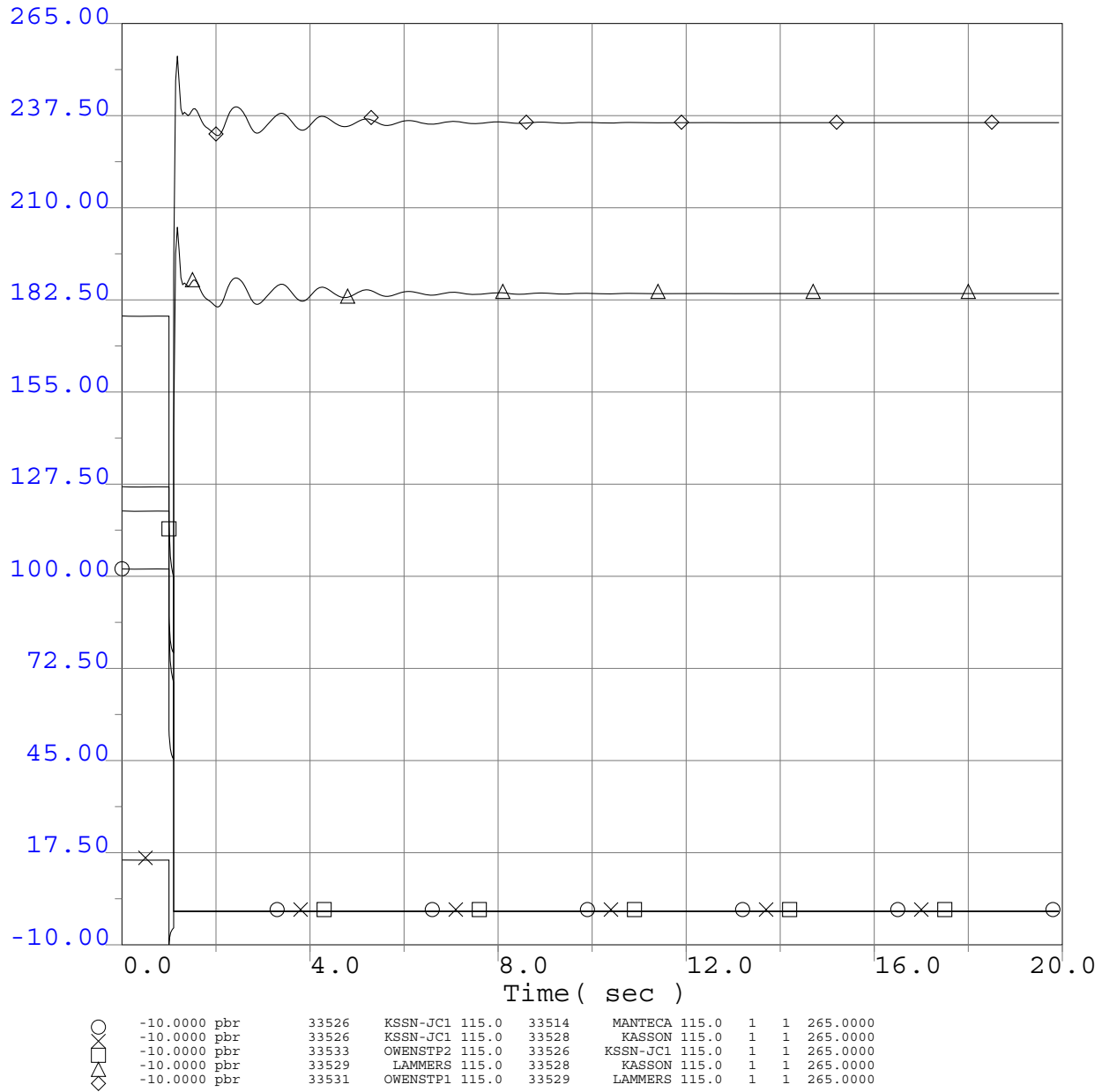
○	-74.0000 pbr	33535	SFWY_TP2 115.0	33543	AEC_TP2 115.0	1	1	77.0000
□	-74.0000 pbr	33543	AEC_TP2 115.0	33545	AEC_JCT 115.0	1	1	77.0000
△	-74.0000 pbr	33545	AEC_JCT 115.0	33547	AEC_300 115.0	1	1	77.0000
×	-74.0000 pbr	33537	SFWY_TP1 115.0	33534	SAFEWAY 115.0	1	1	77.0000
◇	-74.0000 pbr	33541	AEC_TP1 115.0	33537	SFWY_TP1 115.0	1	1	77.0000
+	-74.0000 pbr	33540	TESLA 115.0	33541	AEC_TP1 115.0	1	1	77.0000

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)

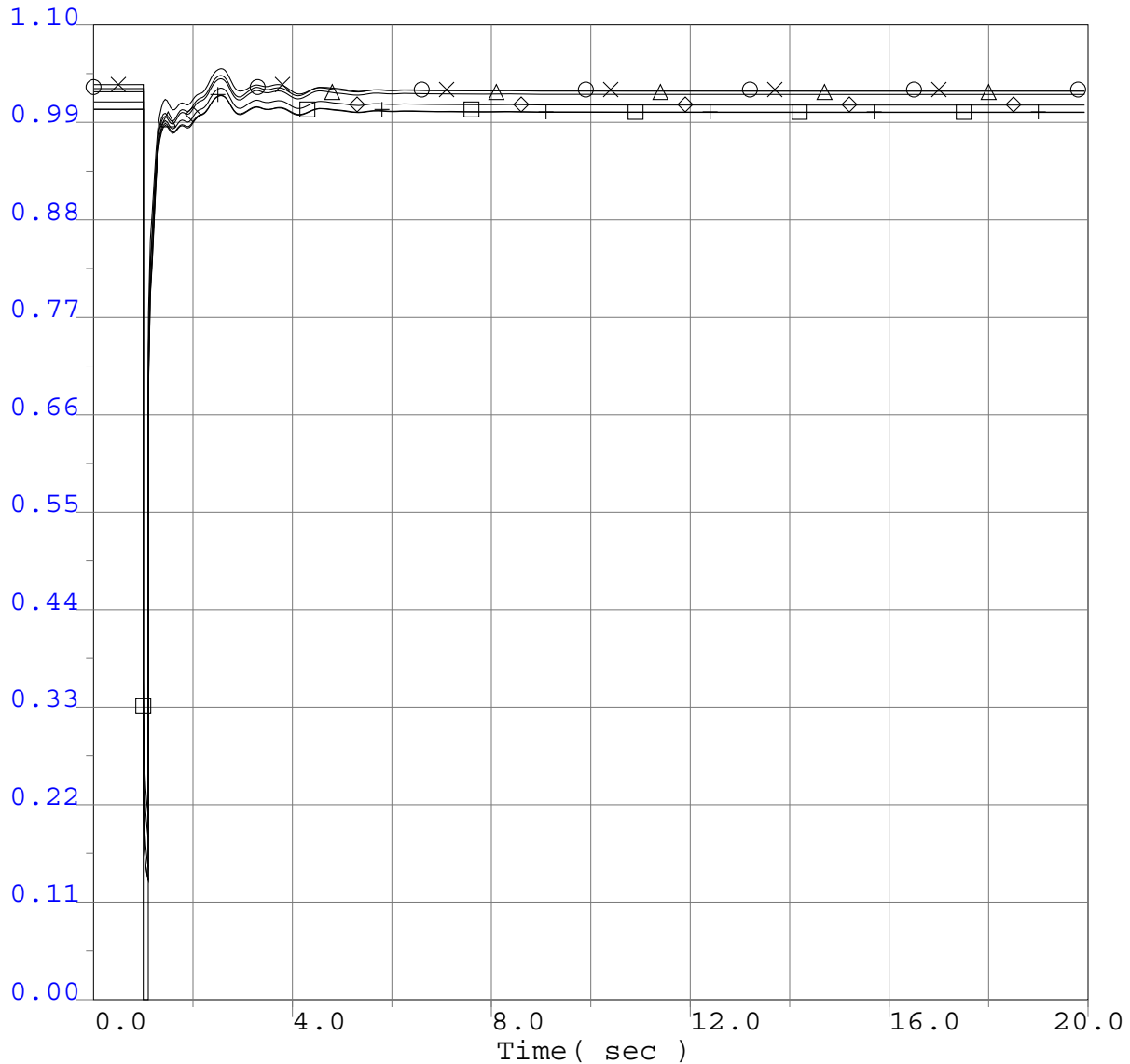


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte 115kV line outage; Breakers 194-512+612
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte 115kV line



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Voltage Plots Adjacent to Fault



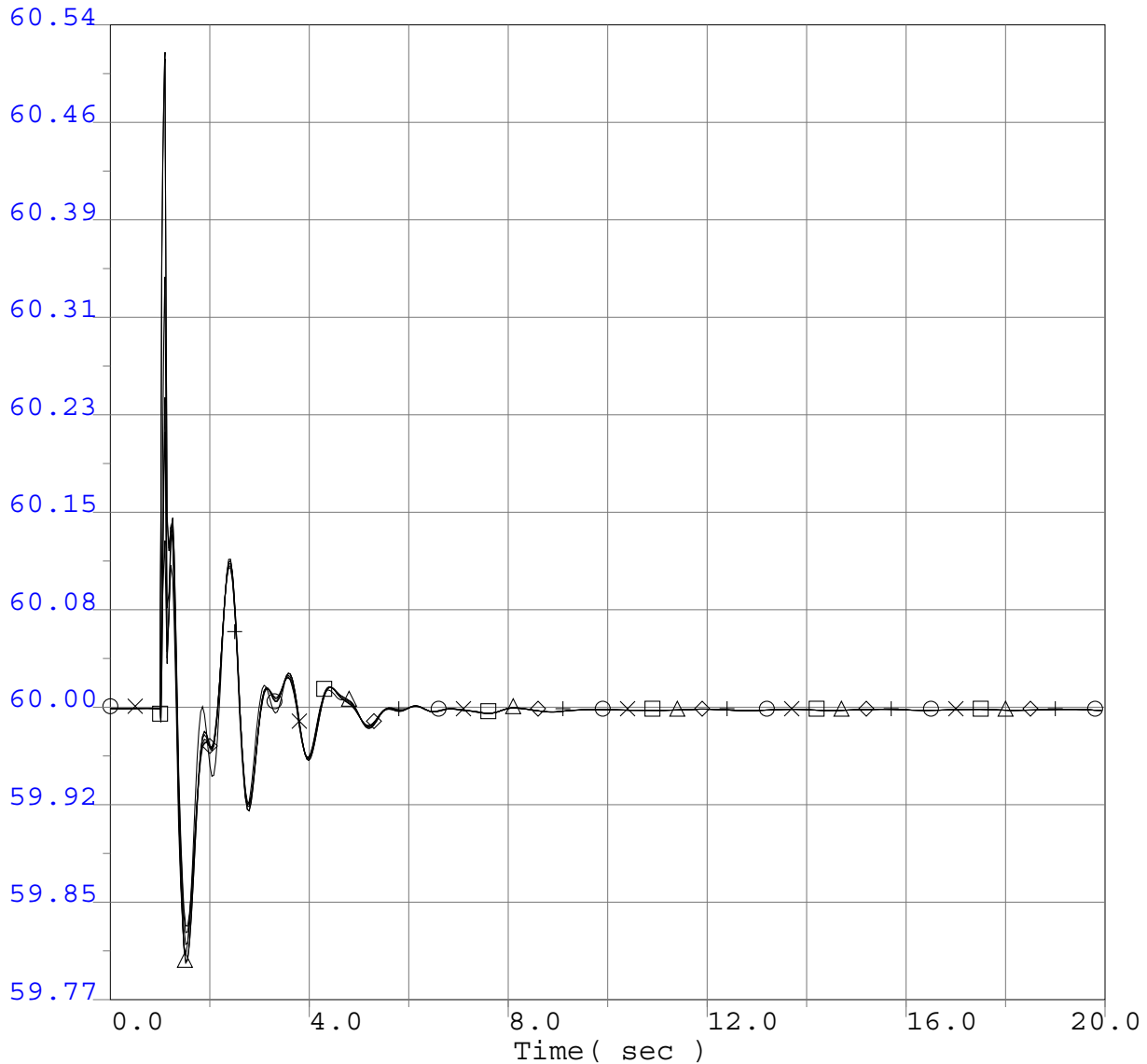
○	0.0000 vbus	33549	SCHULTE 115.0	0	0.0	""	1	1.1000
○	0.0000 vbus	33540	TESLA 115.0	0	0.0	""	1	1.1000
□	0.0000 vbus	33514	MANTECA 115.0	0	0.0	""	1	1.1000
△	0.0000 vbus	33529	LAMMERS 115.0	0	0.0	""	1	1.1000
◇	0.0000 vbus	33528	KASSON 115.0	0	0.0	""	1	1.1000
+	0.0000 vbus	33518	VIERRA 115.0	0	0.0	""	1	1.1000

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 1 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 1



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Frequency Plots Adjacent to Fault

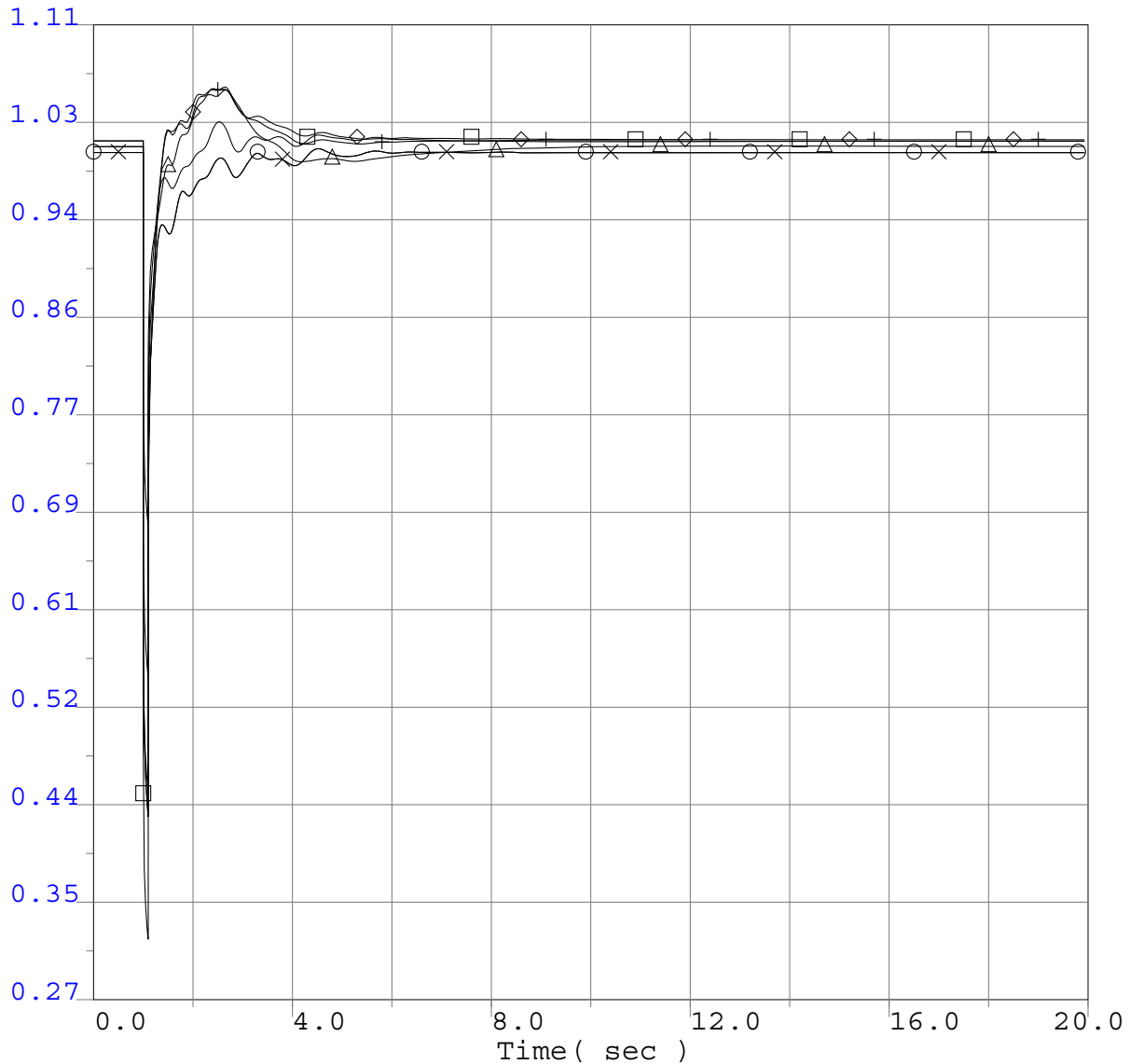


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 1 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 1



Q268 Project Interconnection System Impact Study

Project Generator Terminal Voltages



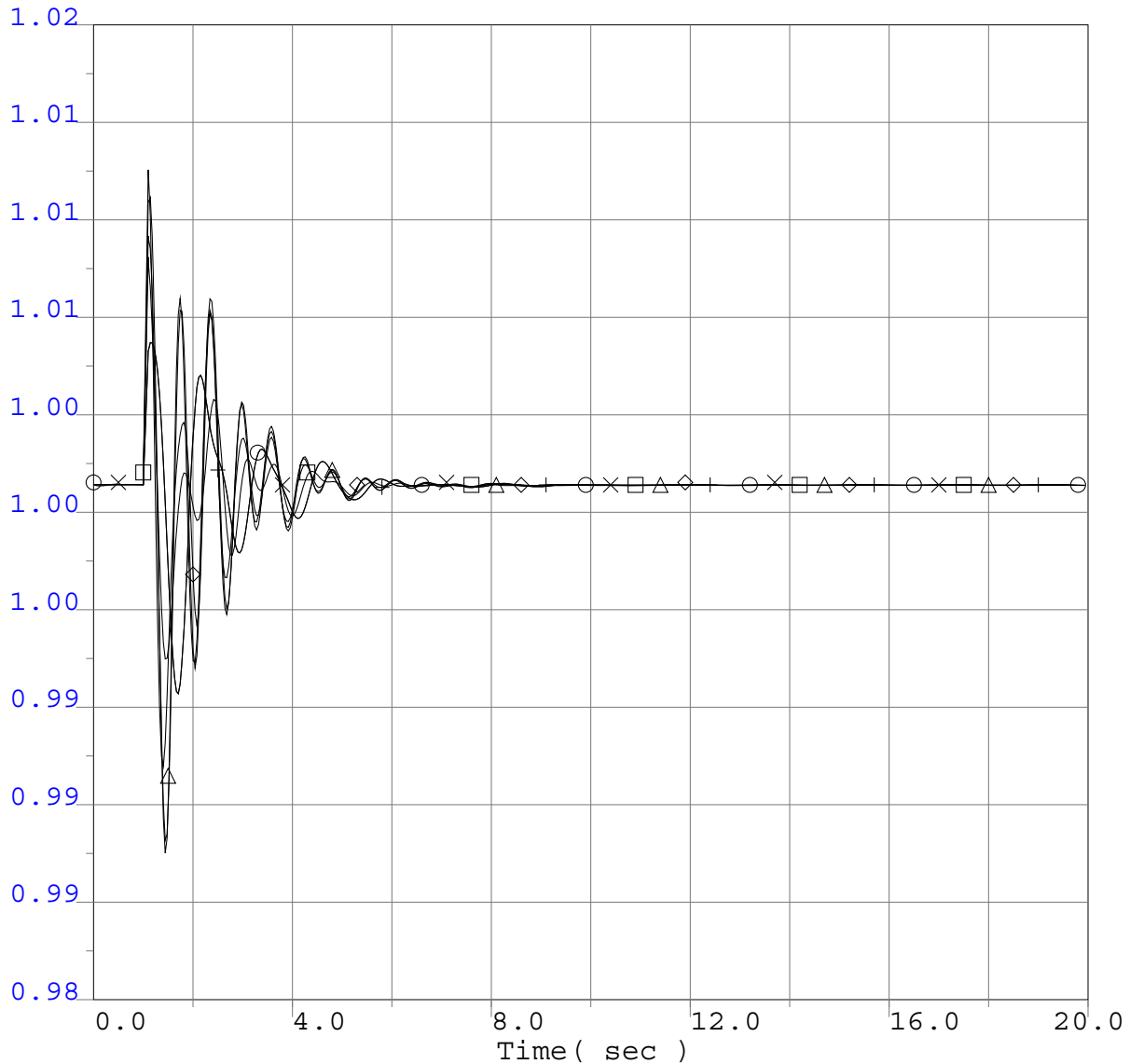
○	0.2700 vt	33805	GWTRCY1	13.8	0	0.0	"1"	1	1.1100
□	0.2700 vt	33807	GWTRCY2	13.8	0	0.0	"1"	1	1.1100
△	0.2700 vt	33809	Q268ST1	13.8	0	0.0	"1"	1	1.1100
◇	0.2700 vt	33858	P0409CG2	13.8	0	0.0	"1"	1	1.1100
+	0.2700 vt	33808	SJ COGEN	13.8	0	0.0	"1"	1	1.1100
×	0.2700 vt	33810	SP CMPNY	13.8	0	0.0	"1"	1	1.1100

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 1 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 1



Q268 Project Interconnection System Impact Study

Project Generator Rotor Speed



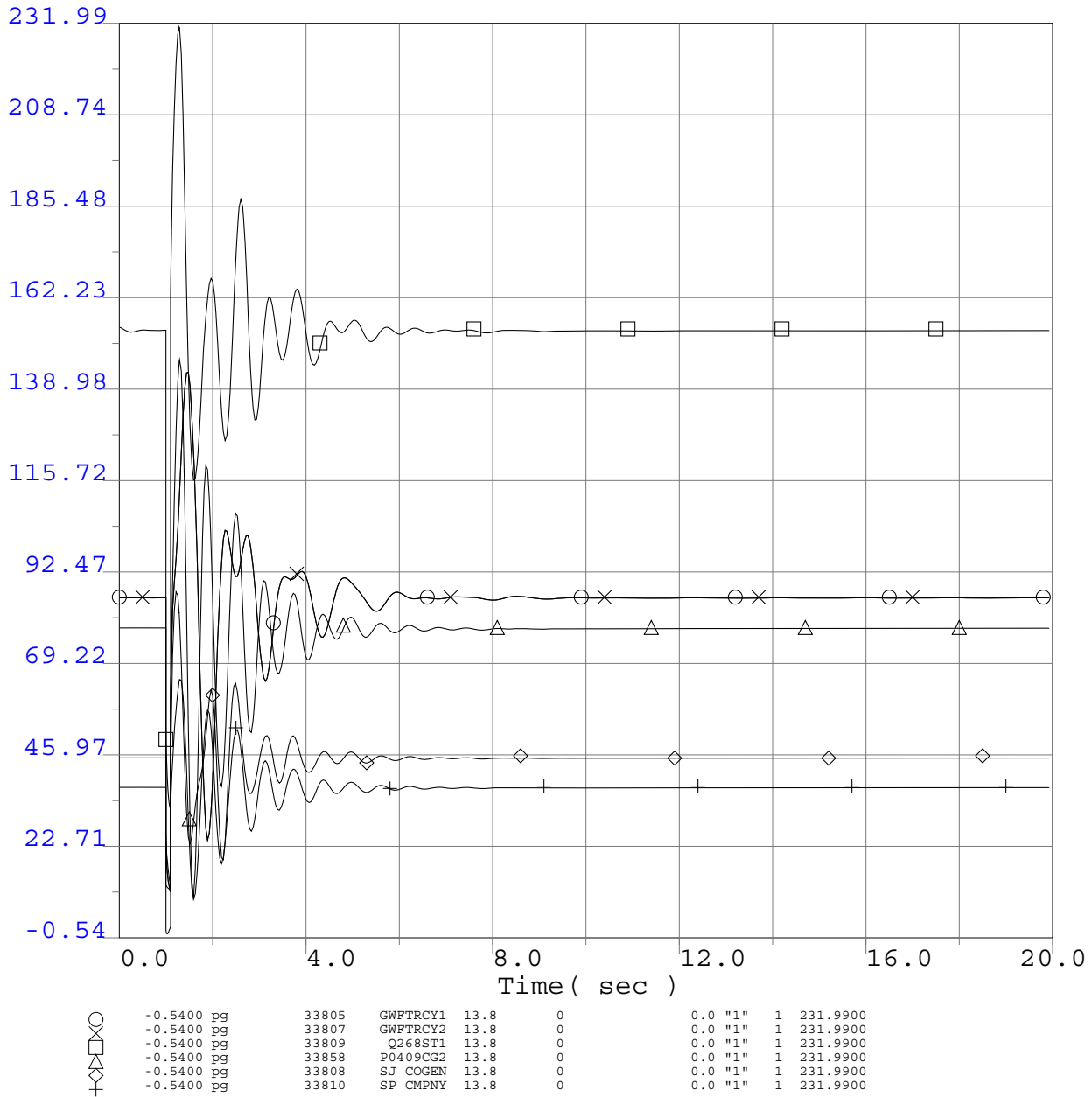
○	0.9823 spd	33805	GWTRCY1	13.8	0	0.0	"1"	1	1.0158
□	0.9823 spd	33807	GWTRCY2	13.8	0	0.0	"1"	1	1.0158
△	0.9823 spd	33809	Q268ST1	13.8	0	0.0	"1"	1	1.0158
◇	0.9823 spd	33858	P0409CG2	13.8	0	0.0	"1"	1	1.0158
+	0.9823 spd	33808	SJ COGEN	13.8	0	0.0	"1"	1	1.0158
○	0.9823 spd	33810	SF CMPNY	13.8	0	0.0	"1"	1	1.0158

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 1 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 1



Q268 Project Interconnection System Impact Study

Project Generator Terminal Power

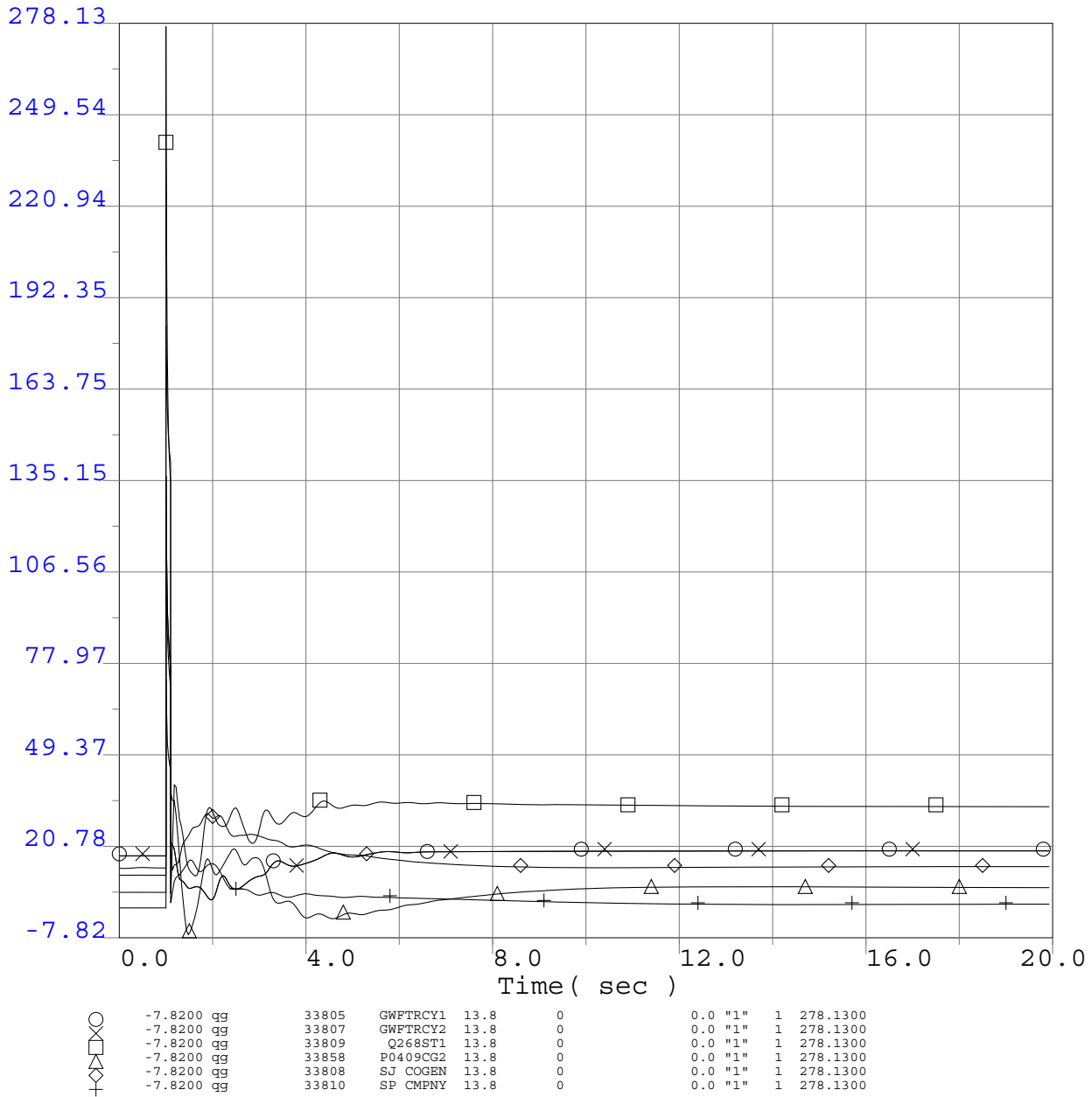


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 1 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 1



Q268 Project Interconnection System Impact Study

Project Generator Terminal Reactive Power

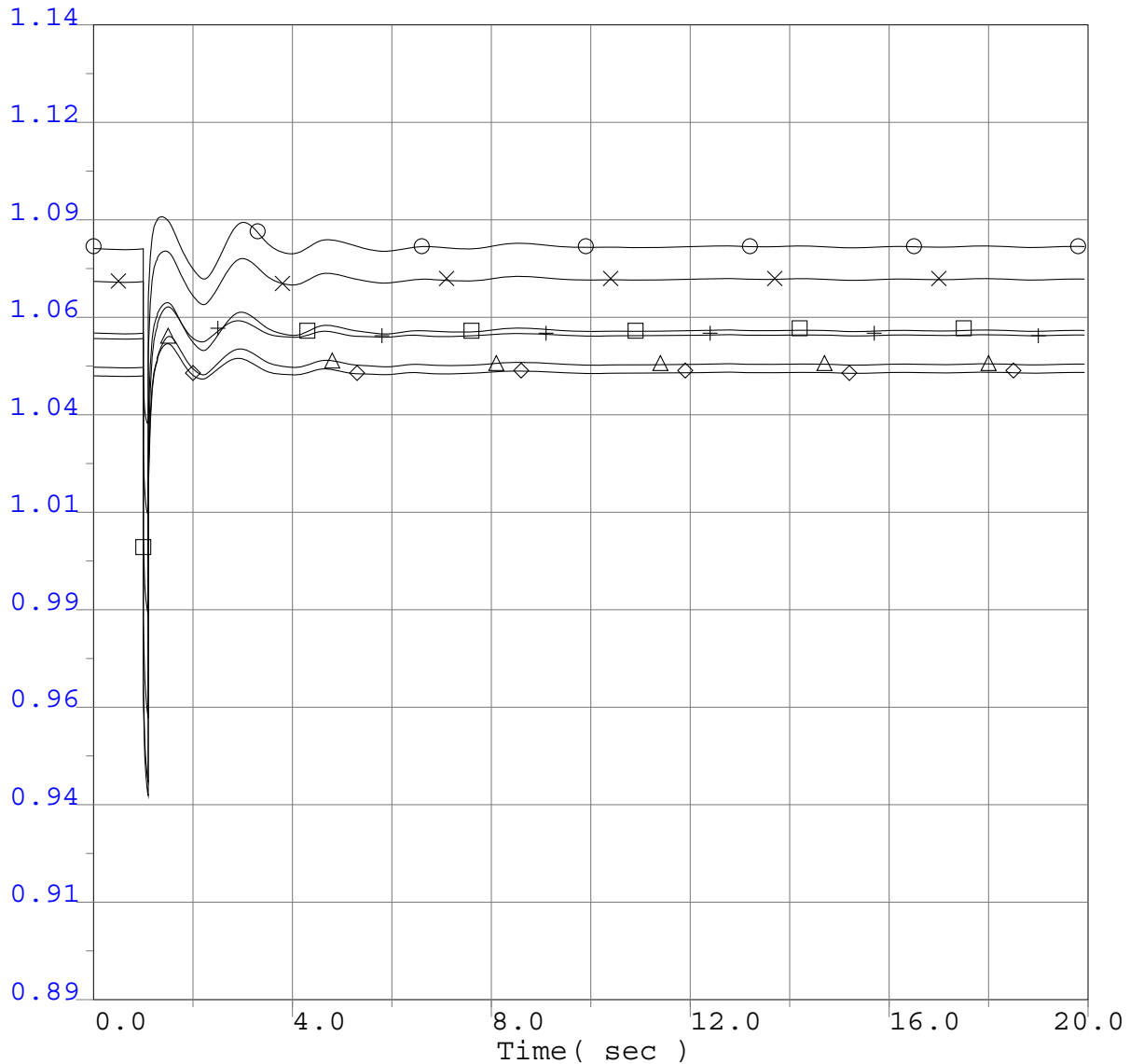


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 1 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 1



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots



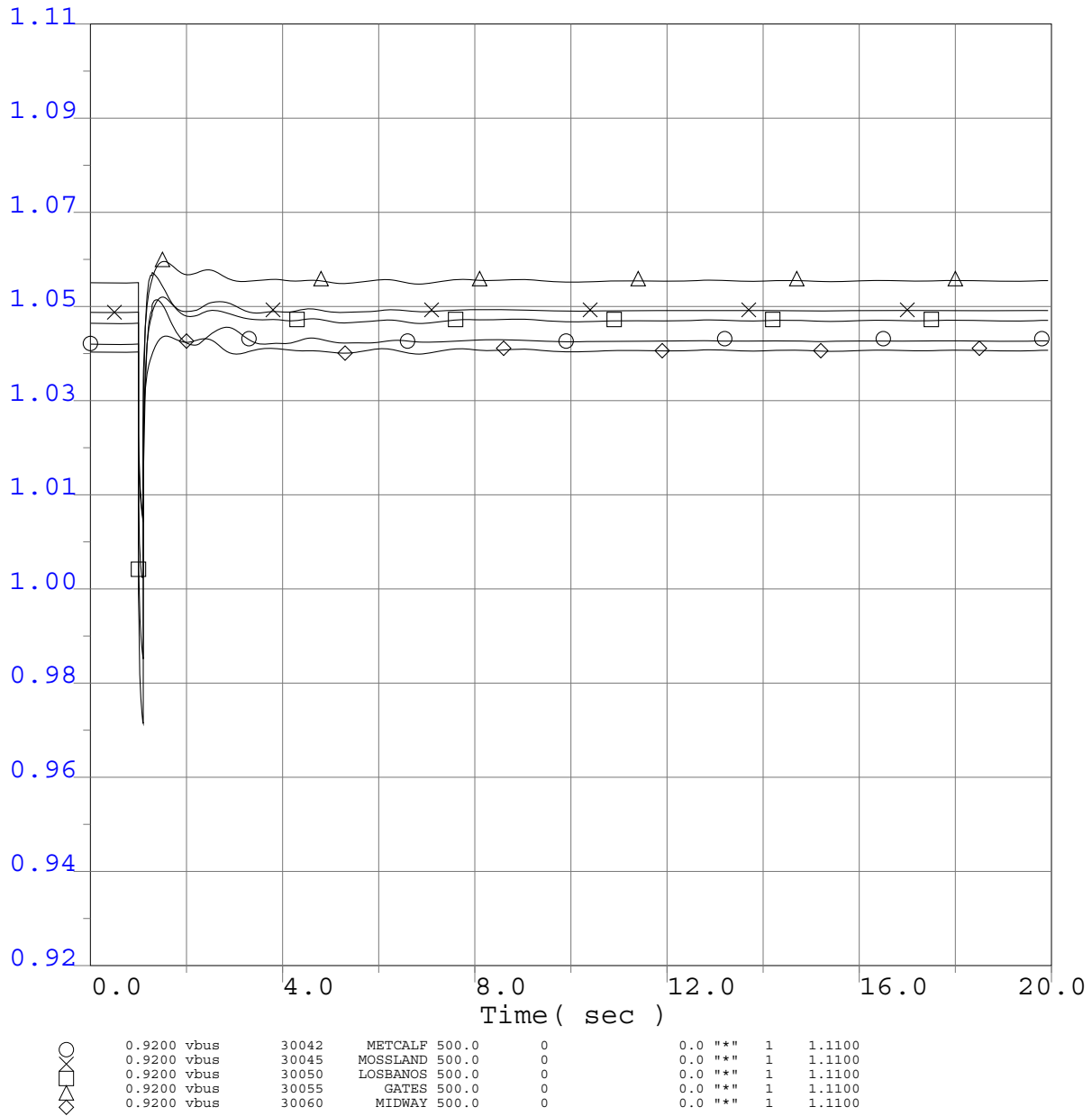
○	0.8900 vbus	40687	MALIN 500.0	0	0.0	""	1	1.1400
×	0.8900 vbus	30005	ROUND MT 500.0	0	0.0	""	1	1.1400
□	0.8900 vbus	30015	TABLE MT 500.0	0	0.0	""	1	1.1400
△	0.8900 vbus	30030	VACA-DIX 500.0	0	0.0	""	1	1.1400
◇	0.8900 vbus	30040	TESLA 500.0	0	0.0	""	1	1.1400
+	0.8900 vbus	30035	TRACY 500.0	0	0.0	""	1	1.1400

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 1 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 1



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

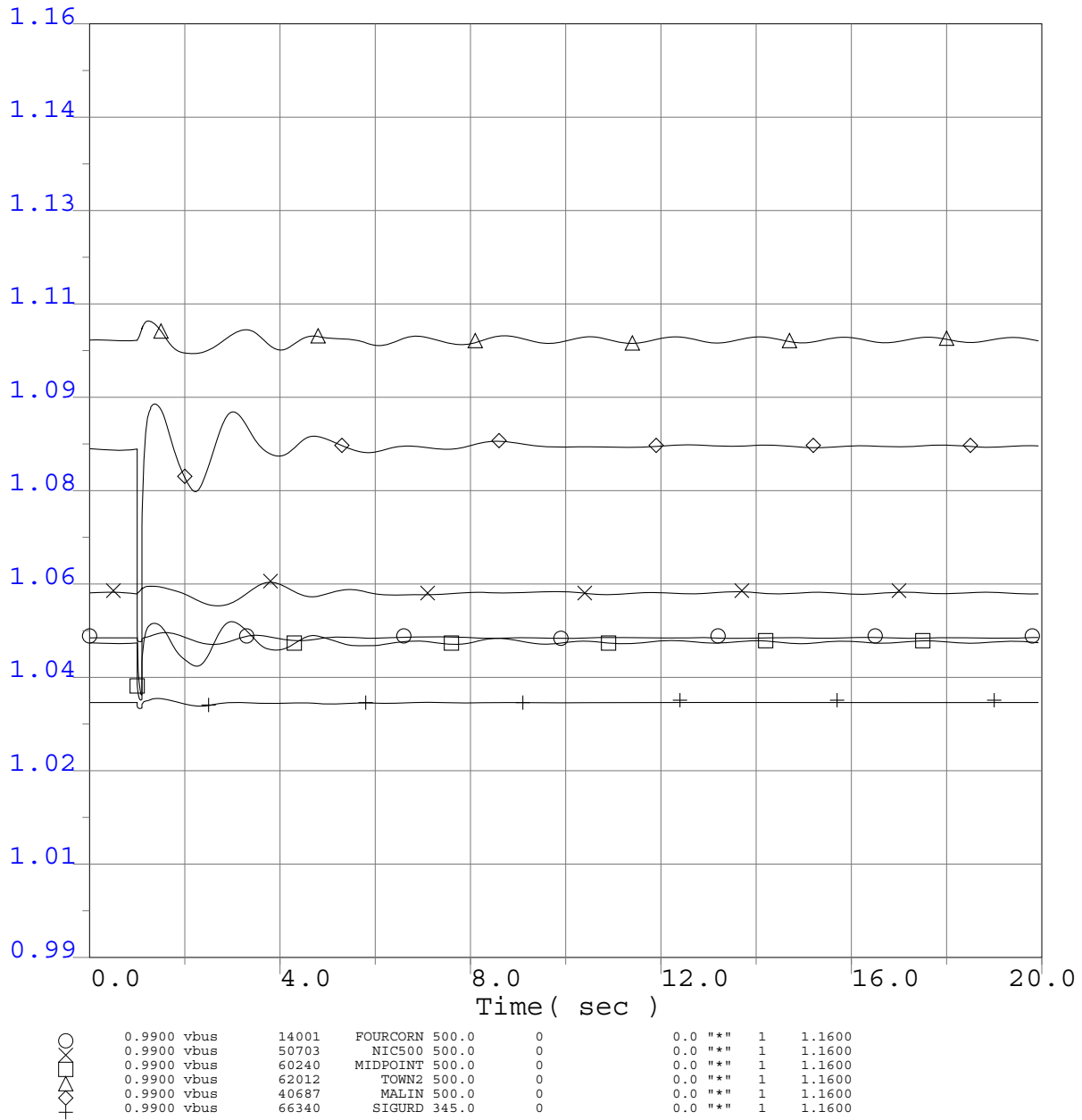


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 1 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 1



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

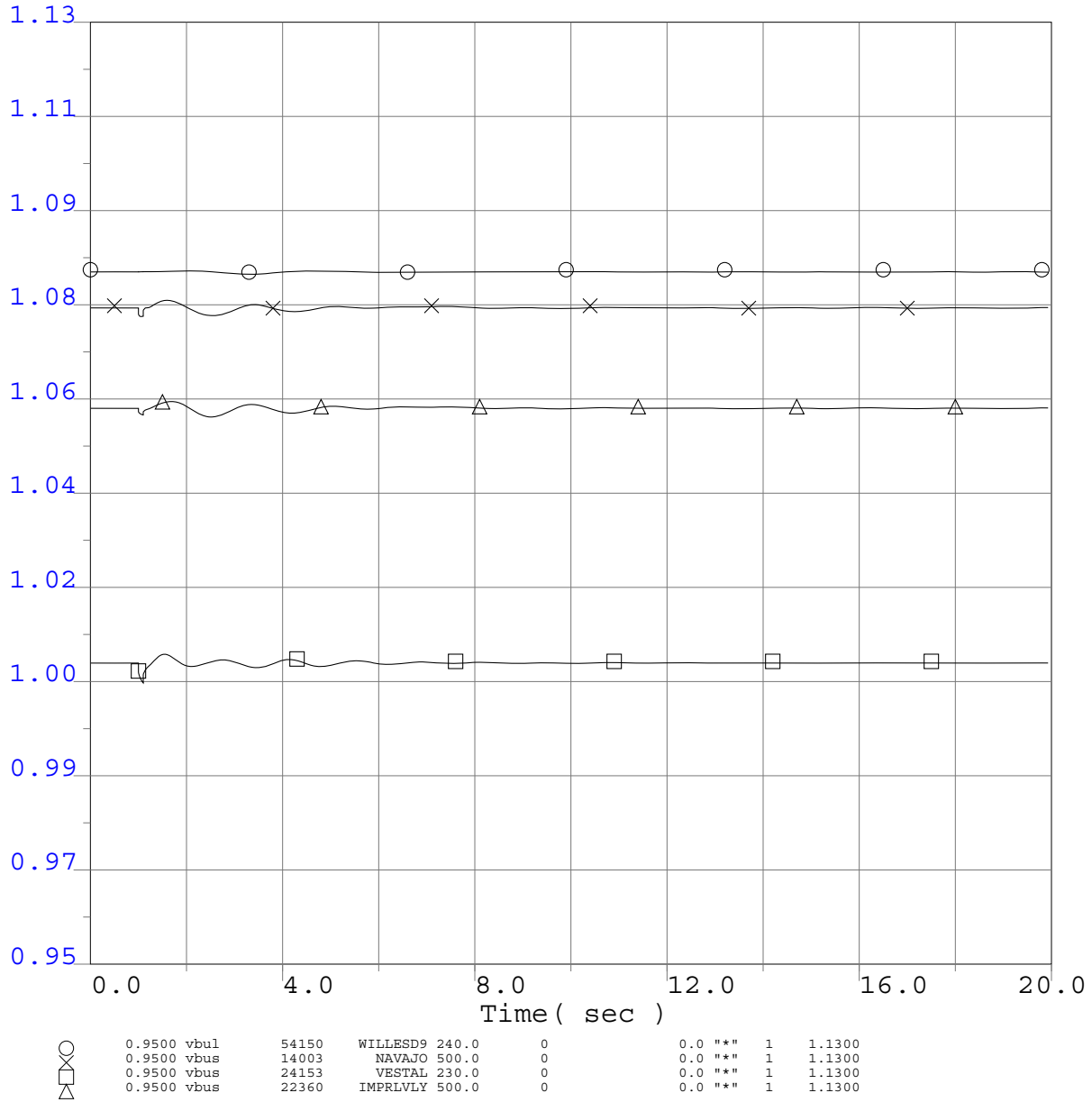


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 1 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 1



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

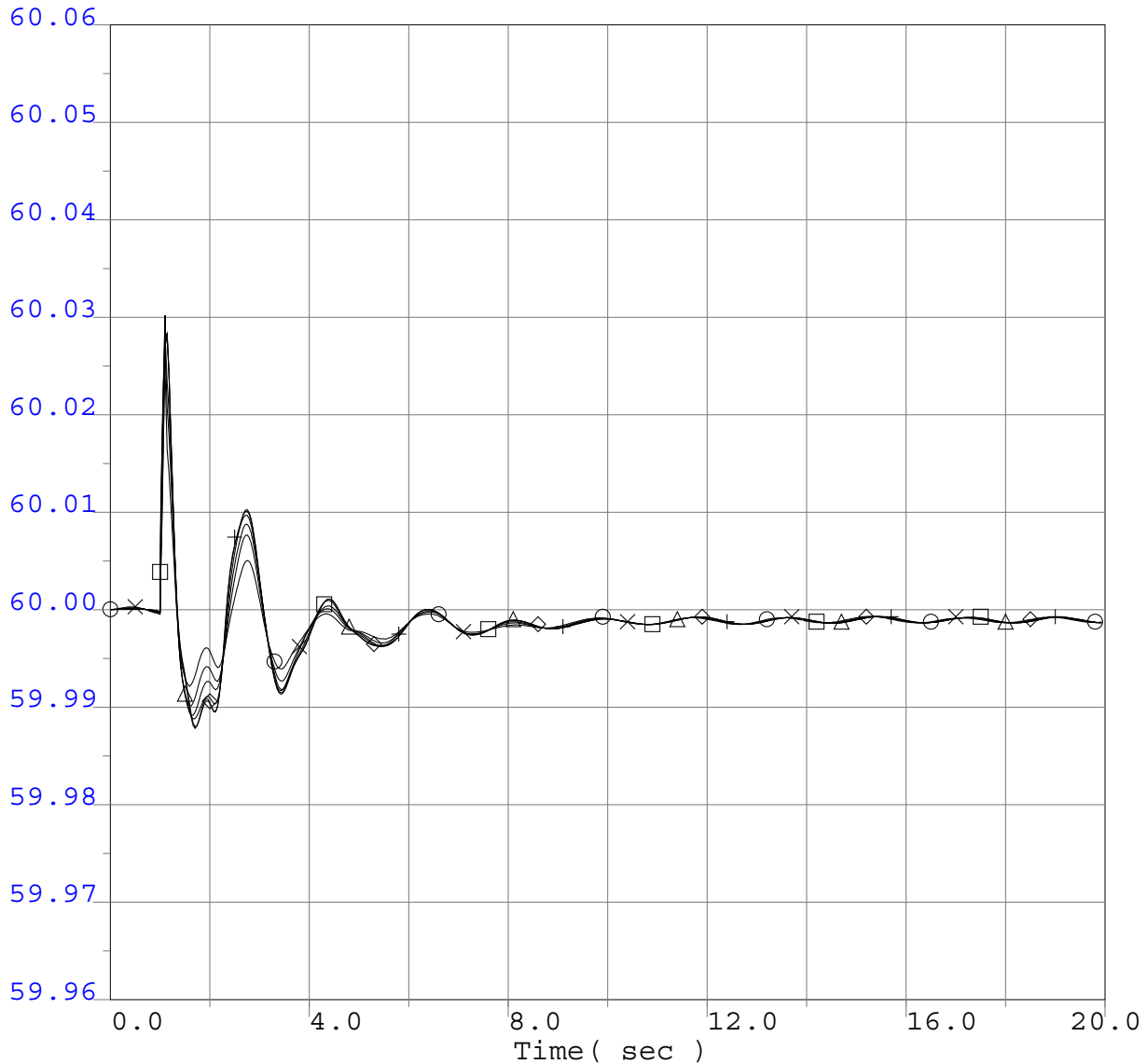


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 1 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 1



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



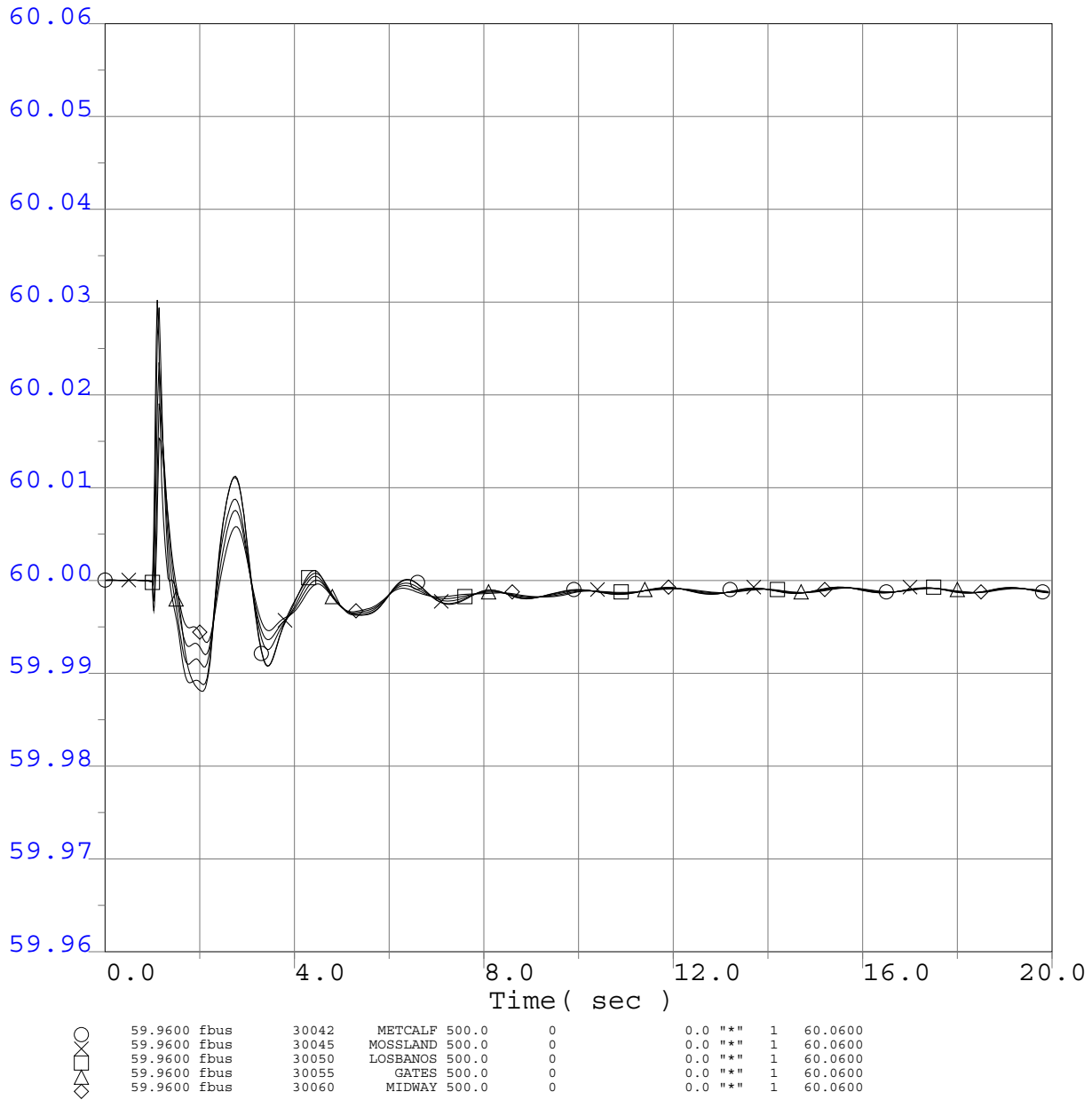
○	59.9600 Ebus	40687	MALIN 500.0	0	0.0	""	1	60.0600
□	59.9600 Ebus	30005	ROUND MT 500.0	0	0.0	""	1	60.0600
△	59.9600 Ebus	30015	TABLE MT 500.0	0	0.0	""	1	60.0600
◇	59.9600 Ebus	30030	VACA-DIX 500.0	0	0.0	""	1	60.0600
+	59.9600 Ebus	30040	TESLA 500.0	0	0.0	""	1	60.0600
×	59.9600 Ebus	30035	TRACY 500.0	0	0.0	""	1	60.0600

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 1 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 1



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots

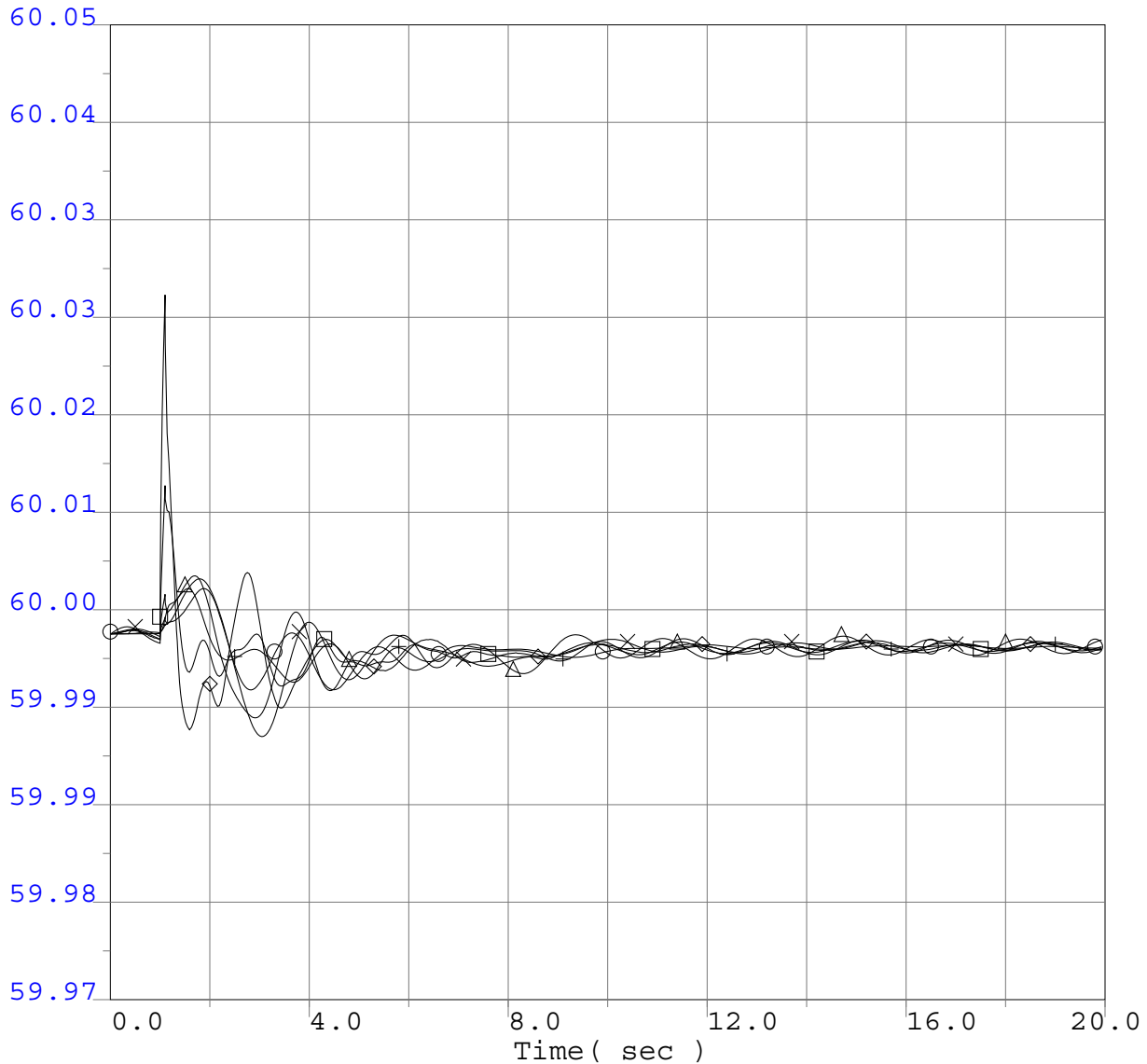


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 1 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 1



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



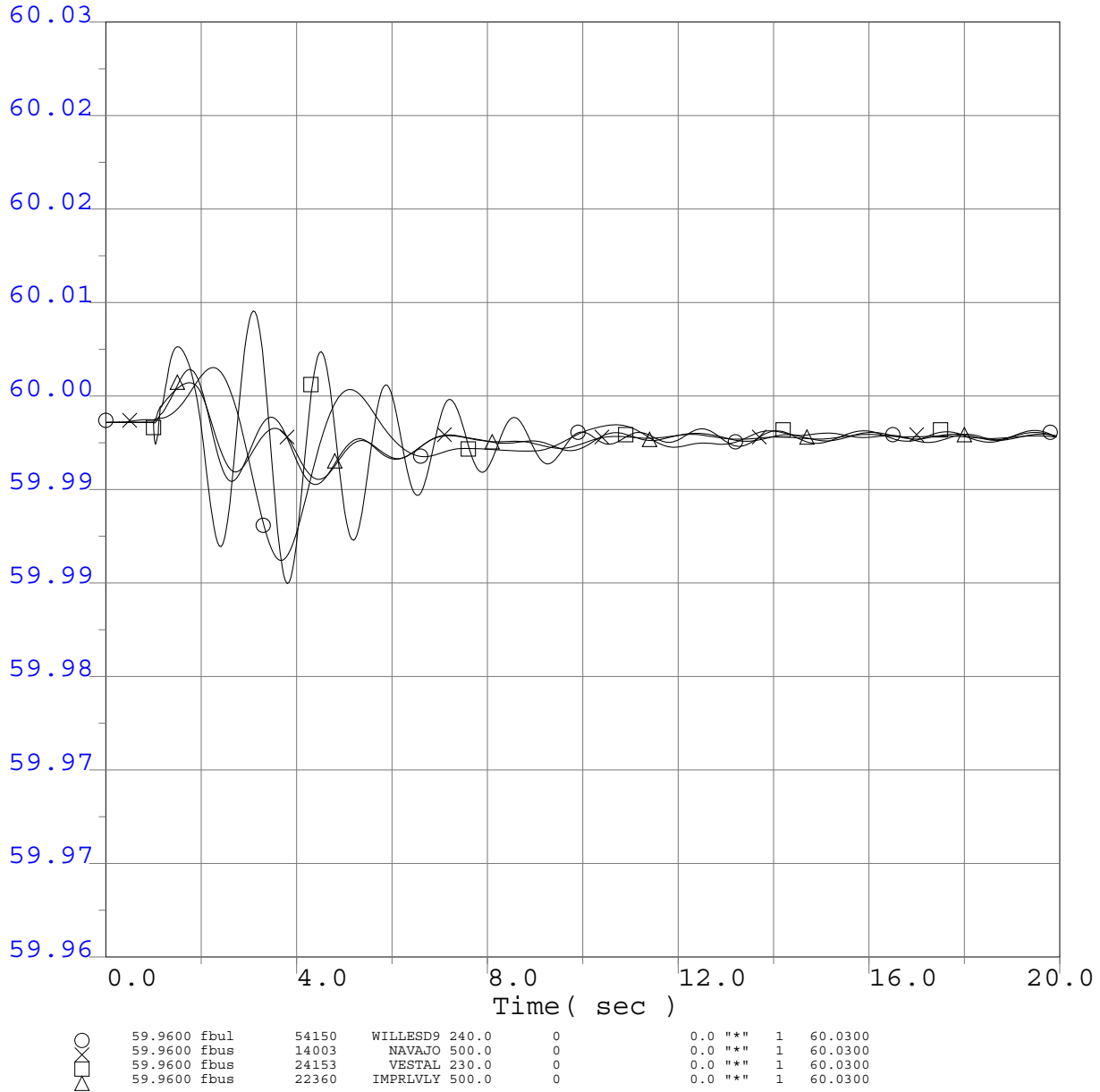
○	59.9700 Ebus	14001	FOURCORN	500.0	0	0.0	"**"	1	60.0500
□	59.9700 Ebus	50703	NIC500	500.0	0	0.0	"**"	1	60.0500
△	59.9700 Ebus	60240	MIDPOINT	500.0	0	0.0	"**"	1	60.0500
◇	59.9700 Ebus	62012	TOWN2	500.0	0	0.0	"**"	1	60.0500
+	59.9700 Ebus	40687	MALIN	500.0	0	0.0	"**"	1	60.0500
×	59.9700 Ebus	66340	SIGURD	345.0	0	0.0	"**"	1	60.0500

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 1 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 1



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots

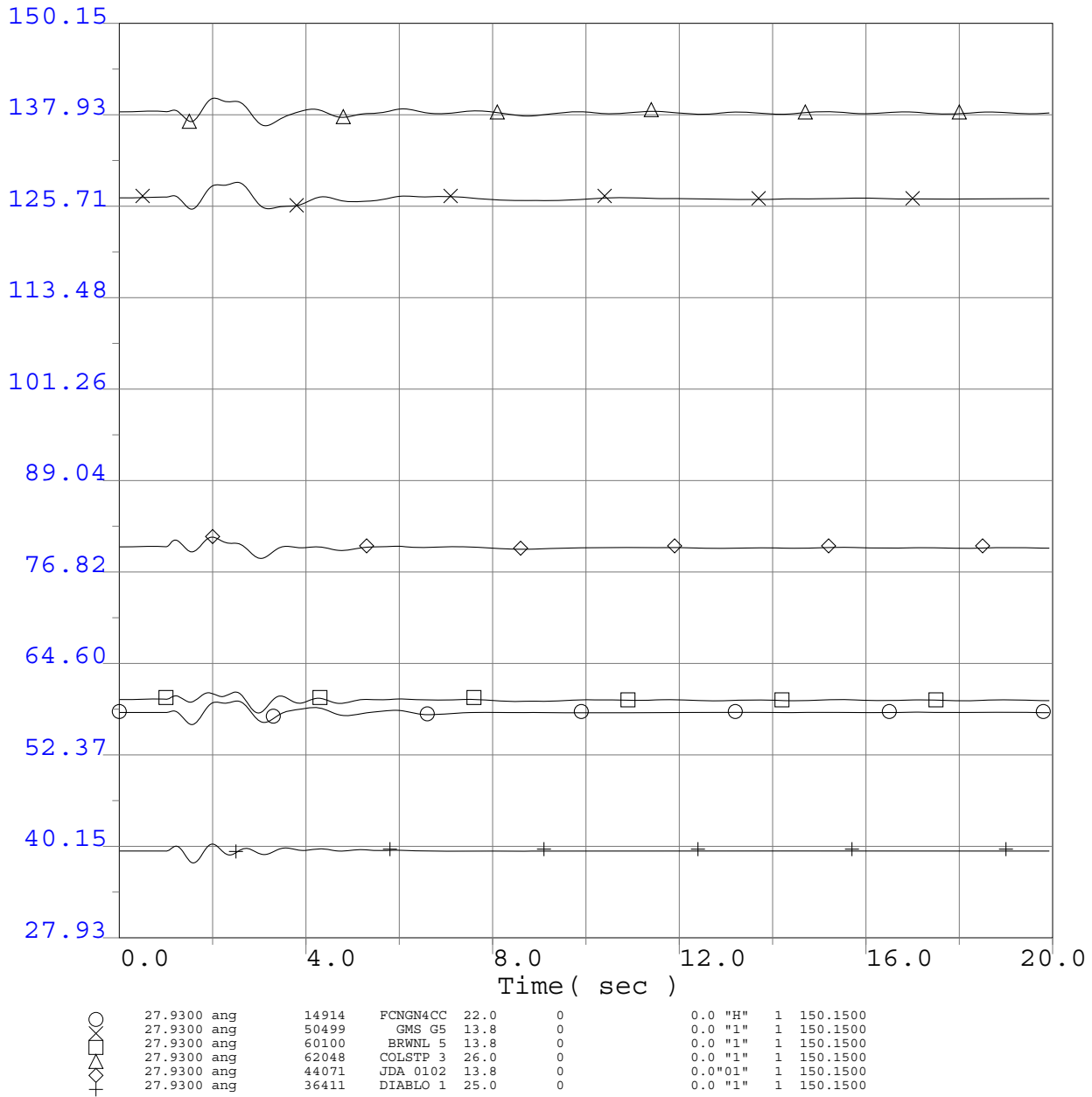


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 1 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 1



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle

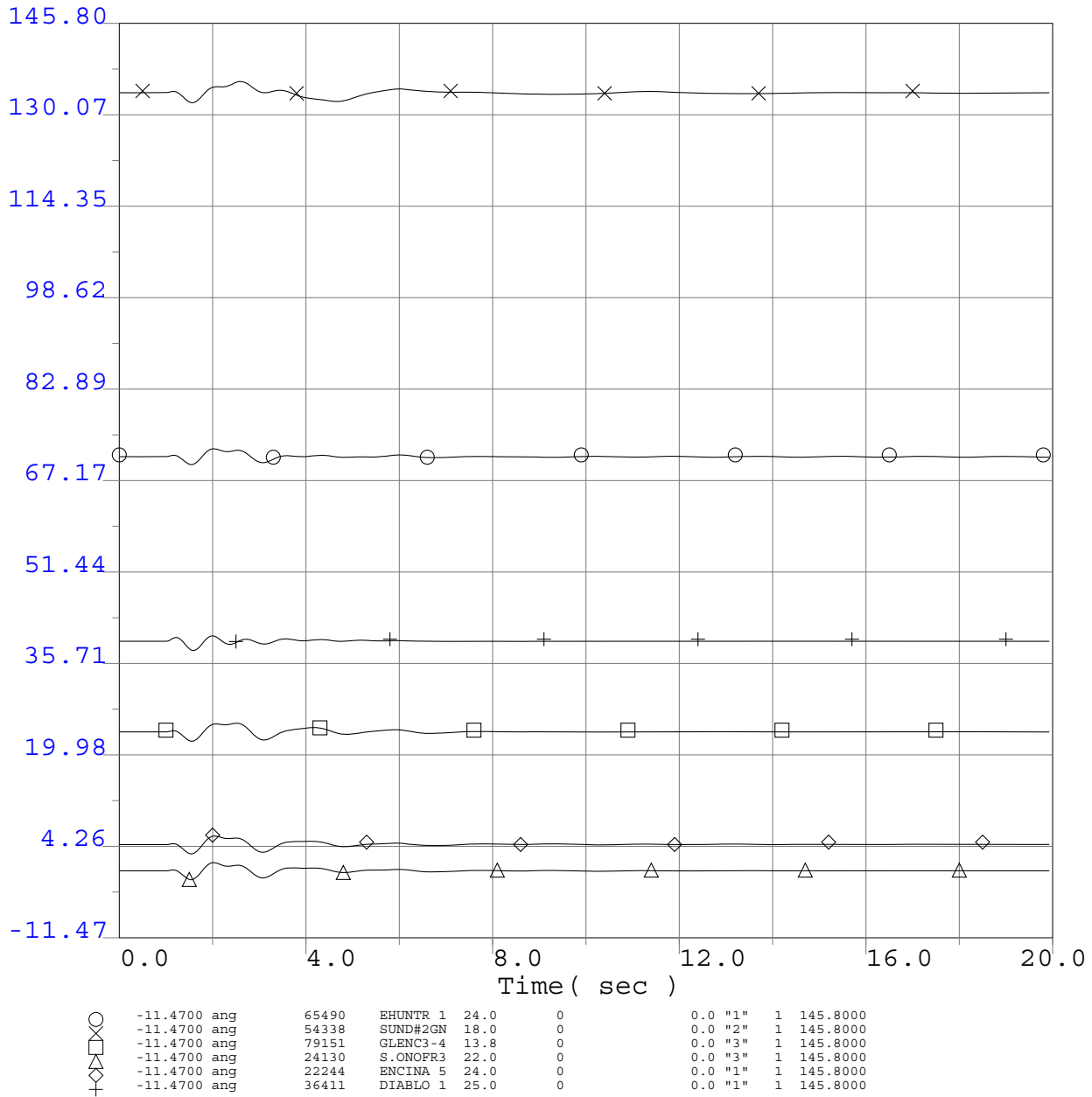


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 1 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 1



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle

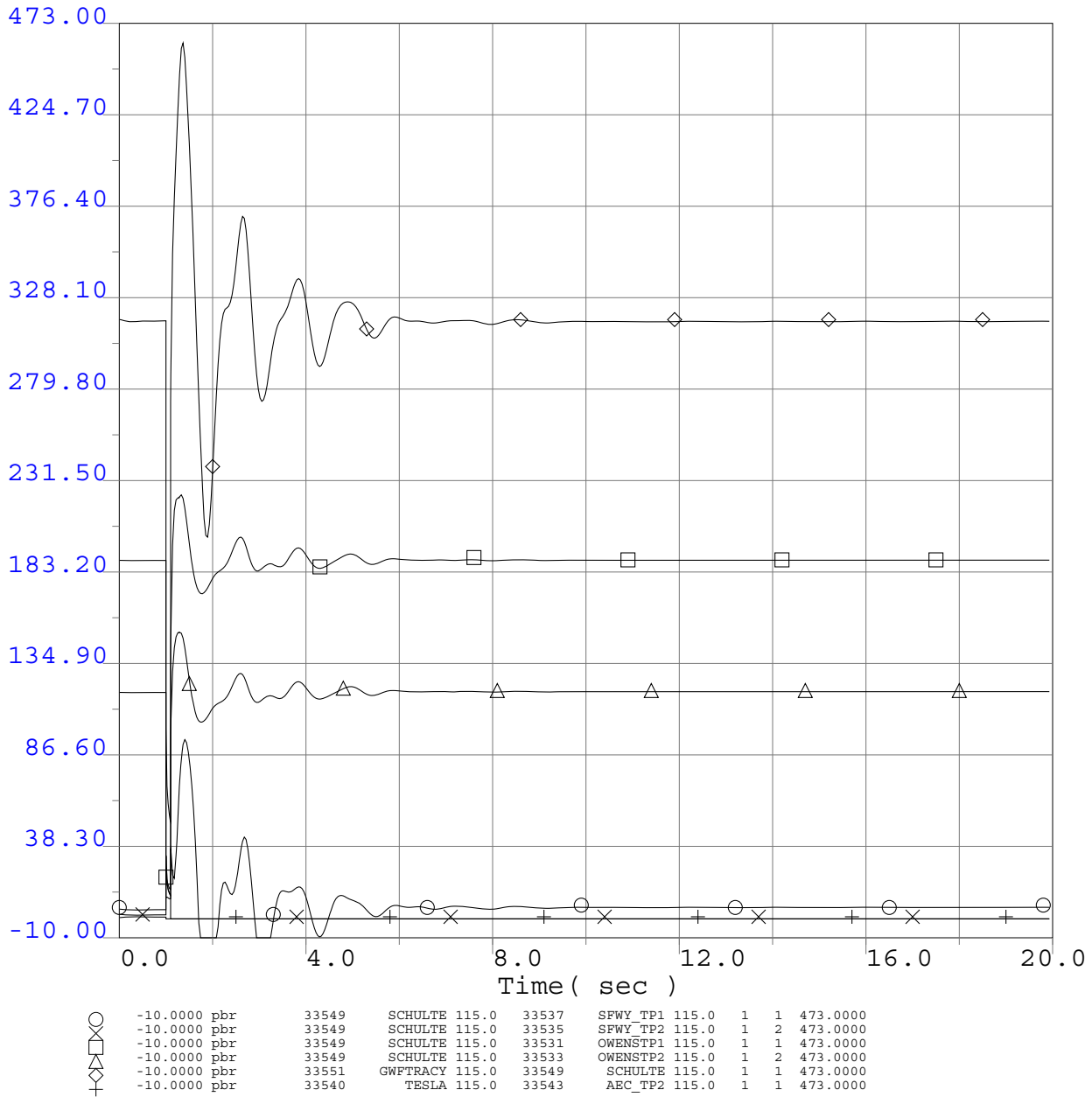


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 1 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 1



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)

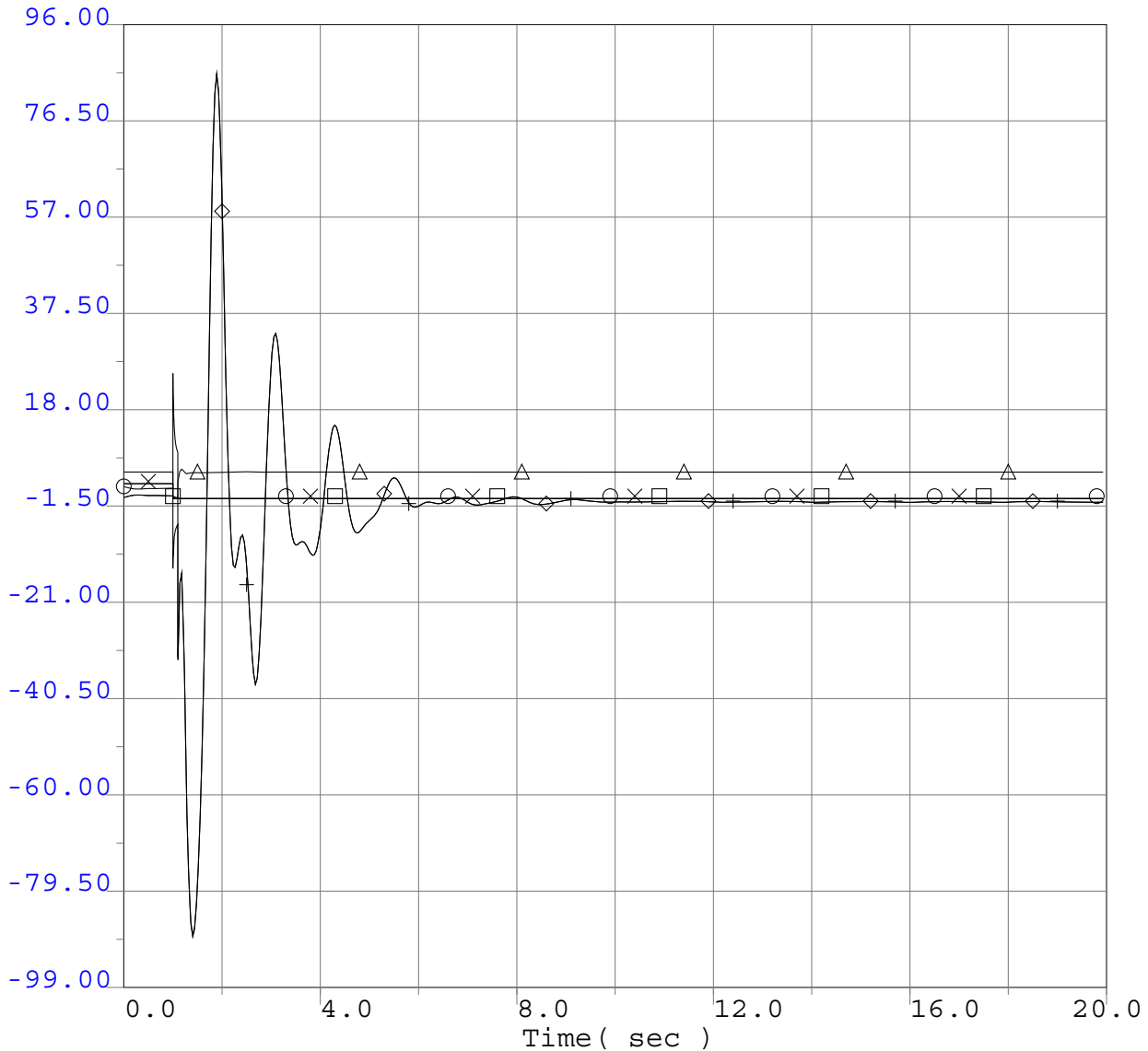


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 1 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 1



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)



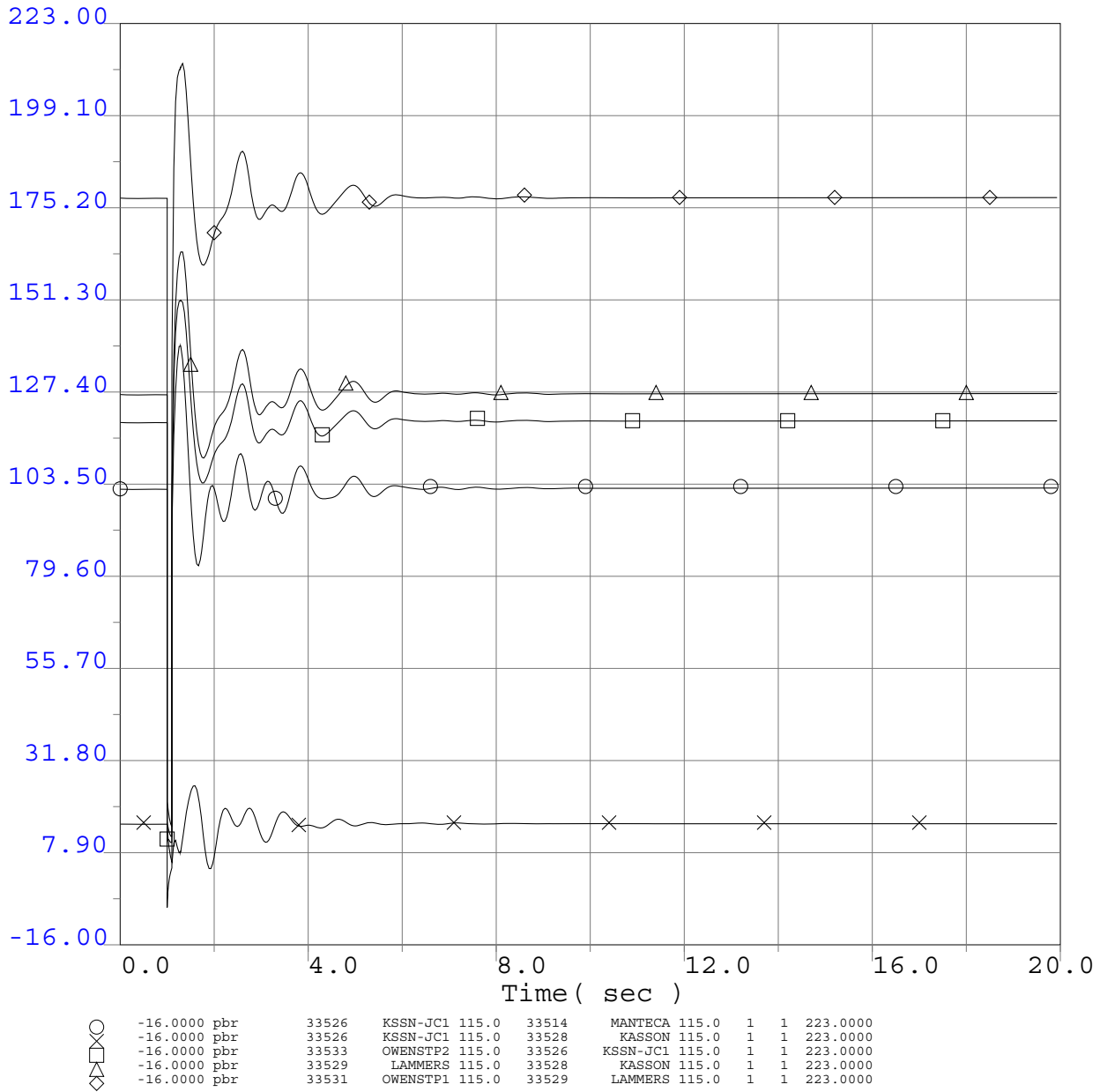
○	-99.0000 pbr	33535	SFWY_TP2 115.0	33543	AEC_TP2 115.0	1	1	96.0000
□	-99.0000 pbr	33543	AEC_TP2 115.0	33545	AEC_JCT 115.0	1	1	96.0000
△	-99.0000 pbr	33545	AEC_JCT 115.0	33547	AEC_300 115.0	1	1	96.0000
+	-99.0000 pbr	33537	SFWY_TP1 115.0	33534	SAFEWAY 115.0	1	1	96.0000
◇	-99.0000 pbr	33541	AEC_TP1 115.0	33537	SFWY_TP1 115.0	1	1	96.0000
×	-99.0000 pbr	33540	TESLA 115.0	33541	AEC_TP1 115.0	1	1	96.0000

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 1 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 1



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)

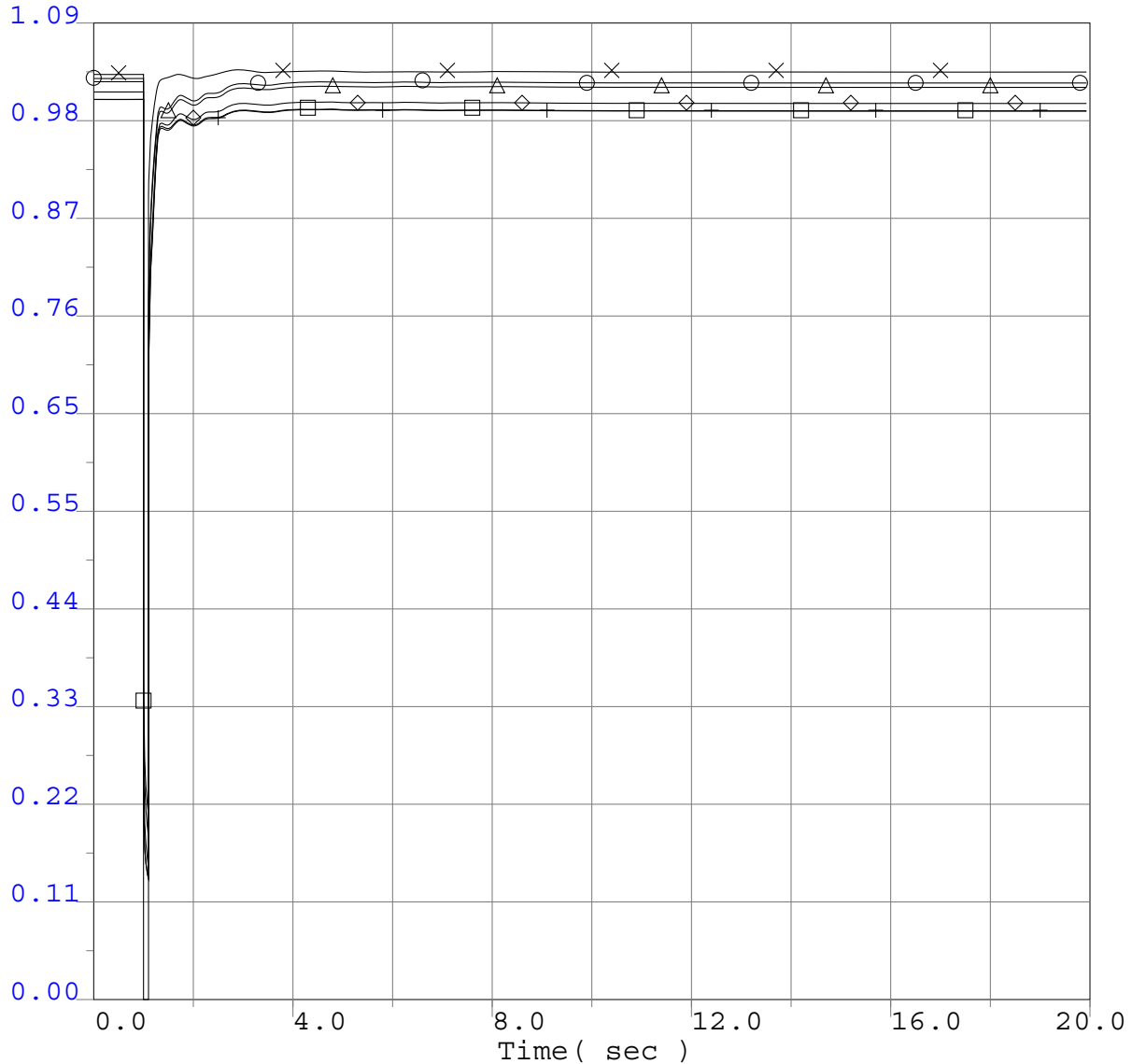


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 1 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 1



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Voltage Plots Adjacent to Fault



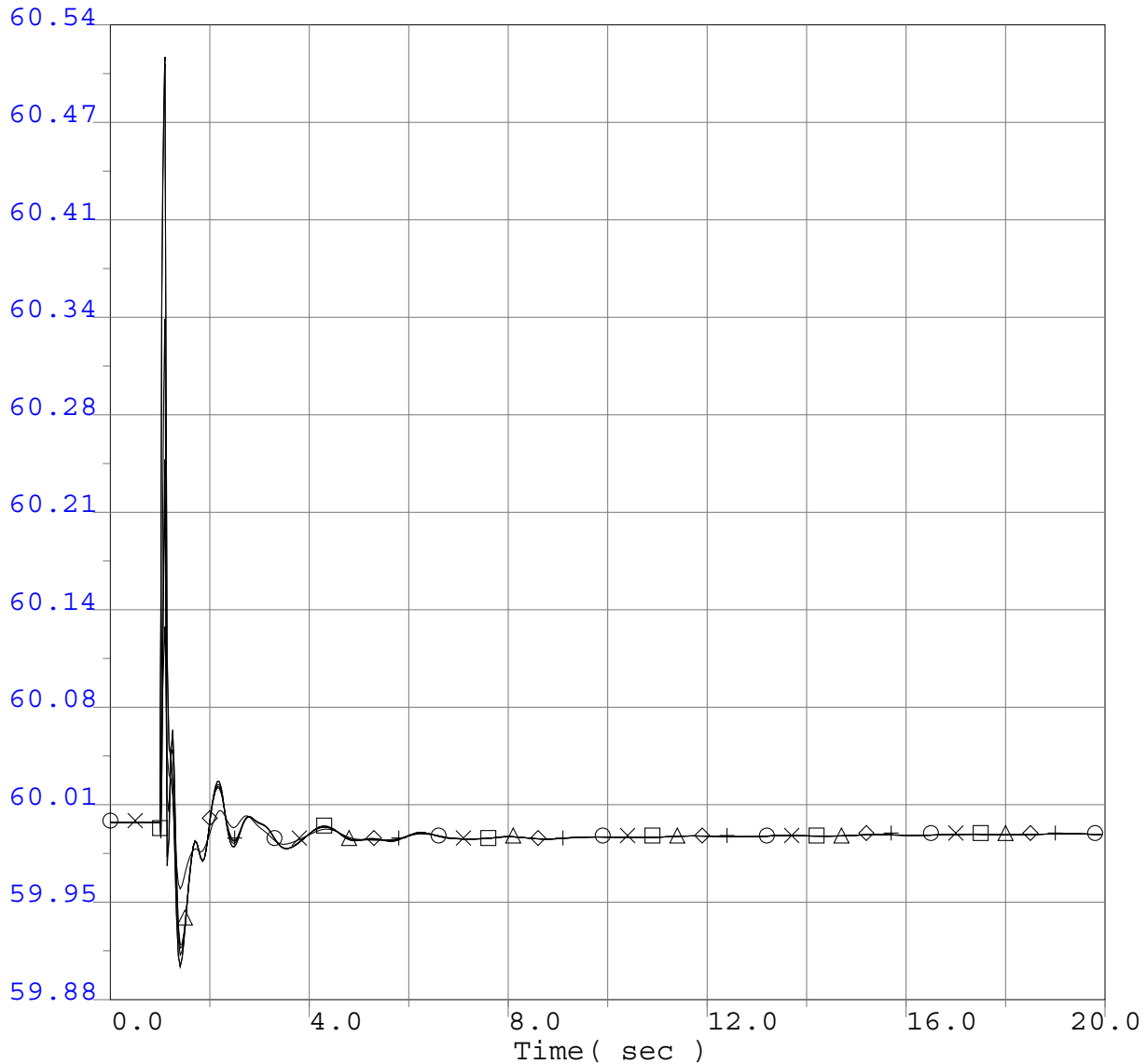
○	0.0000 vbus	33549	SCHULTE 115.0	0	0.0	""	1	1.0900
□	0.0000 vbus	33540	TESLA 115.0	0	0.0	""	1	1.0900
△	0.0000 vbus	33514	MANTECA 115.0	0	0.0	""	1	1.0900
◇	0.0000 vbus	33529	LAMMERS 115.0	0	0.0	""	1	1.0900
+	0.0000 vbus	33528	KASSON 115.0	0	0.0	""	1	1.0900
×	0.0000 vbus	33518	VIERRA 115.0	0	0.0	""	1	1.0900

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 2 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 2



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Frequency Plots Adjacent to Fault



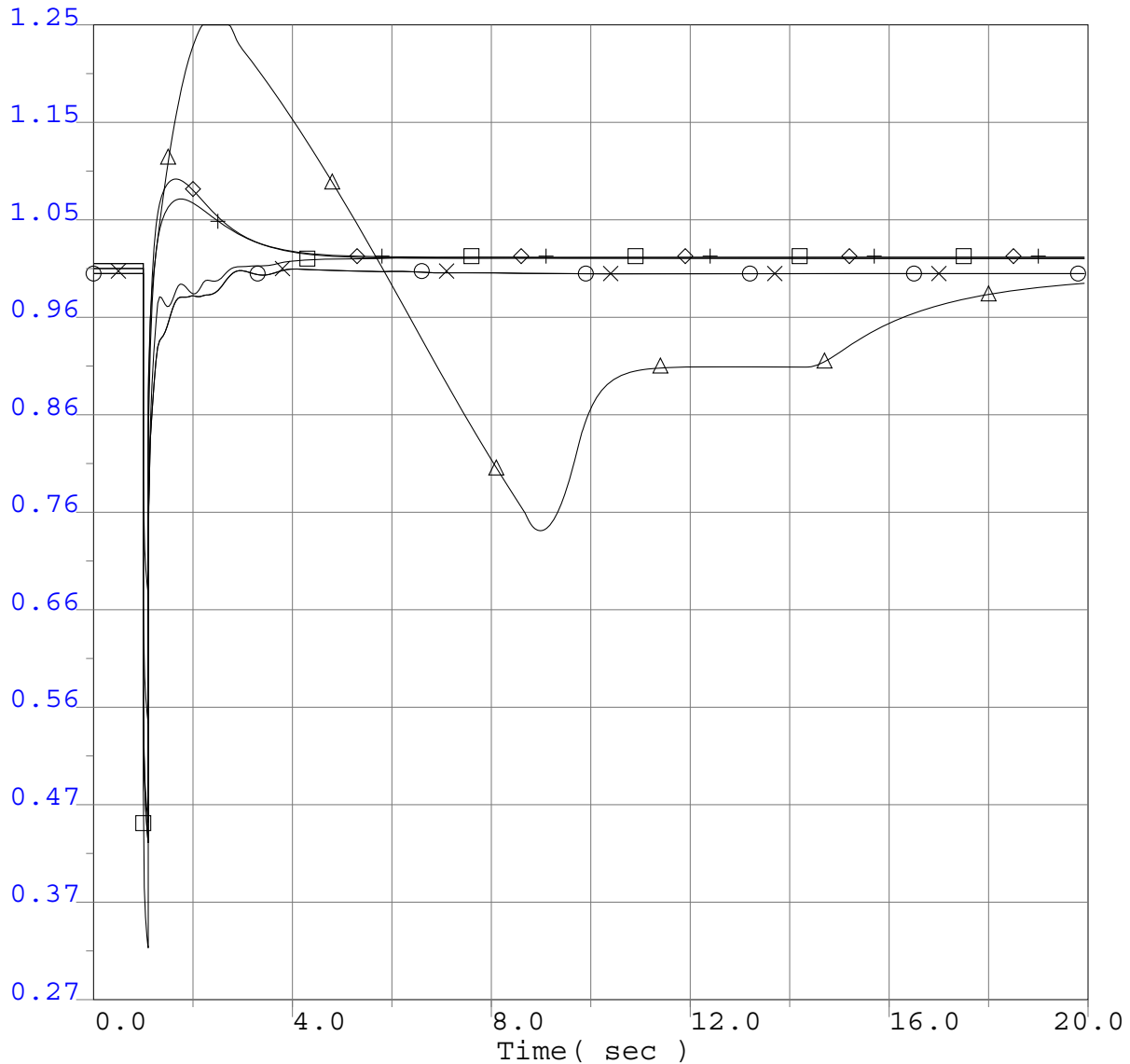
○	59.8800 Fbus	33549	SCHULTE 115.0	0	0.0	""	1	60.5400
×	59.8800 Fbus	33540	TESLA 115.0	0	0.0	""	1	60.5400
□	59.8800 Fbul	33514	MANTECA 115.0	0	0.0	""	1	60.5400
△	59.8800 Fbul	33529	LAMMERS 115.0	0	0.0	""	1	60.5400
◇	59.8800 Fbus	33528	KASSON 115.0	0	0.0	""	1	60.5400
+	59.8800 Fbul	33518	VIERRA 115.0	0	0.0	""	1	60.5400

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 2 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 2



Q268 Project Interconnection System Impact Study

Project Generator Terminal Voltages



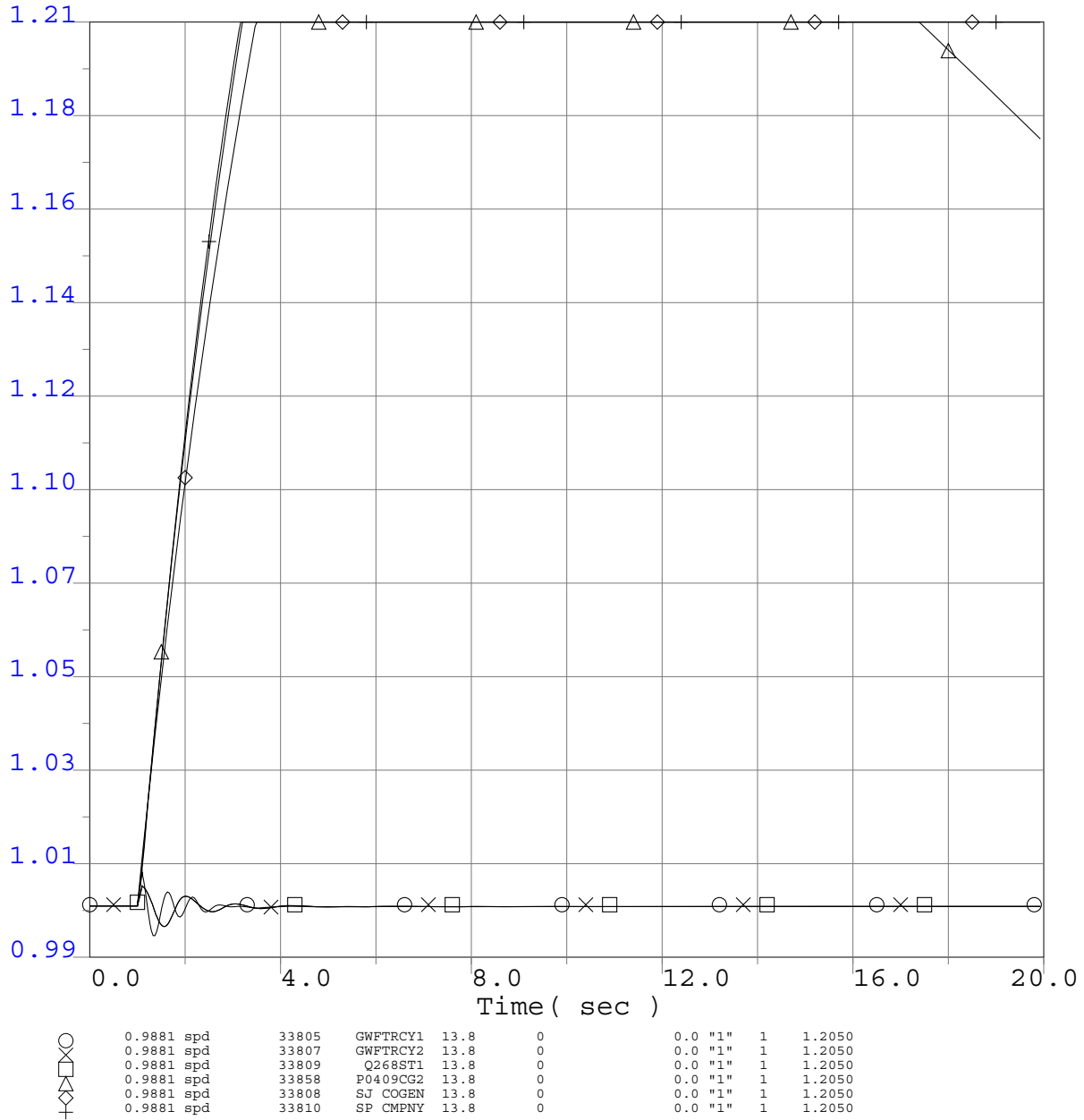
○	0.2700 vt	33805	GWFTRCY1	13.8	0	0.0	"1"	1	1.2500
○	0.2700 vt	33807	GWFTRCY2	13.8	0	0.0	"1"	1	1.2500
□	0.2700 vt	33809	Q268ST1	13.8	0	0.0	"1"	1	1.2500
○	0.2700 vt	33858	P0409CG2	13.8	0	0.0	"1"	1	1.2500
△	0.2700 vt	33808	SJ COGEN	13.8	0	0.0	"1"	1	1.2500
+	0.2700 vt	33810	SP CMPNY	13.8	0	0.0	"1"	1	1.2500

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 2 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 2



Q268 Project Interconnection System Impact Study

Project Generator Rotor Speed

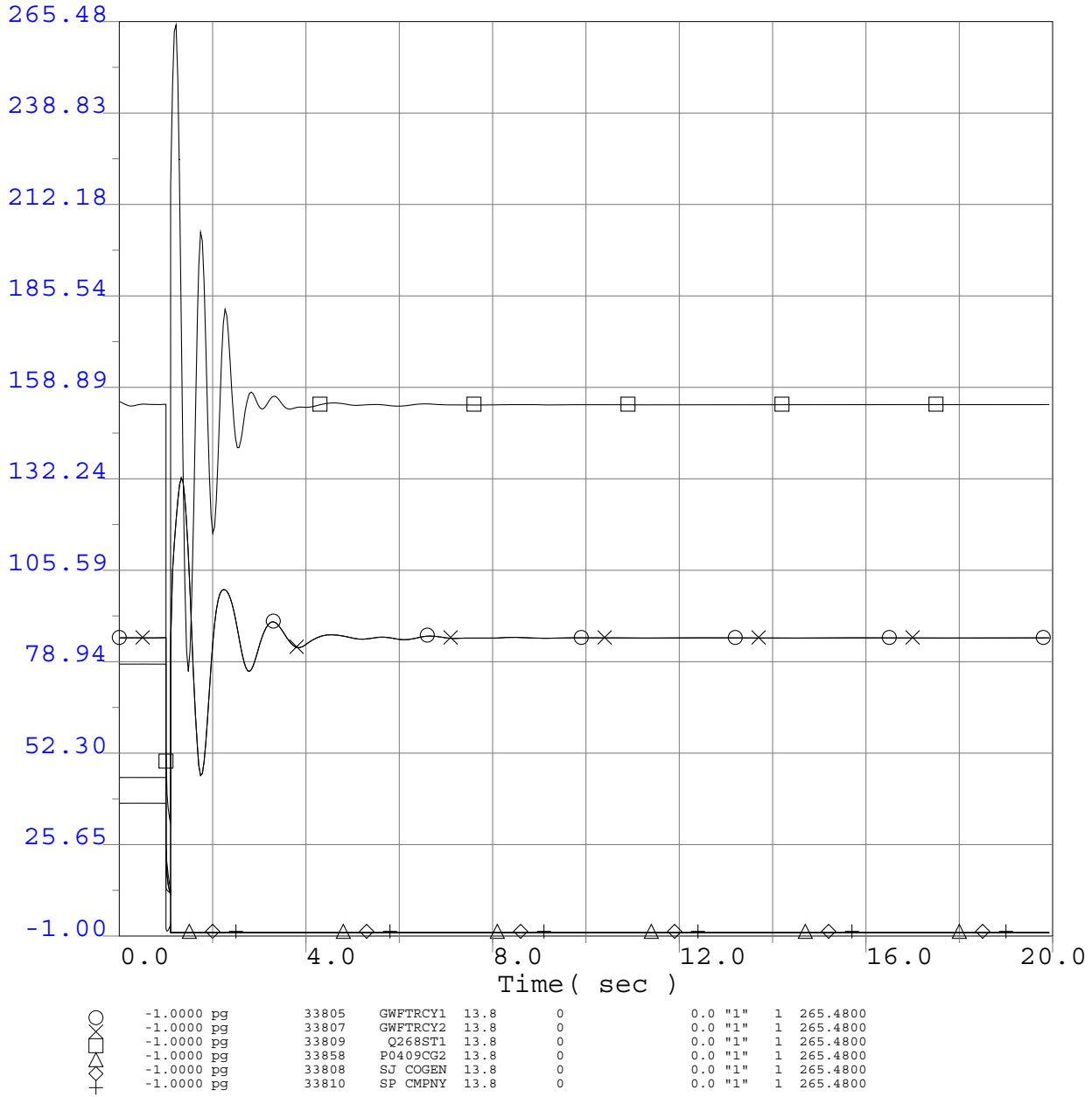


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 2 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 2



Q268 Project Interconnection System Impact Study

Project Generator Terminal Power

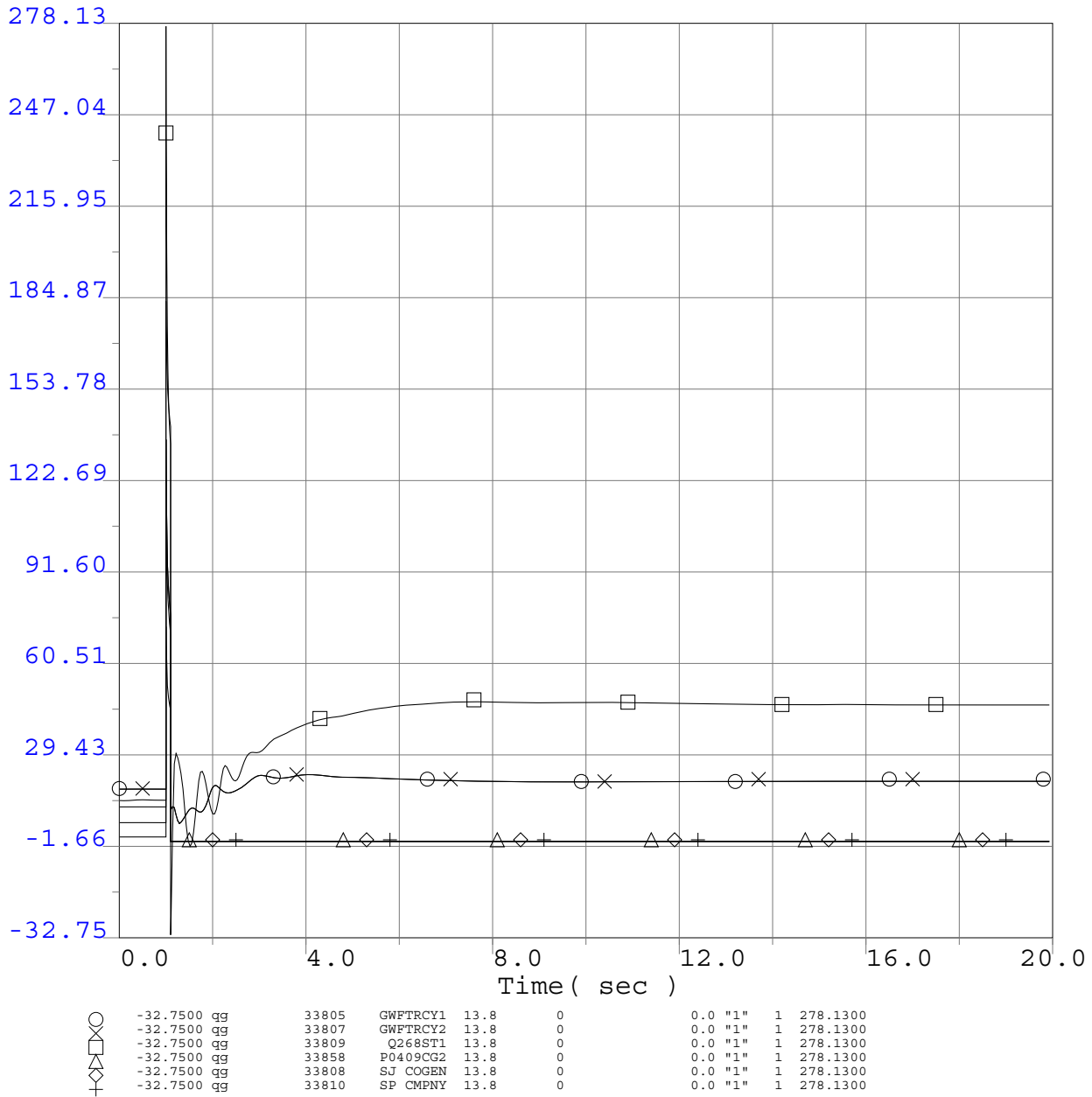


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 2 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 2



Q268 Project Interconnection System Impact Study

Project Generator Terminal Reactive Power

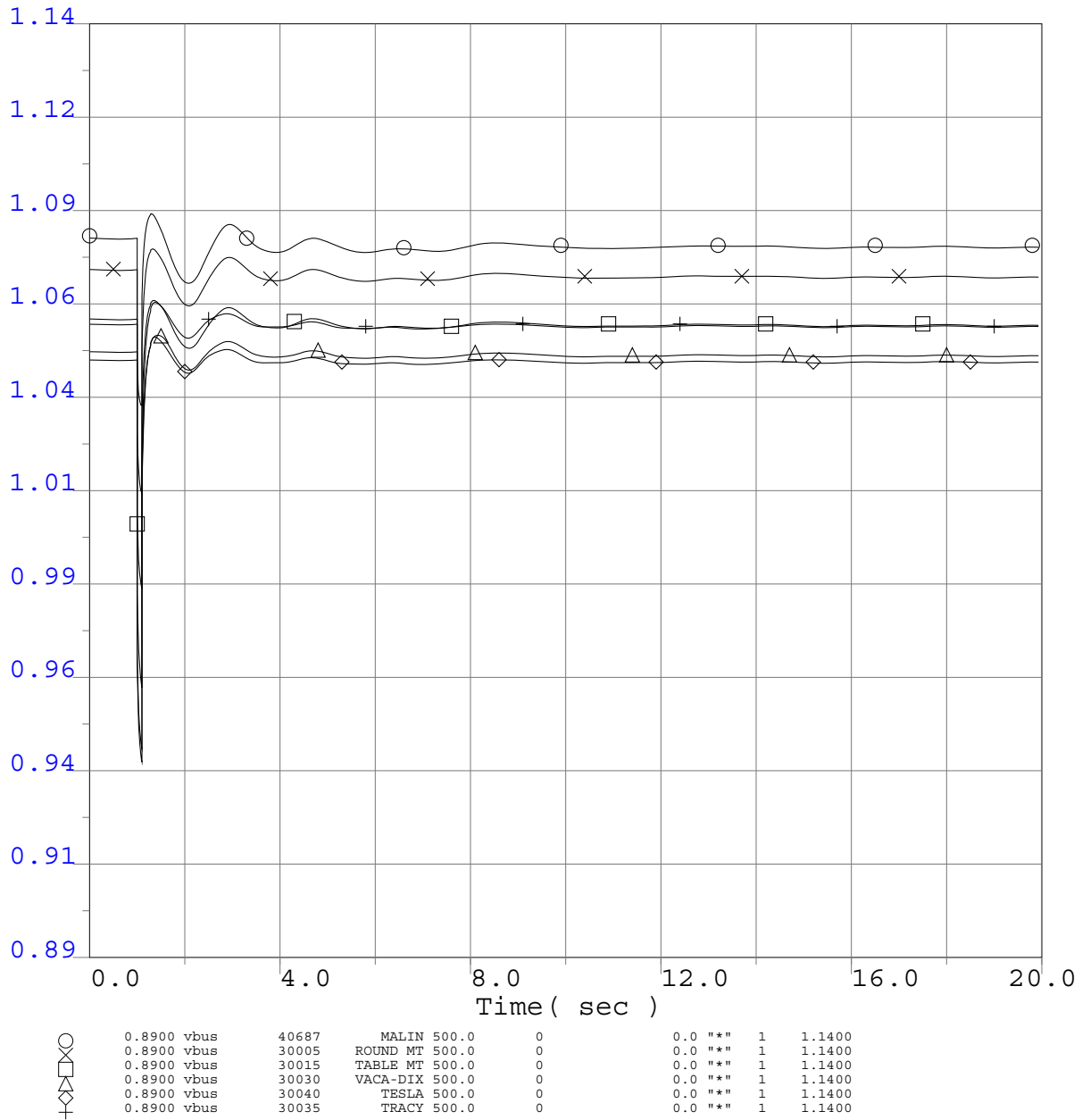


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 2 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 2



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

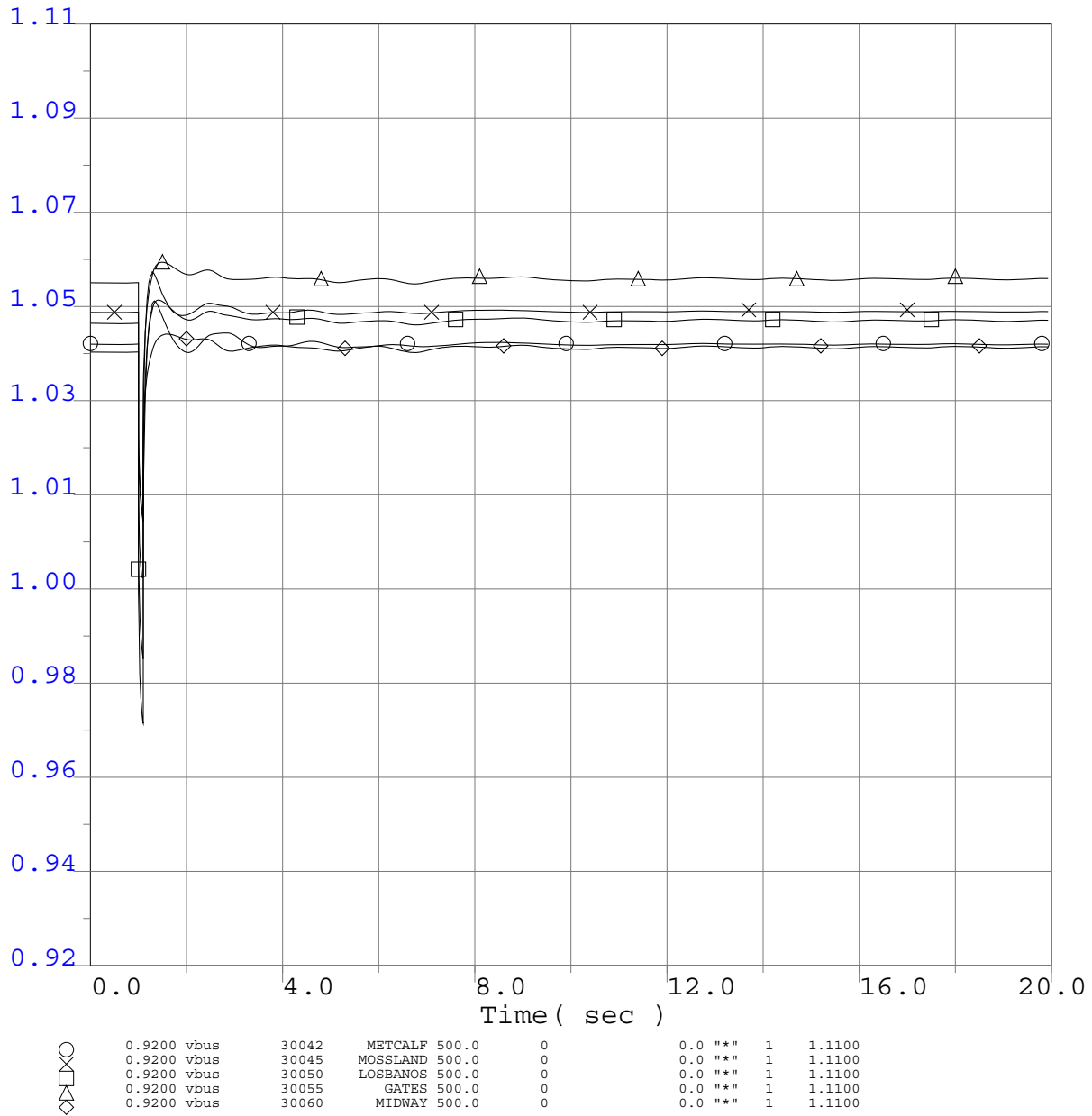


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 2 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 2



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

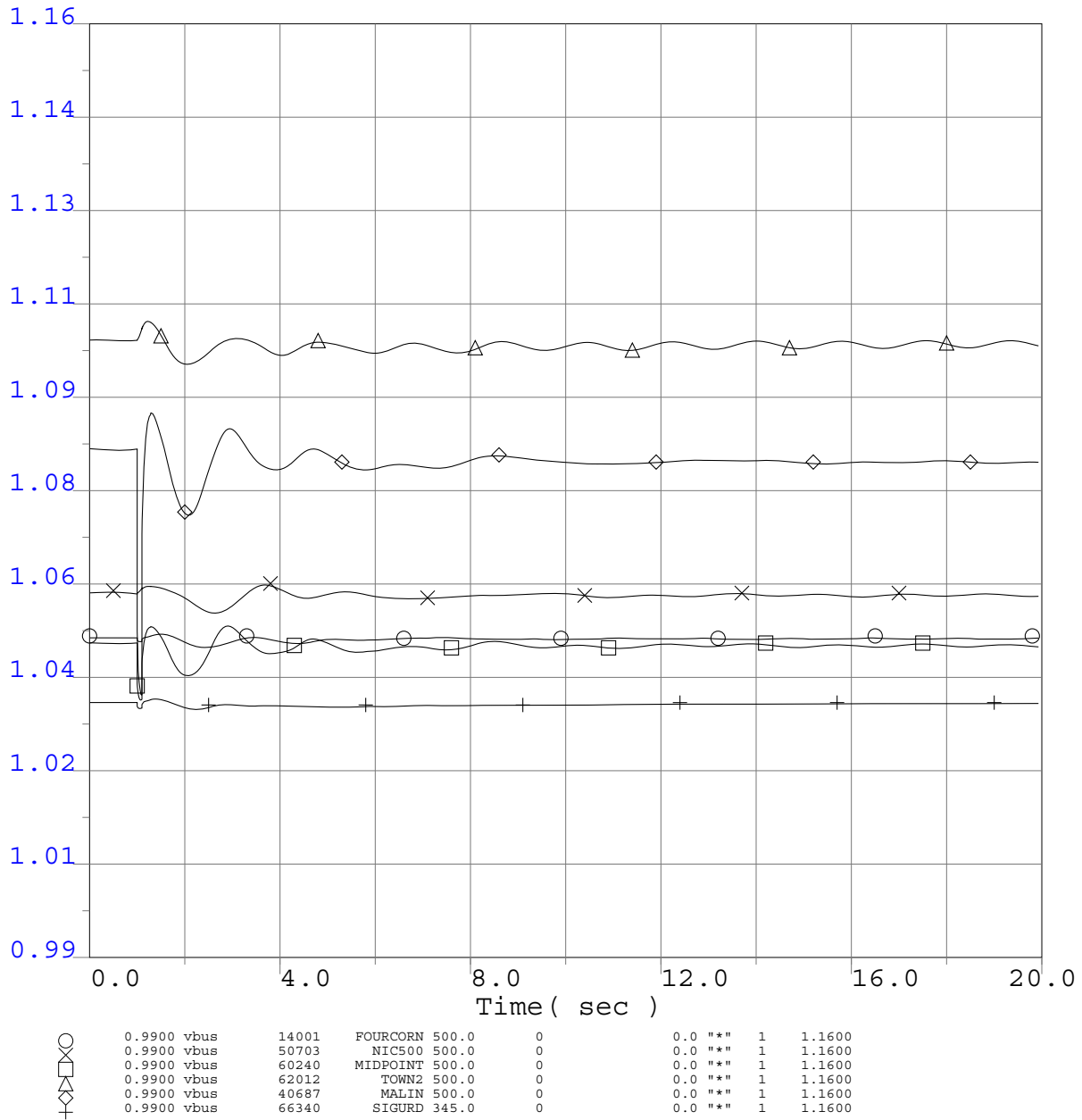


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 2 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 2



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

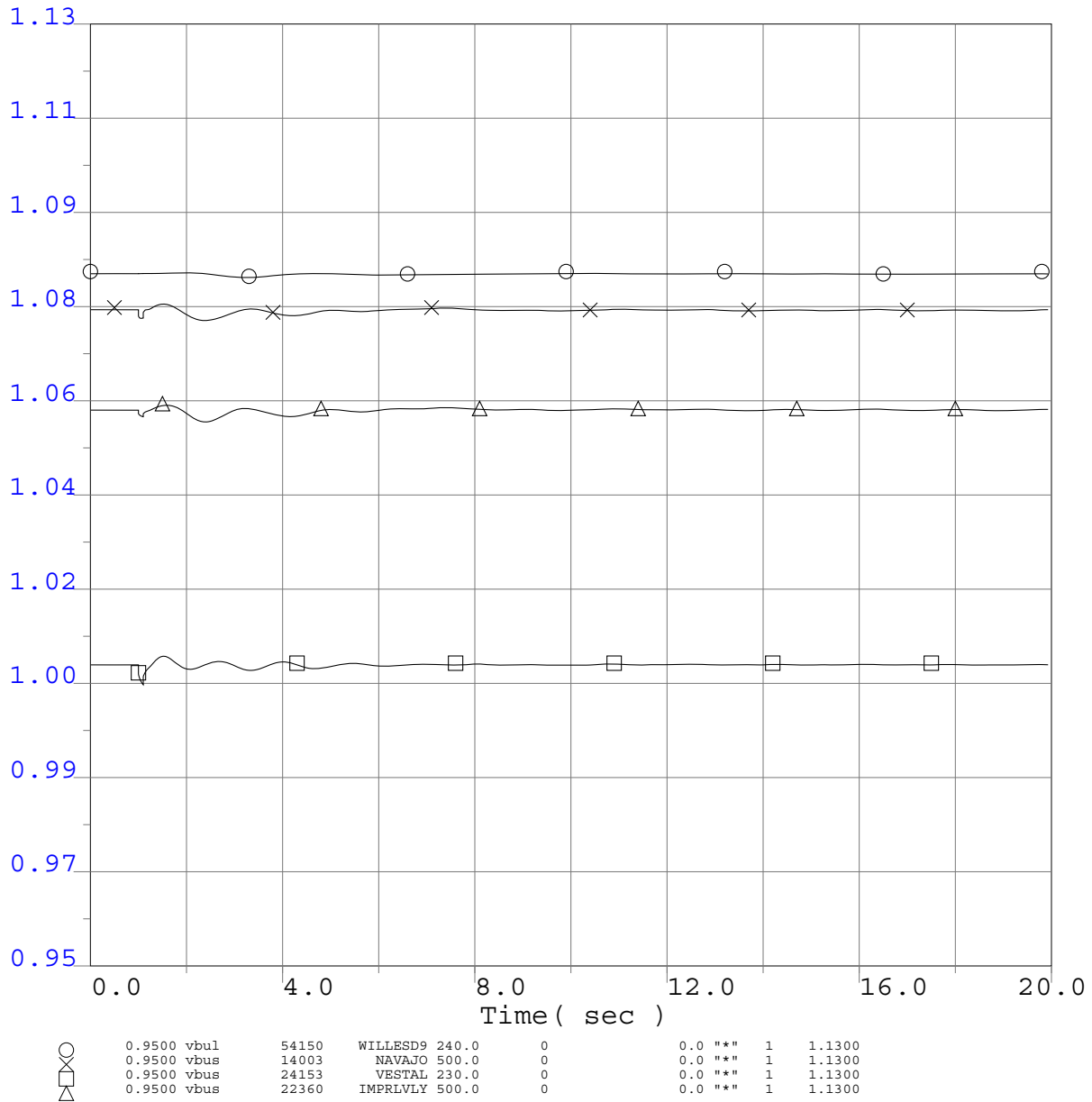


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 2 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 2



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

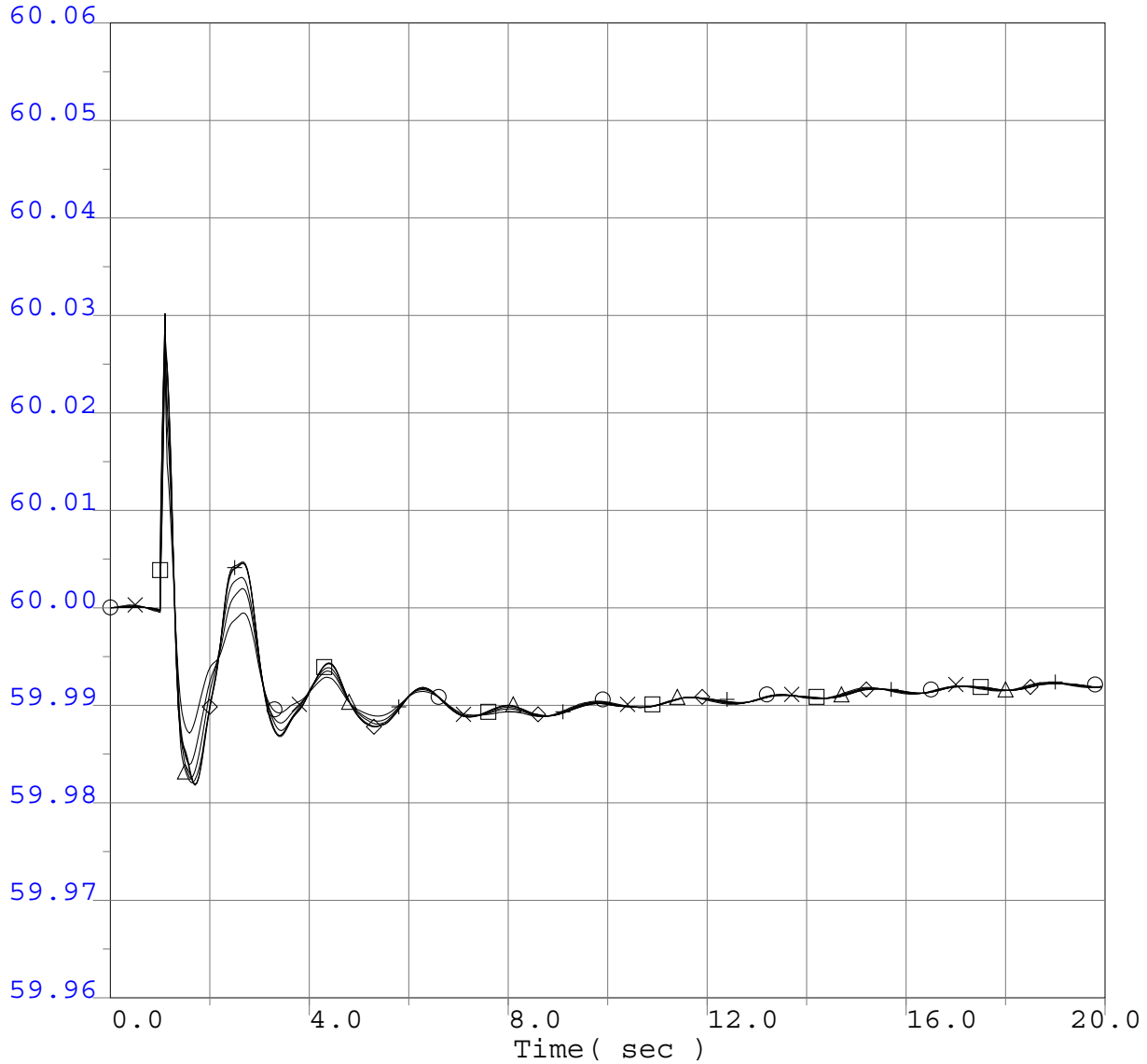


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 2 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 2



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



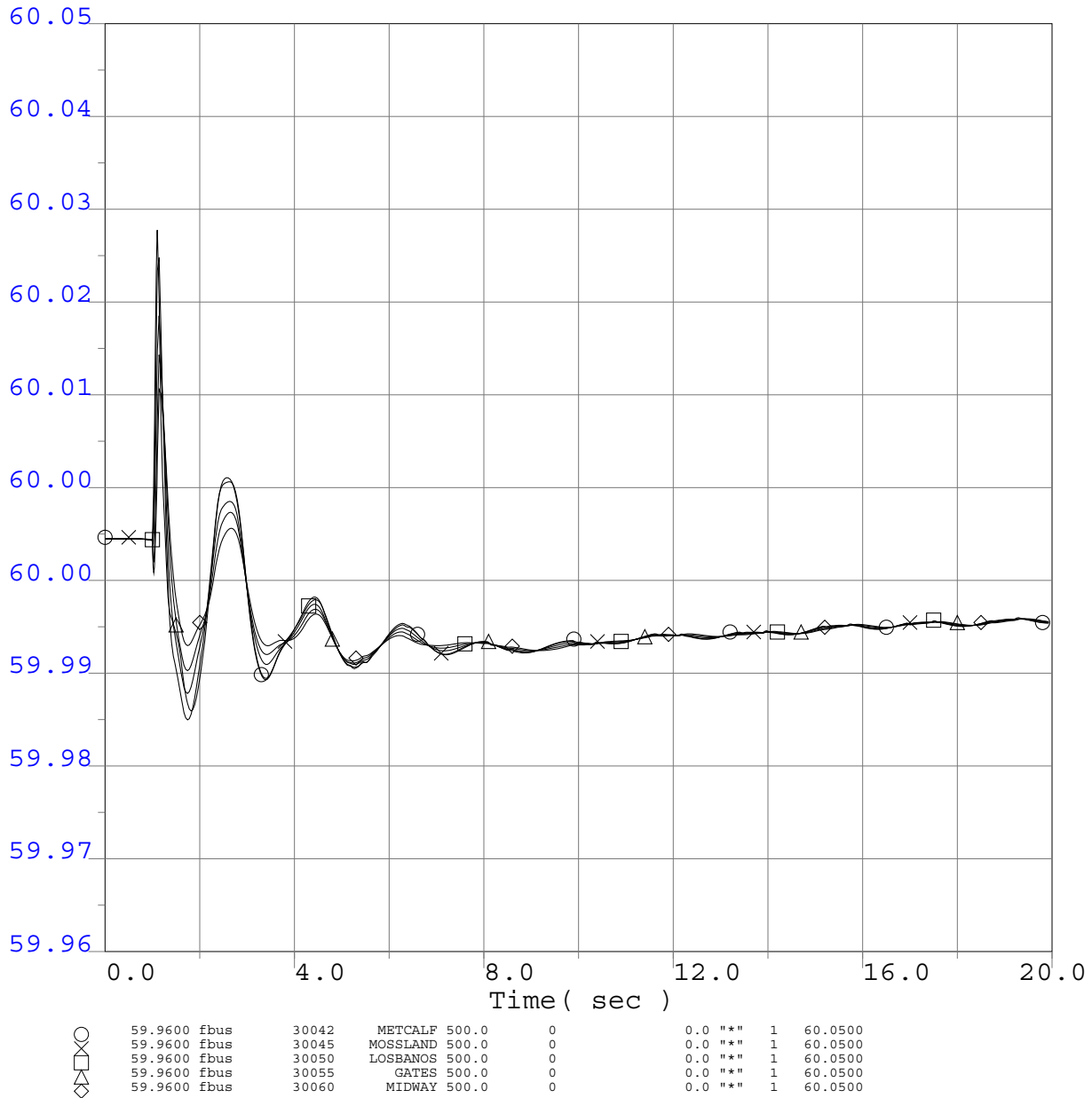
○	59.9600 Ebus	40687	MALIN 500.0	0	0.0	""	1	60.0600
□	59.9600 Ebus	30005	ROUND MT 500.0	0	0.0	""	1	60.0600
△	59.9600 Ebus	30015	TABLE MT 500.0	0	0.0	""	1	60.0600
◇	59.9600 Ebus	30030	VACA-DIX 500.0	0	0.0	""	1	60.0600
+	59.9600 Ebus	30040	TESLA 500.0	0	0.0	""	1	60.0600
×	59.9600 Ebus	30035	TRACY 500.0	0	0.0	""	1	60.0600

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 2 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 2



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots

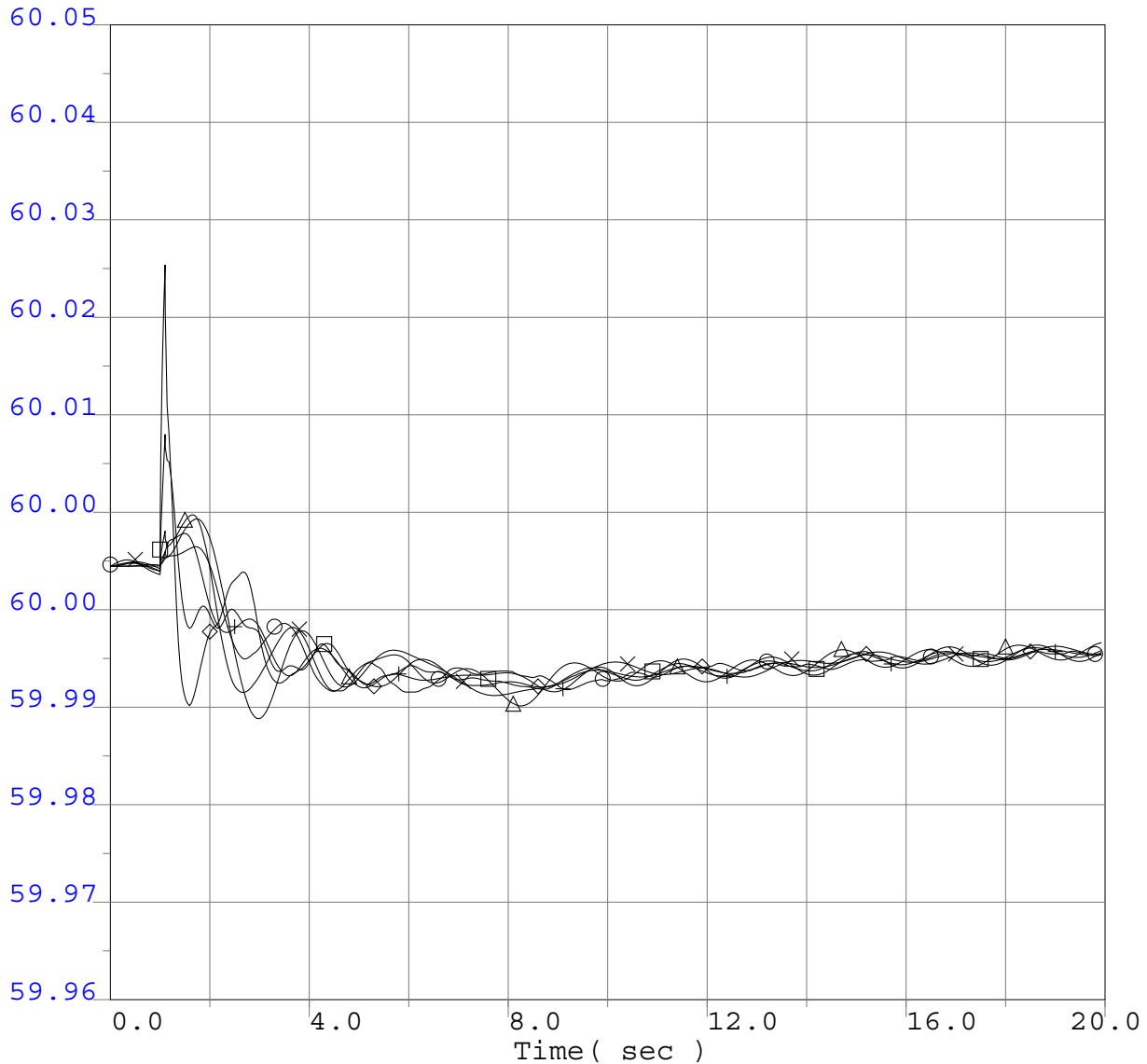


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 2 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 2



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



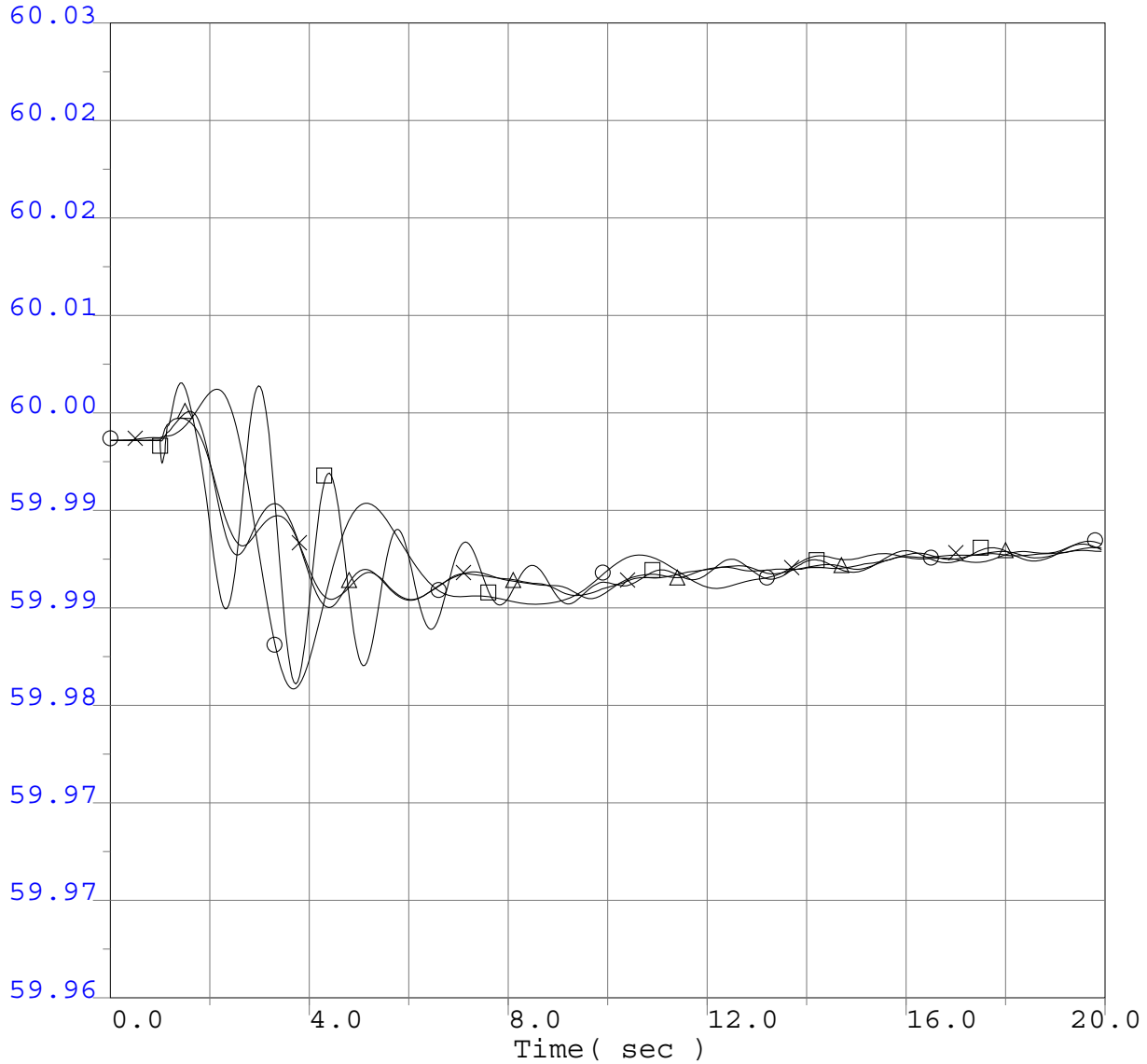
○	59.9600 Ebus	14001	FOURCORN	500.0	0	0.0	"**"	1	60.0500
□	59.9600 Ebus	50703	NIC500	500.0	0	0.0	"**"	1	60.0500
△	59.9600 Ebus	60240	MIDPOINT	500.0	0	0.0	"**"	1	60.0500
◇	59.9600 Ebus	62012	TOWN2	500.0	0	0.0	"**"	1	60.0500
+	59.9600 Ebus	40687	MALIN	500.0	0	0.0	"**"	1	60.0500
	59.9600 Ebus	66340	SIGURD	345.0	0	0.0	"**"	1	60.0500

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 2 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 2



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



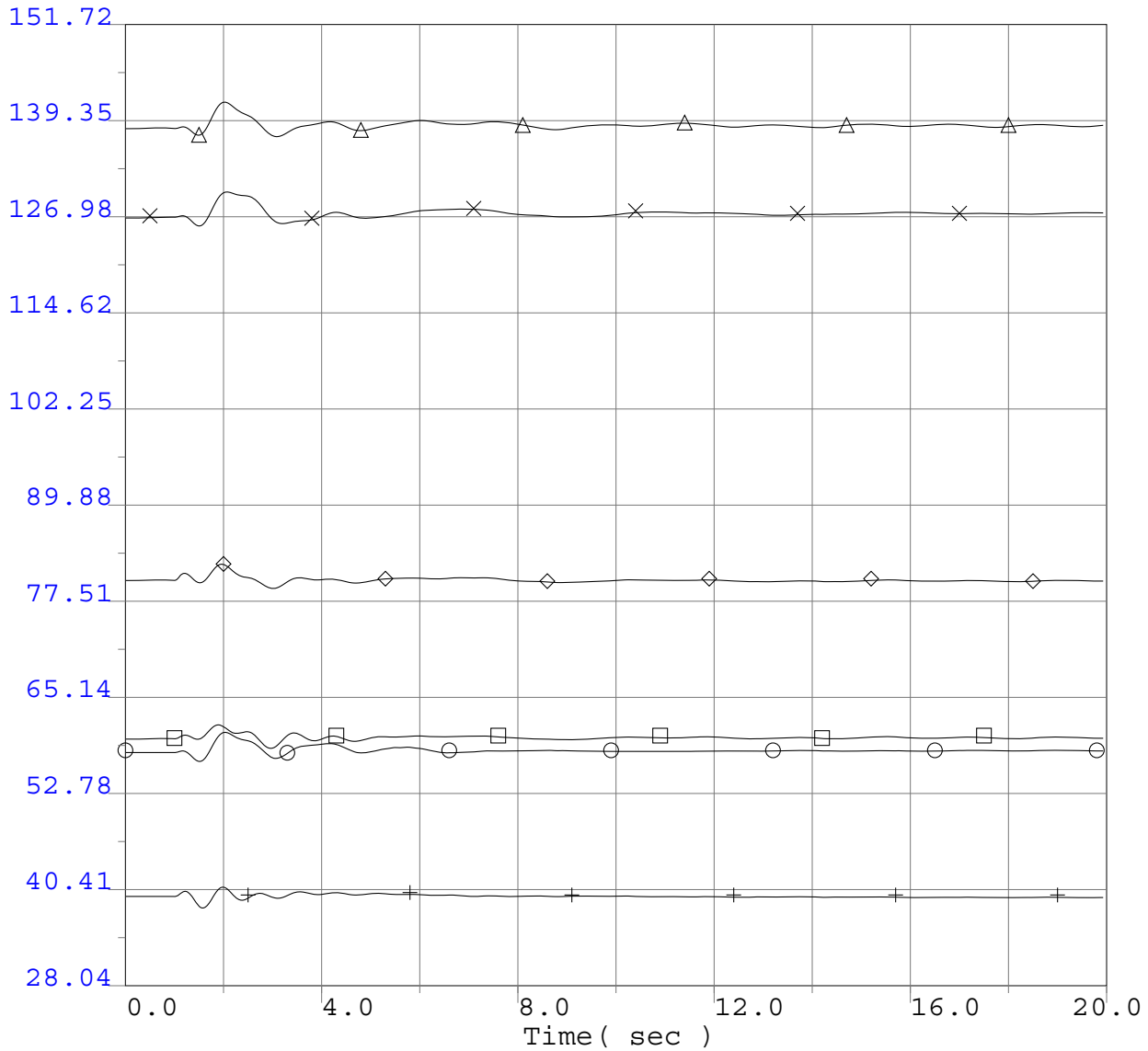
○	59.9600 Fbul	54150	WILLES9 240.0	0	0.0	***	1	60.0300
×	59.9600 Fbus	14003	NAVAJO 500.0	0	0.0	***	1	60.0300
□	59.9600 Fbus	24153	VESTAL 230.0	0	0.0	***	1	60.0300
△	59.9600 Fbus	22360	IMPRLVLY 500.0	0	0.0	***	1	60.0300

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 2 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 2



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle



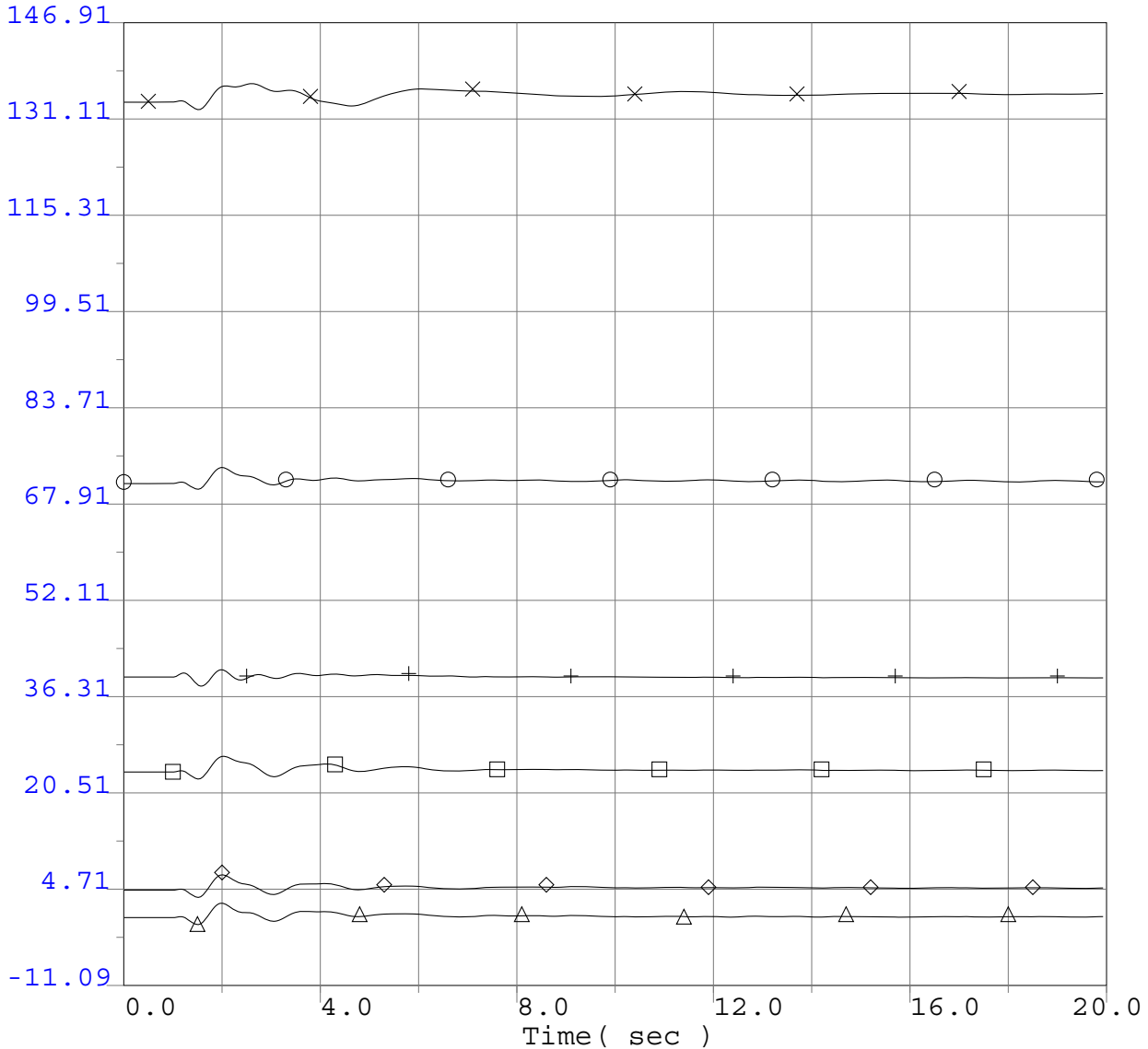
○	28.0400 ang	14914	FCNGN4CC	22.0	0	0.0 "H"	1	151.7200
□	28.0400 ang	50499	GMS G5	13.8	0	0.0 "1"	1	151.7200
△	28.0400 ang	60100	BRWNL 5	13.8	0	0.0 "1"	1	151.7200
×	28.0400 ang	62048	COLSTP 3	26.0	0	0.0 "1"	1	151.7200
◇	28.0400 ang	44071	JDA 0102	13.8	0	0.0"01"	1	151.7200
+	28.0400 ang	36411	DIABLO 1	25.0	0	0.0 "1"	1	151.7200

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 2 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 2



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle



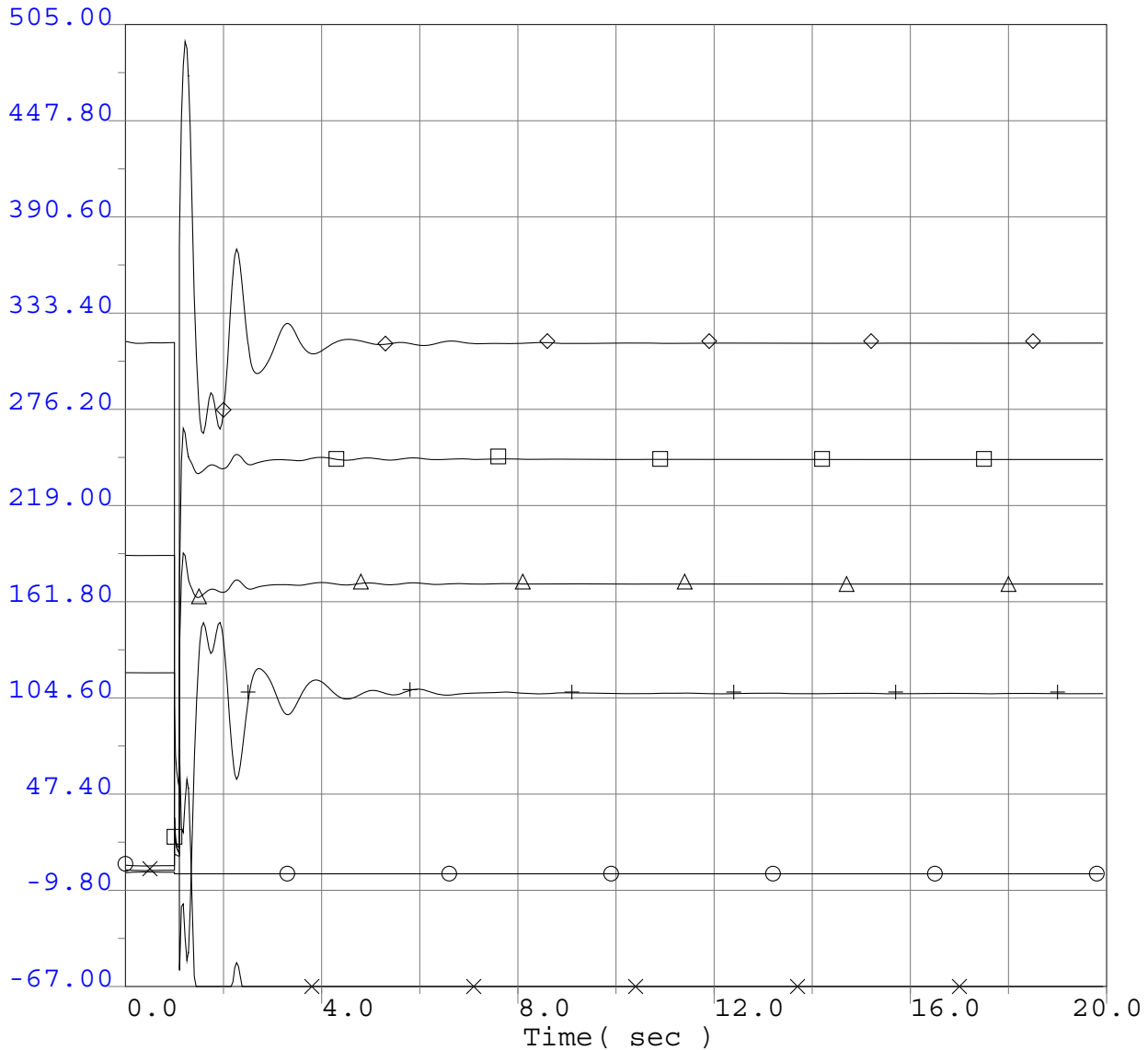
○	-11.0900 ang	65490	EHUNTR 1	24.0	0	0.0 "1"	1	146.9100
□	-11.0900 ang	54338	SUND#2GN	18.0	0	0.0 "2"	1	146.9100
◇	-11.0900 ang	79151	GLENC3-4	13.8	0	0.0 "3"	1	146.9100
△	-11.0900 ang	24130	S.ONOPR3	22.0	0	0.0 "3"	1	146.9100
×	-11.0900 ang	22244	ENCINA 5	24.0	0	0.0 "1"	1	146.9100
+	-11.0900 ang	36411	DIABLO 1	25.0	0	0.0 "1"	1	146.9100

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 2 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 2



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)



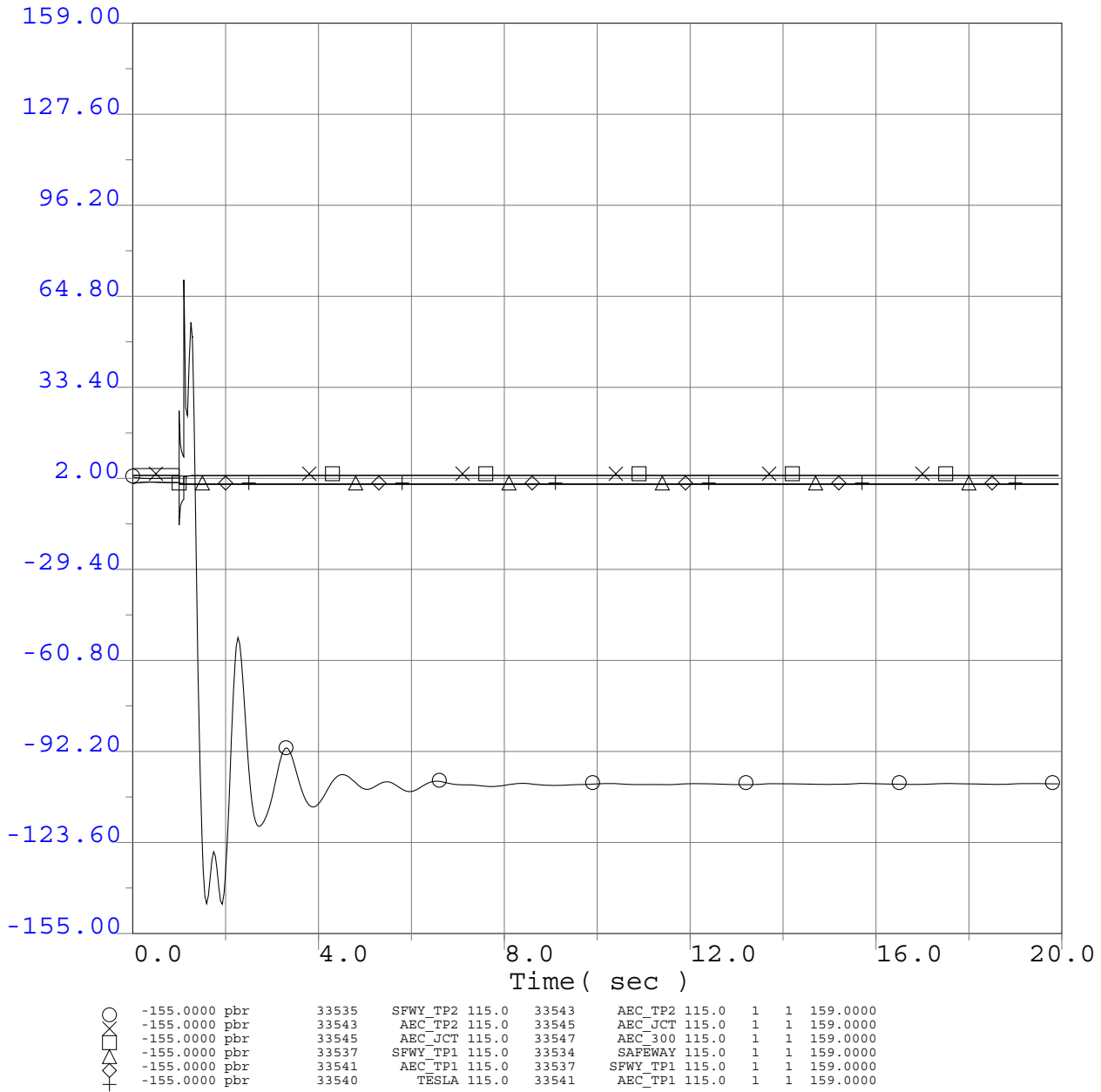
○	-67.0000 pbr	33549	SCHULTE 115.0	33537	SFWY_TP1 115.0	1	1	505.0000
□	-67.0000 pbr	33549	SCHULTE 115.0	33535	SFWY_TP2 115.0	1	2	505.0000
△	-67.0000 pbr	33549	SCHULTE 115.0	33531	OWENSTP1 115.0	1	1	505.0000
×	-67.0000 pbr	33549	SCHULTE 115.0	33533	OWENSTP2 115.0	1	2	505.0000
○	-67.0000 pbr	33551	GWFTRACY 115.0	33549	SCHULTE 115.0	1	1	505.0000
×	-67.0000 pbr	33540	TESLA 115.0	33543	AEC_TP2 115.0	1	1	505.0000

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 2 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 2



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)

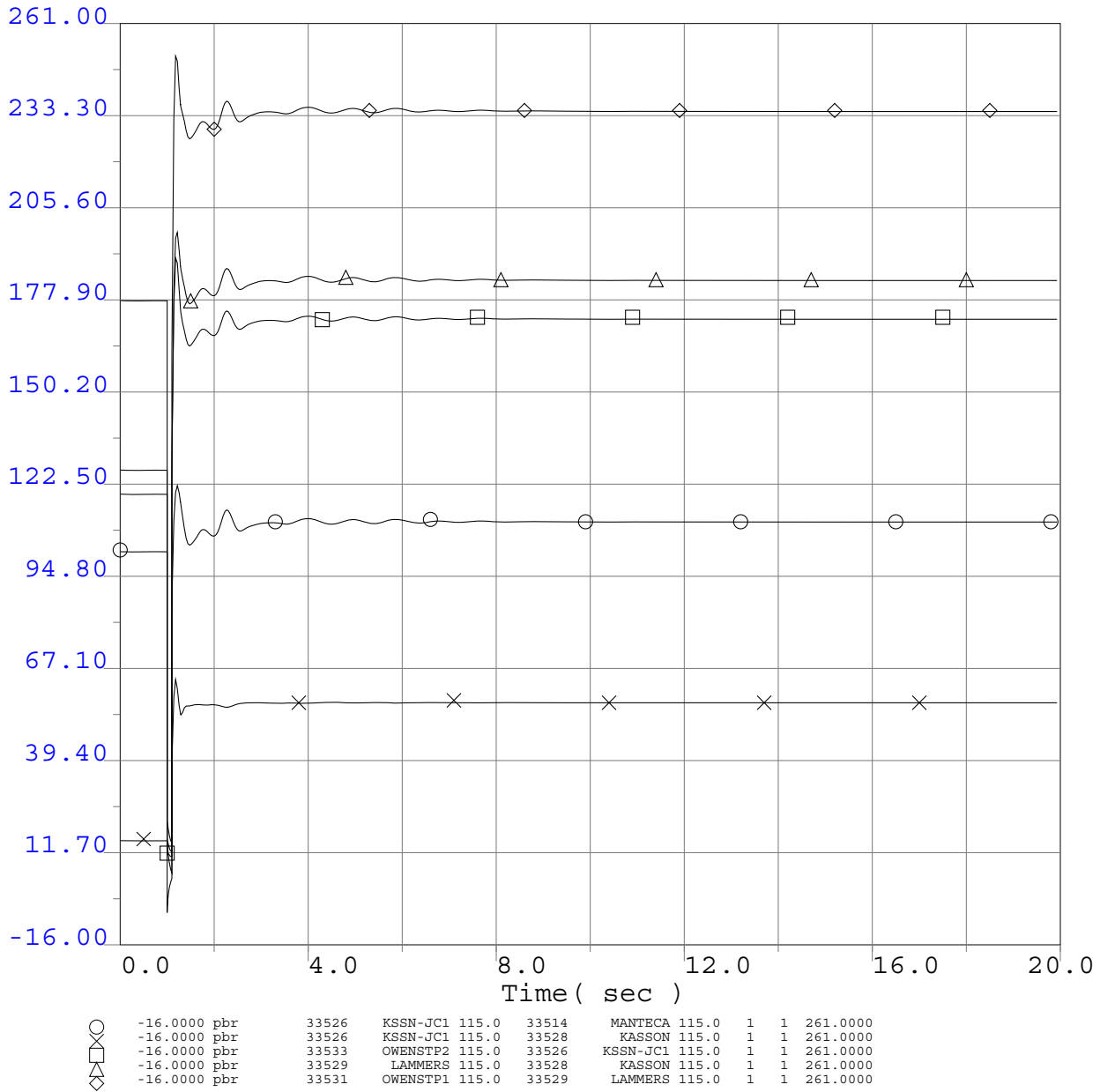


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 2 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 2



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)

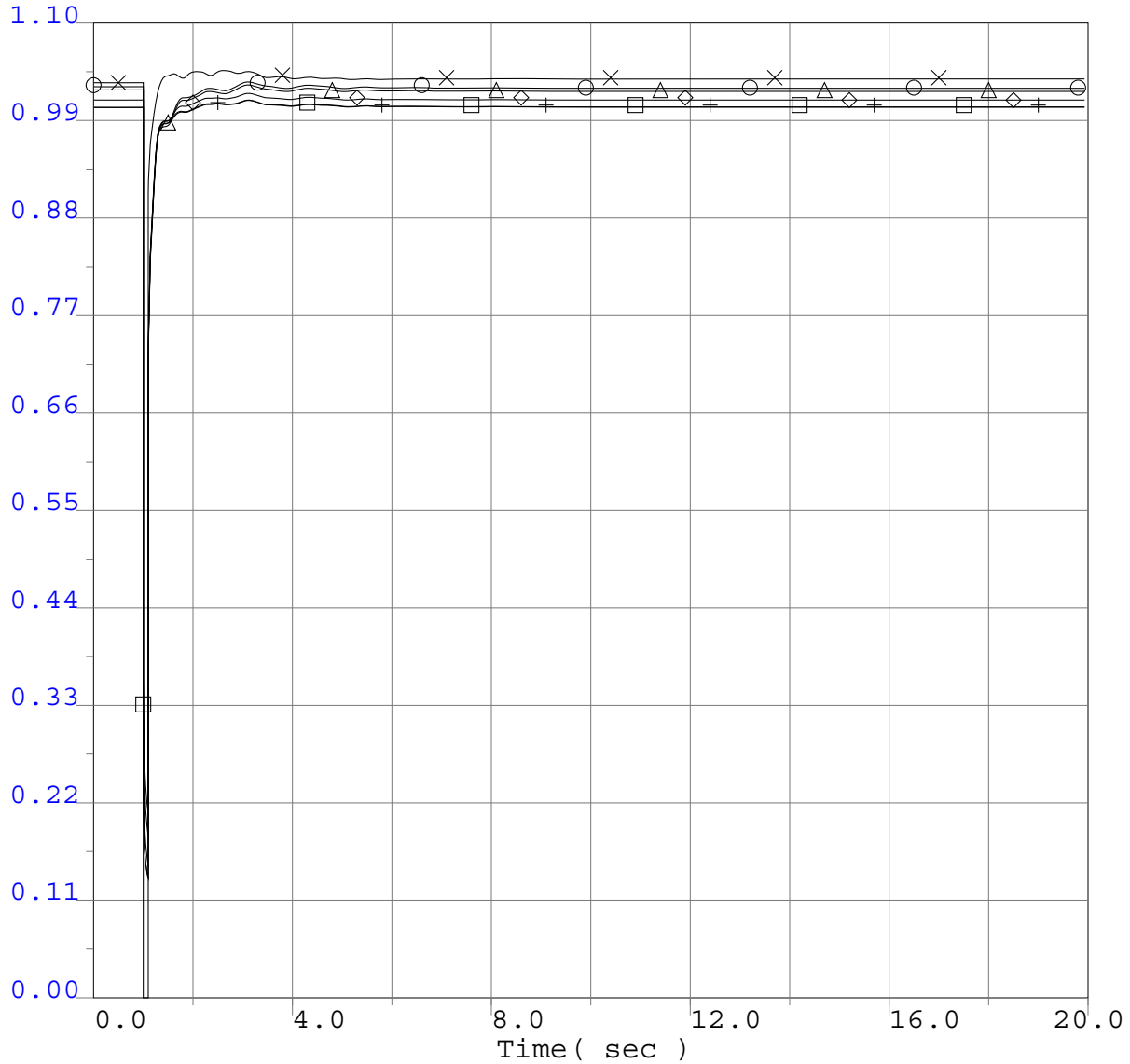


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla 115 bus 2 outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla 115kV bus 2



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Voltage Plots Adjacent to Fault



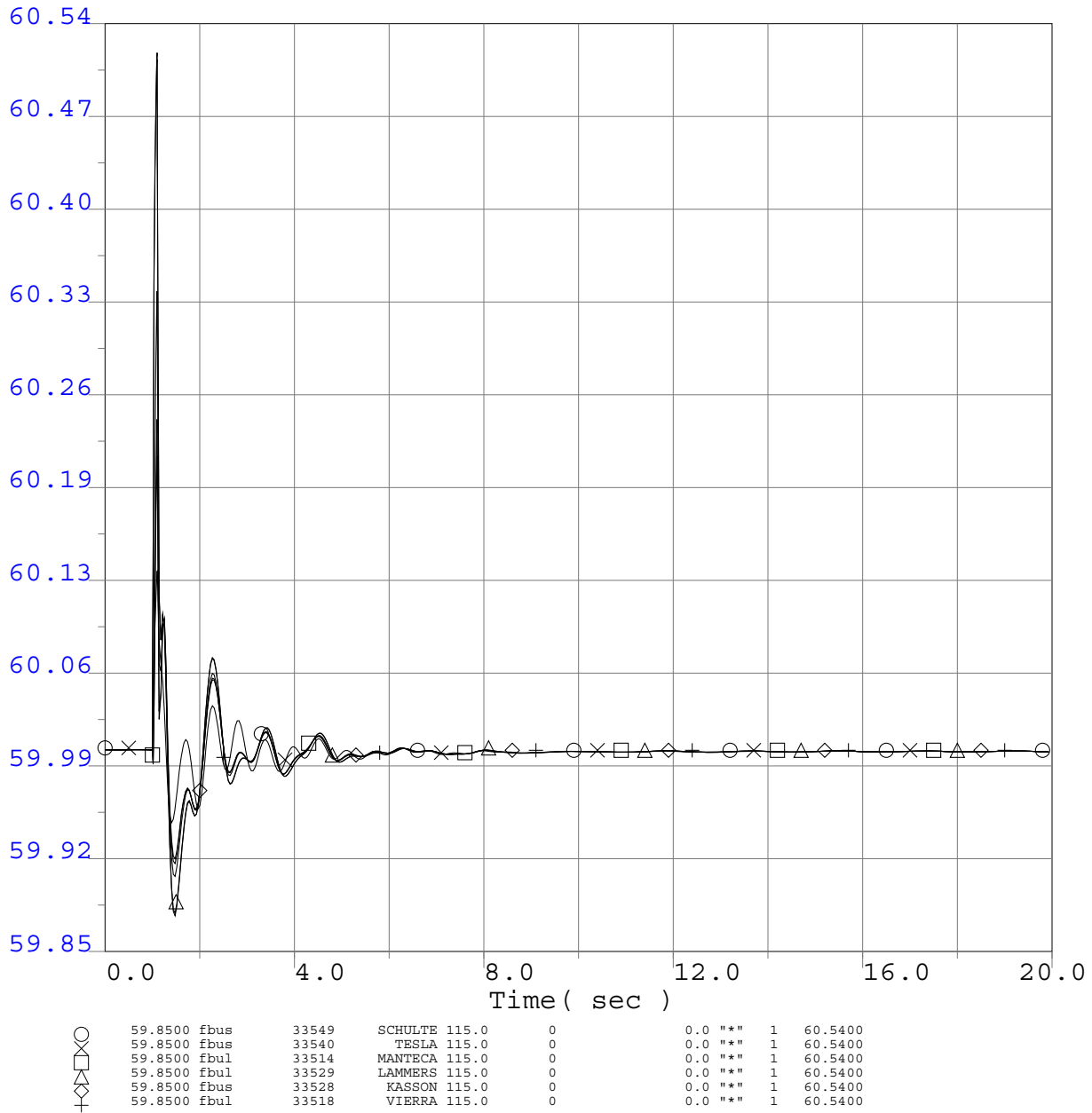
○	0.0000 vbus	33549	SCHULTE 115.0	0	0.0	""	1	1.1000
○	0.0000 vbus	33540	TESLA 115.0	0	0.0	""	1	1.1000
□	0.0000 vb1	33514	MANTECA 115.0	0	0.0	""	1	1.1000
△	0.0000 vb2	33529	LAMMERS 115.0	0	0.0	""	1	1.1000
◇	0.0000 vb3	33528	KASSON 115.0	0	0.0	""	1	1.1000
+	0.0000 vb4	33518	VIERRA 115.0	0	0.0	""	1	1.1000

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Frequency Plots Adjacent to Fault

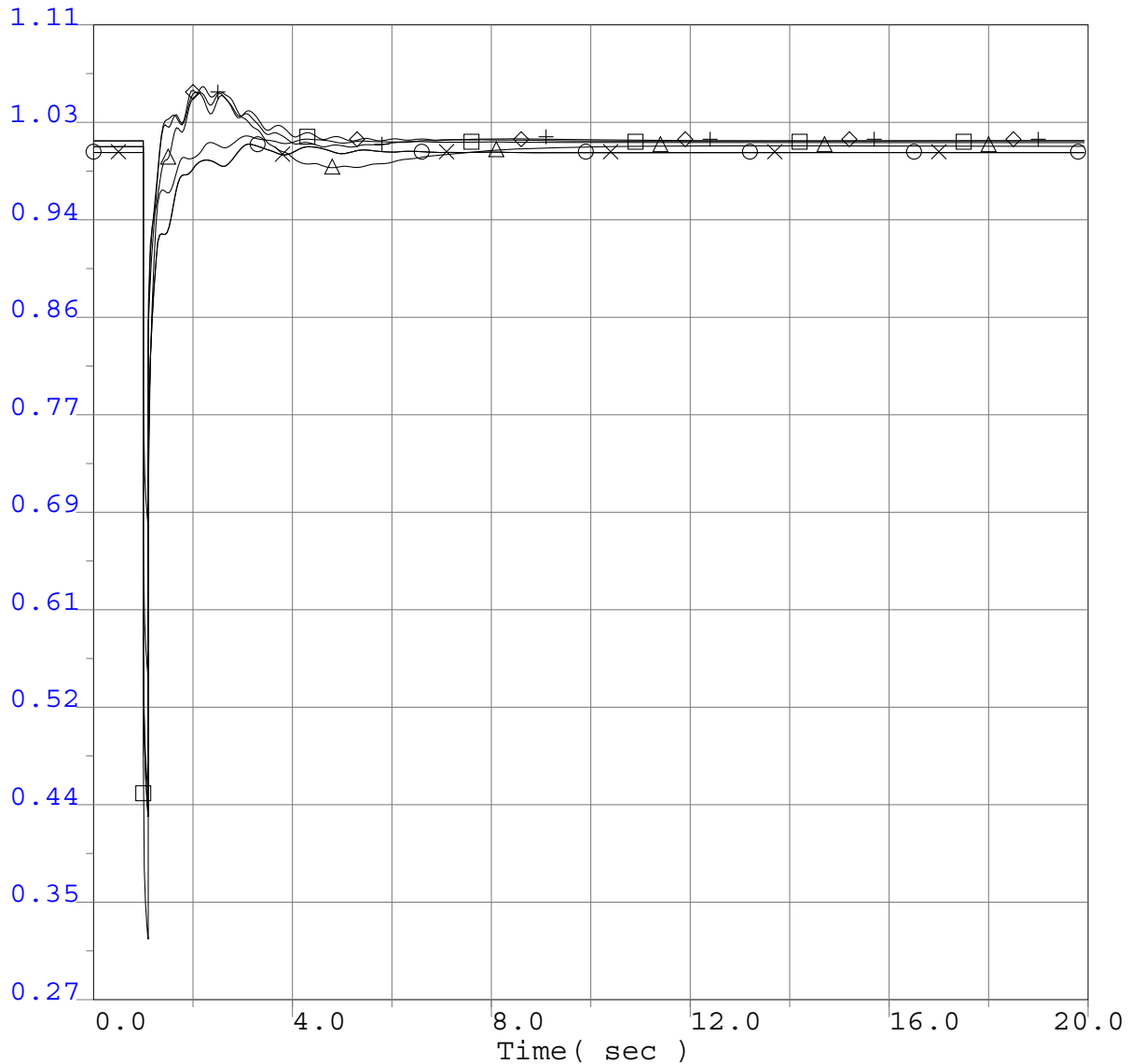


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Project Generator Terminal Voltages



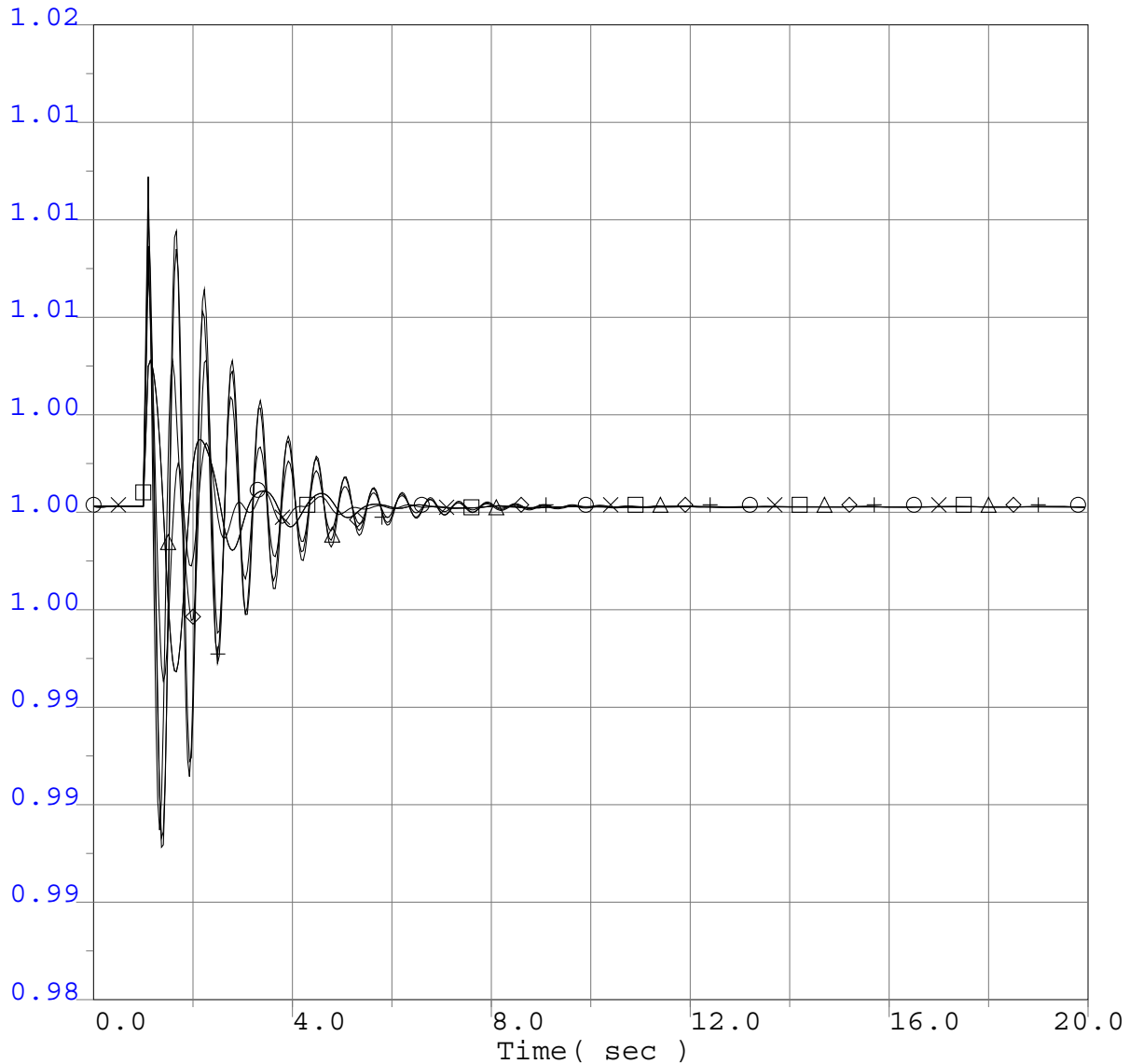
○	0.2700 vt	33805	GWTRCY1	13.8	0	0.0	"1"	1	1.1100
□	0.2700 vt	33807	GWTRCY2	13.8	0	0.0	"1"	1	1.1100
△	0.2700 vt	33809	Q268ST1	13.8	0	0.0	"1"	1	1.1100
◇	0.2700 vt	33858	P0409CG2	13.8	0	0.0	"1"	1	1.1100
+	0.2700 vt	33808	SJ COGEN	13.8	0	0.0	"1"	1	1.1100
×	0.2700 vt	33810	SP CMPNY	13.8	0	0.0	"1"	1	1.1100

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Project Generator Rotor Speed



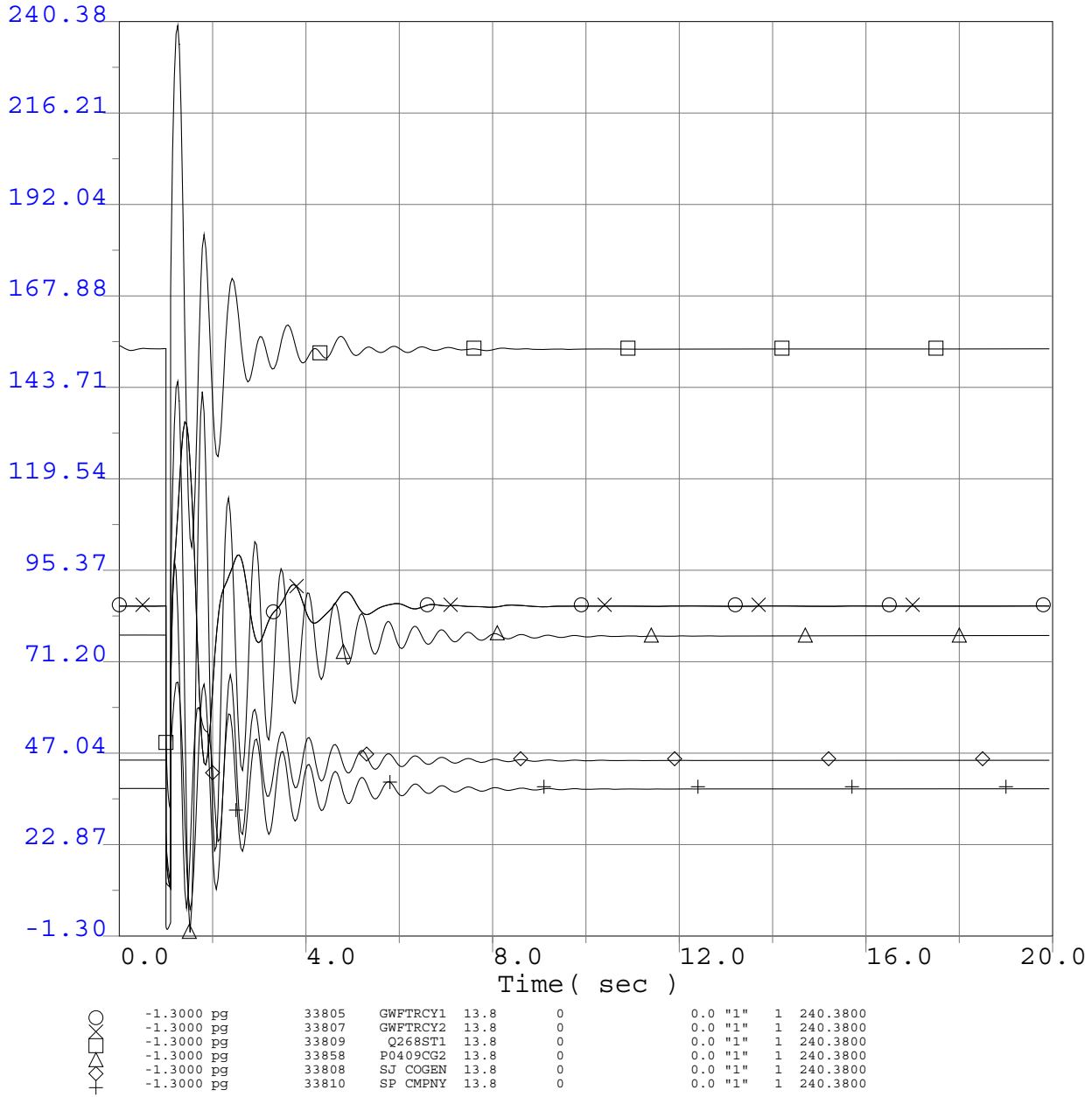
○	0.9838 spd	33805	GWTRCY1	13.8	0	0.0	"1"	1	1.0158
□	0.9838 spd	33807	GWTRCY2	13.8	0	0.0	"1"	1	1.0158
△	0.9838 spd	33809	Q268ST1	13.8	0	0.0	"1"	1	1.0158
◇	0.9838 spd	33858	P0409CG2	13.8	0	0.0	"1"	1	1.0158
+	0.9838 spd	33808	SJ COGEN	13.8	0	0.0	"1"	1	1.0158
○	0.9838 spd	33810	SP CMPNY	13.8	0	0.0	"1"	1	1.0158

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Project Generator Terminal Power

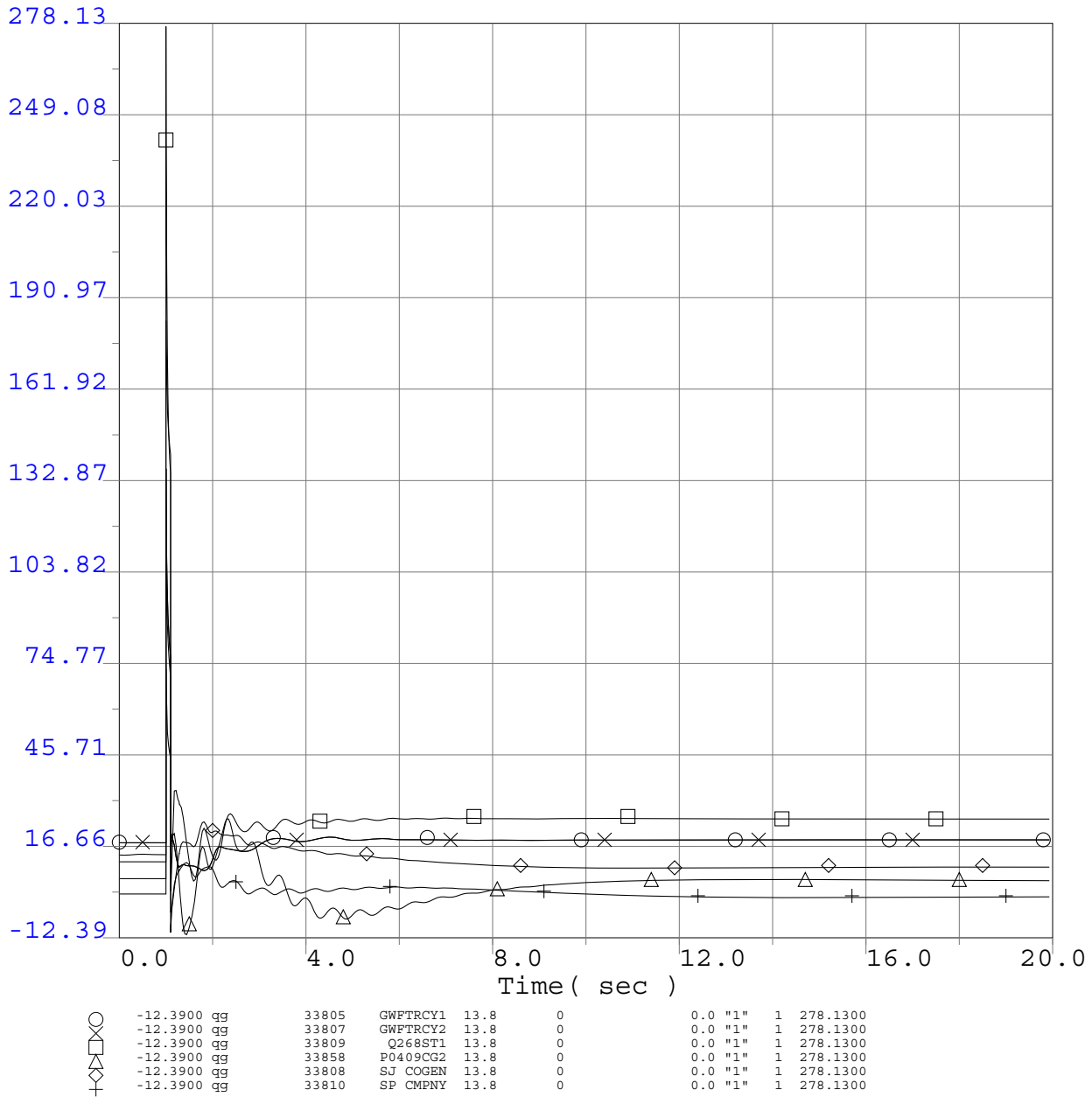


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Project Generator Terminal Reactive Power

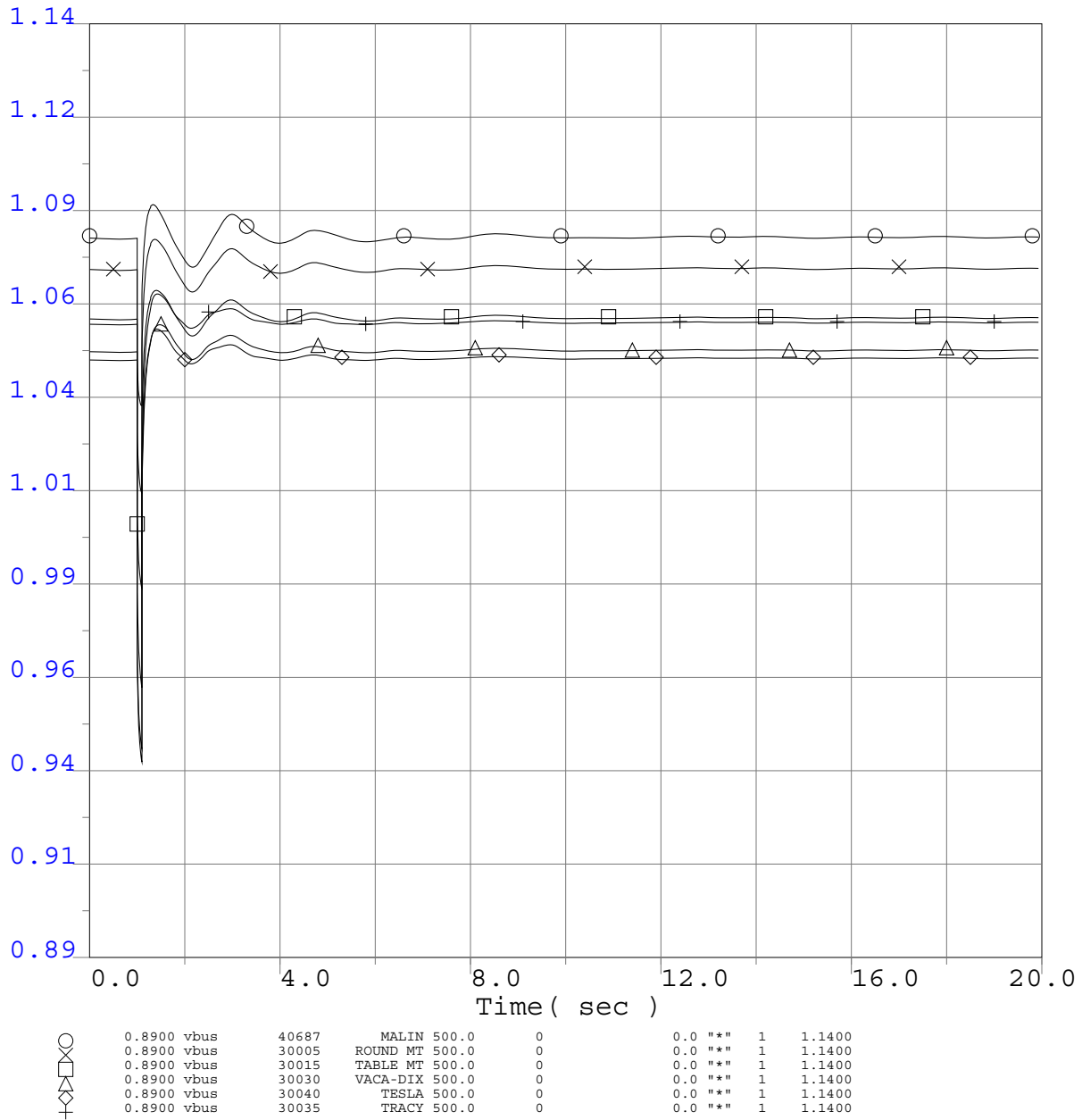


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

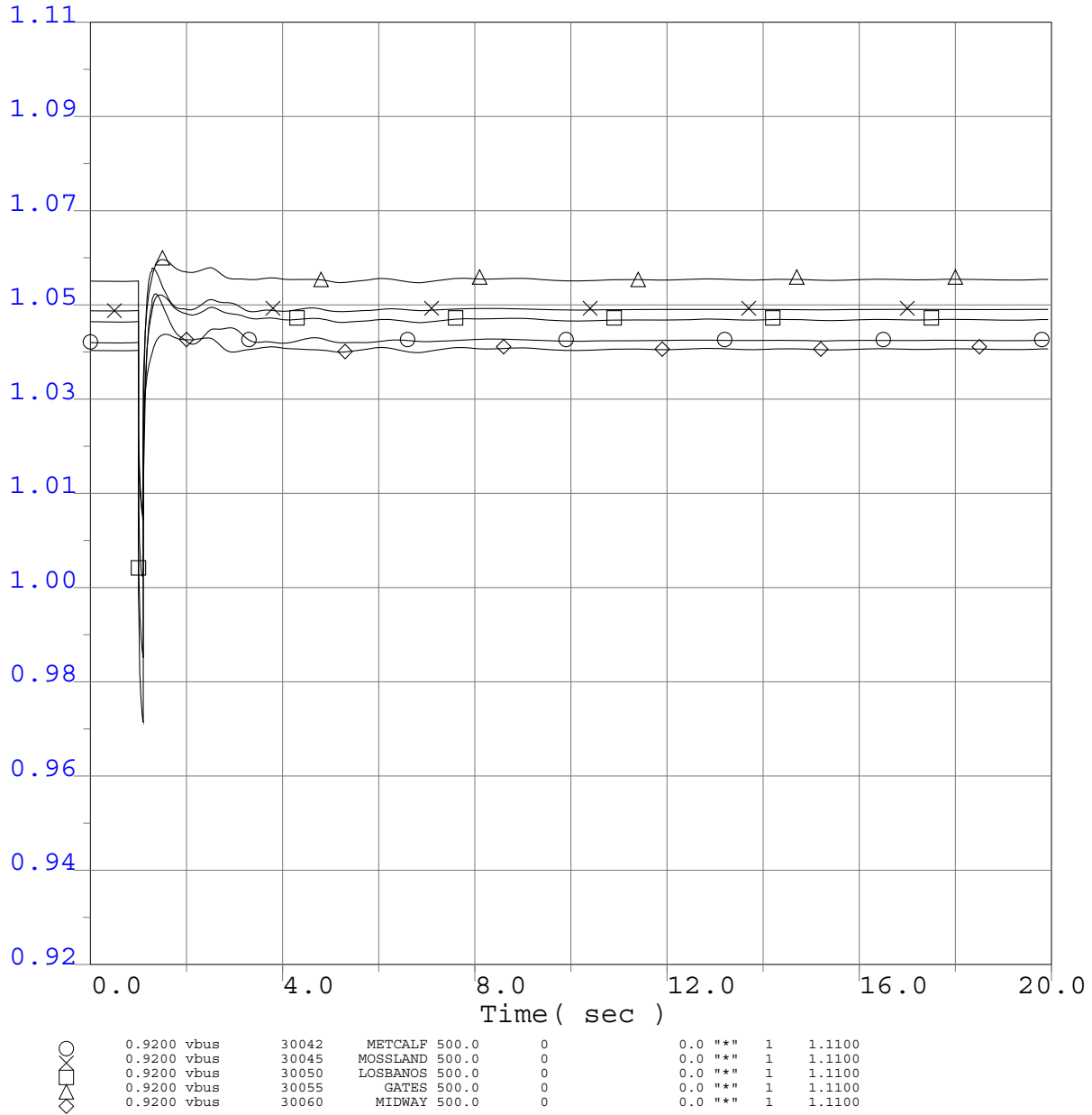


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

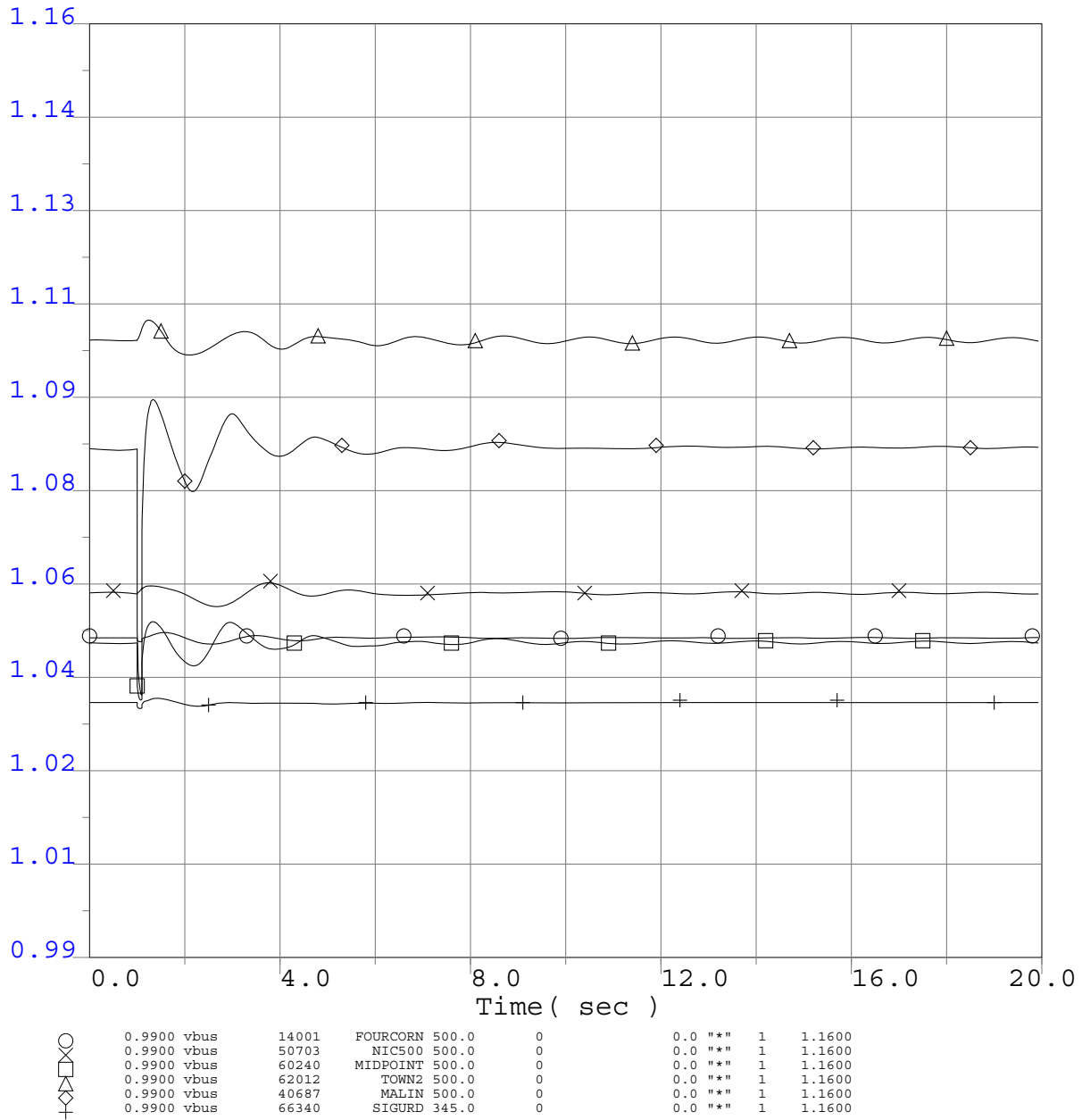


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

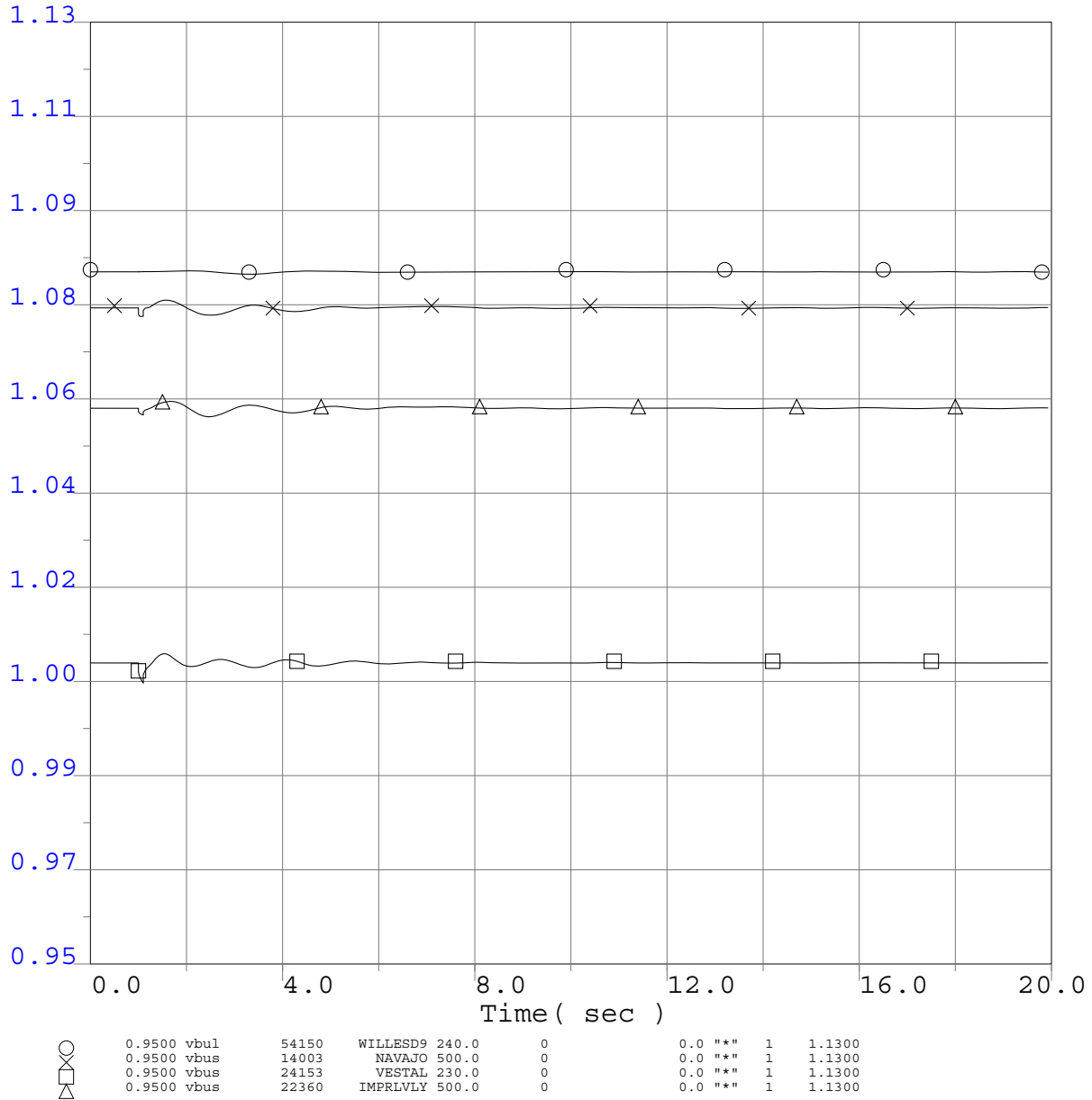


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

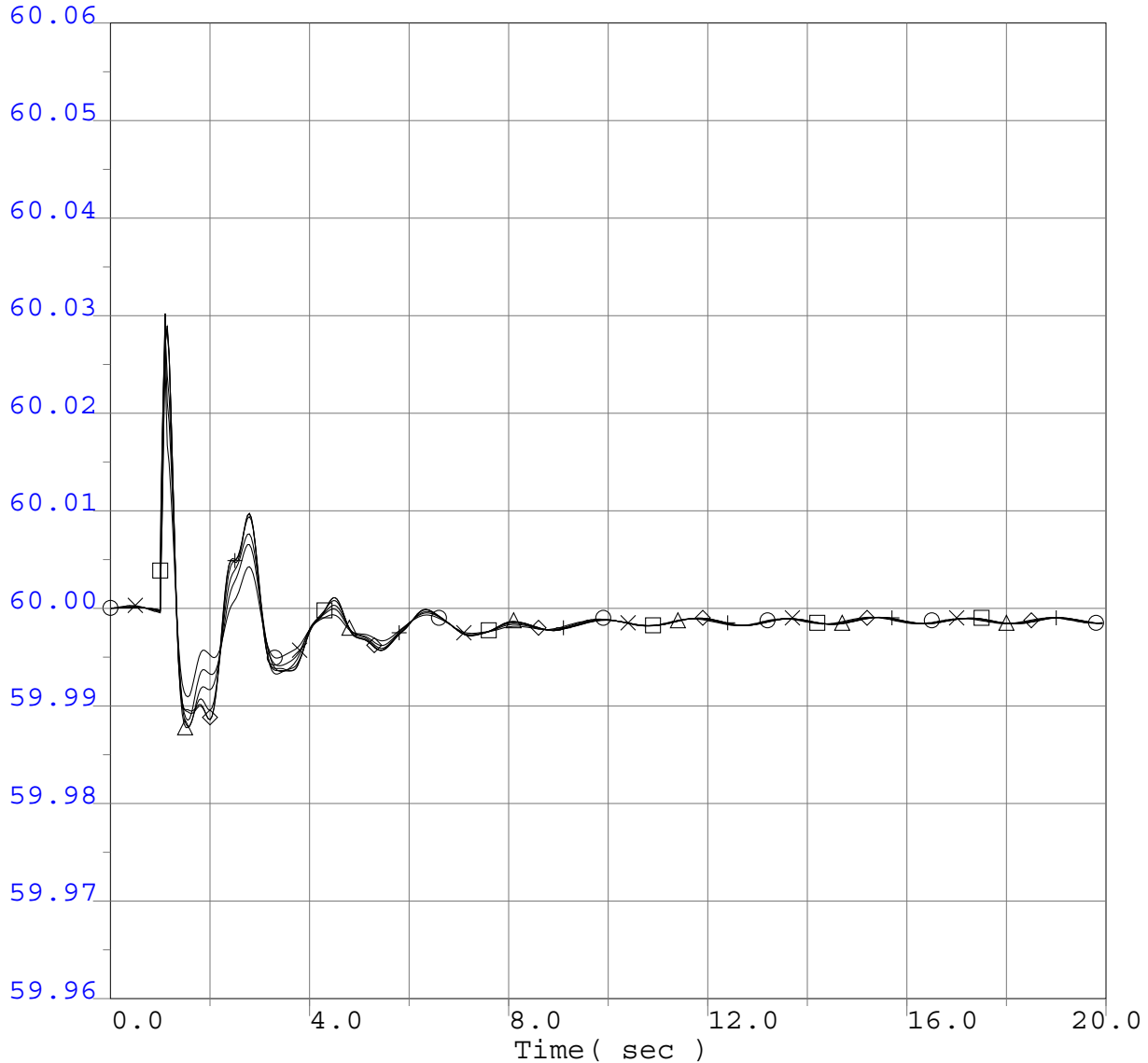


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



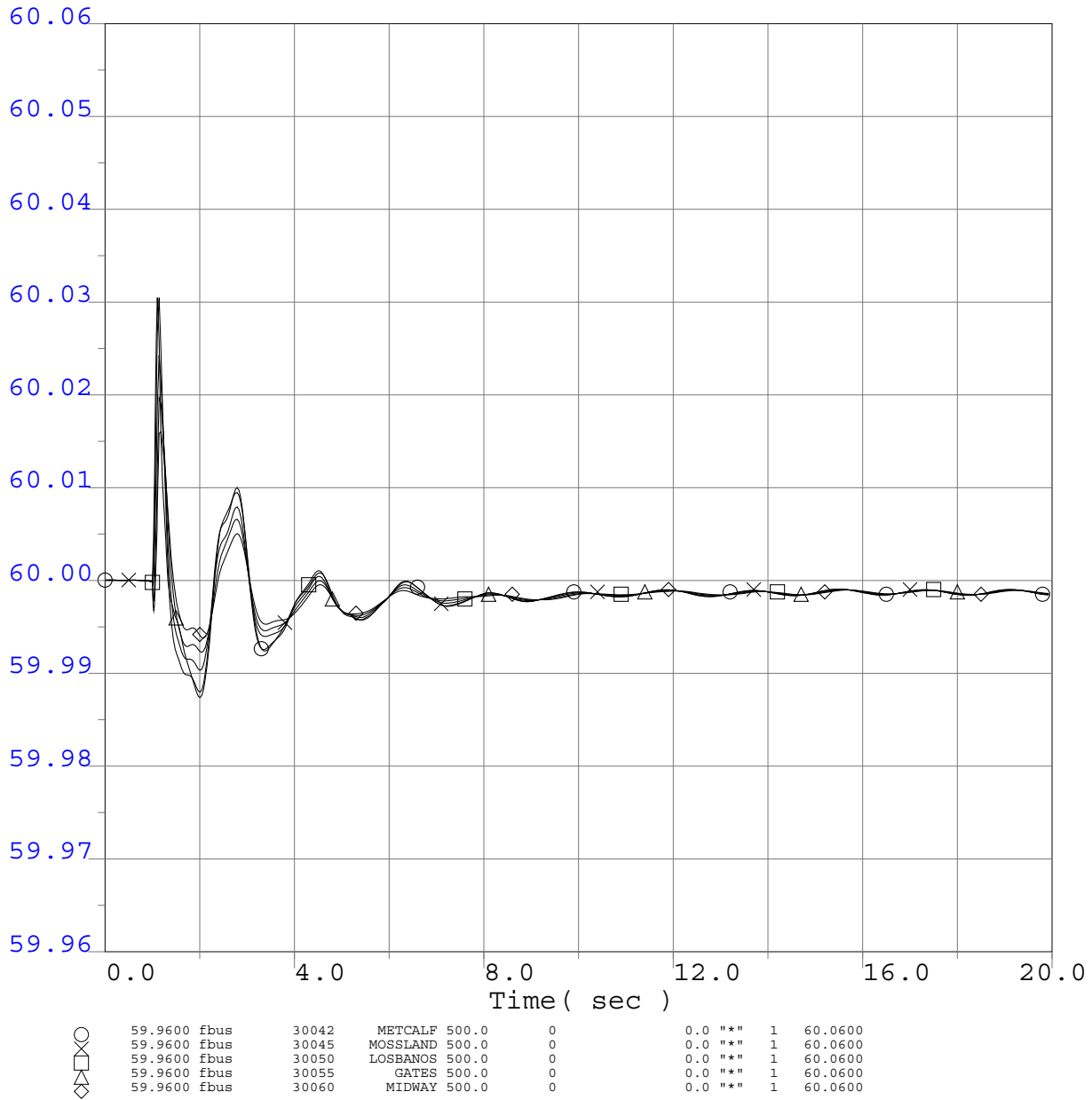
○	59.9600 Ebus	40687	MALIN 500.0	0	0.0	"	1	60.0600
□	59.9600 Ebus	30005	ROUND MT 500.0	0	0.0	"	1	60.0600
△	59.9600 Ebus	30015	TABLE MT 500.0	0	0.0	"	1	60.0600
◇	59.9600 Ebus	30030	VACA-DIX 500.0	0	0.0	"	1	60.0600
+	59.9600 Ebus	30040	TESLA 500.0	0	0.0	"	1	60.0600
×	59.9600 Ebus	30035	TRACY 500.0	0	0.0	"	1	60.0600

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots

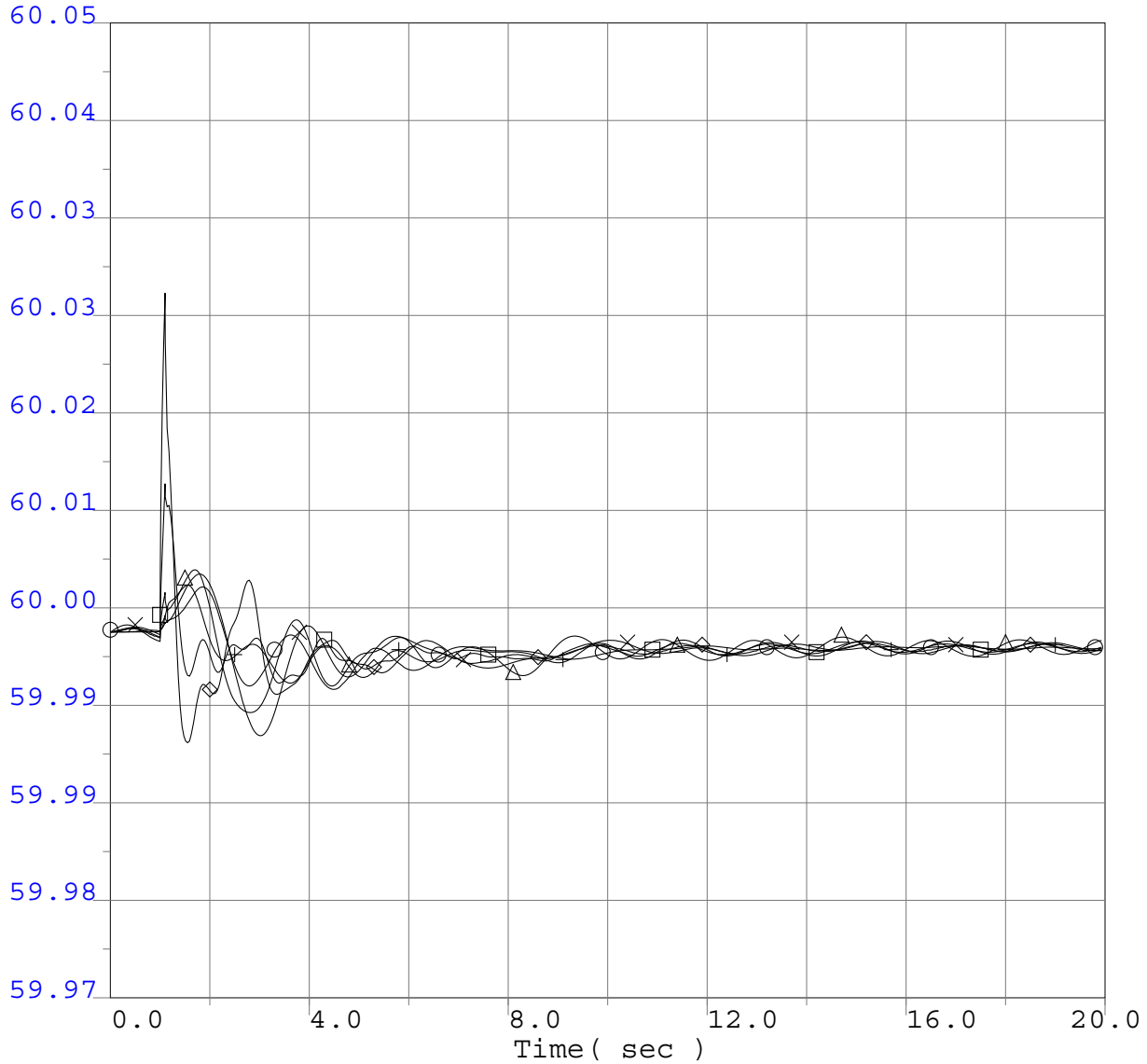


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



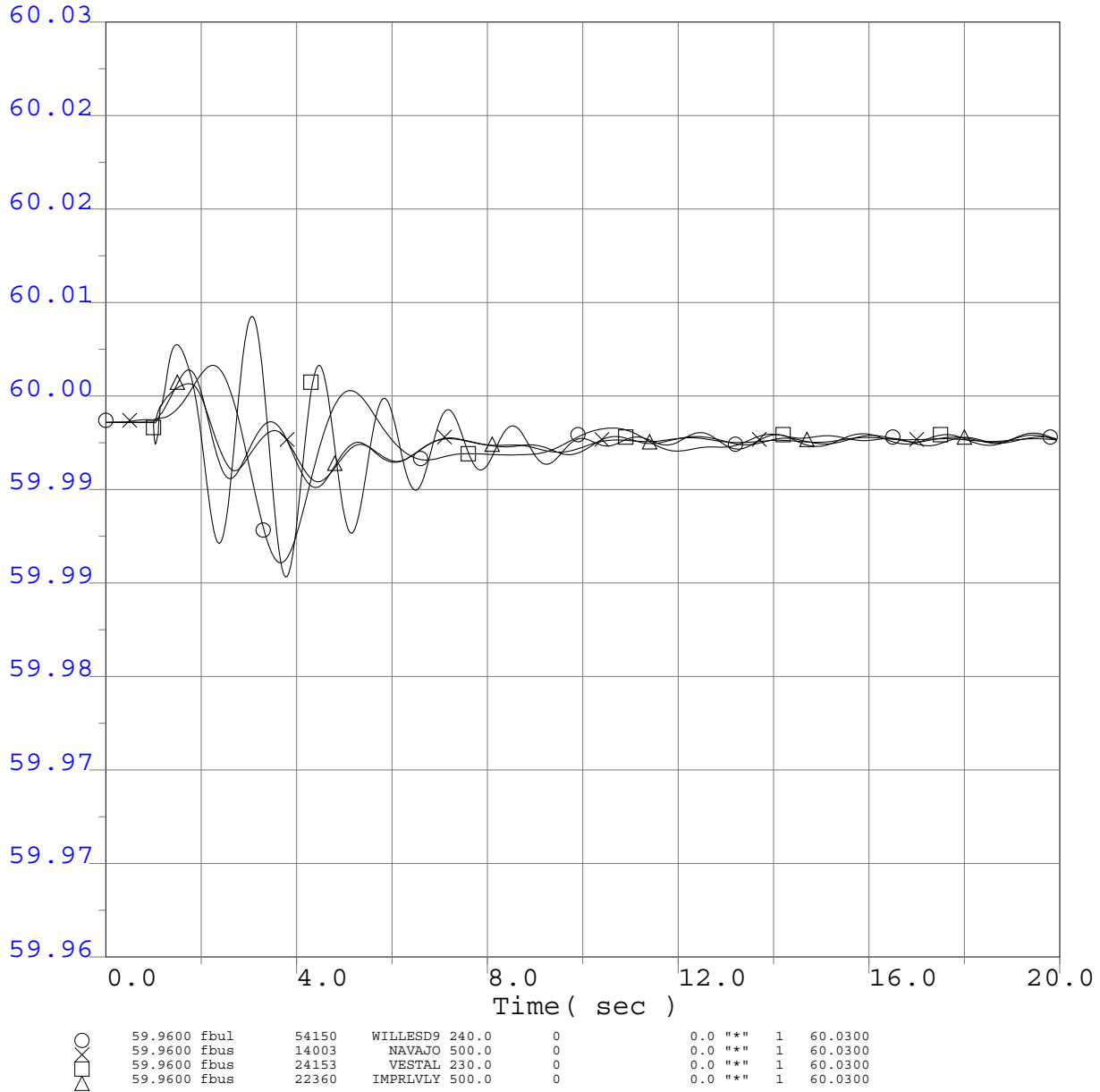
○	59.9700 Ebus	14001	FOURCORN	500.0	0	0.0	"**"	1	60.0500
□	59.9700 Ebus	50703	NIC500	500.0	0	0.0	"**"	1	60.0500
△	59.9700 Ebus	60240	MIDPOINT	500.0	0	0.0	"**"	1	60.0500
◇	59.9700 Ebus	62012	TOWN2	500.0	0	0.0	"**"	1	60.0500
+	59.9700 Ebus	40687	MALIN	500.0	0	0.0	"**"	1	60.0500
×	59.9700 Ebus	66340	SIGURD	345.0	0	0.0	"**"	1	60.0500

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots

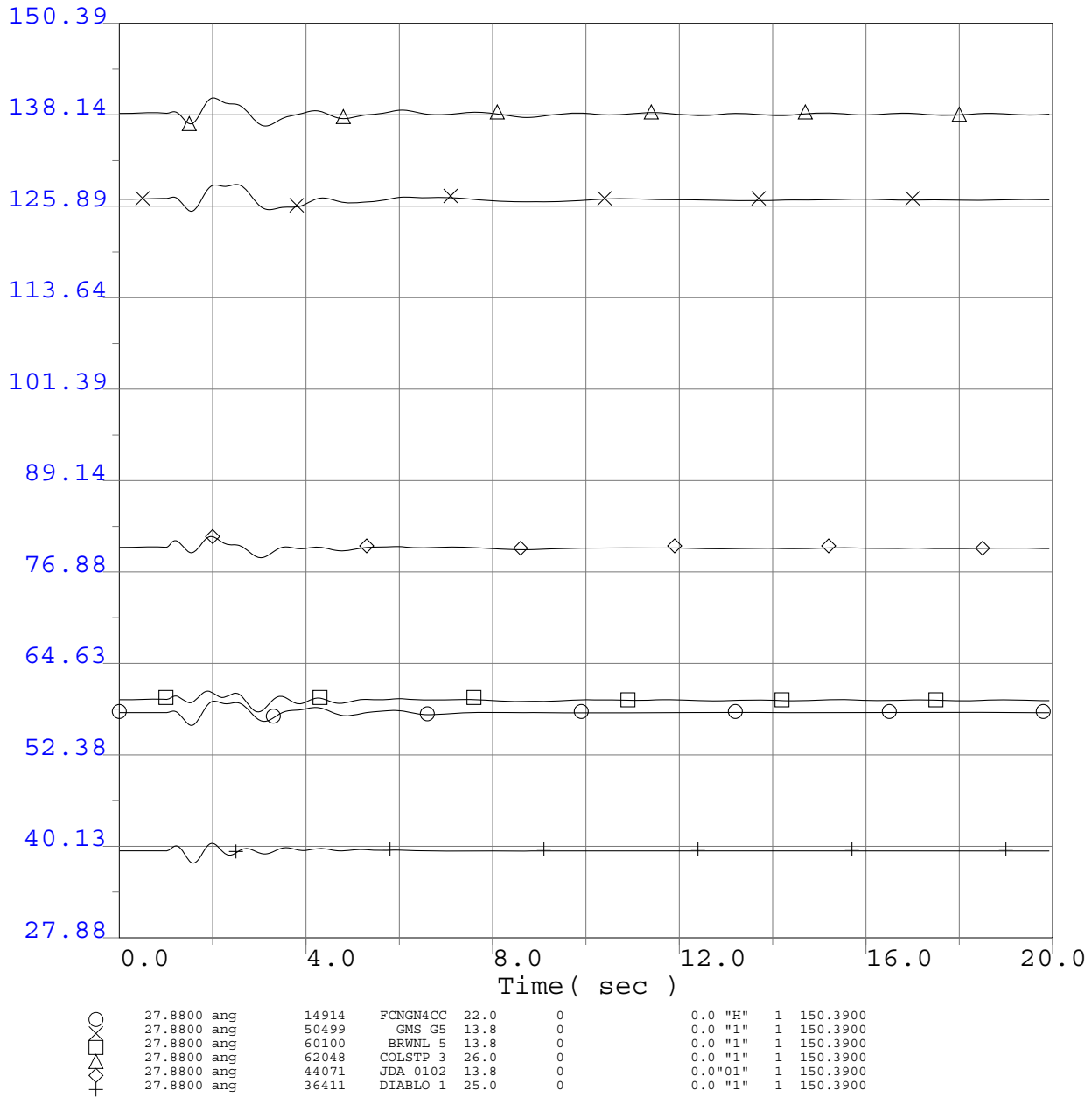


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle

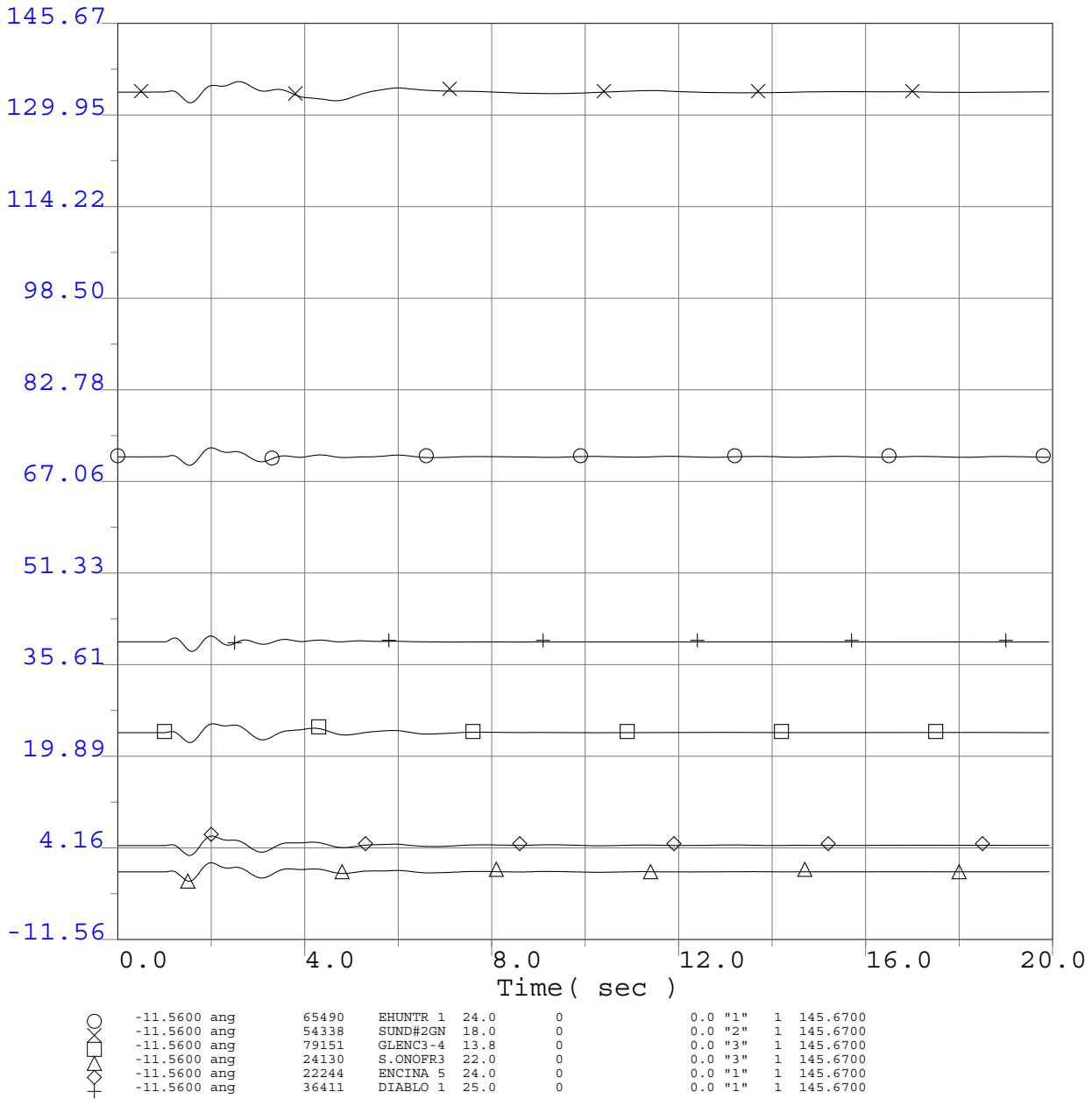


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle

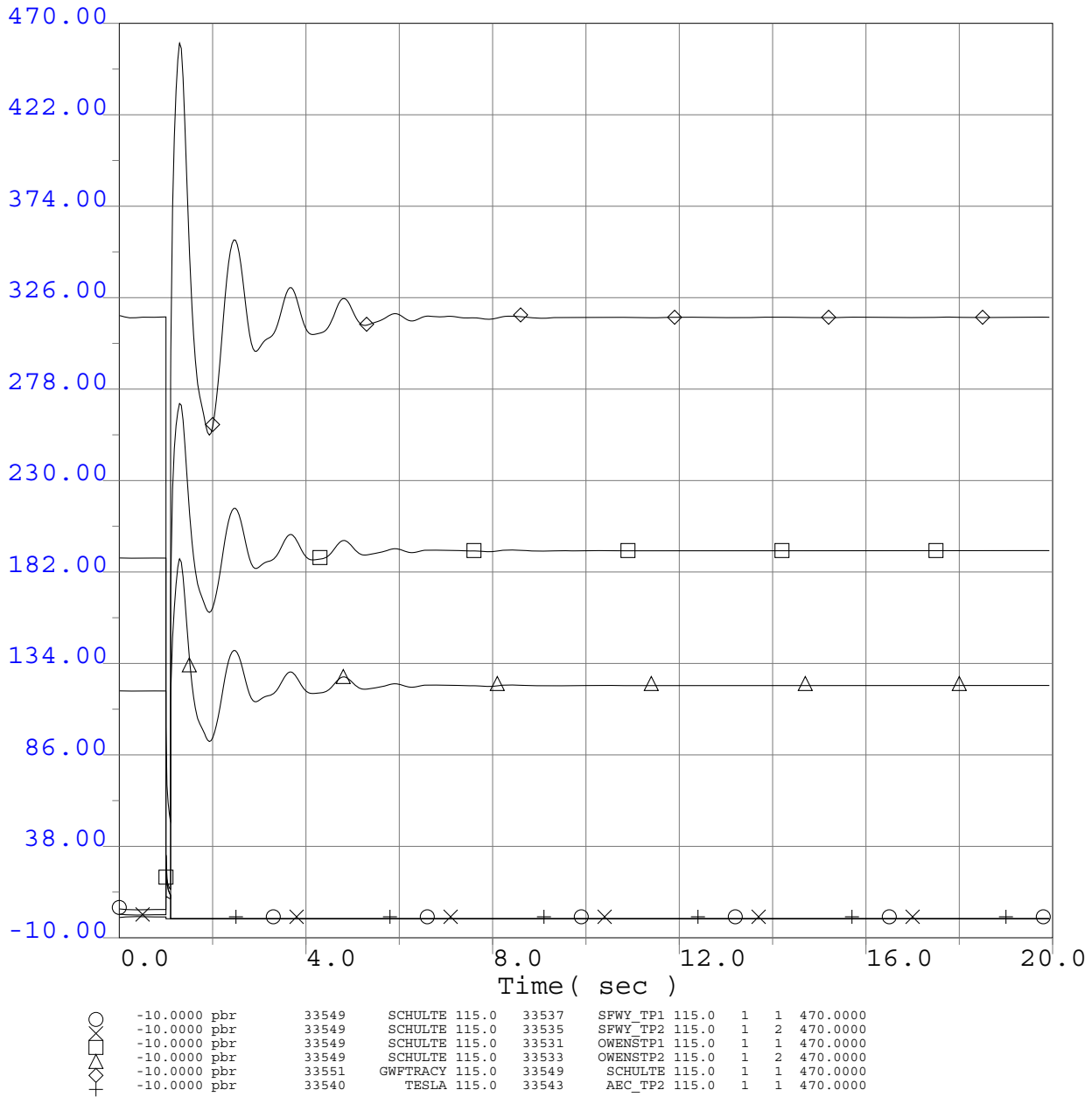


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)

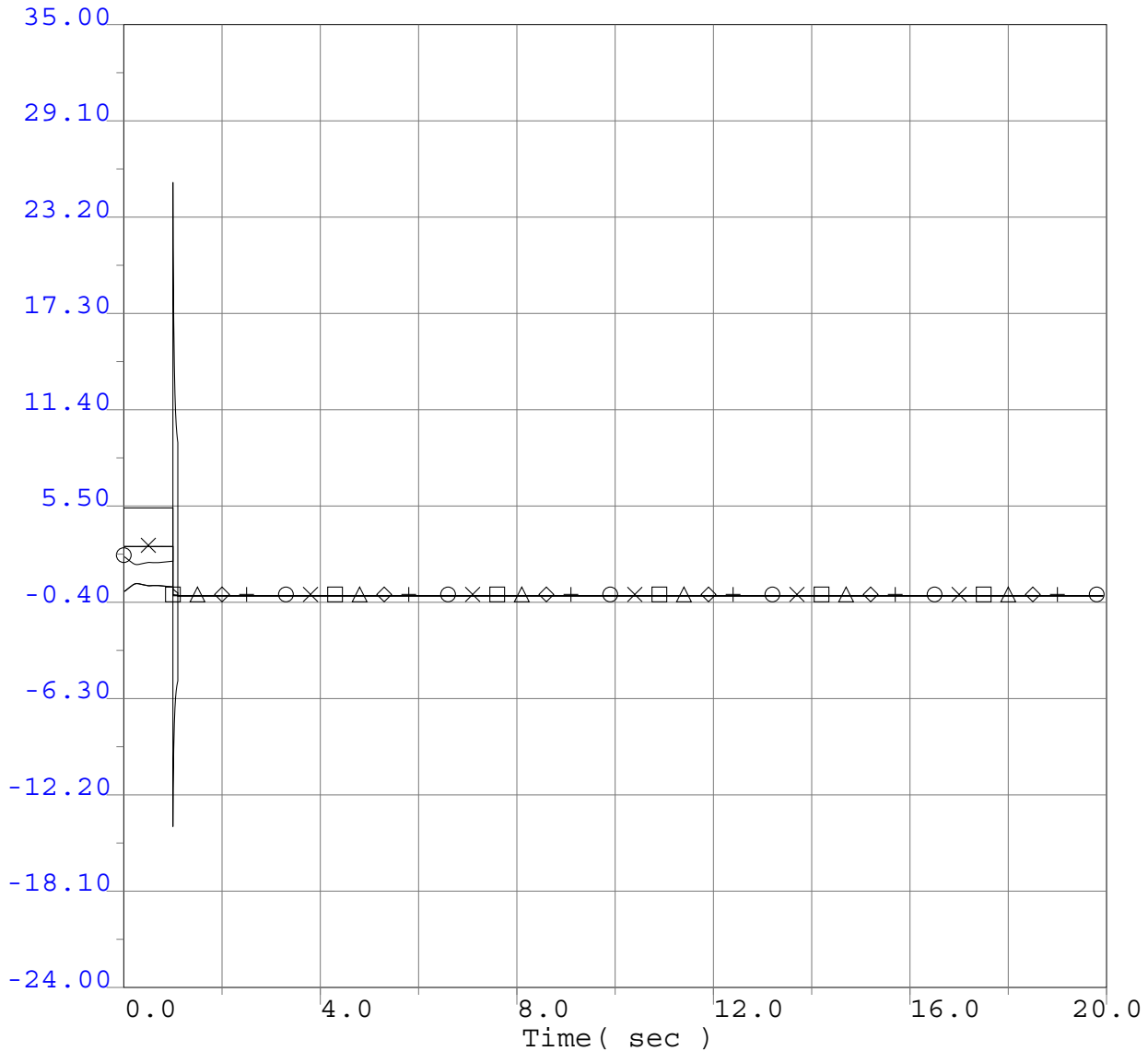


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)



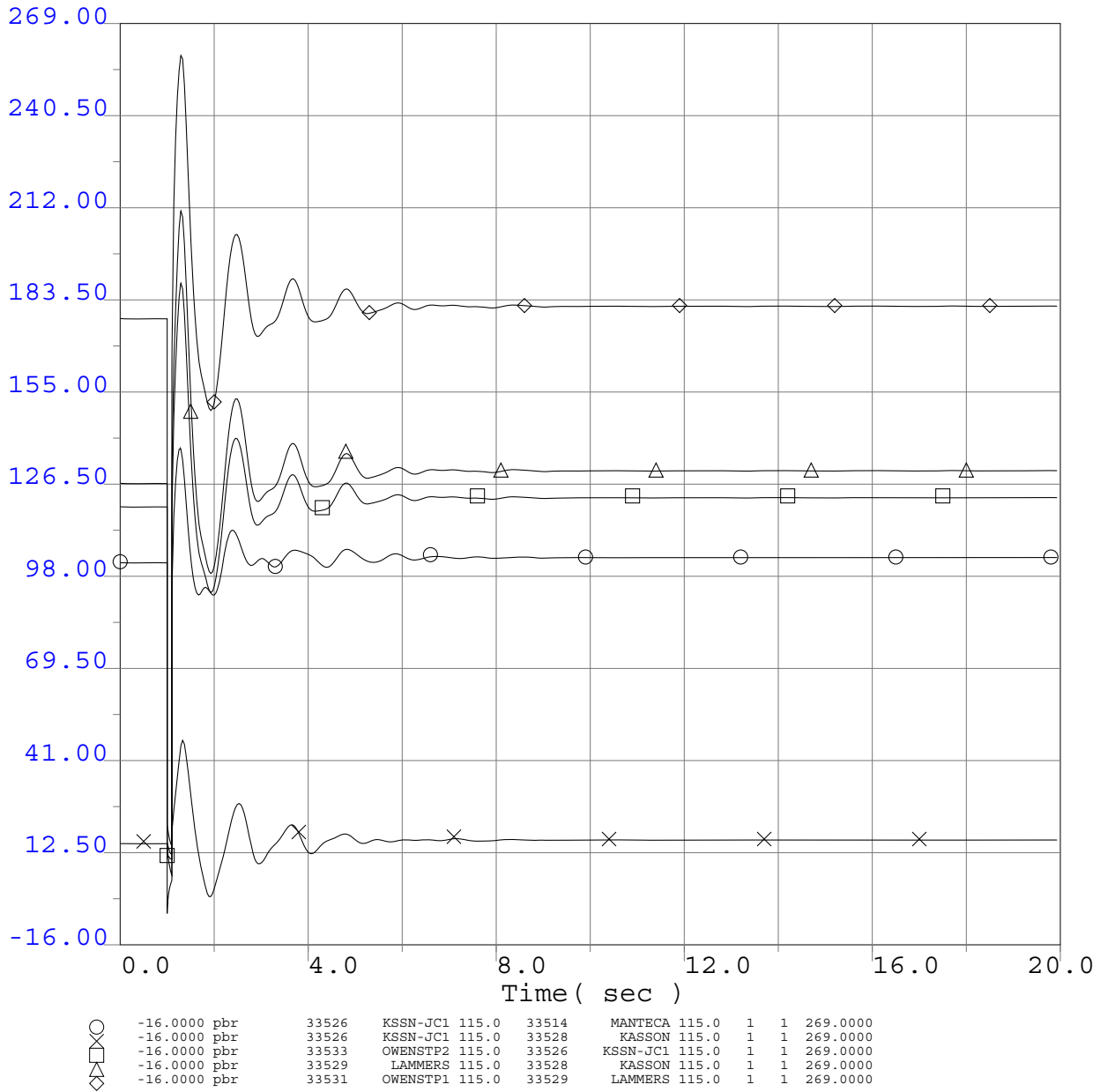
○	-24.0000 pbr	33535	SFWY_TP2 115.0	33543	AEC_TP2 115.0	1	1	35.0000
□	-24.0000 pbr	33543	AEC_TP2 115.0	33545	AEC_JCT 115.0	1	1	35.0000
△	-24.0000 pbr	33545	AEC_JCT 115.0	33547	AEC_300 115.0	1	1	35.0000
+	-24.0000 pbr	33537	SFWY_TP1 115.0	33534	SAFEWAY 115.0	1	1	35.0000
◇	-24.0000 pbr	33541	AEC_TP1 115.0	33537	SFWY_TP1 115.0	1	1	35.0000
×	-24.0000 pbr	33540	TESLA 115.0	33541	AEC_TP1 115.0	1	1	35.0000

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)

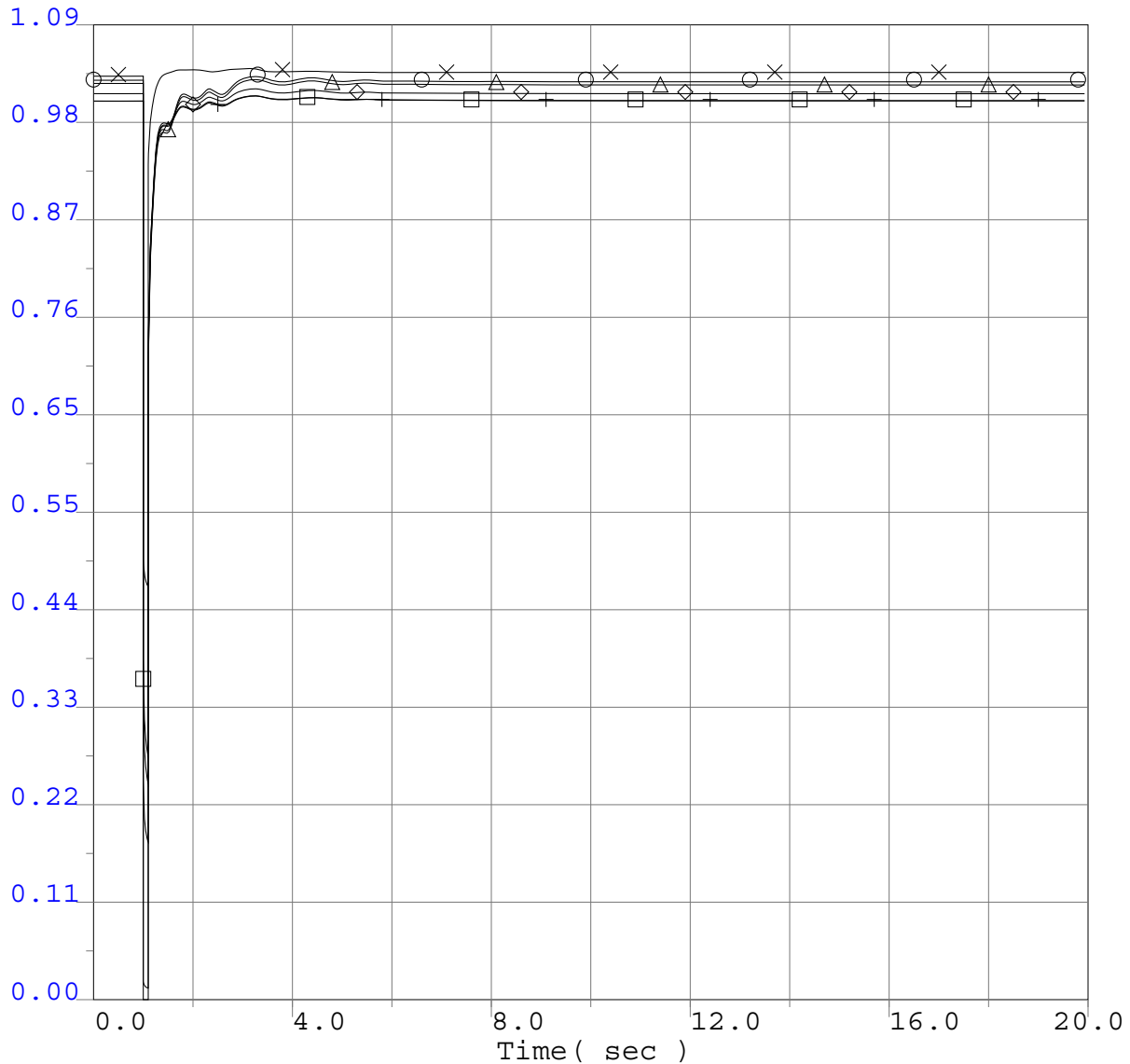


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Tesla 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Voltage Plots Adjacent to Fault



○	0.0000 vbus	33549	SCHULTE 115.0	0	0.0	1	1.0900
□	0.0000 vbus	33540	TESLA 115.0	0	0.0	1	1.0900
△	0.0000 vbul	33514	MANTECA 115.0	0	0.0	1	1.0900
◇	0.0000 vbul	33529	LAMMERS 115.0	0	0.0	1	1.0900
+	0.0000 vbus	33528	KASSON 115.0	0	0.0	1	1.0900
×	0.0000 vbul	33518	VIERRA 115.0	0	0.0	1	1.0900

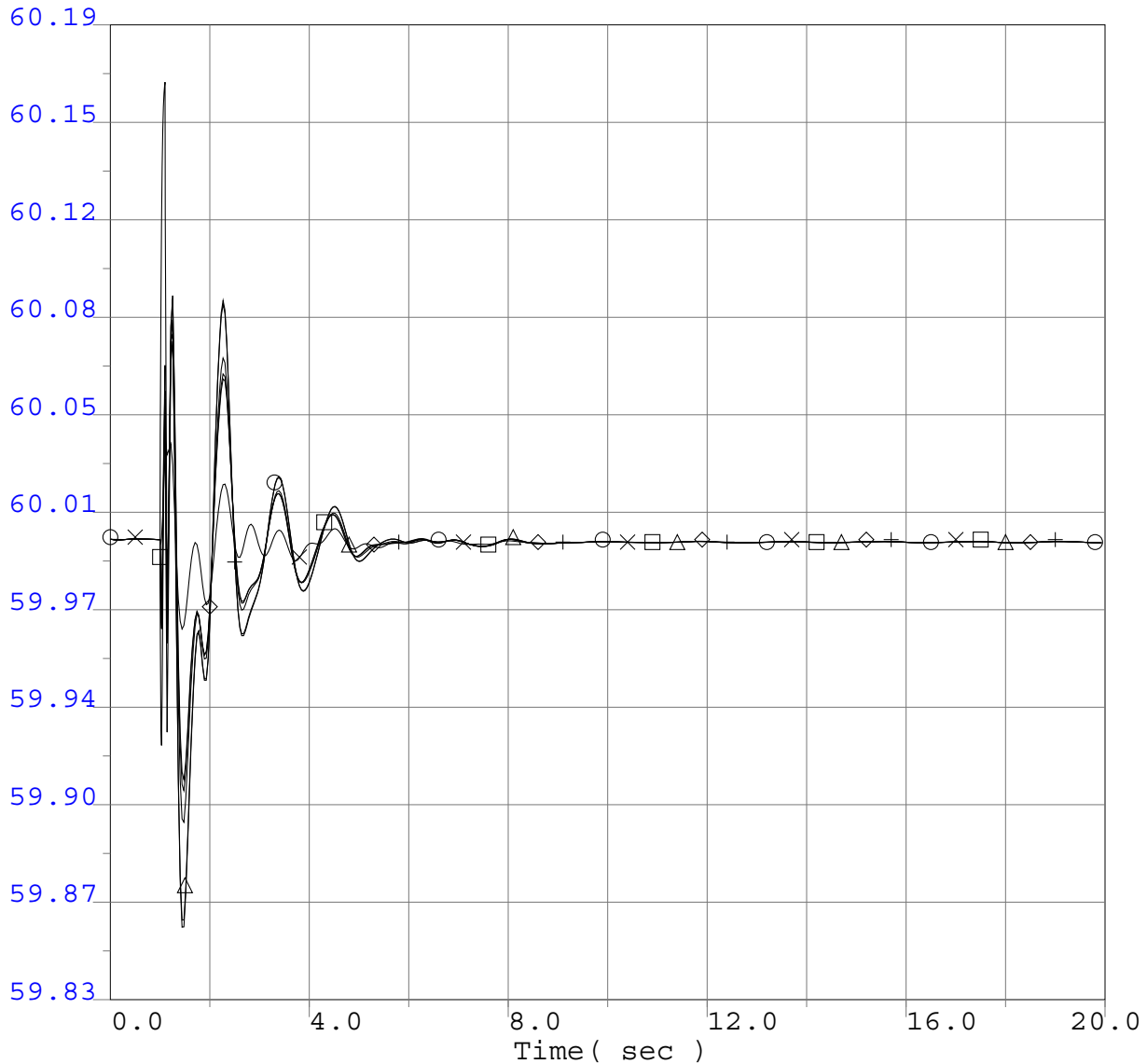


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Frequency Plots Adjacent to Fault



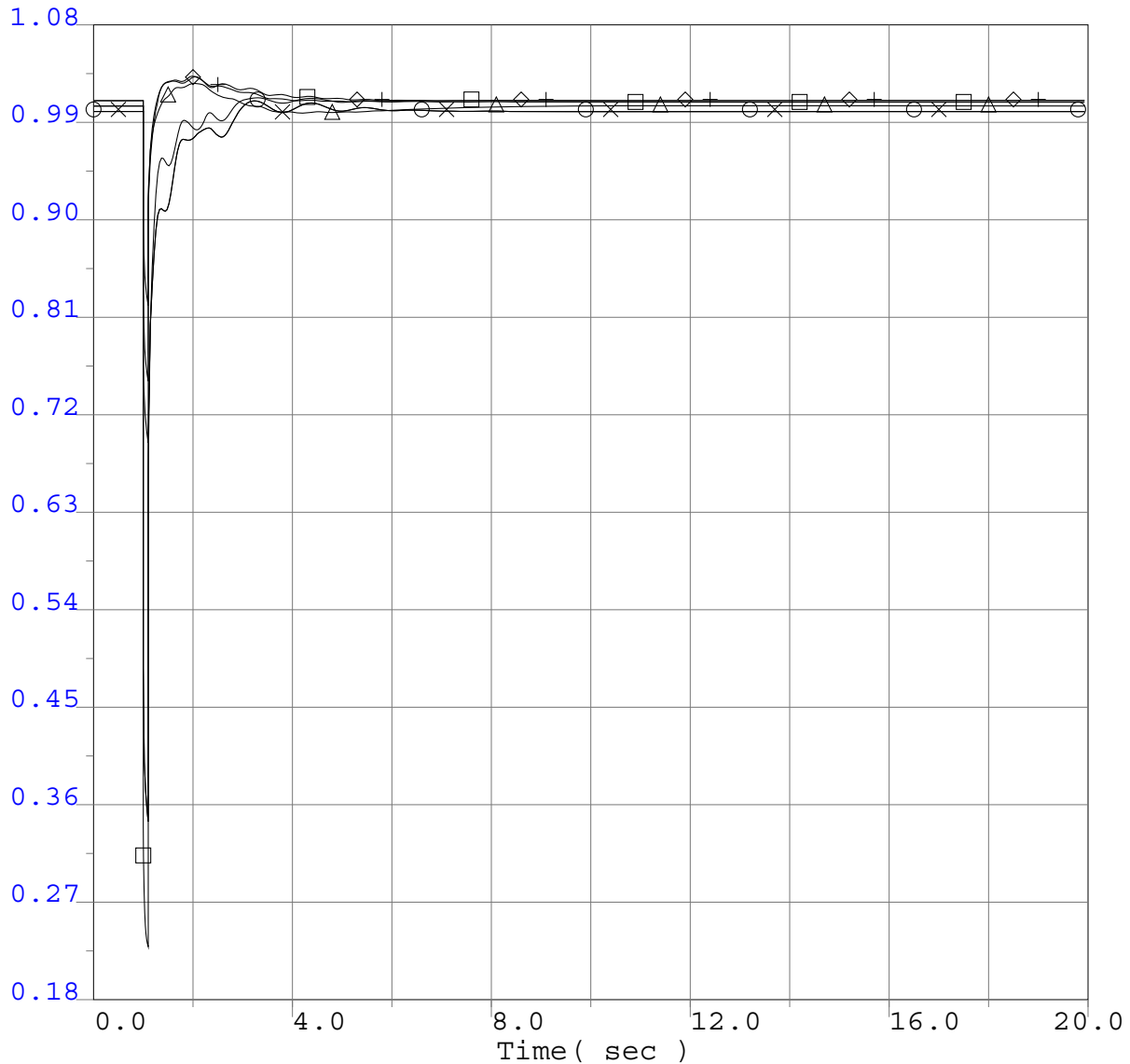
○	59.8300	Fbus	33549	SCHULTE	115.0	0	0.0	""	1	60.1900
×	59.8300	Fbus	33540	TESLA	115.0	0	0.0	""	1	60.1900
□	59.8300	Fbul	33514	MANTECA	115.0	0	0.0	""	1	60.1900
△	59.8300	Fbul	33529	LAMMERS	115.0	0	0.0	""	1	60.1900
◇	59.8300	Fbus	33528	KASSON	115.0	0	0.0	""	1	60.1900
+	59.8300	Fbul	33518	VIERRA	115.0	0	0.0	""	1	60.1900

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Project Generator Terminal Voltages



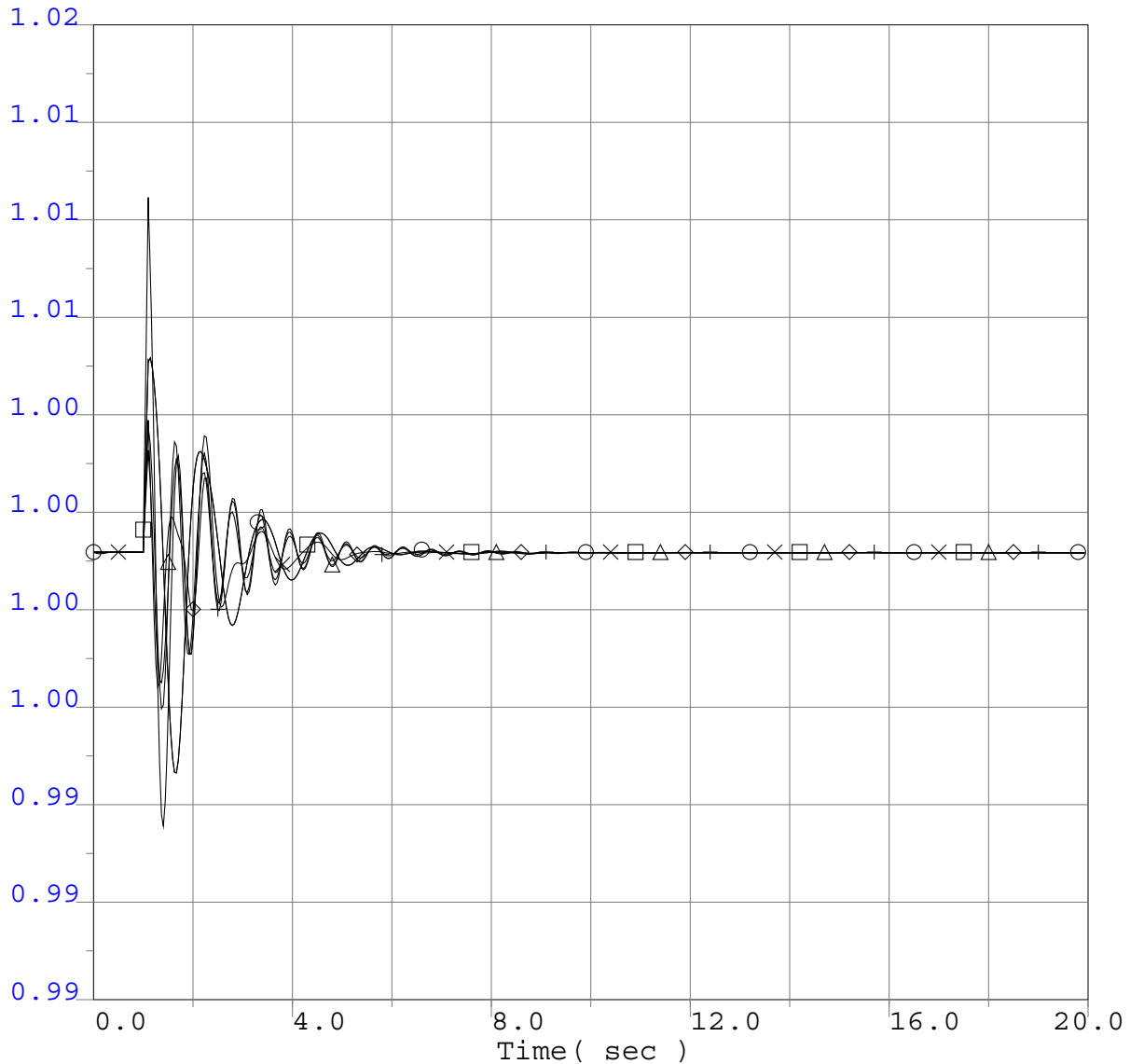
○	0.1800 vt	33805	GWFTRCY1	13.8	0	0.0	"1"	1	1.0800
□	0.1800 vt	33807	GWFTRCY2	13.8	0	0.0	"1"	1	1.0800
△	0.1800 vt	33809	Q268ST1	13.8	0	0.0	"1"	1	1.0800
◇	0.1800 vt	33858	P0409CG2	13.8	0	0.0	"1"	1	1.0800
+	0.1800 vt	33808	SJ COGEN	13.8	0	0.0	"1"	1	1.0800
×	0.1800 vt	33810	SP CMPNY	13.8	0	0.0	"1"	1	1.0800

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Project Generator Rotor Speed



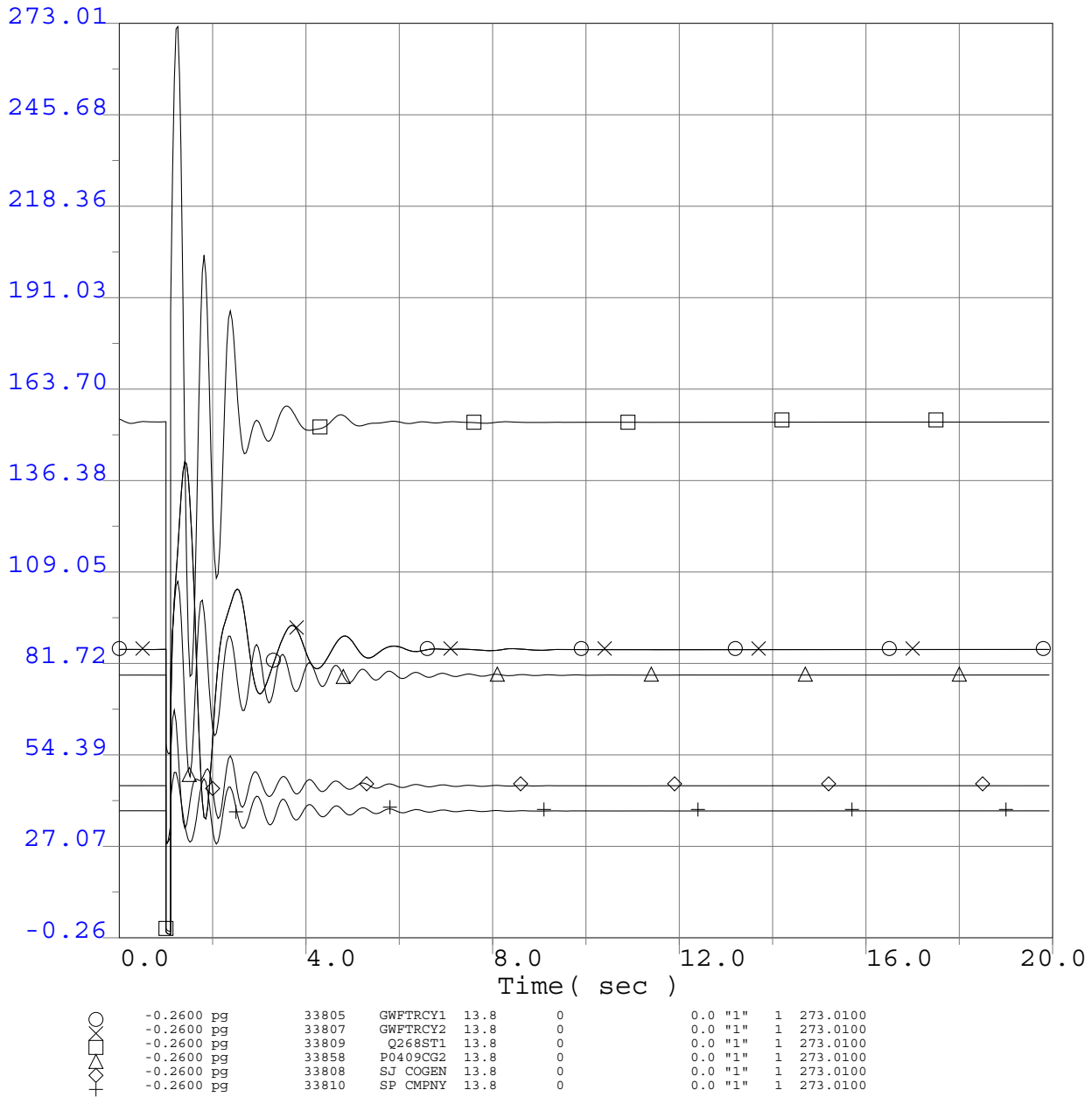
○	0.9871 spd	33805	GWTRCY1	13.8	0	0.0	"1"	1	1.0152
□	0.9871 spd	33807	GWTRCY2	13.8	0	0.0	"1"	1	1.0152
△	0.9871 spd	33809	Q268ST1	13.8	0	0.0	"1"	1	1.0152
◇	0.9871 spd	33858	P0409CG2	13.8	0	0.0	"1"	1	1.0152
+	0.9871 spd	33808	SJ COGEN	13.8	0	0.0	"1"	1	1.0152
×	0.9871 spd	33810	SP CMPNY	13.8	0	0.0	"1"	1	1.0152

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Project Generator Terminal Power

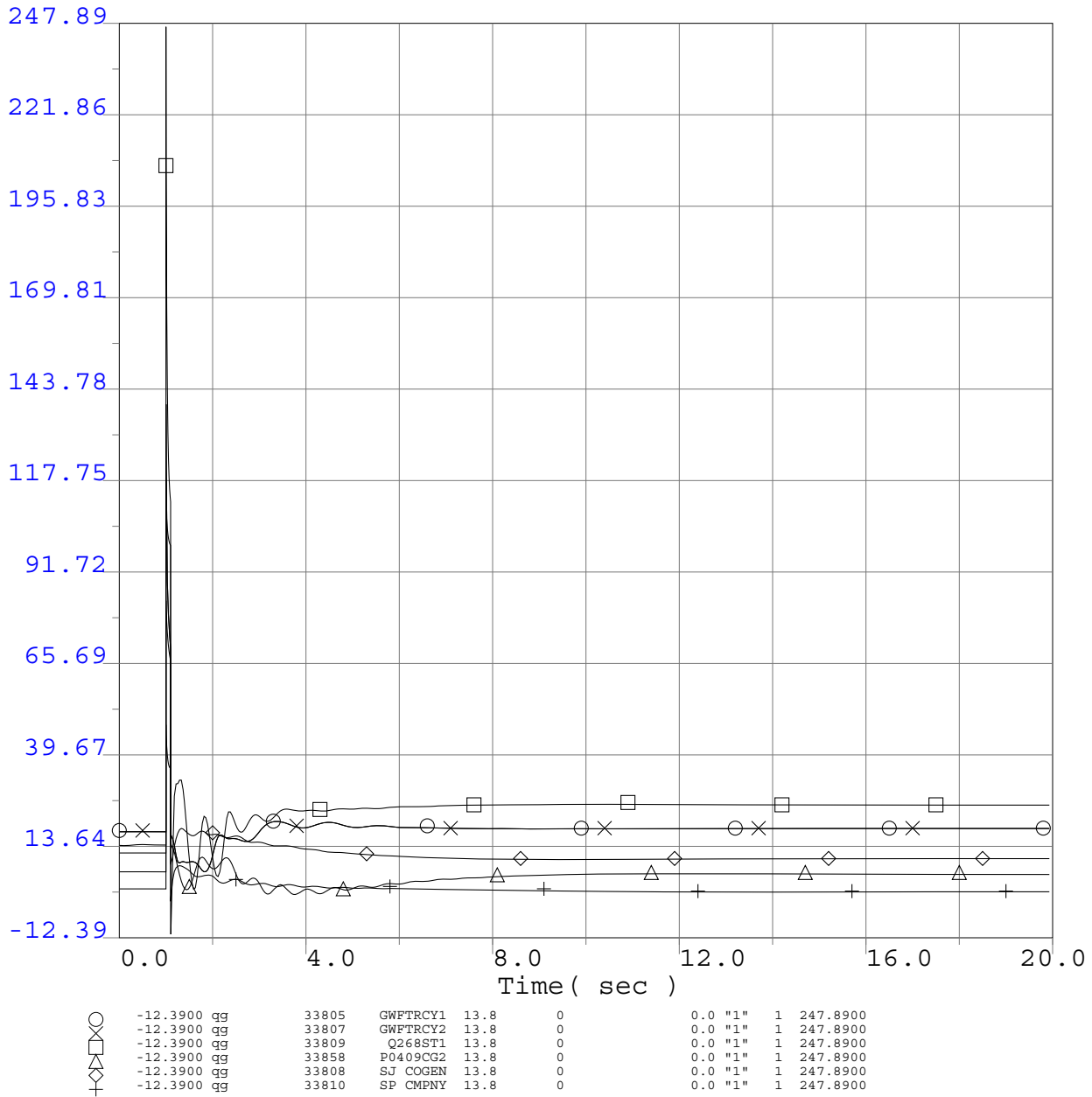


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Project Generator Terminal Reactive Power

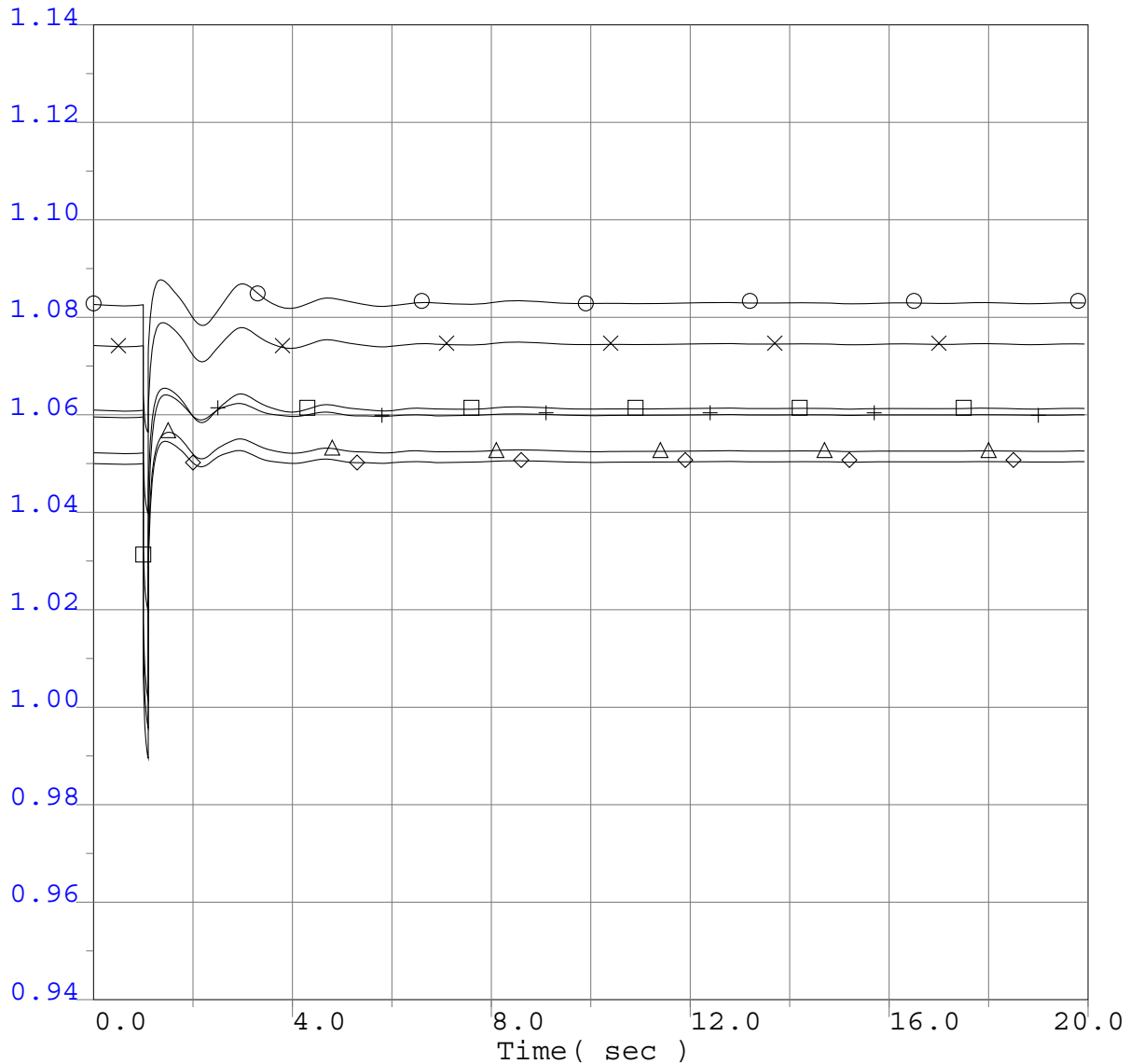


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots



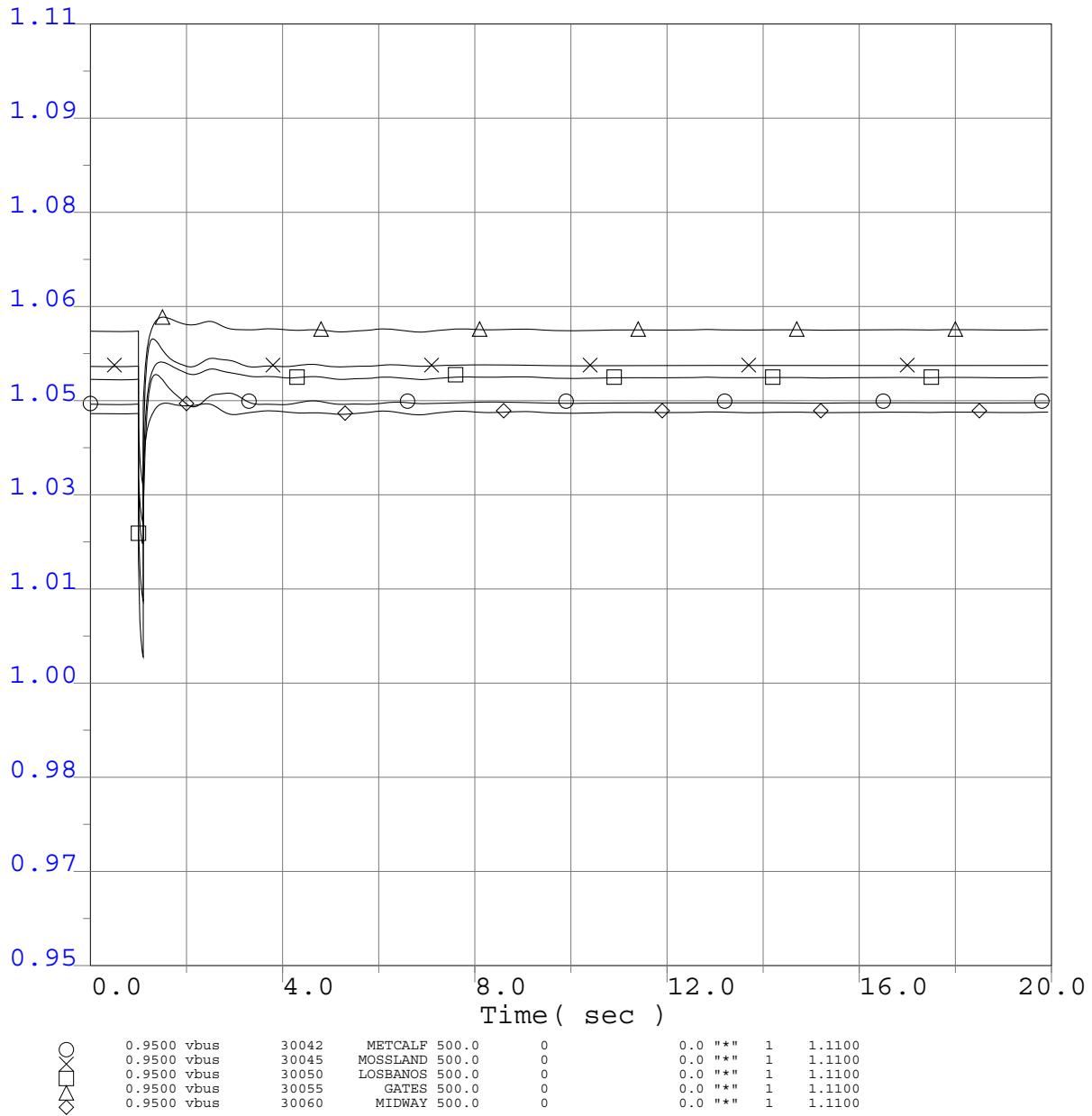
○	0.9400 vbus	40687	MALIN 500.0	0	0.0	""	1	1.1400
×	0.9400 vbus	30005	ROUND MT 500.0	0	0.0	""	1	1.1400
□	0.9400 vbus	30015	TABLE MT 500.0	0	0.0	""	1	1.1400
△	0.9400 vbus	30030	VACA-DIX 500.0	0	0.0	""	1	1.1400
◇	0.9400 vbus	30040	TESLA 500.0	0	0.0	""	1	1.1400
+	0.9400 vbus	30035	TRACY 500.0	0	0.0	""	1	1.1400

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

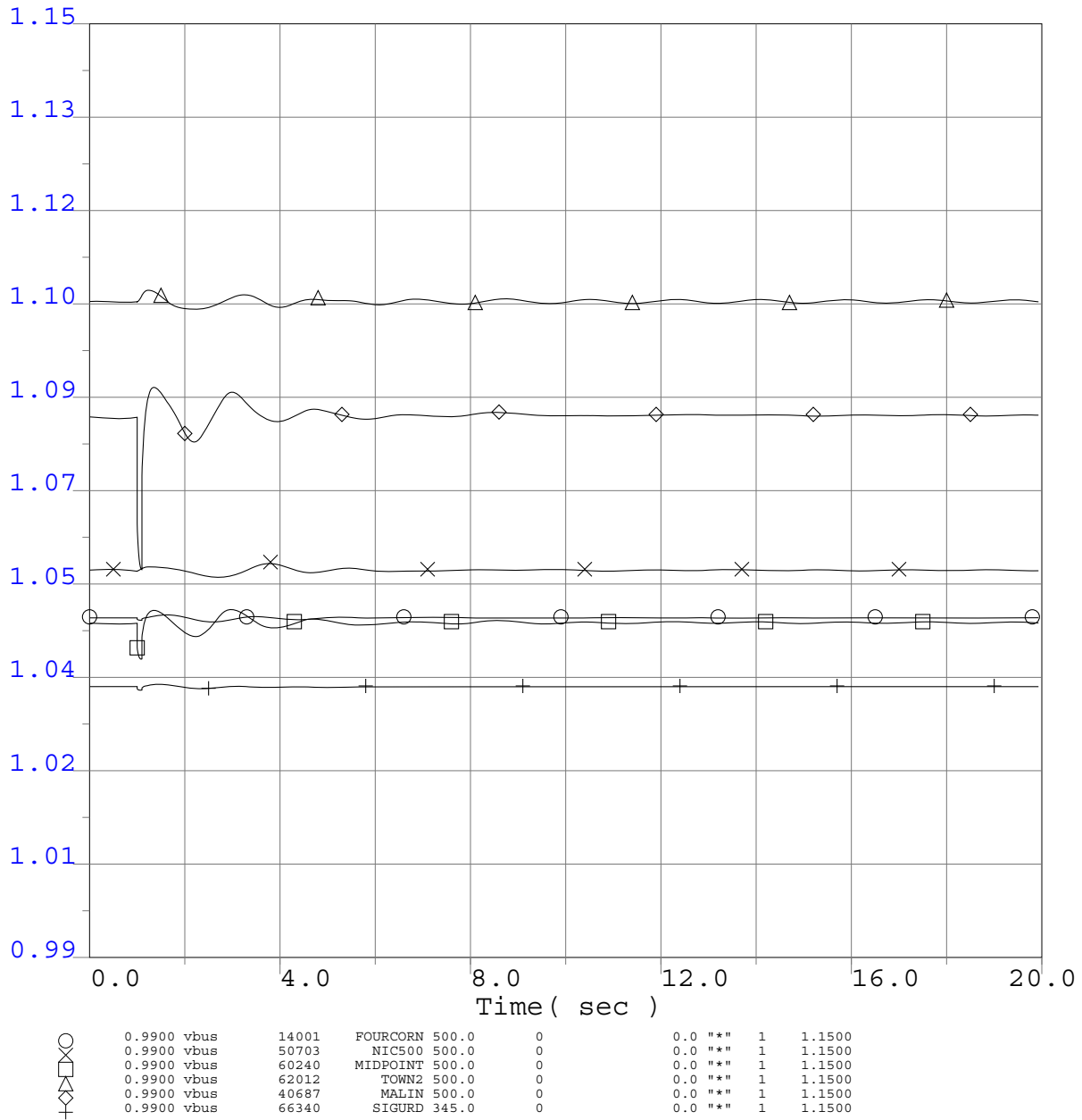


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

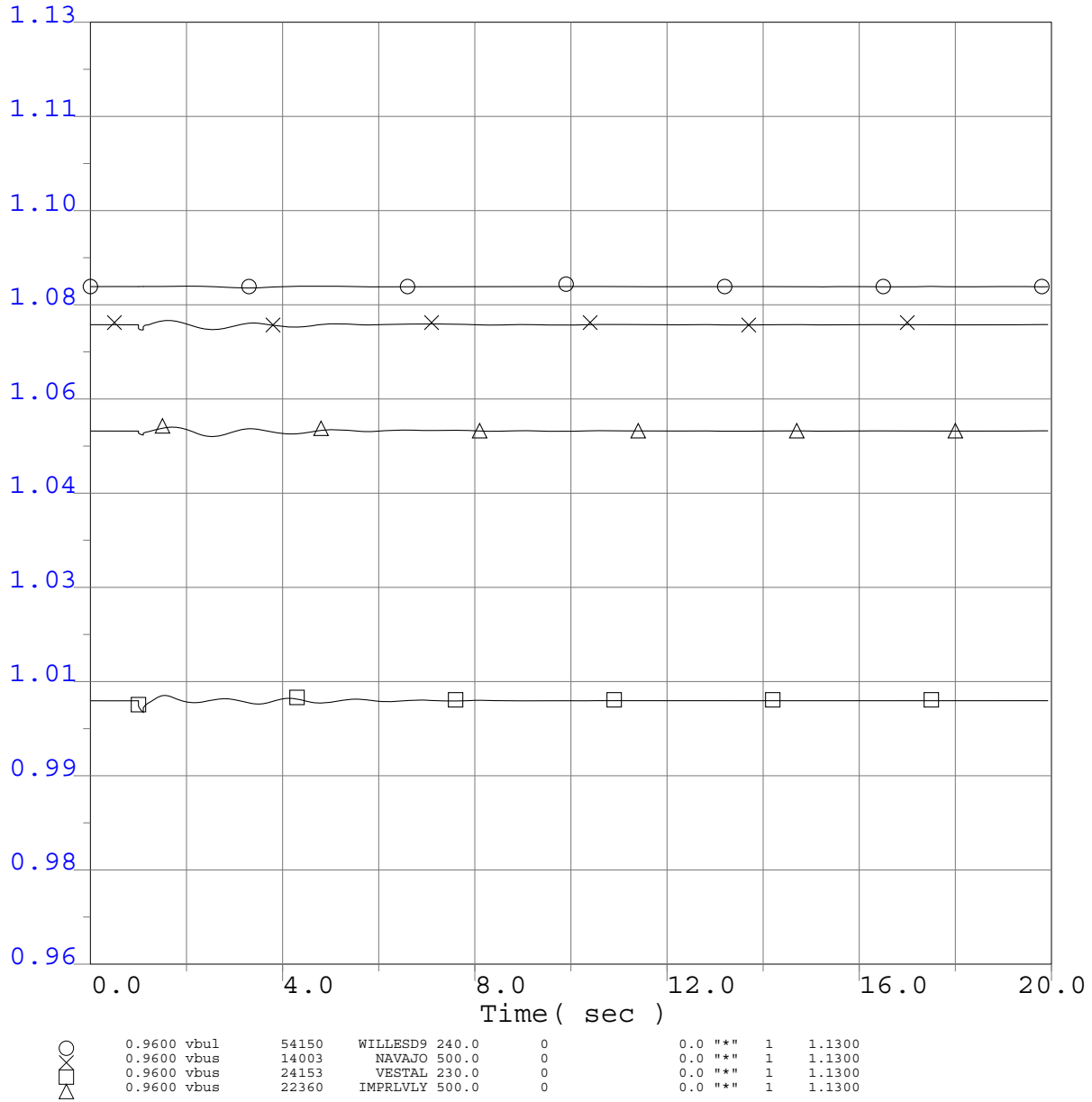


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

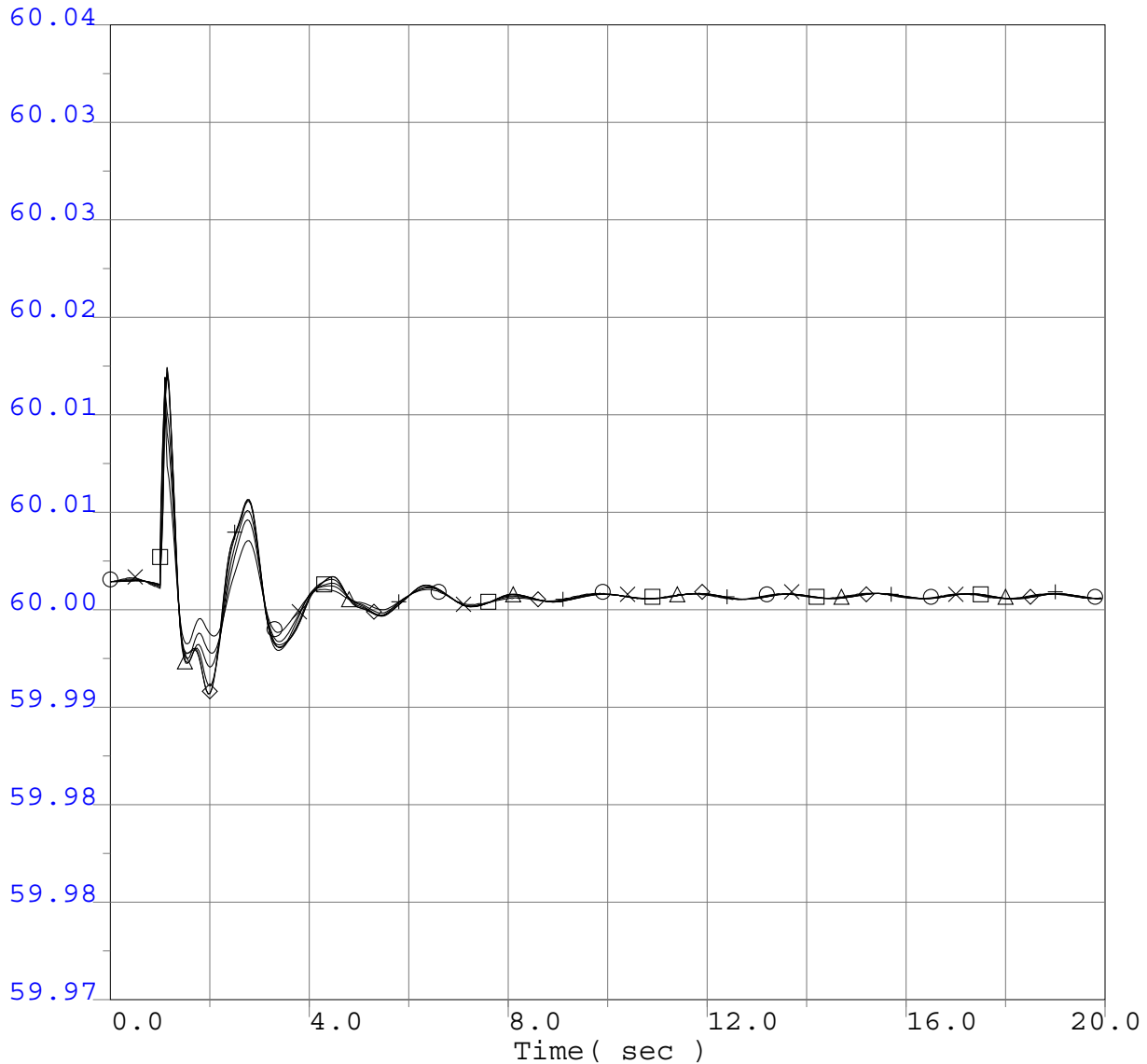


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



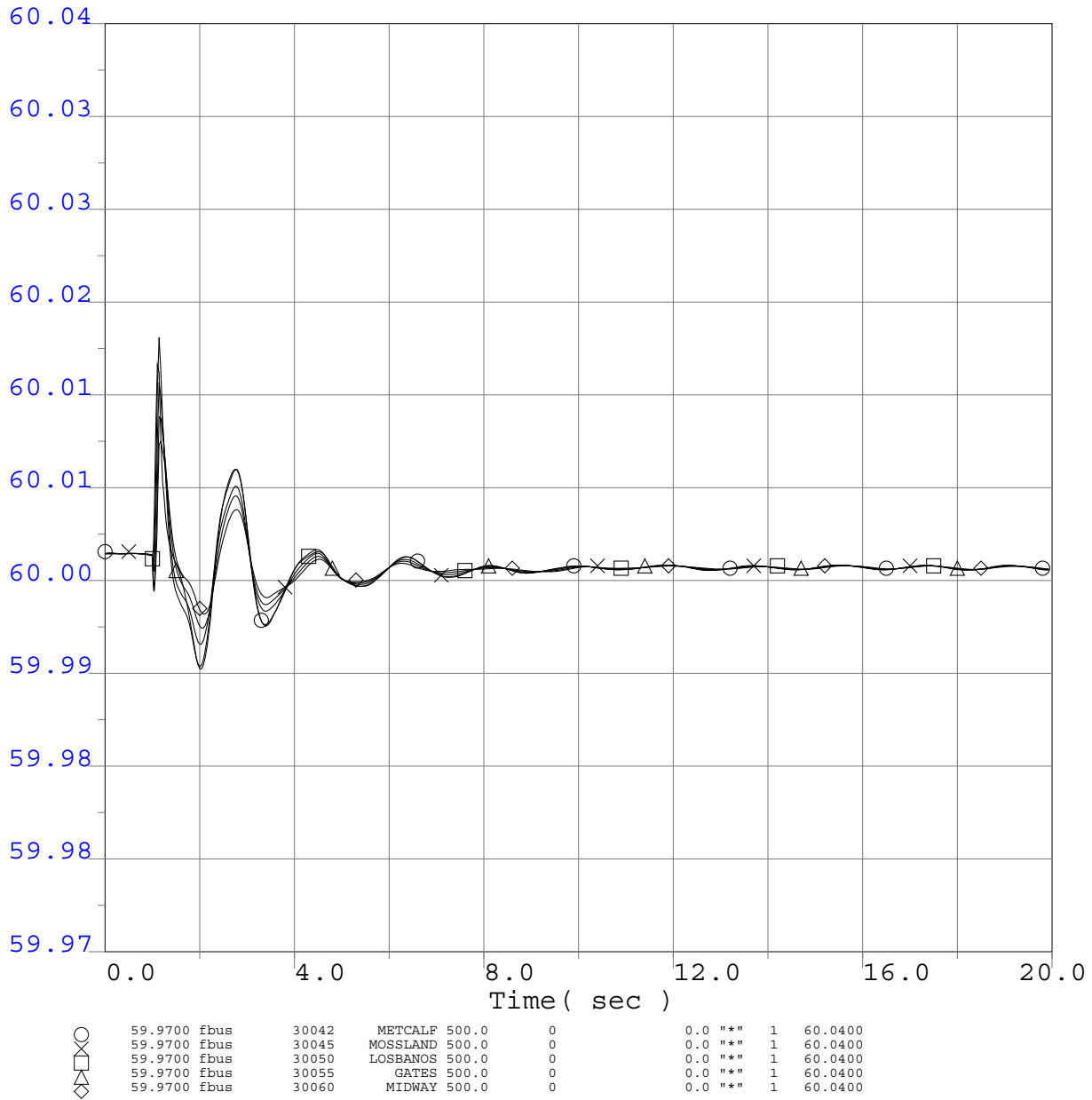
○	59.9700 Ebus	40687	MALIN 500.0	0	0.0	""	1	60.0400
□	59.9700 Ebus	30005	ROUND MT 500.0	0	0.0	""	1	60.0400
△	59.9700 Ebus	30015	TABLE MT 500.0	0	0.0	""	1	60.0400
◇	59.9700 Ebus	30030	VACA-DIX 500.0	0	0.0	""	1	60.0400
+	59.9700 Ebus	30040	TESLA 500.0	0	0.0	""	1	60.0400
×	59.9700 Ebus	30035	TRACY 500.0	0	0.0	""	1	60.0400

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots

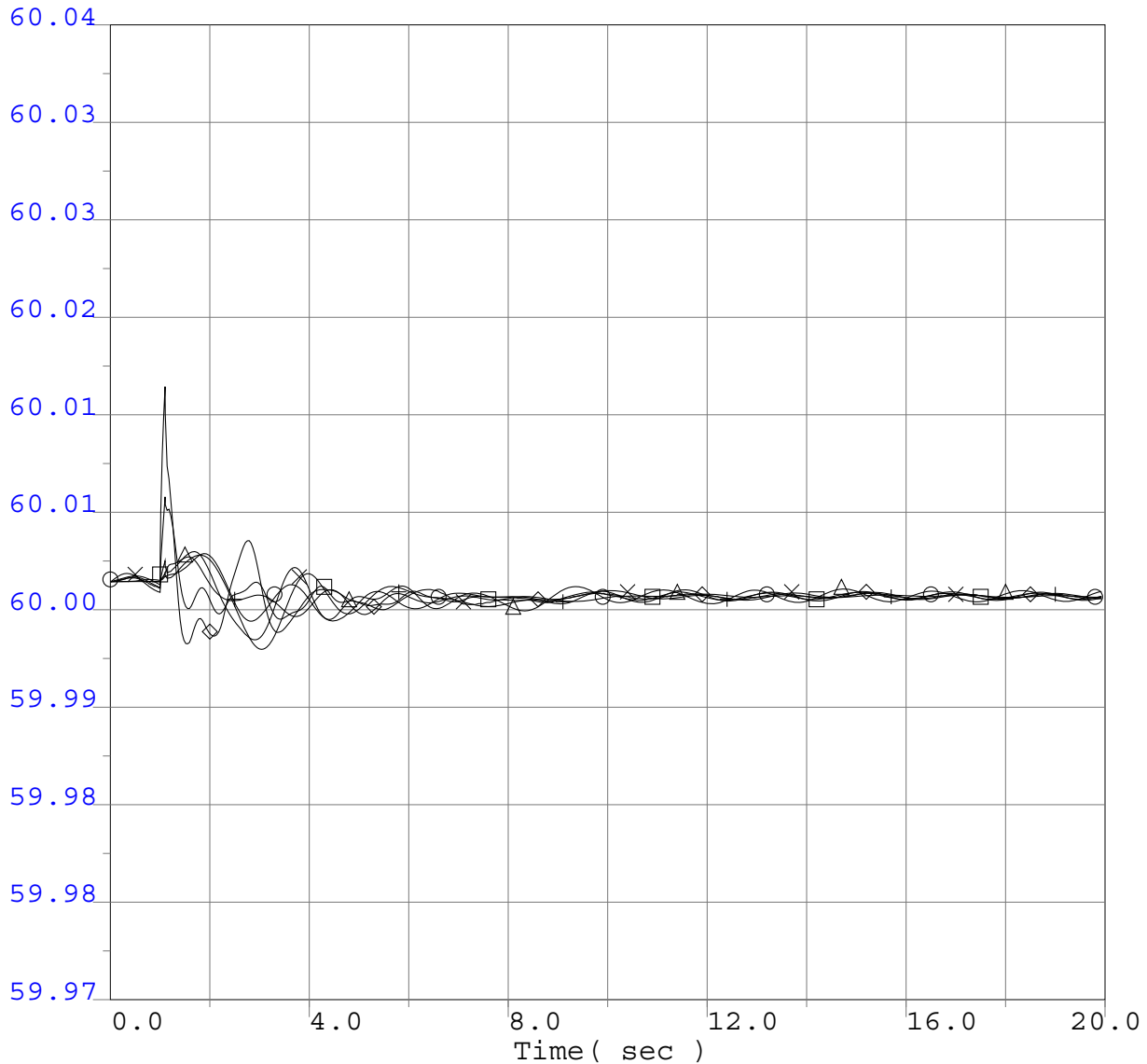


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



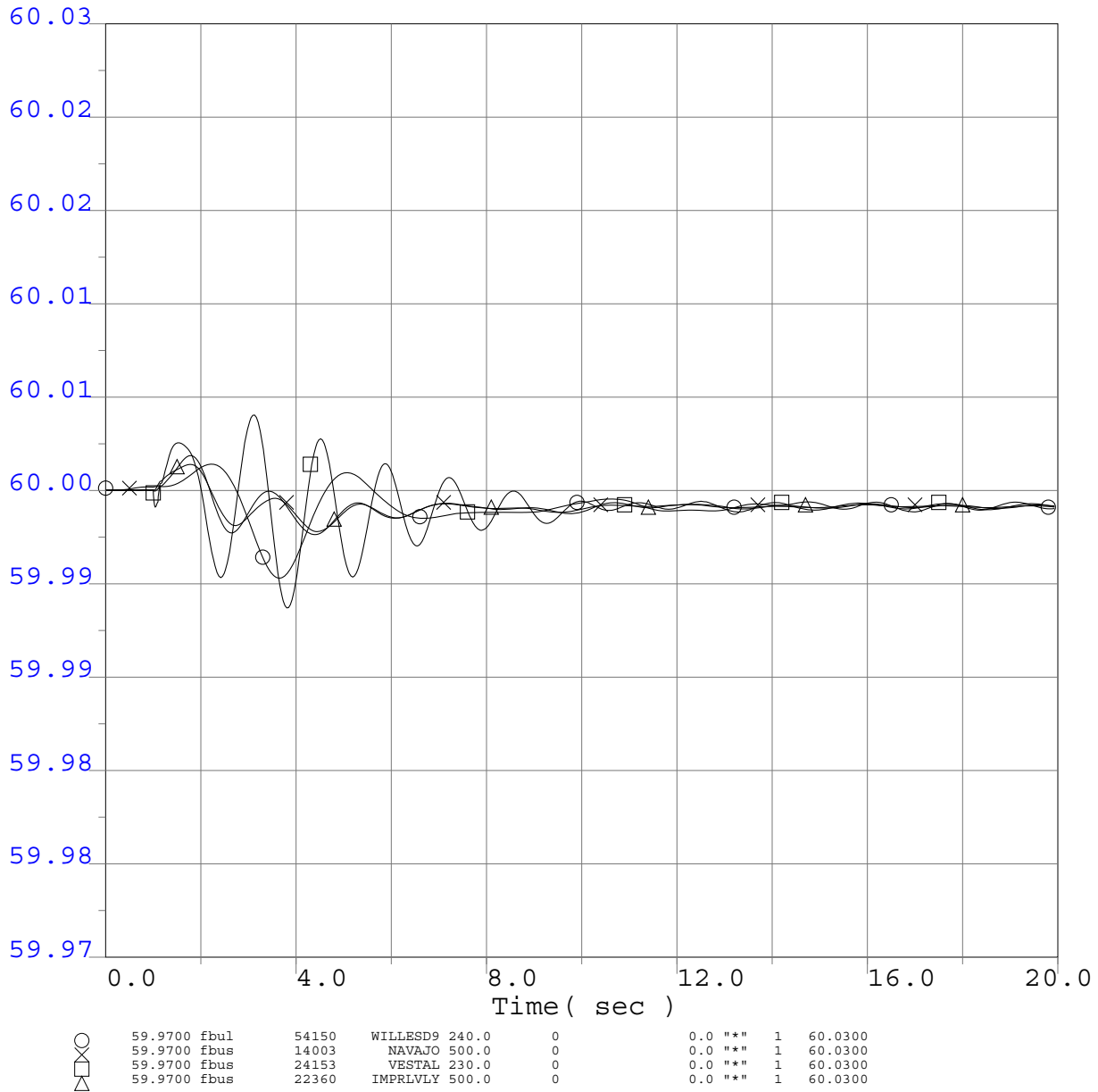
○	59.9700 Ebus	14001	FOURCORN	500.0	0	0.0	"**"	1	60.0400
□	59.9700 Ebus	50703	NIC500	500.0	0	0.0	"**"	1	60.0400
△	59.9700 Ebus	60240	MIDPOINT	500.0	0	0.0	"**"	1	60.0400
◇	59.9700 Ebus	62012	TOWN2	500.0	0	0.0	"**"	1	60.0400
+	59.9700 Ebus	40687	MALIN	500.0	0	0.0	"**"	1	60.0400
	59.9700 Ebus	66340	SIGURD	345.0	0	0.0	"**"	1	60.0400

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
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 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots

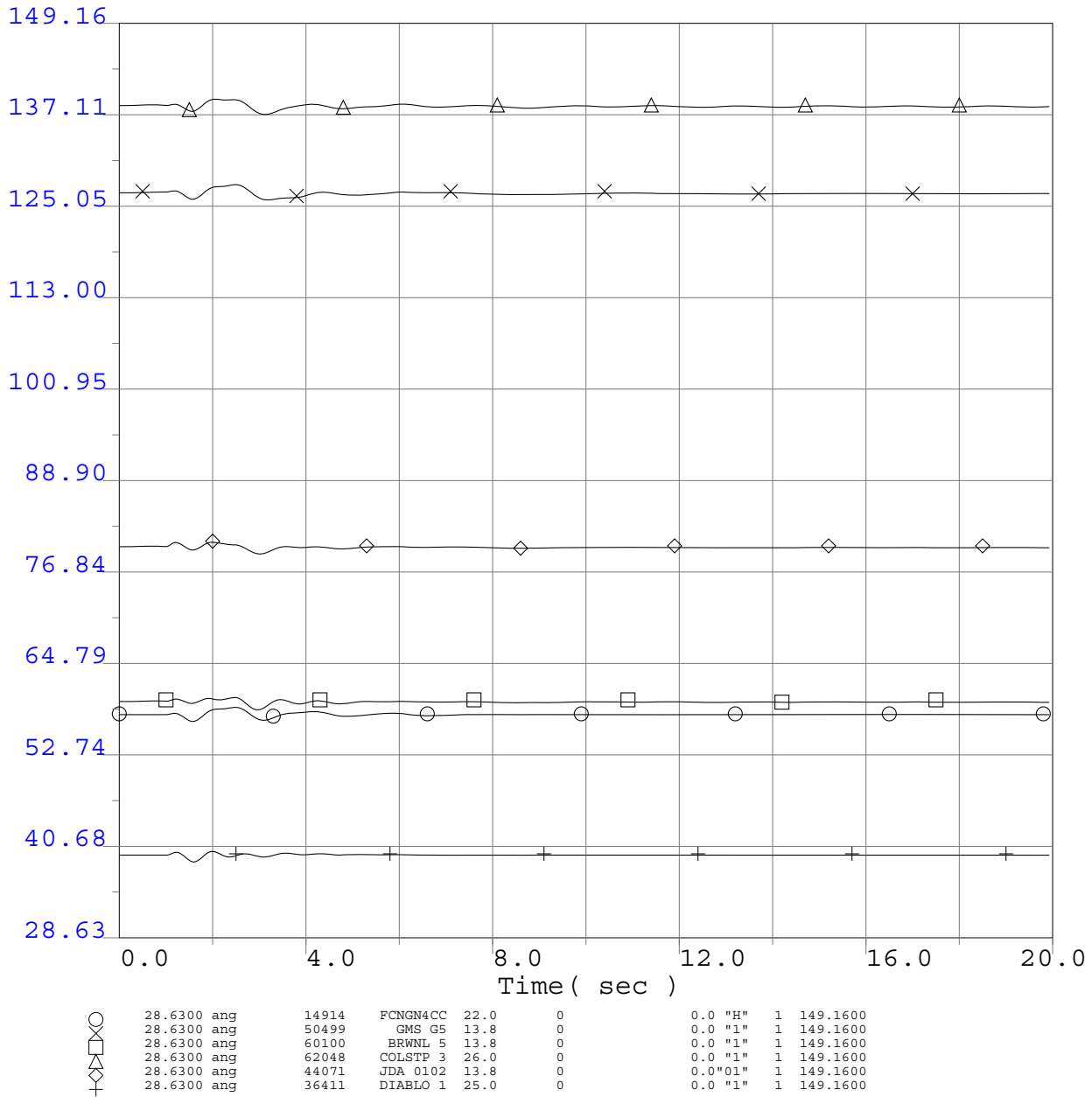


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle

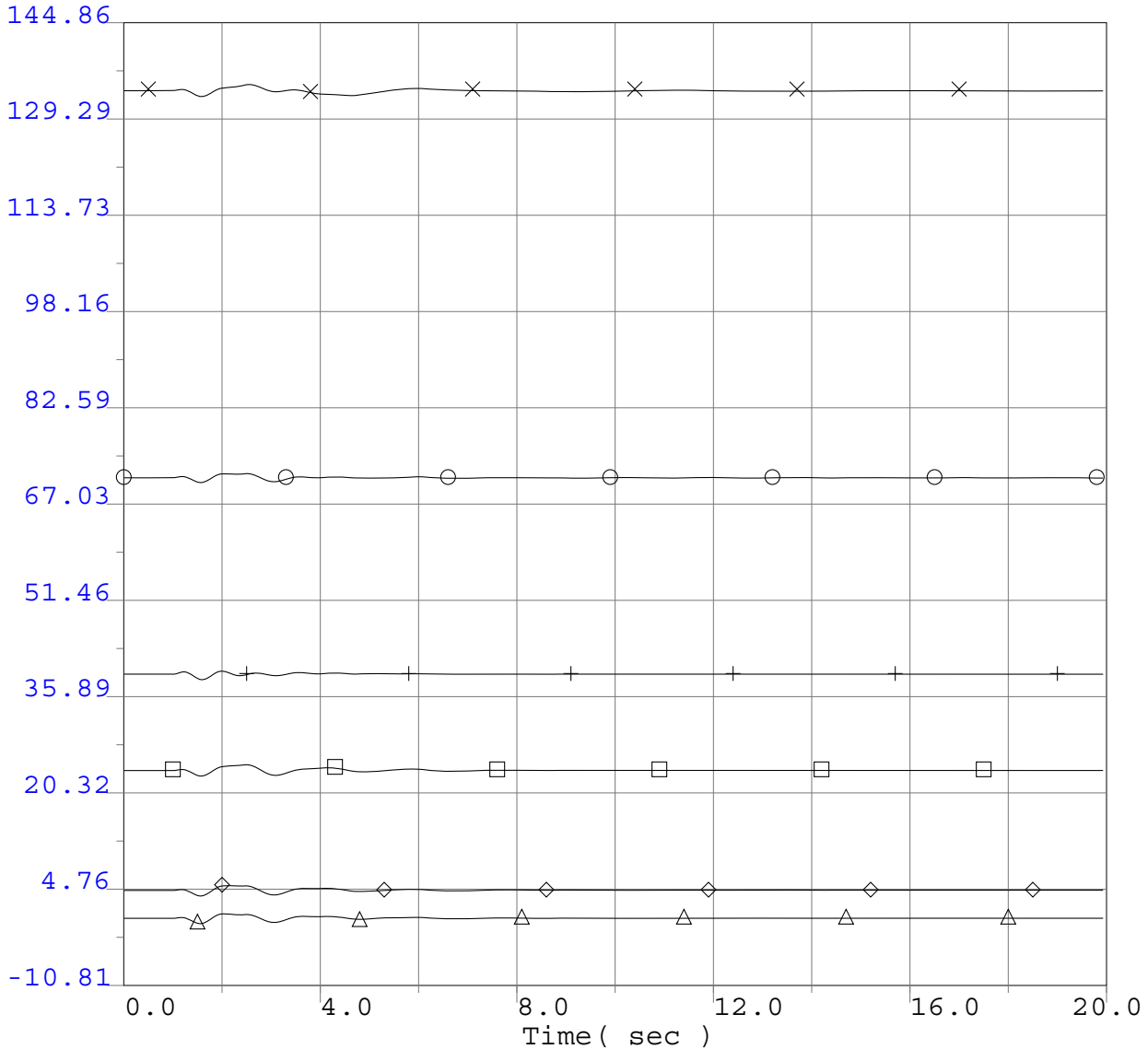


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle



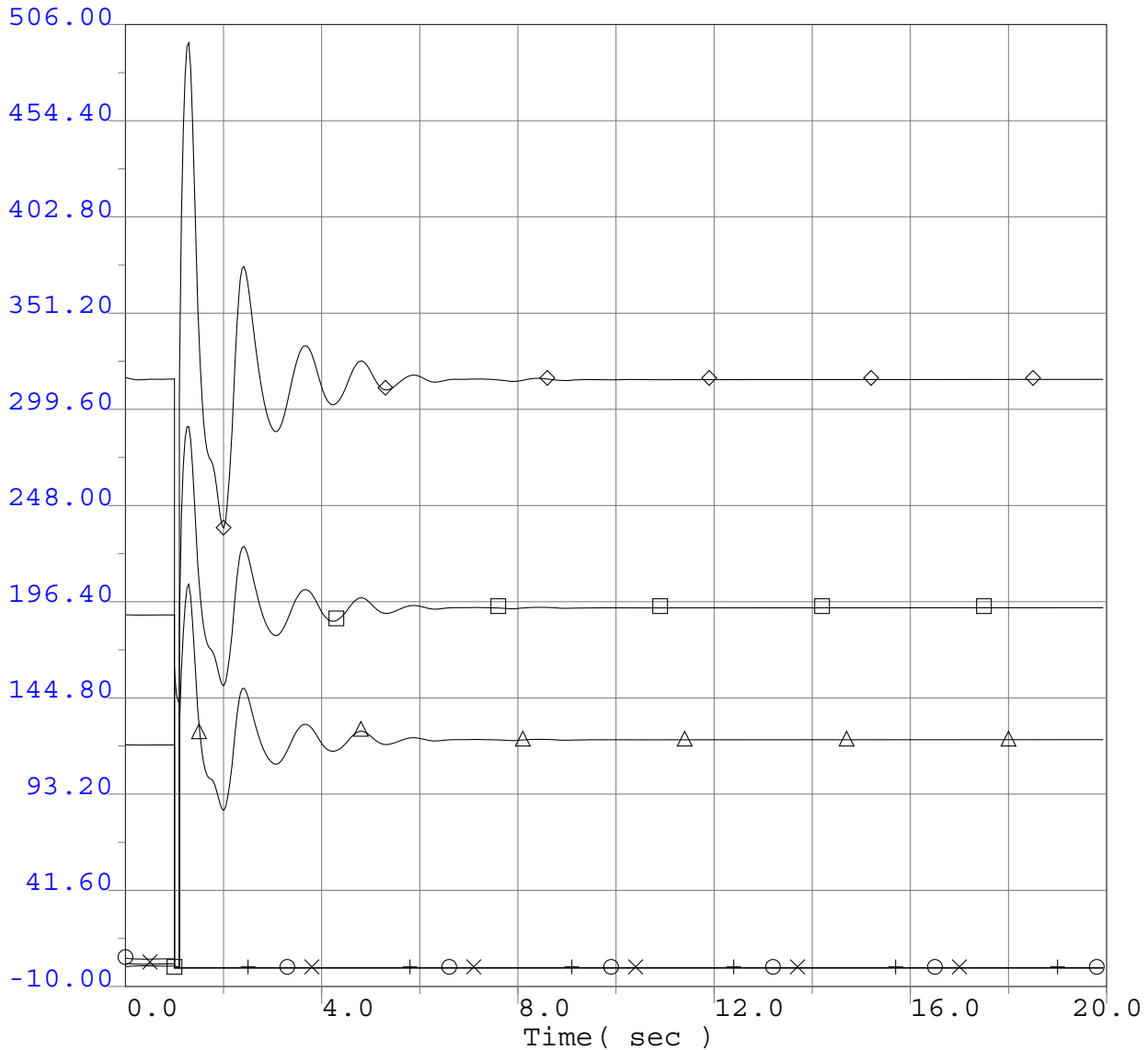
○	-10.8100 ang	65490	EHUNTR 1	24.0	0	0.0 "1"	1	144.8600
○	-10.8100 ang	54338	SUND#2GN	18.0	0	0.0 "2"	1	144.8600
□	-10.8100 ang	79151	GLENC3-4	13.8	0	0.0 "3"	1	144.8600
△	-10.8100 ang	24130	S.ONOPR3	22.0	0	0.0 "3"	1	144.8600
◇	-10.8100 ang	22244	ENCINA 5	24.0	0	0.0 "1"	1	144.8600
+	-10.8100 ang	36411	DIABLO 1	25.0	0	0.0 "1"	1	144.8600

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)



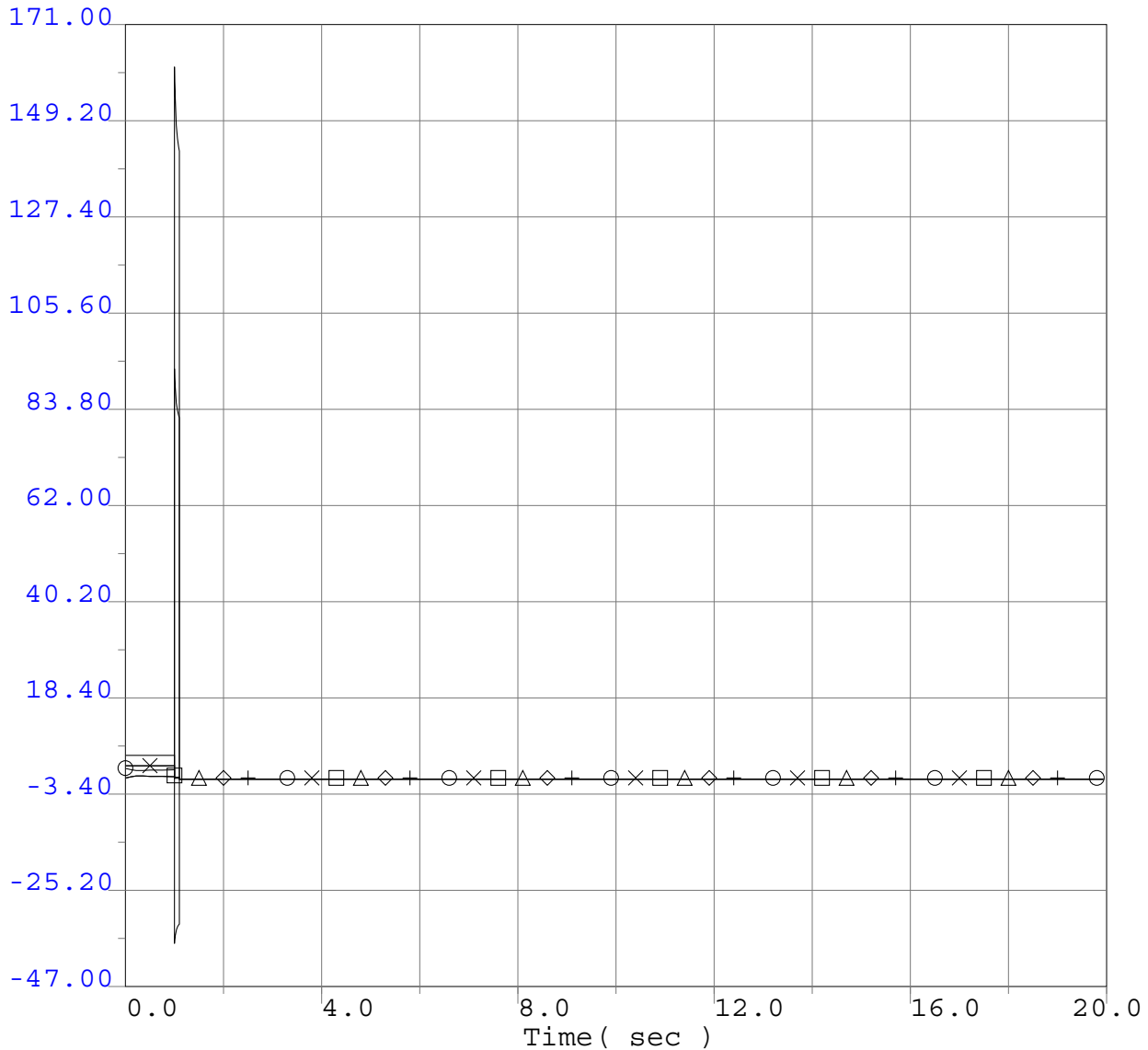
○	-10.0000 pbr	33549	SCHULTE	115.0	33537	SFWY_TP1	115.0	1	1	506.0000
□	-10.0000 pbr	33549	SCHULTE	115.0	33535	SFWY_TP2	115.0	1	2	506.0000
△	-10.0000 pbr	33549	SCHULTE	115.0	33531	OWENSTP1	115.0	1	1	506.0000
×	-10.0000 pbr	33549	SCHULTE	115.0	33533	OWENSTP2	115.0	1	2	506.0000
◇	-10.0000 pbr	33551	GWTRACY	115.0	33549	SCHULTE	115.0	1	1	506.0000
+	-10.0000 pbr	33540	TESLA	115.0	33543	AEC_TP2	115.0	1	1	506.0000

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)



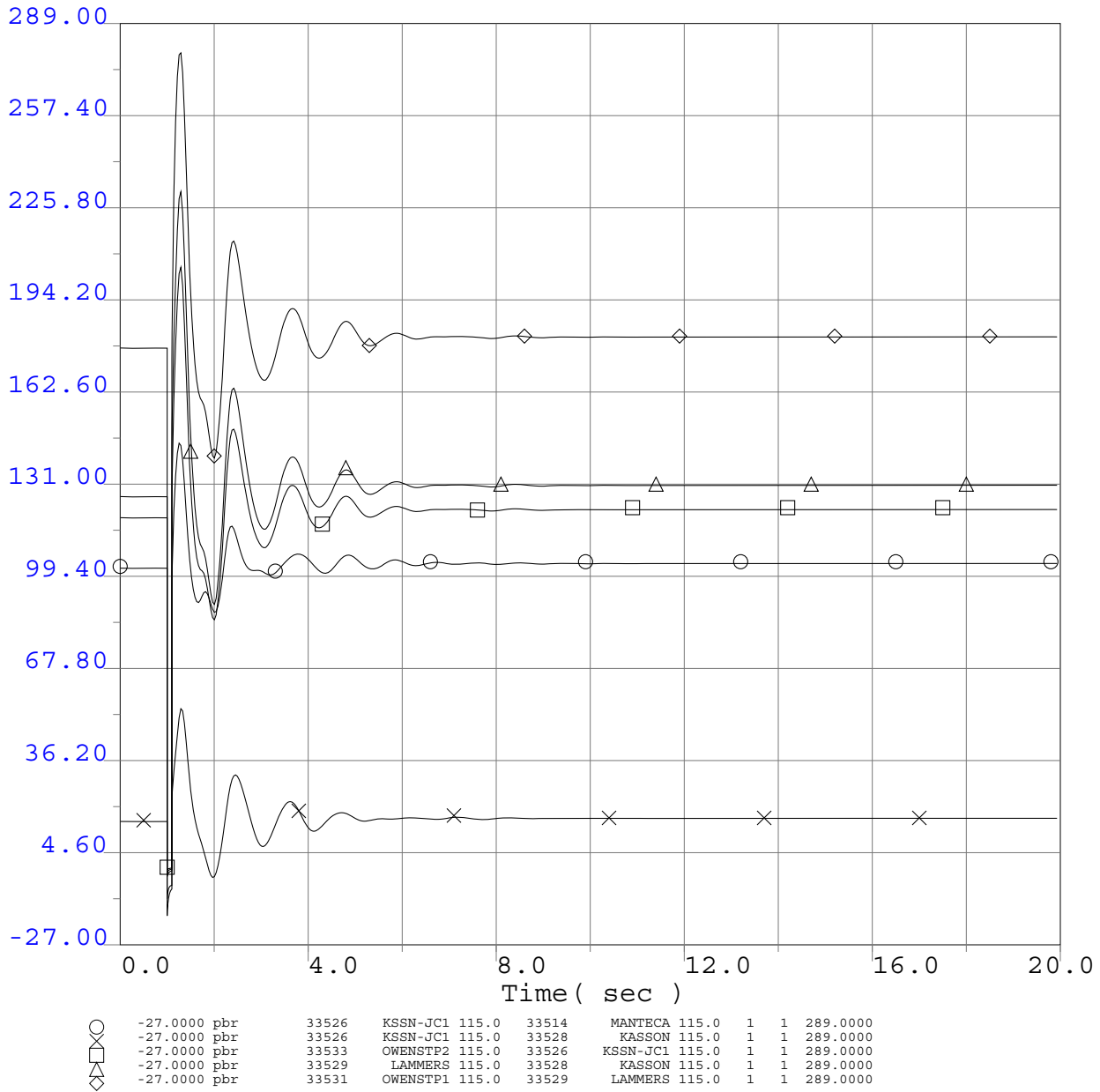
○	-47.0000 pbr	33535	SFWY_TP2 115.0	33543	AEC_TP2 115.0	1	1	171.0000
□	-47.0000 pbr	33543	AEC_TP2 115.0	33545	AEC_JCT 115.0	1	1	171.0000
△	-47.0000 pbr	33545	AEC_JCT 115.0	33547	AEC_300 115.0	1	1	171.0000
◇	-47.0000 pbr	33537	SFWY_TP1 115.0	33534	SAFEWAY 115.0	1	1	171.0000
+	-47.0000 pbr	33541	AEC_TP1 115.0	33537	SFWY_TP1 115.0	1	1	171.0000
×	-47.0000 pbr	33540	TESLA 115.0	33541	AEC_TP1 115.0	1	1	171.0000

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)

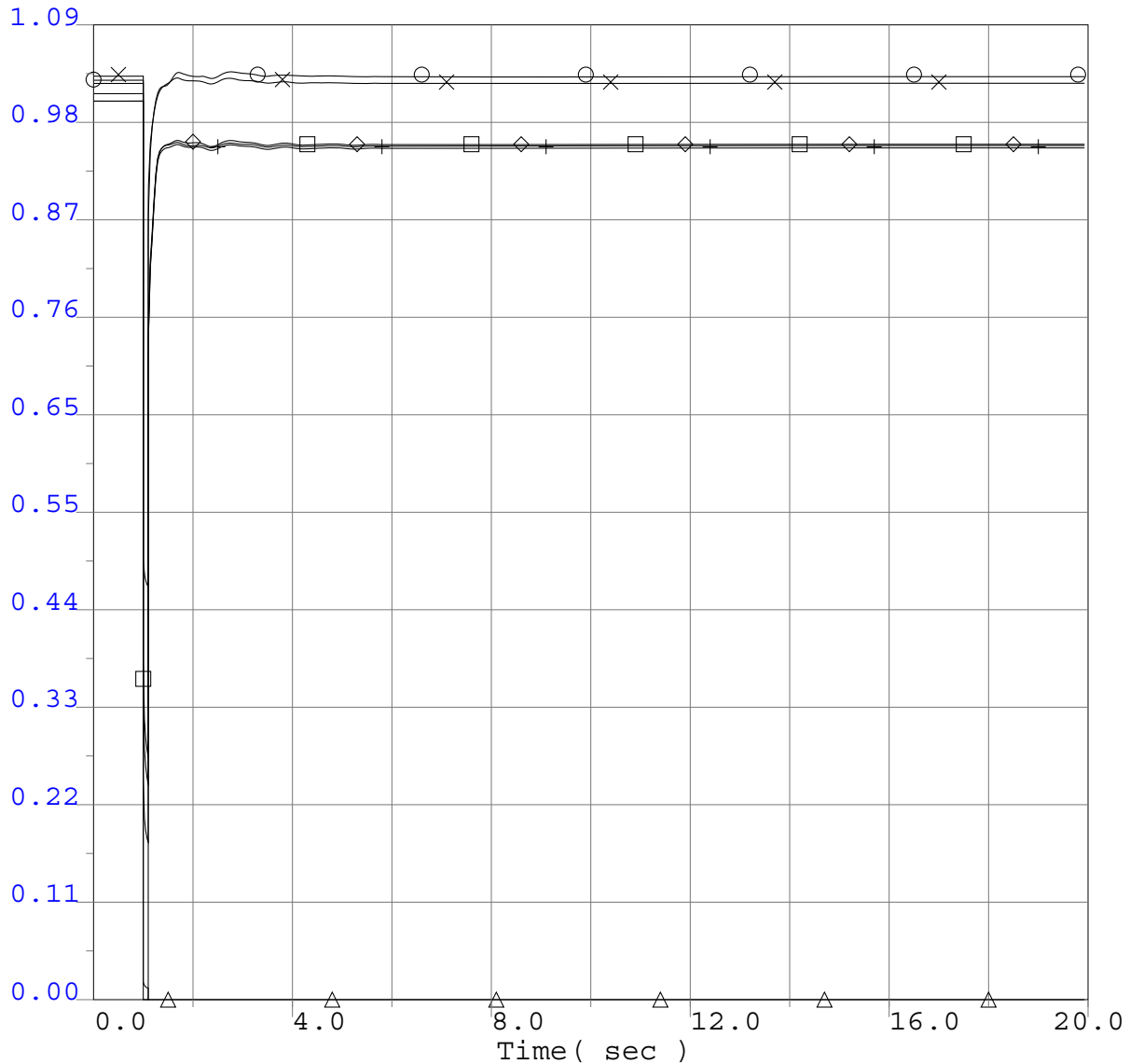


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Tesla-Schulte 1&2 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Tesla-Schulte 1&2 115kV lines



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Voltage Plots Adjacent to Fault



○	0.0000 vbus	33549	SCHULTE 115.0	0	0.0	1	1.0900
○	0.0000 vbus	33540	TESLA 115.0	0	0.0	1	1.0900
□	0.0000 vbul	33514	MANTECA 115.0	0	0.0	1	1.0900
◇	0.0000 vbul	33529	LAMMERS 115.0	0	0.0	1	1.0900
+	0.0000 vbus	33528	KASSON 115.0	0	0.0	1	1.0900
△	0.0000 vbul	33518	VIERRA 115.0	0	0.0	1	1.0900

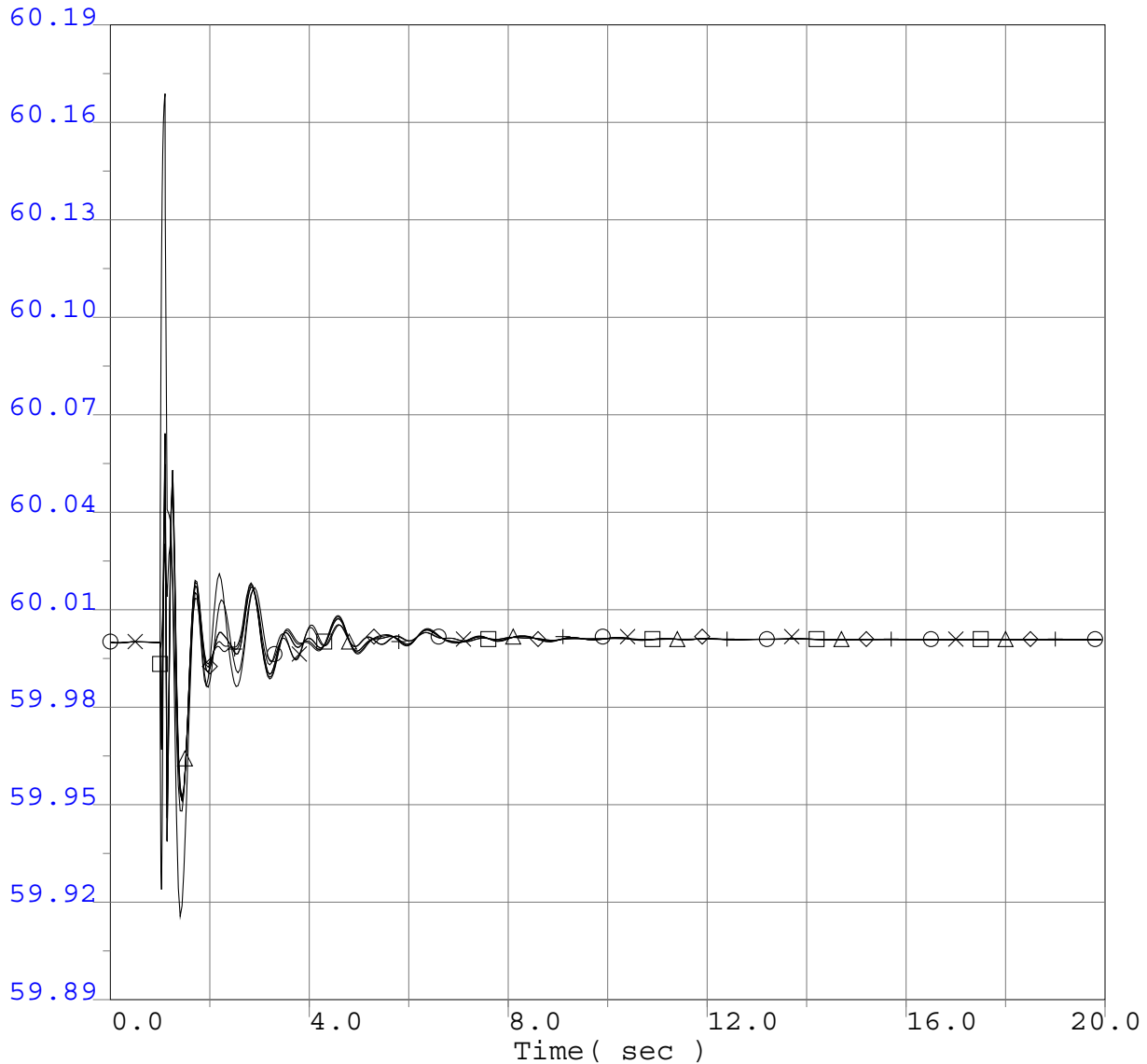


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Schulte 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte+Schulte-Kasson 115kV l



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Frequency Plots Adjacent to Fault



○	59.8900 Fbus	33549	SCHULTE 115.0	0	0.0	"**"	1	60.1900
□	59.8900 Fbus	33540	TESLA 115.0	0	0.0	"**"	1	60.1900
△	59.8900 Fbul	33514	MANTECA 115.0	0	0.0	"**"	1	60.1900
◇	59.8900 Fbul	33529	LAMMERS 115.0	0	0.0	"**"	1	60.1900
+	59.8900 Fbus	33528	KASSON 115.0	0	0.0	"**"	1	60.1900
×	59.8900 Fbul	33518	VIERRA 115.0	0	0.0	"**"	1	60.1900

Q268 Project Interconnection System Impact Study

2013 Summer Peak Base Case

Q268 @ 154.7MW

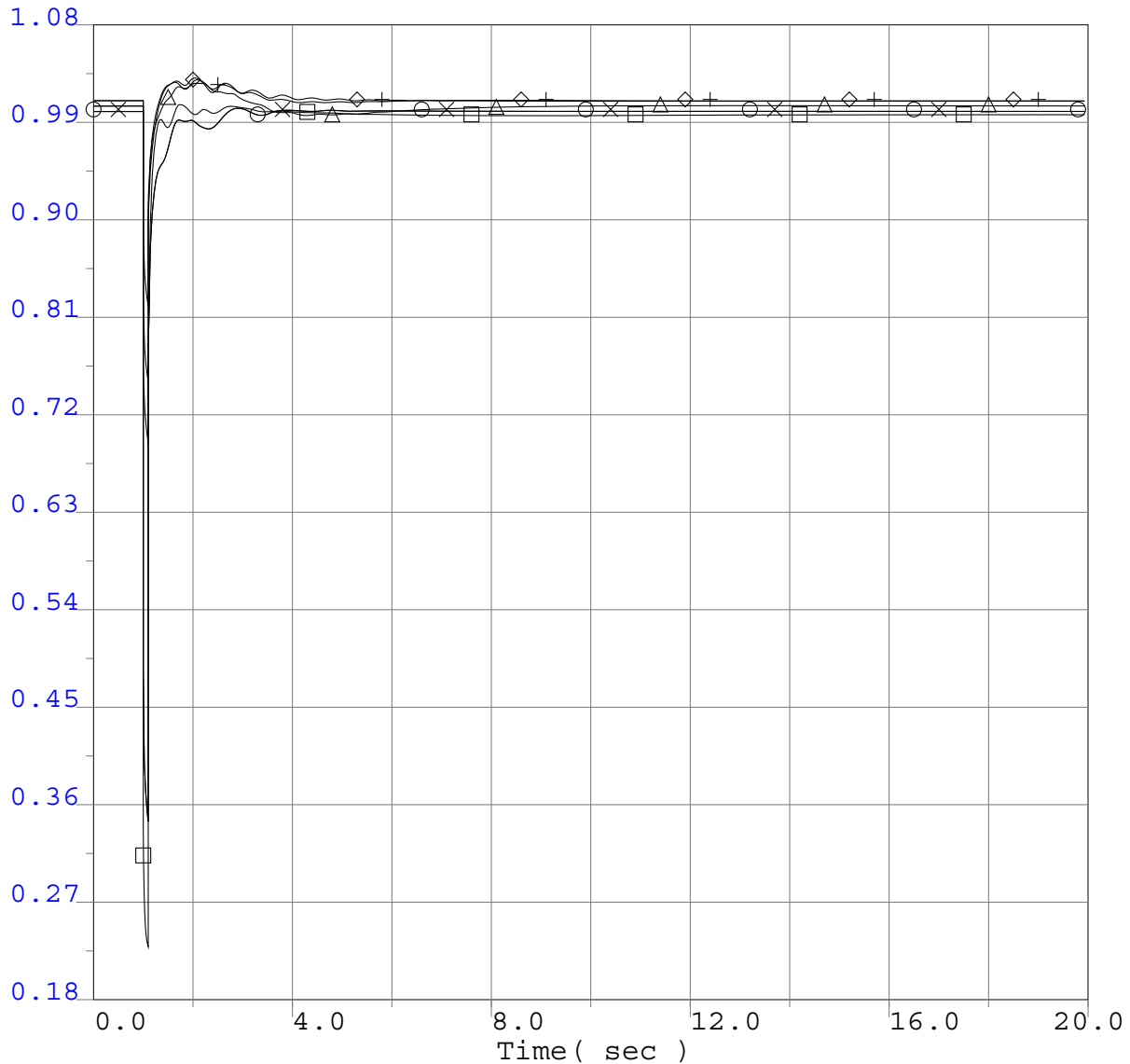
Manteca-Schulte+Kasson-Schulte 115kV double-line outage

3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte+Schulte-Kasson 115kV l



Q268 Project Interconnection System Impact Study

Project Generator Terminal Voltages



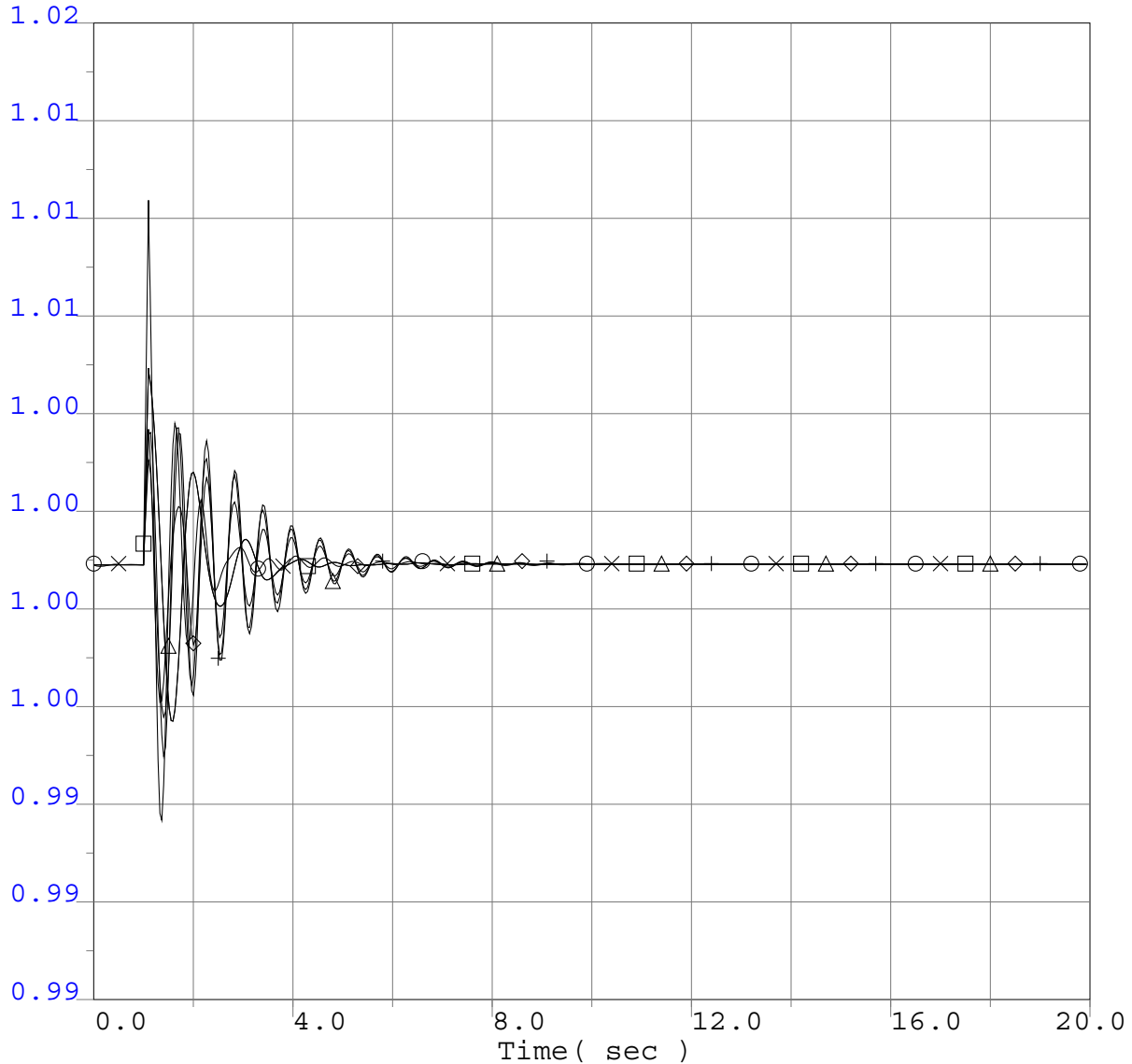
○	0.1800 vt	33805	GWTRCY1	13.8	0	0.0	"1"	1	1.0800
□	0.1800 vt	33807	GWTRCY2	13.8	0	0.0	"1"	1	1.0800
△	0.1800 vt	33809	Q268ST1	13.8	0	0.0	"1"	1	1.0800
◇	0.1800 vt	33858	P0409CG2	13.8	0	0.0	"1"	1	1.0800
+	0.1800 vt	33808	SJ COGEN	13.8	0	0.0	"1"	1	1.0800
×	0.1800 vt	33810	SP CMPNY	13.8	0	0.0	"1"	1	1.0800

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Schulte 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte+Schulte-Kasson 115kV l



Q268 Project Interconnection System Impact Study

Project Generator Rotor Speed



○	0.9878 spd	33805	GWTRCY1	13.8	0	0.0	"1"	1	1.0152
□	0.9878 spd	33807	GWTRCY2	13.8	0	0.0	"1"	1	1.0152
△	0.9878 spd	33809	Q268ST1	13.8	0	0.0	"1"	1	1.0152
◇	0.9878 spd	33858	P0409CG2	13.8	0	0.0	"1"	1	1.0152
+	0.9878 spd	33808	SJ COGEN	13.8	0	0.0	"1"	1	1.0152
×	0.9878 spd	33810	SP CMPNY	13.8	0	0.0	"1"	1	1.0152

Q268 Project Interconnection System Impact Study

2013 Summer Peak Base Case

Q268 @ 154.7MW

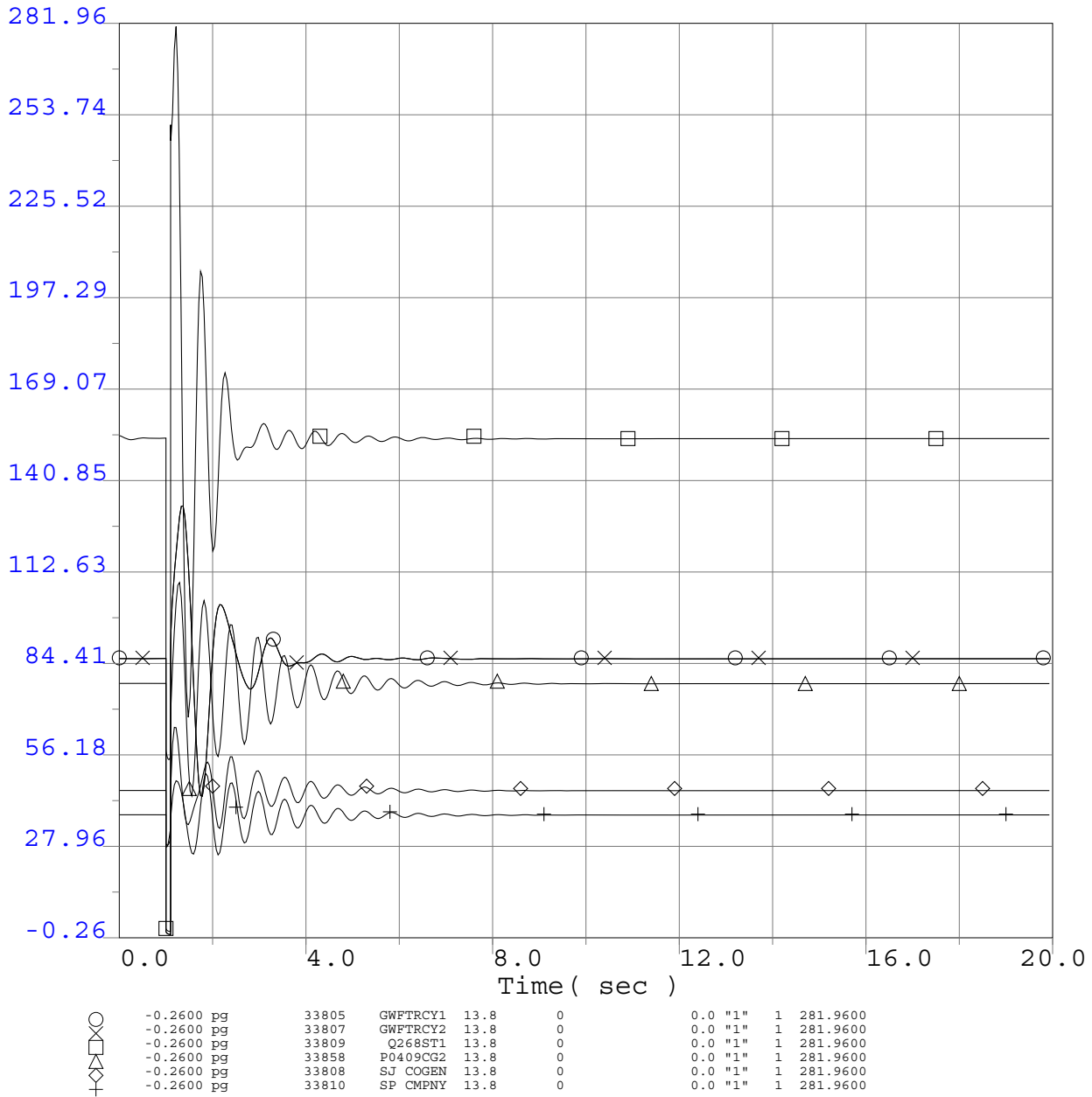
Manteca-Schulte+Kasson-Schulte 115kV double-line outage

3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte+Schulte-Kasson 115kV l



Q268 Project Interconnection System Impact Study

Project Generator Terminal Power

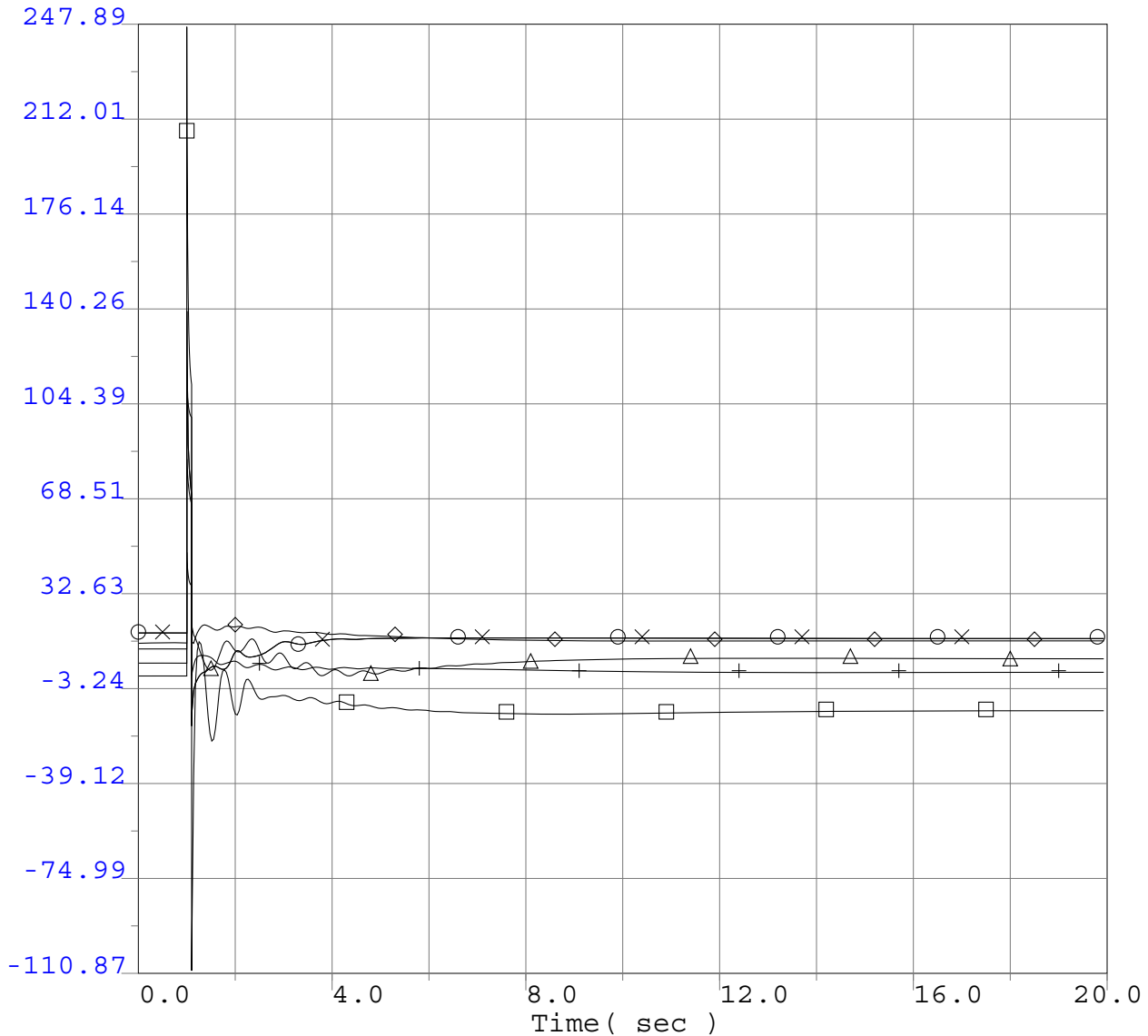


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Schulte 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte+Schulte-Kasson 115kV l



Q268 Project Interconnection System Impact Study

Project Generator Terminal Reactive Power



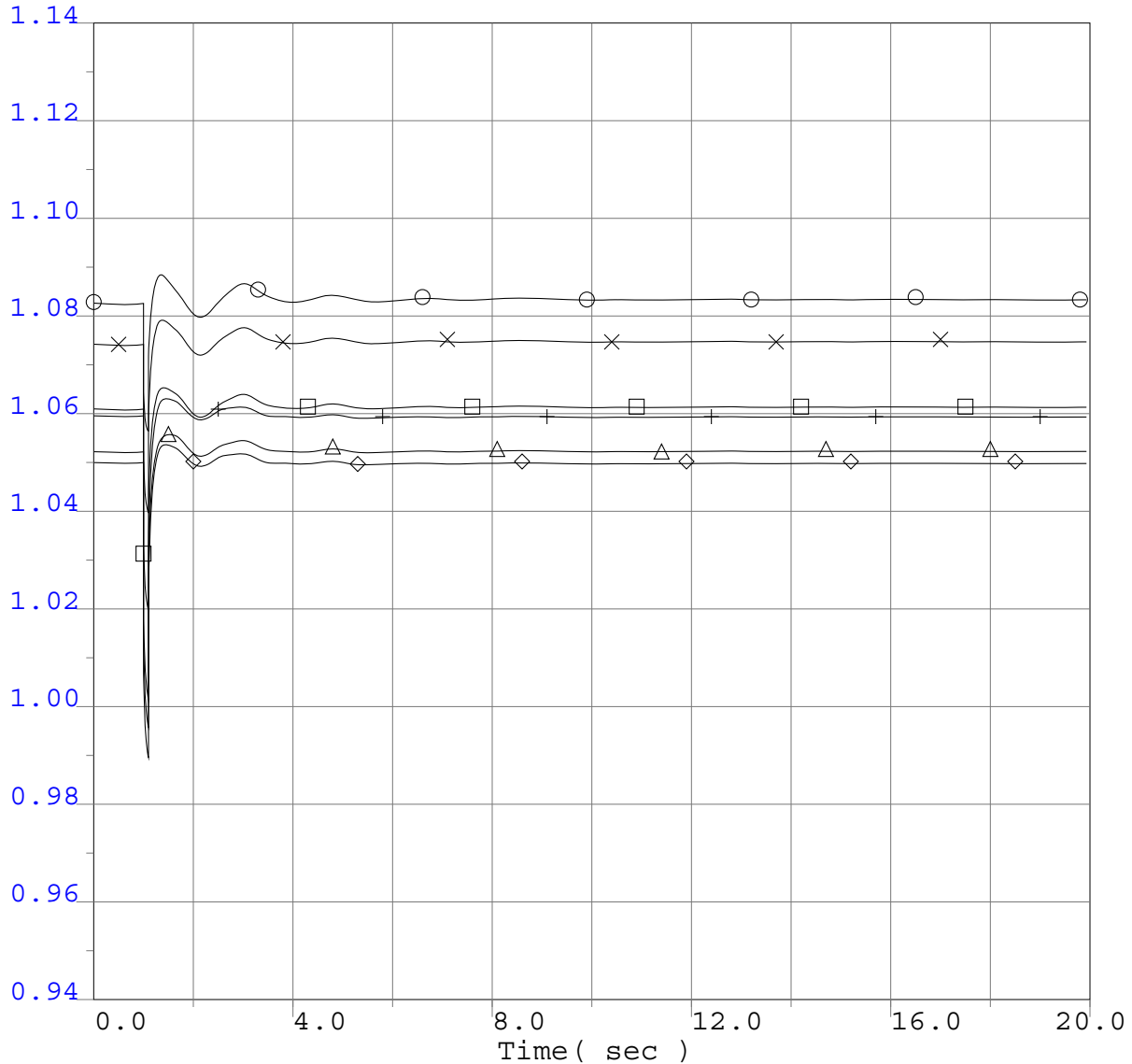
○	-110.8000	gg	33805	GWTRCY1	13.8	0	0.0	"1"	1	247.8900
×	-110.8000	gg	33807	GWTRCY2	13.8	0	0.0	"1"	1	247.8900
□	-110.8000	gg	33809	Q268ST1	13.8	0	0.0	"1"	1	247.8900
△	-110.8000	gg	33858	P0409CG2	13.8	0	0.0	"1"	1	247.8900
◇	-110.8000	gg	33808	SJ COGEN	13.8	0	0.0	"1"	1	247.8900
+	-110.8000	gg	33810	SP CMPNY	13.8	0	0.0	"1"	1	247.8900

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Schulte 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte+Schulte-Kasson 115kV l



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots



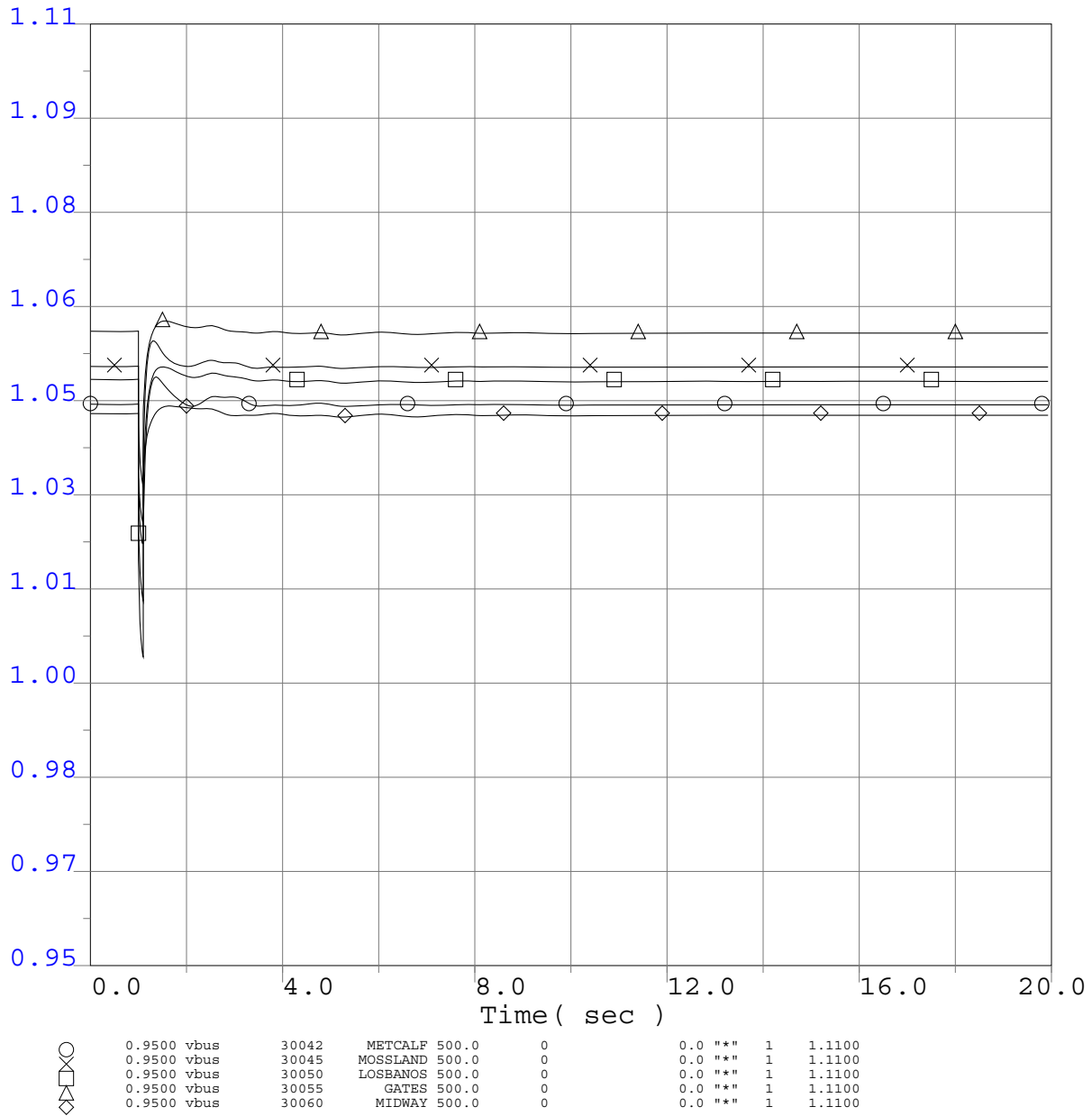
○	0.9400 vbus	40687	MALIN 500.0	0	0.0	""	1	1.1400
×	0.9400 vbus	30005	ROUND MT 500.0	0	0.0	""	1	1.1400
□	0.9400 vbus	30015	TABLE MT 500.0	0	0.0	""	1	1.1400
△	0.9400 vbus	30030	VACA-DIX 500.0	0	0.0	""	1	1.1400
◇	0.9400 vbus	30040	TESLA 500.0	0	0.0	""	1	1.1400
+	0.9400 vbus	30035	TRACY 500.0	0	0.0	""	1	1.1400

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Schulte 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte+Schulte-Kasson 115kV 1



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

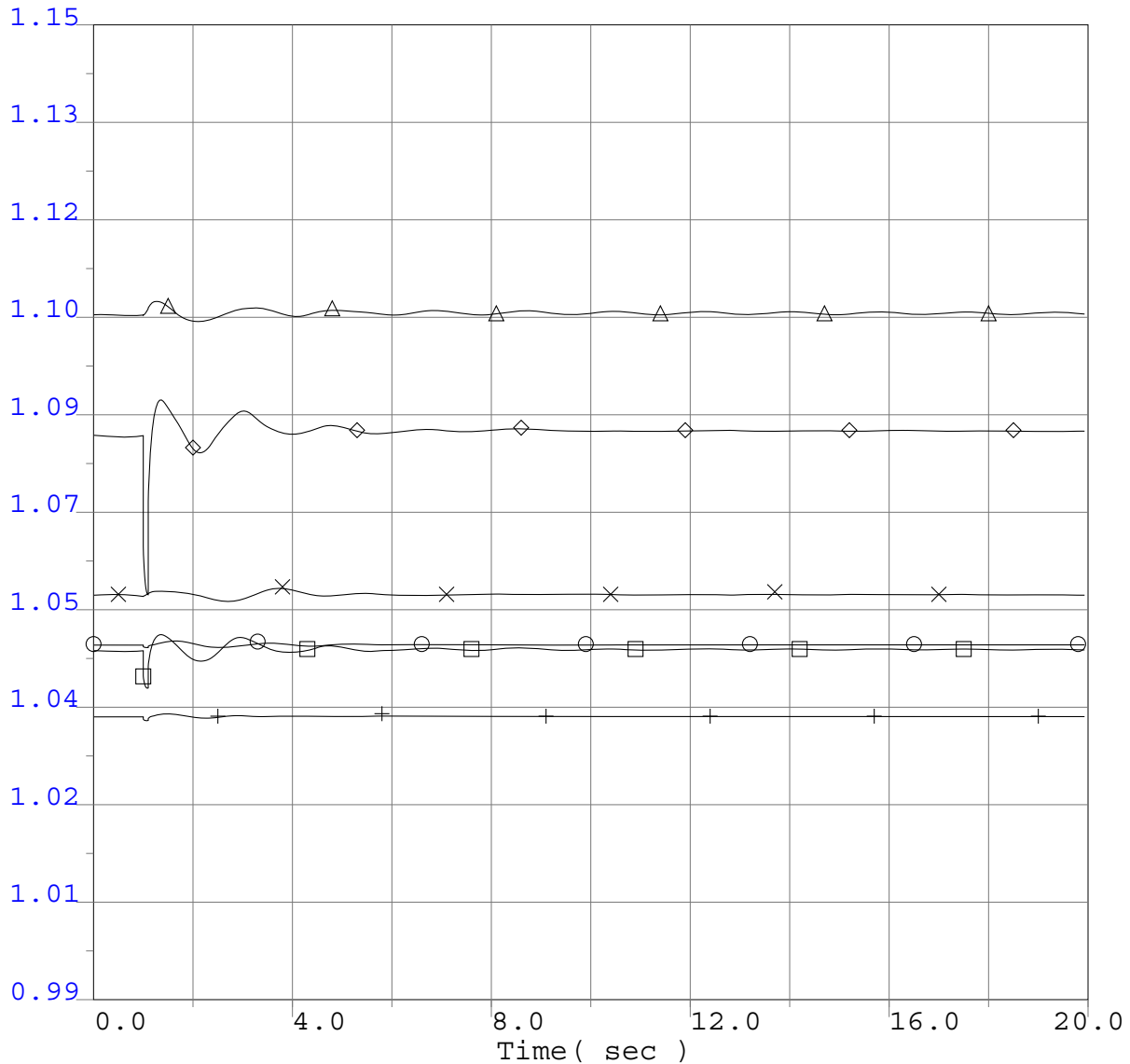


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Schulte 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte+Schulte-Kasson 115kV l



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots



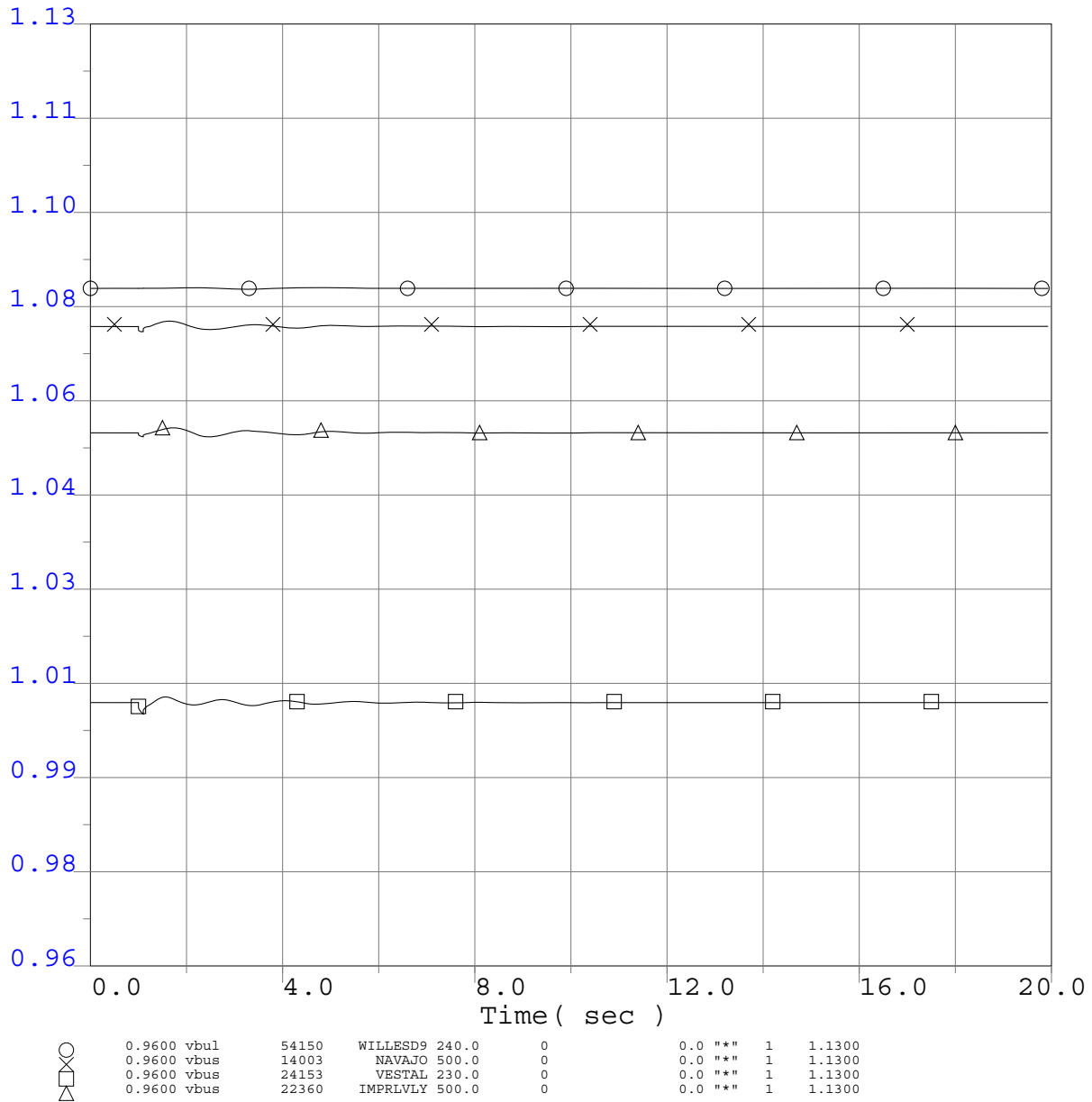
○	0.9900 vbus	14001	FOURCORN	500.0	0	0.0	""	1	1.1500
◇	0.9900 vbus	50703	NIC500	500.0	0	0.0	""	1	1.1500
×	0.9900 vbus	60240	MIDPOINT	500.0	0	0.0	""	1	1.1500
○	0.9900 vbus	62012	TOWN2	500.0	0	0.0	""	1	1.1500
◇	0.9900 vbus	40687	MALIN	500.0	0	0.0	""	1	1.1500
+	0.9900 vbus	66340	SIGURD	345.0	0	0.0	""	1	1.1500

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Schulte 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte+Schulte-Kasson 115kV 1



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

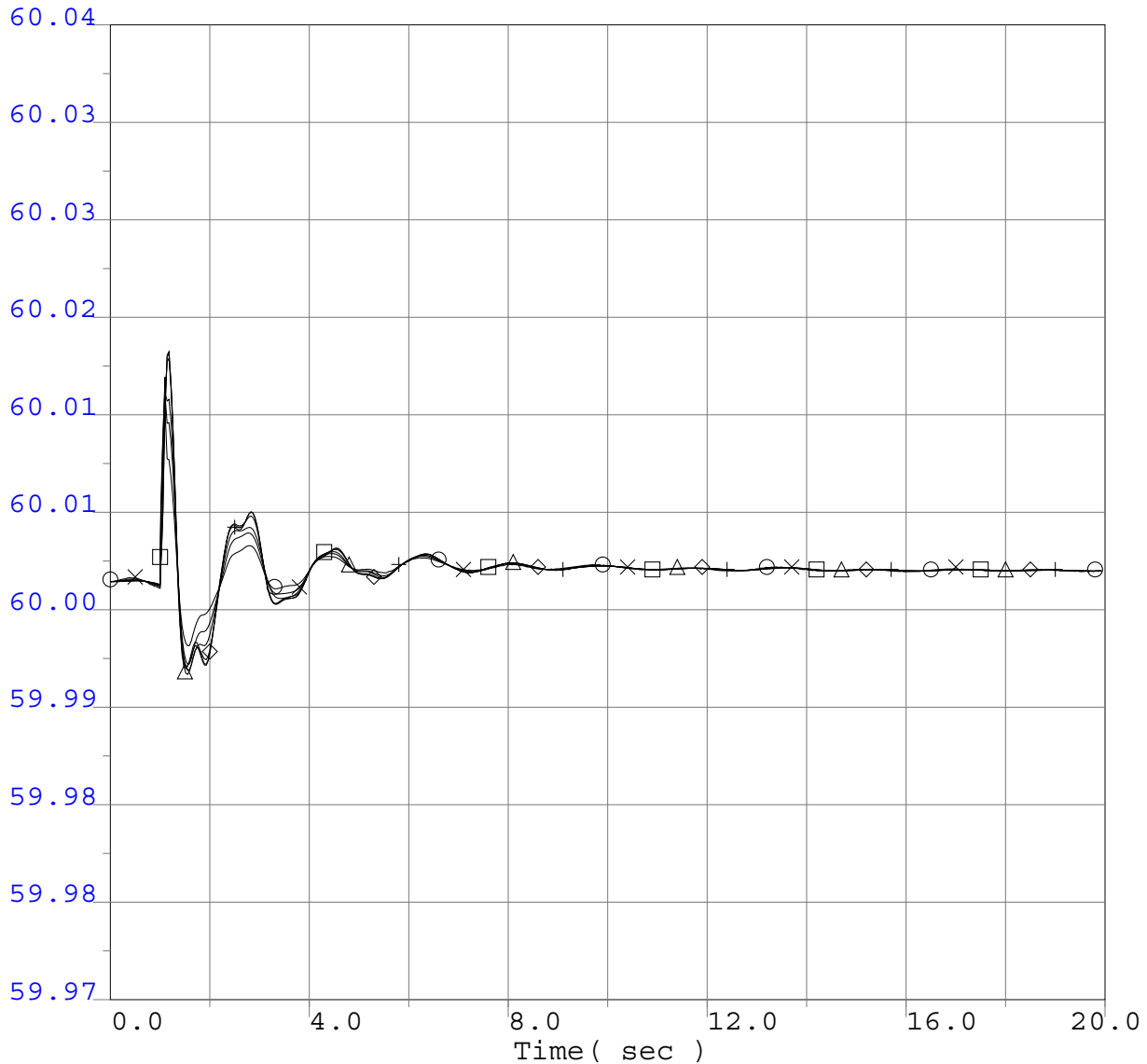


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Schulte 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte+Schulte-Kasson 115kV l



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



○	59.9700 Ebus	40687	MALIN 500.0	0	0.0	"	1	60.0400
×	59.9700 Ebus	30005	ROUND MT 500.0	0	0.0	"	1	60.0400
□	59.9700 Ebus	30015	TABLE MT 500.0	0	0.0	"	1	60.0400
△	59.9700 Ebus	30030	VACA-DIX 500.0	0	0.0	"	1	60.0400
◇	59.9700 Ebus	30040	TESLA 500.0	0	0.0	"	1	60.0400
+	59.9700 Ebus	30035	TRACY 500.0	0	0.0	"	1	60.0400

Q268 Project Interconnection System Impact Study

2013 Summer Peak Base Case

Q268 @ 154.7MW

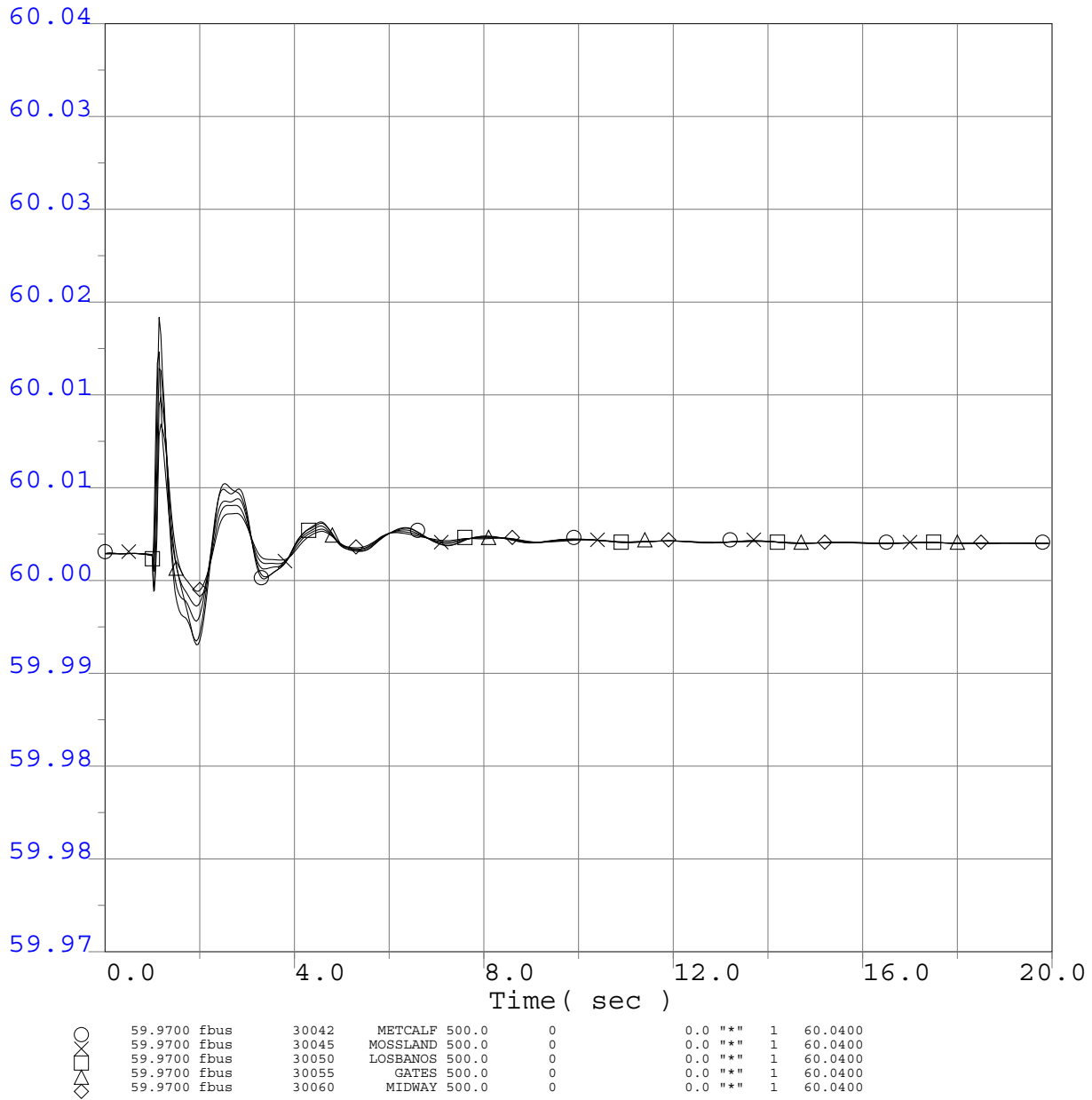
Manteca-Schulte+Kasson-Schulte 115kV double-line outage

3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte+Schulte-Kasson 115kV l



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots

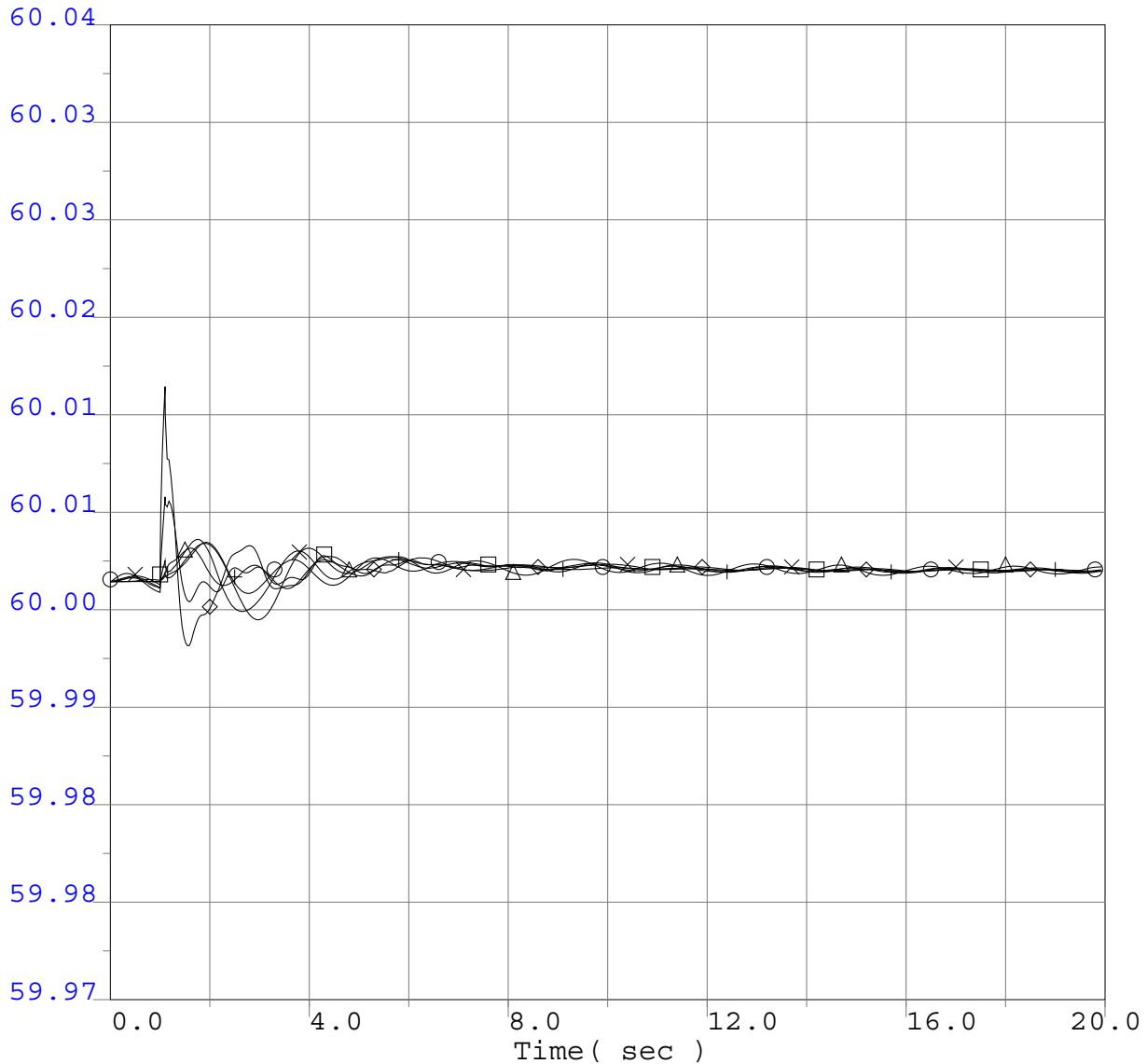


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Schulte 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte+Schulte-Kasson 115kV l



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



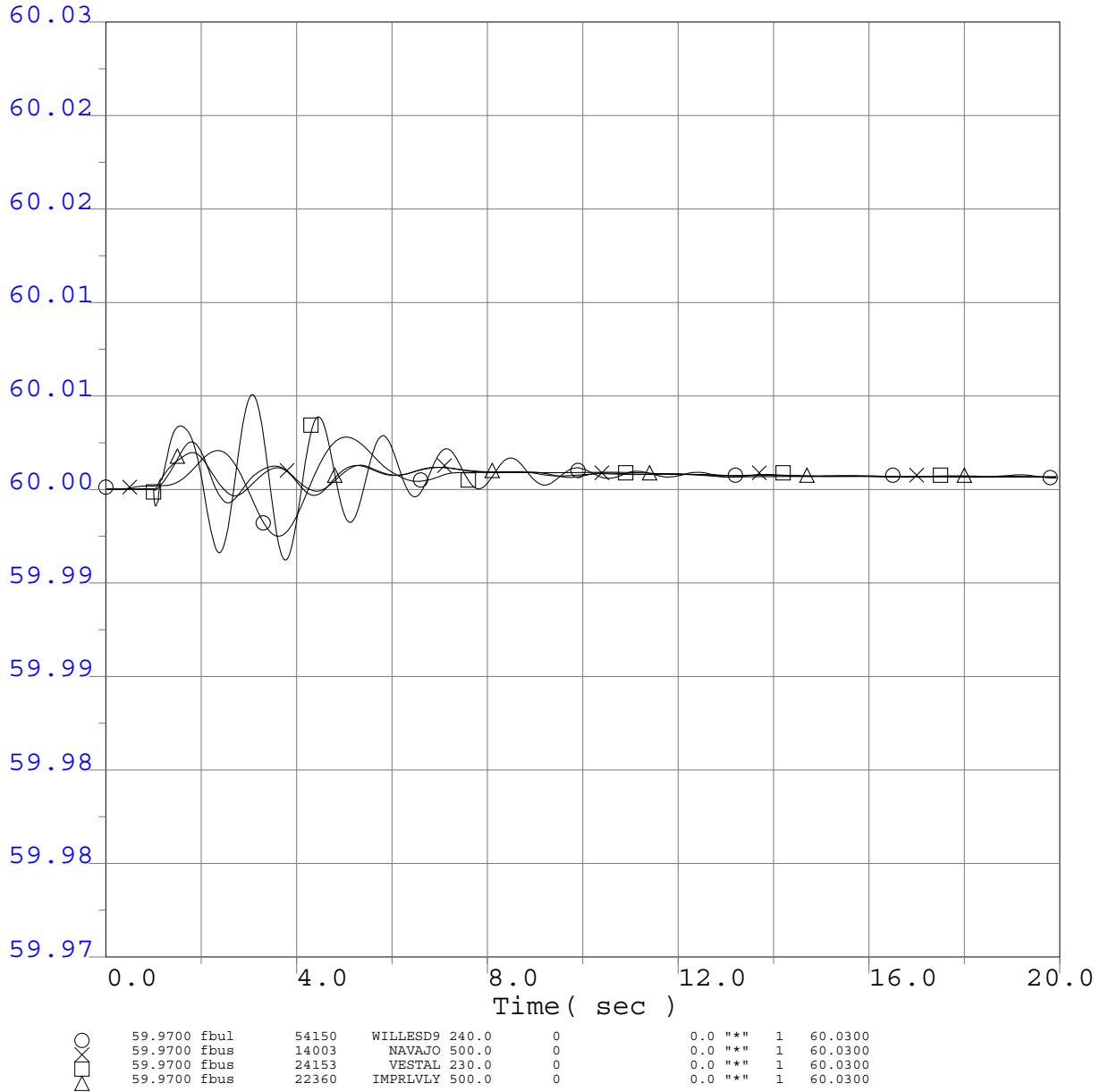
○	59.9700 Ebus	14001	FOURCORN	500.0	0	0.0	""	1	60.0400
□	59.9700 Ebus	50703	NIC500	500.0	0	0.0	""	1	60.0400
△	59.9700 Ebus	60240	MIDPOINT	500.0	0	0.0	""	1	60.0400
◇	59.9700 Ebus	62012	TOWN2	500.0	0	0.0	""	1	60.0400
+	59.9700 Ebus	40687	MALIN	500.0	0	0.0	""	1	60.0400
	59.9700 Ebus	66340	SIGURD	345.0	0	0.0	""	1	60.0400

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Schulte 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte+Schulte-Kasson 115kV l



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots

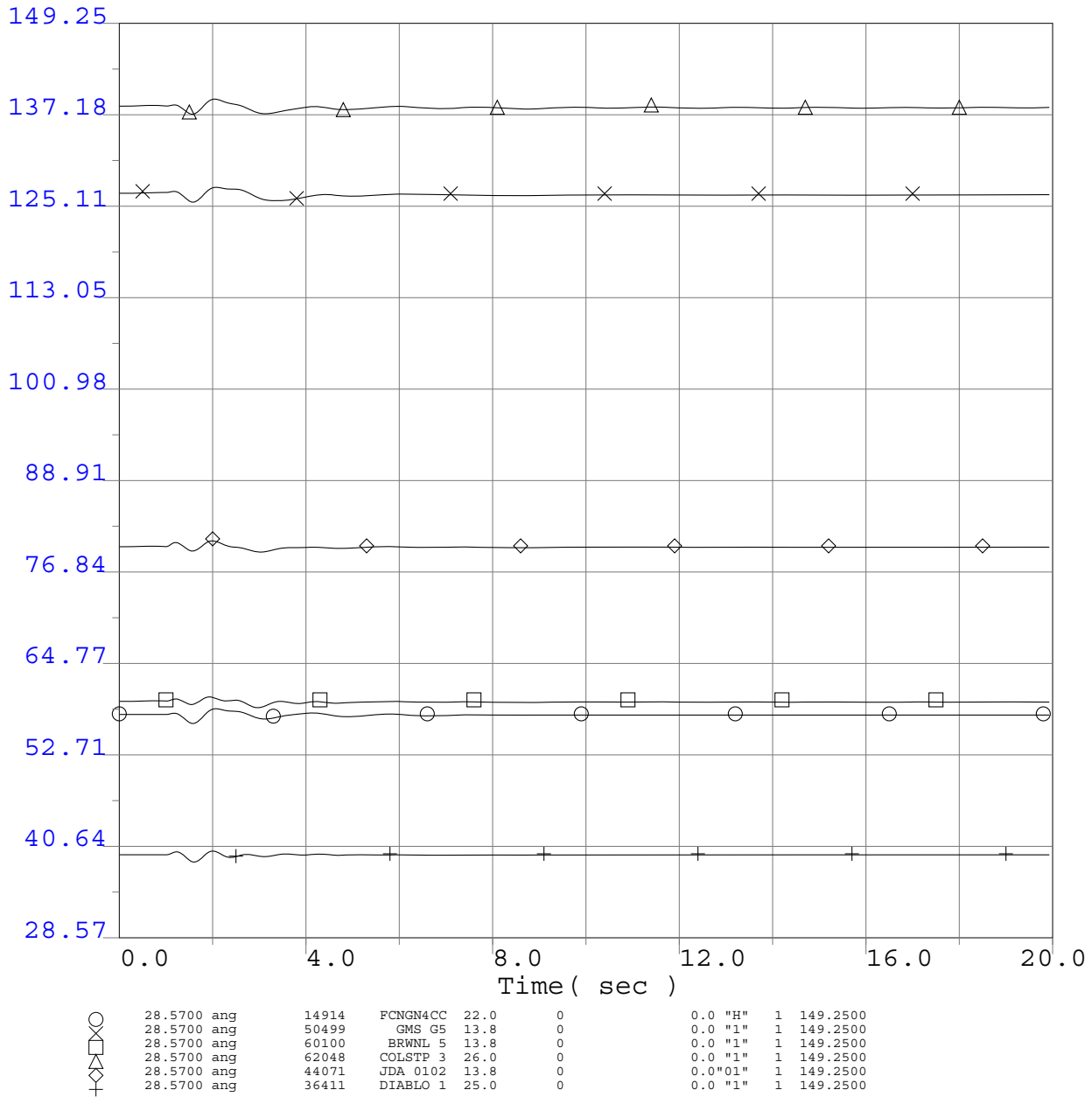


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Schulte 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte+Schulte-Kasson 115kV l



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle

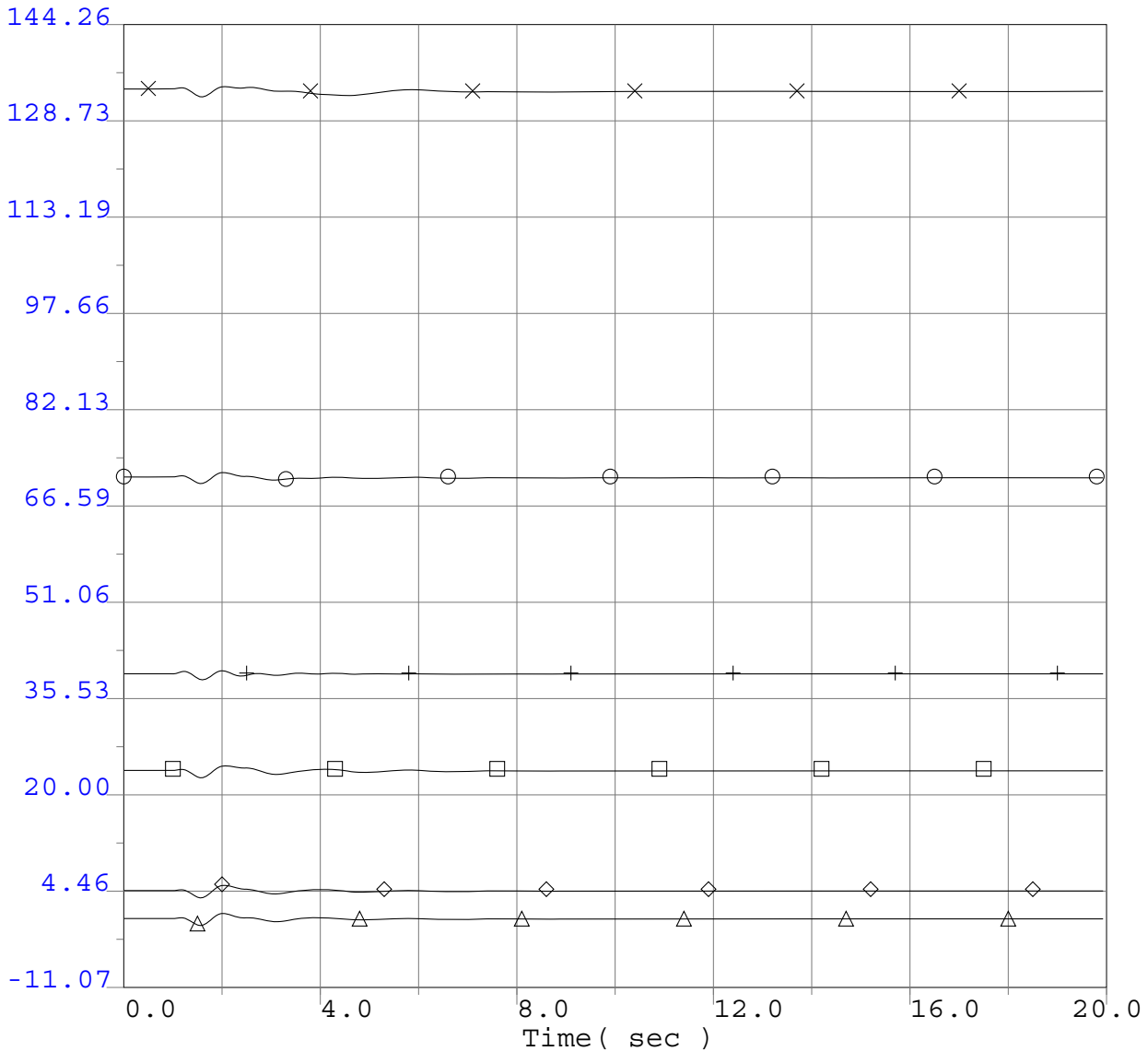


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Schulte 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte+Schulte-Kasson 115kV 1



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle



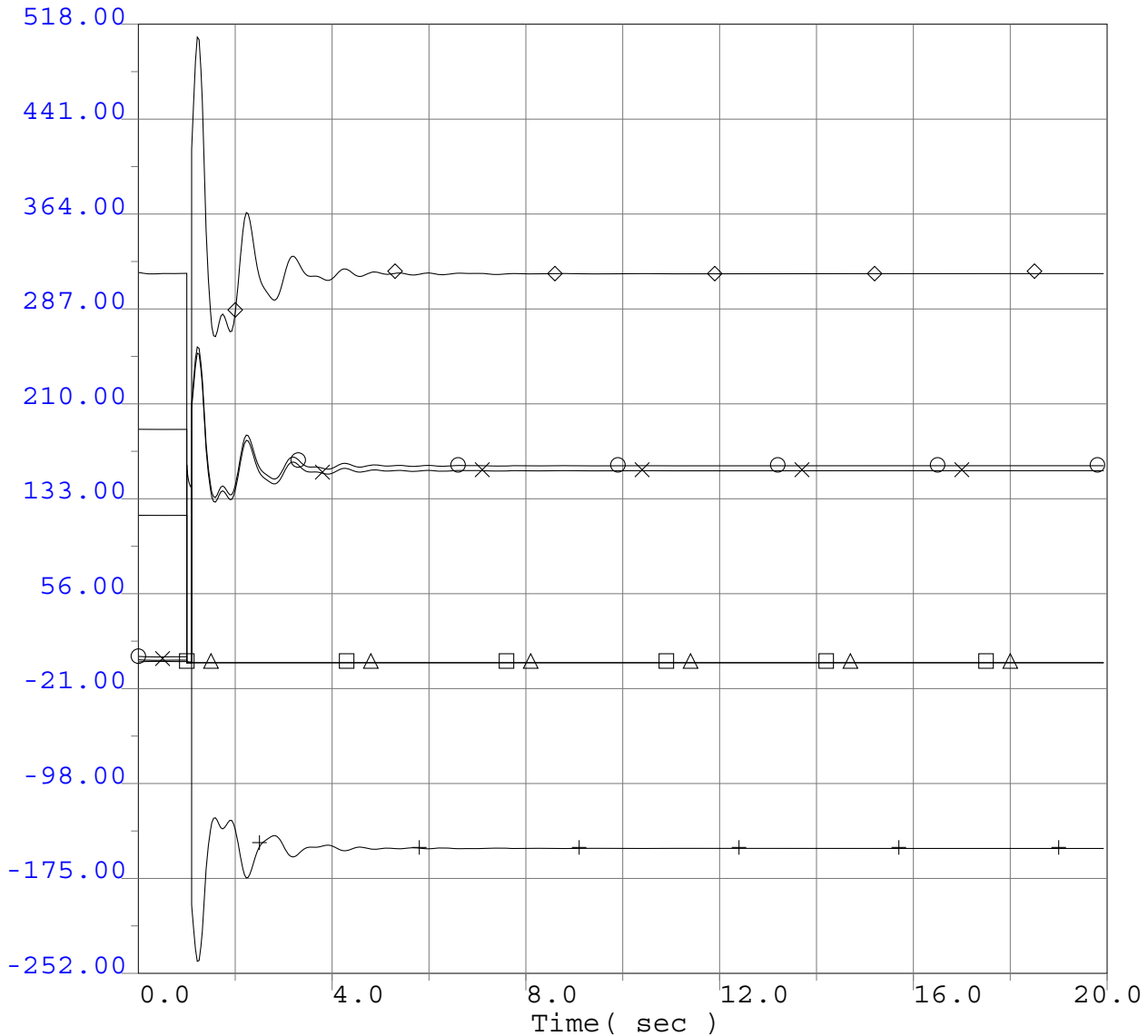
○	-11.0700 ang	65490	EHUNTR 1	24.0	0	0.0 "1"	1	144.2600
○	-11.0700 ang	54338	SUND#2GN	18.0	0	0.0 "2"	1	144.2600
□	-11.0700 ang	79151	GLENC3-4	13.8	0	0.0 "3"	1	144.2600
△	-11.0700 ang	24130	S.ONOPR3	22.0	0	0.0 "3"	1	144.2600
◇	-11.0700 ang	22244	ENCINA 5	24.0	0	0.0 "1"	1	144.2600
+	-11.0700 ang	36411	DIABLO 1	25.0	0	0.0 "1"	1	144.2600

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Schulte 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte+Schulte-Kasson 115kV 1



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)



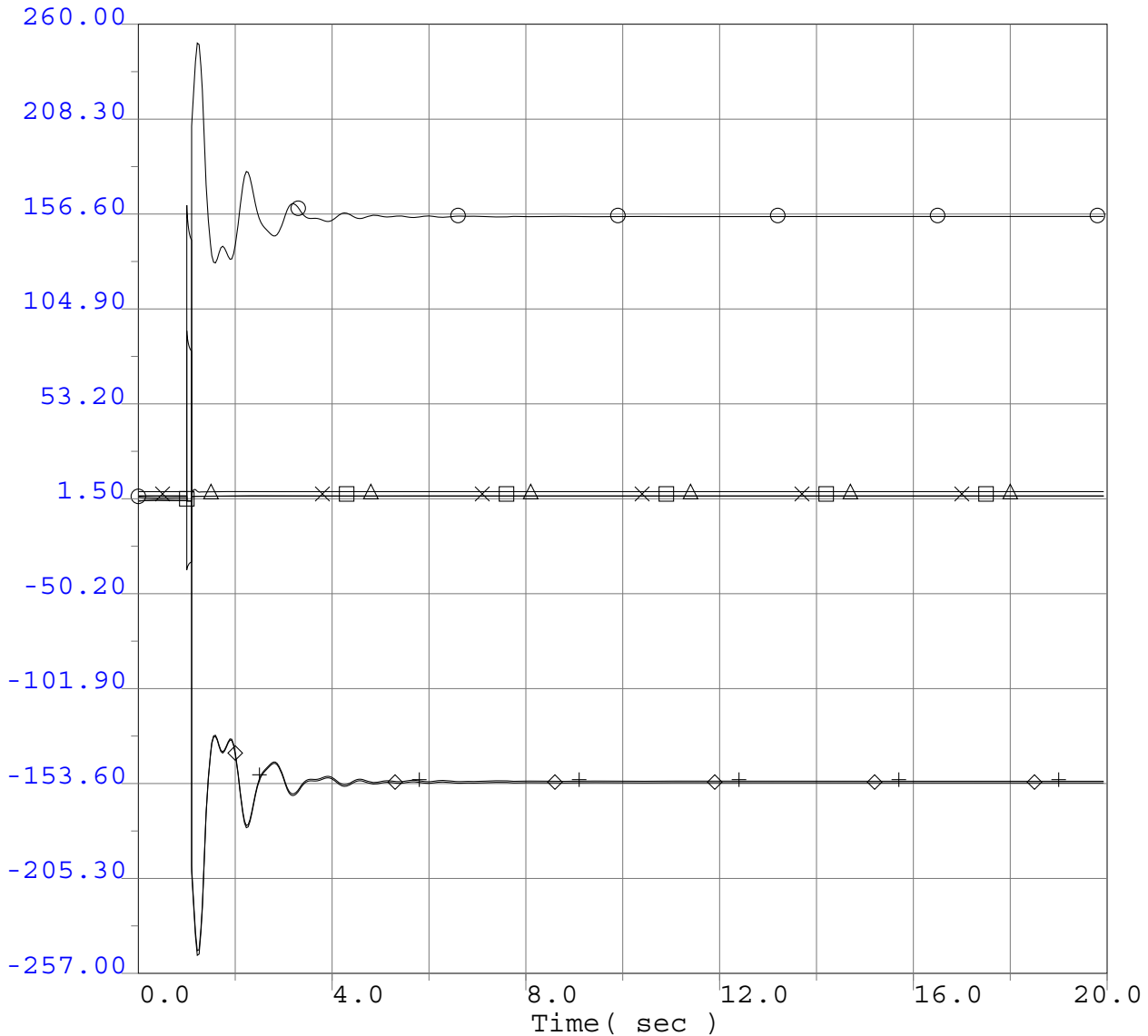
○	-252.0000 pbr	33549	SCHULTE 115.0	33537	SFWY_TP1 115.0	1	1	518.0000
×	-252.0000 pbr	33549	SCHULTE 115.0	33535	SFWY_TP2 115.0	1	2	518.0000
□	-252.0000 pbr	33549	SCHULTE 115.0	33531	OWENSTP1 115.0	1	1	518.0000
△	-252.0000 pbr	33549	SCHULTE 115.0	33533	OWENSTP2 115.0	1	2	518.0000
+	-252.0000 pbr	33551	GWFTTRACY 115.0	33549	SCHULTE 115.0	1	1	518.0000
	-252.0000 pbr	33540	TESLA 115.0	33543	AEC_TP2 115.0	1	1	518.0000

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Schulte 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte+Schulte-Kasson 115kV l



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)



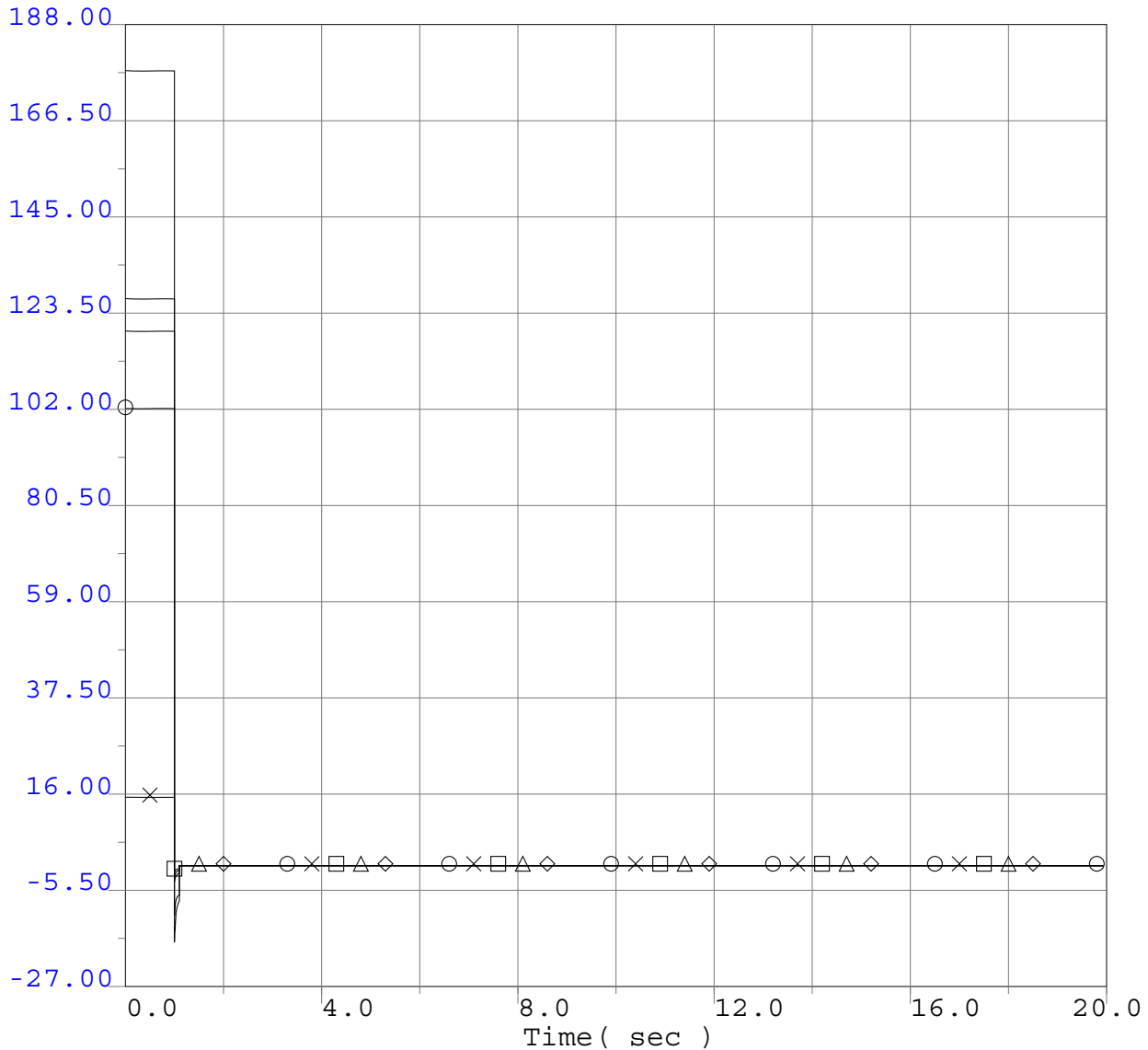
○	-257.0000 pbr	33535	SFWY_TP2 115.0	33543	AEC_TP2 115.0	1	1	260.0000
□	-257.0000 pbr	33543	AEC_TP2 115.0	33545	AEC_JCT 115.0	1	1	260.0000
△	-257.0000 pbr	33545	AEC_JCT 115.0	33547	AEC_300 115.0	1	1	260.0000
◇	-257.0000 pbr	33537	SFWY_TP1 115.0	33534	SAFEWAY 115.0	1	1	260.0000
+	-257.0000 pbr	33541	AEC_TP1 115.0	33537	SFWY_TP1 115.0	1	1	260.0000
+	-257.0000 pbr	33540	TESLA 115.0	33541	AEC_TP1 115.0	1	1	260.0000

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Schulte 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte+Schulte-Kasson 115kV l



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)

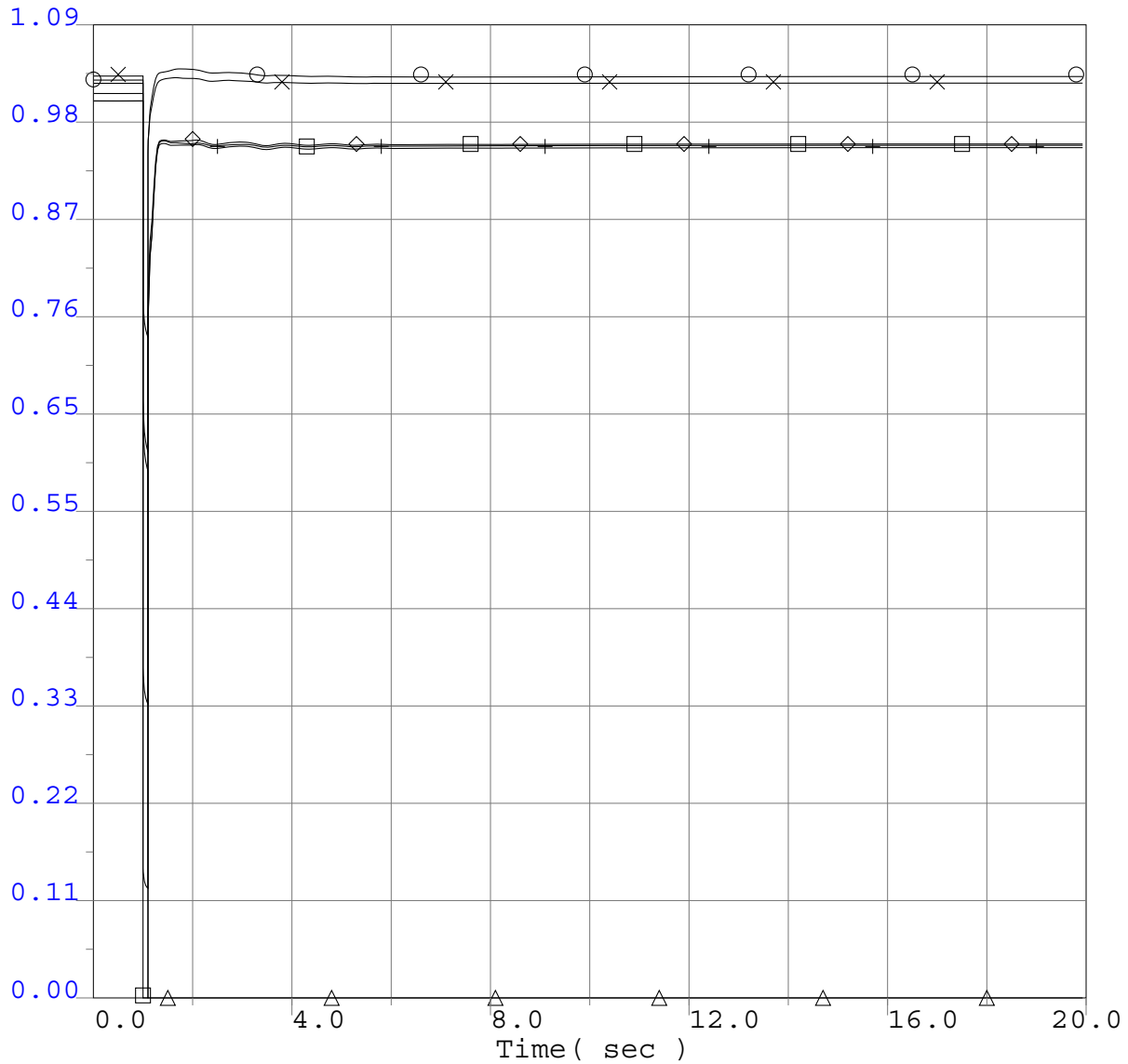


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Schulte 115kV double-line outage
 3 ph 6 cyc flt @ Schulte 115kV bus & clr Manteca-Schulte+Schulte-Kasson 115kV l



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Voltage Plots Adjacent to Fault



○	0.0000 vbus	33549	SCHULTE	115.0	0	0.0	""	1	1.0900
○	0.0000 vbus	33540	TESLA	115.0	0	0.0	""	1	1.0900
□	0.0000 vbus	33514	MANTECA	115.0	0	0.0	""	1	1.0900
◇	0.0000 vbus	33529	LAMMERS	115.0	0	0.0	""	1	1.0900
+	0.0000 vbus	33528	KASSON	115.0	0	0.0	""	1	1.0900
△	0.0000 vbus	33518	VIERRA	115.0	0	0.0	""	1	1.0900

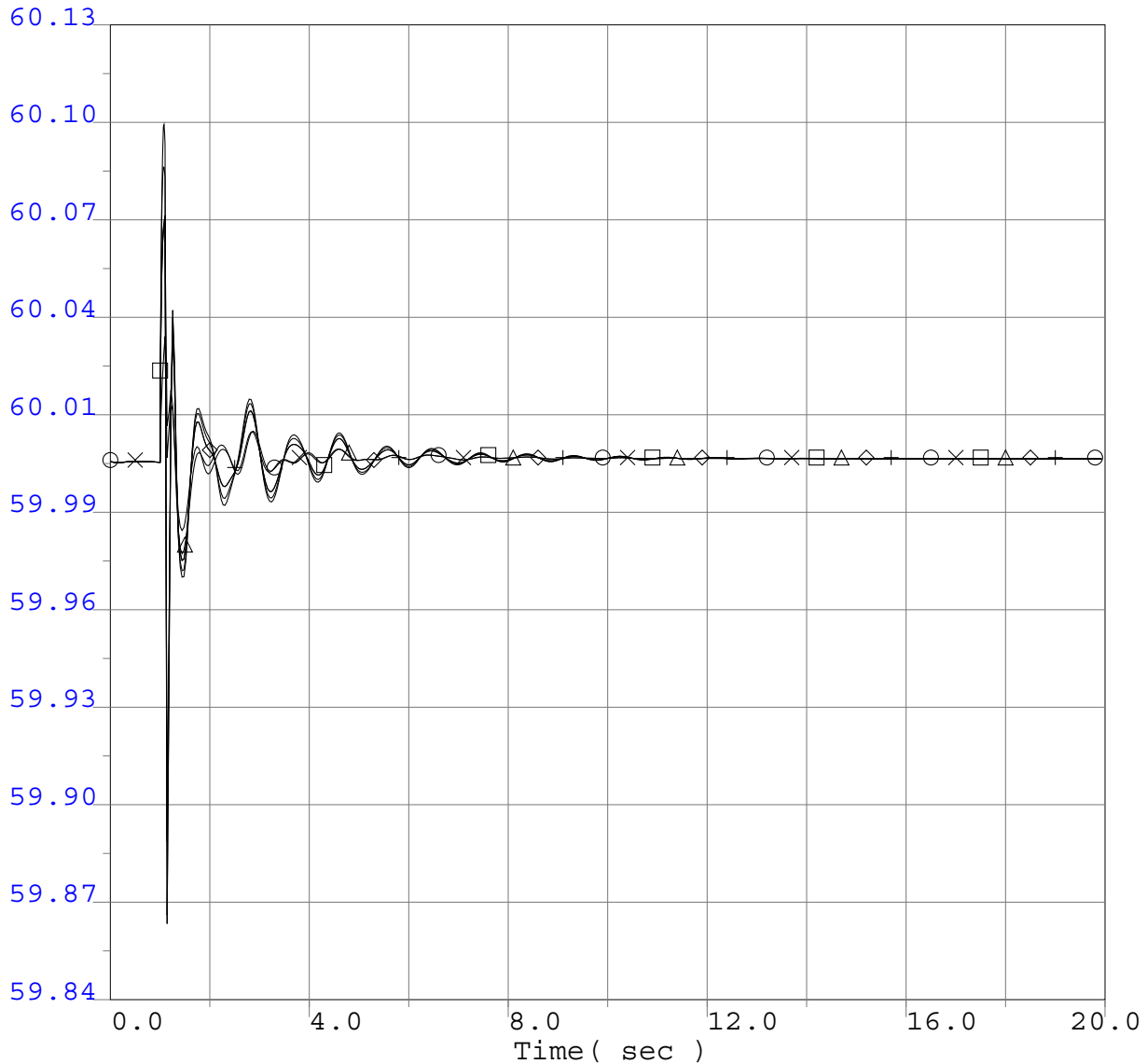


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Manteca 115kV double-line outage
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte+Manteca-kasson 115kV l



Q268 Project Interconnection System Impact Study

Selected PG&E Bus Frequency Plots Adjacent to Fault



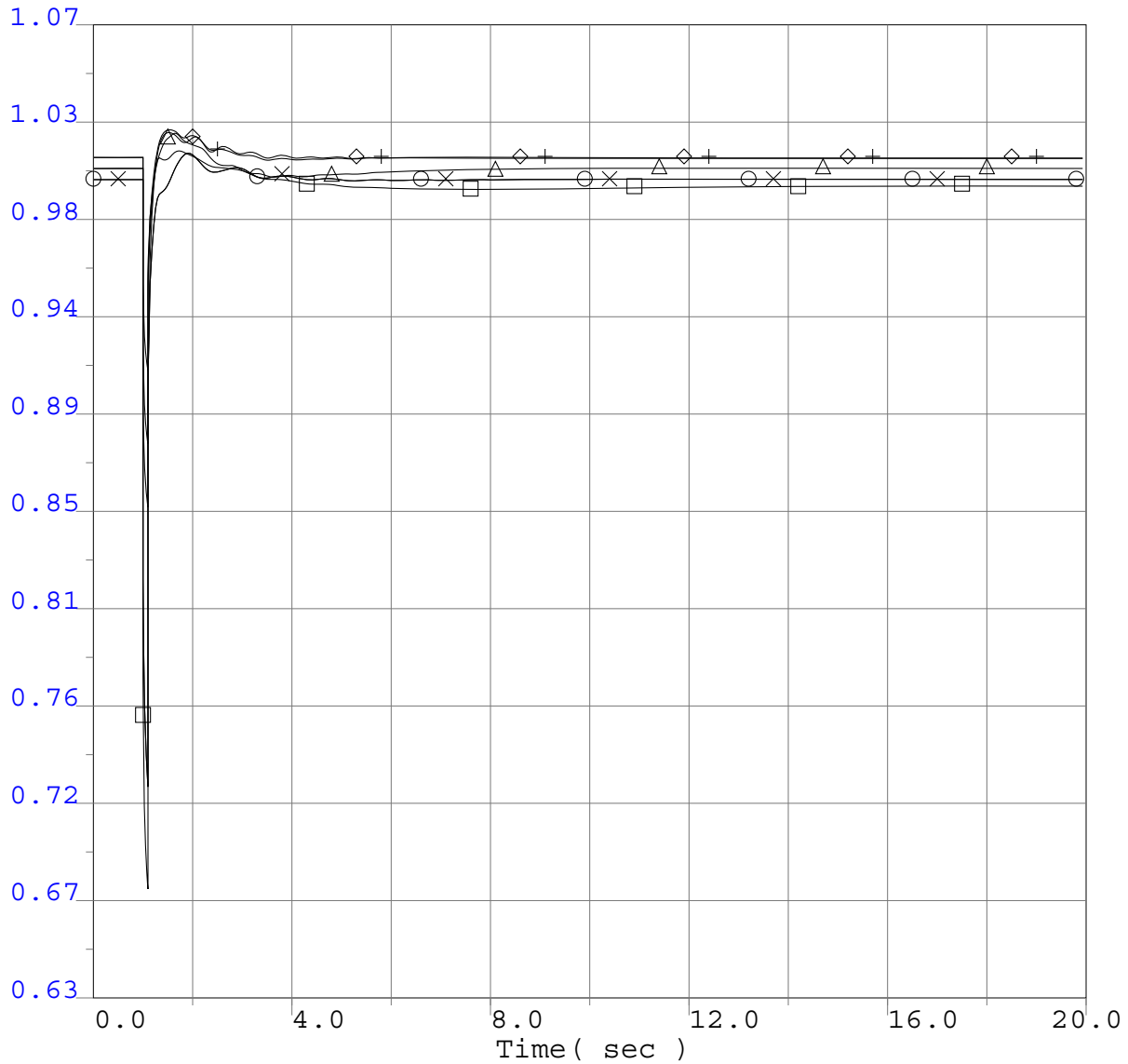
○	59.8400 Fbus	33549	SCHULTE 115.0	0	0.0	"	1	60.1300
□	59.8400 Fbus	33540	TESLA 115.0	0	0.0	"	1	60.1300
△	59.8400 Fbul	33514	MANTECA 115.0	0	0.0	"	1	60.1300
◇	59.8400 Fbul	33529	LAMMERS 115.0	0	0.0	"	1	60.1300
+	59.8400 Fbus	33528	KASSON 115.0	0	0.0	"	1	60.1300
×	59.8400 Fbul	33518	VIERRA 115.0	0	0.0	"	1	60.1300

Q268 Project Interconnection System Impact Study
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 Q268 @ 154.7MW
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Q268 Project Interconnection System Impact Study

Project Generator Terminal Voltages



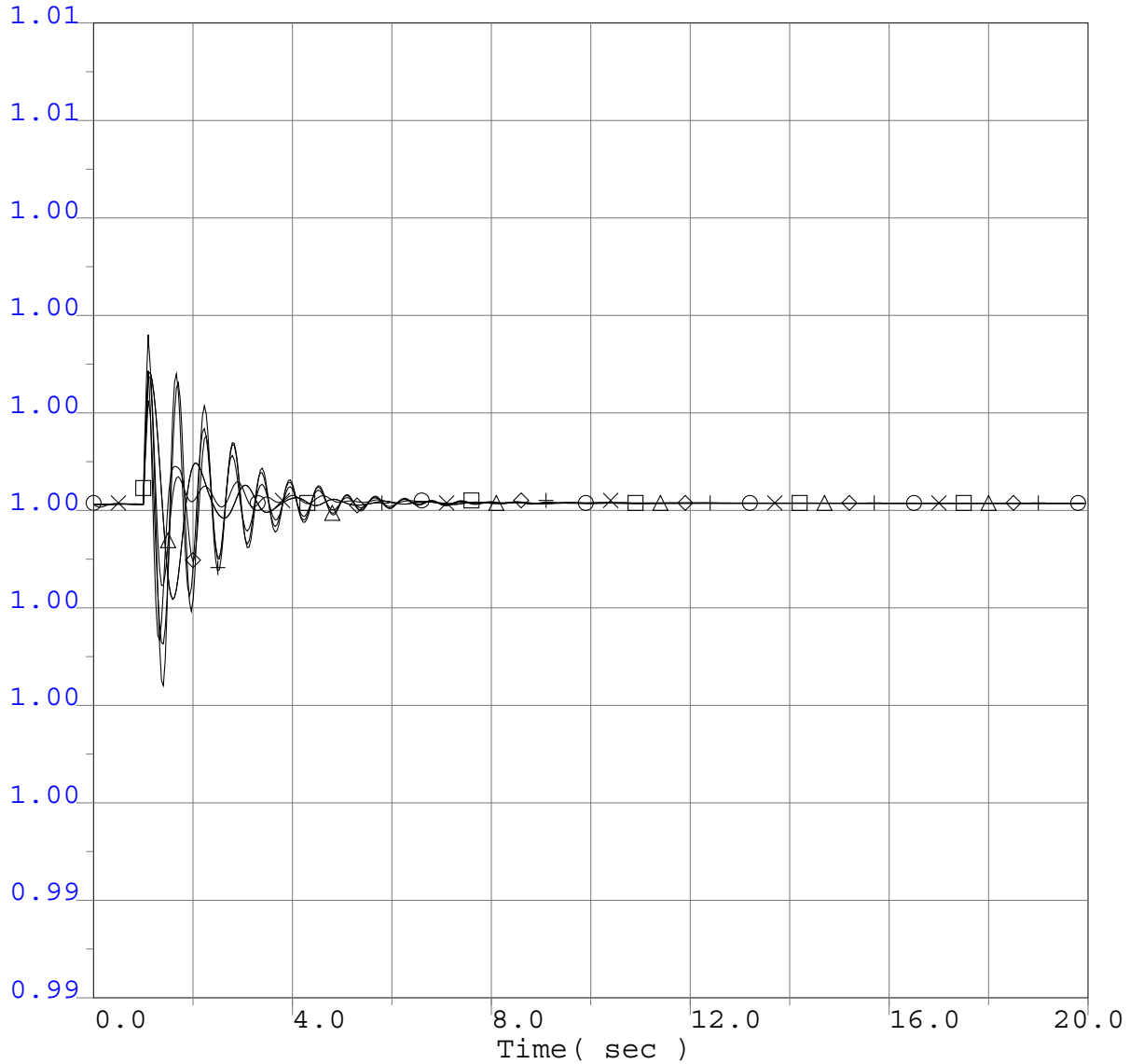
○	0.6300 vt	33805	GWTRCY1	13.8	0	0.0	"1"	1	1.0700
□	0.6300 vt	33807	GWTRCY2	13.8	0	0.0	"1"	1	1.0700
△	0.6300 vt	33809	Q268ST1	13.8	0	0.0	"1"	1	1.0700
×	0.6300 vt	33858	P0409CG2	13.8	0	0.0	"1"	1	1.0700
◇	0.6300 vt	33808	SJ COGEN	13.8	0	0.0	"1"	1	1.0700
+	0.6300 vt	33810	SP CMPNY	13.8	0	0.0	"1"	1	1.0700

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
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 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte+Manteca-kasson 115kV l



Q268 Project Interconnection System Impact Study

Project Generator Rotor Speed



○	0.9921 spd	33805	GWTRCY1	13.8	0	0.0	"1"	1	1.0077
□	0.9921 spd	33807	GWTRCY2	13.8	0	0.0	"1"	1	1.0077
△	0.9921 spd	33809	Q268ST1	13.8	0	0.0	"1"	1	1.0077
◇	0.9921 spd	33858	P0409CG2	13.8	0	0.0	"1"	1	1.0077
+	0.9921 spd	33808	SJ COGEN	13.8	0	0.0	"1"	1	1.0077
×	0.9921 spd	33810	SF CMPNY	13.8	0	0.0	"1"	1	1.0077

Q268 Project Interconnection System Impact Study

2013 Summer Peak Base Case

Q268 @ 154.7MW

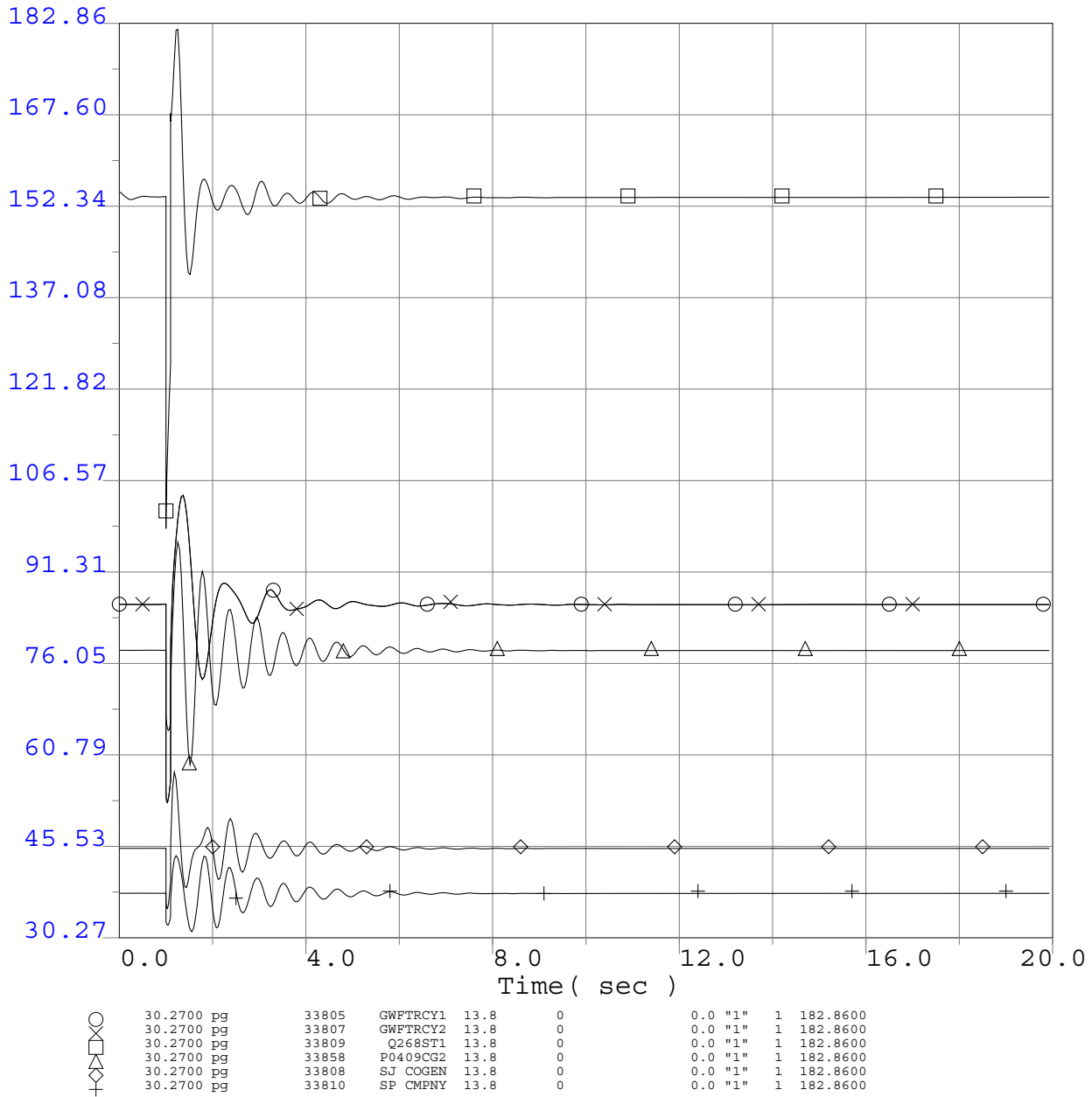
Manteca-Schulte+Kasson-Manteca 115kV double-line outage

3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte+Manteca-kasson 115kV l



Q268 Project Interconnection System Impact Study

Project Generator Terminal Power

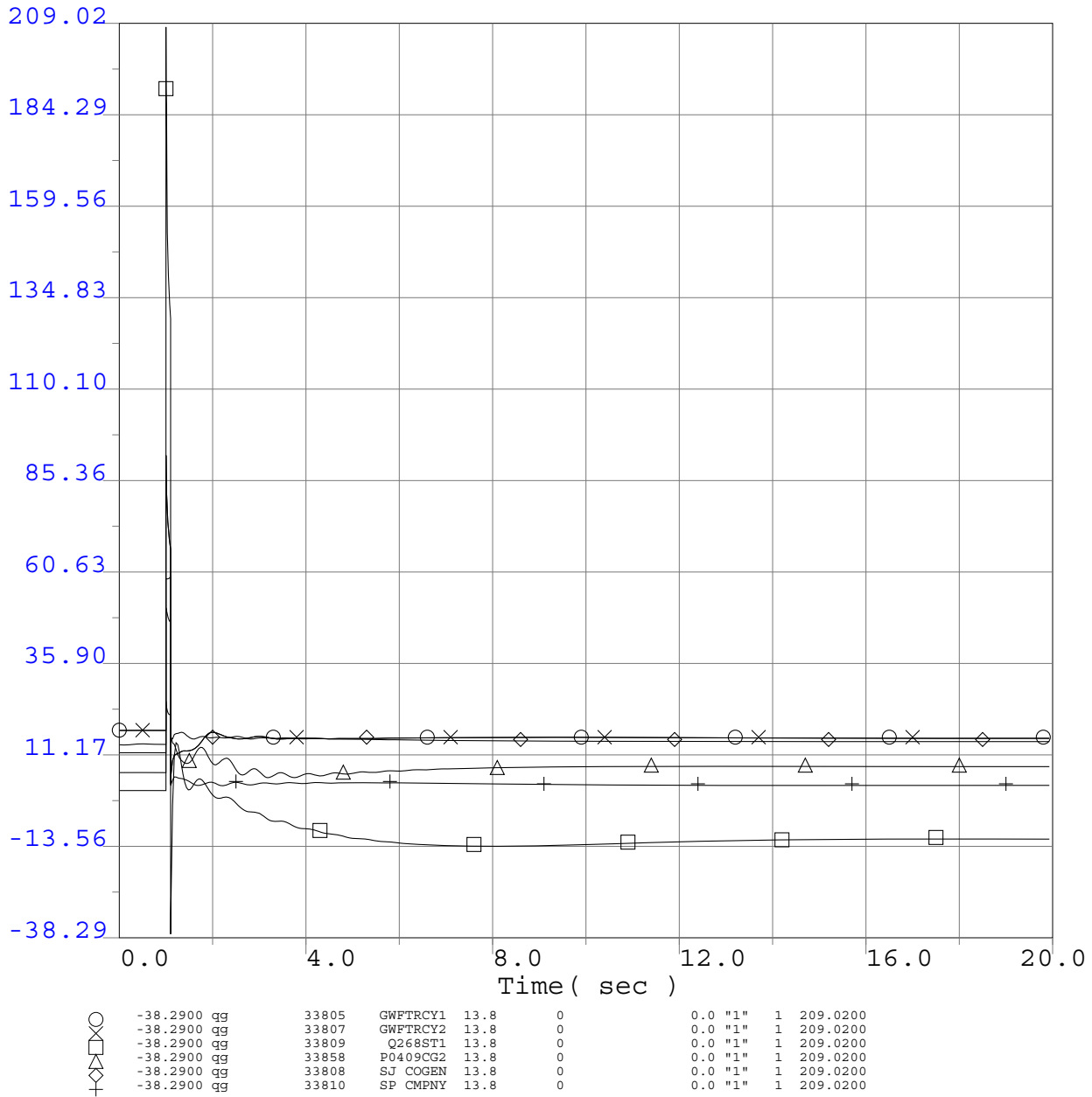


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Manteca 115kV double-line outage
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Q268 Project Interconnection System Impact Study

Project Generator Terminal Reactive Power

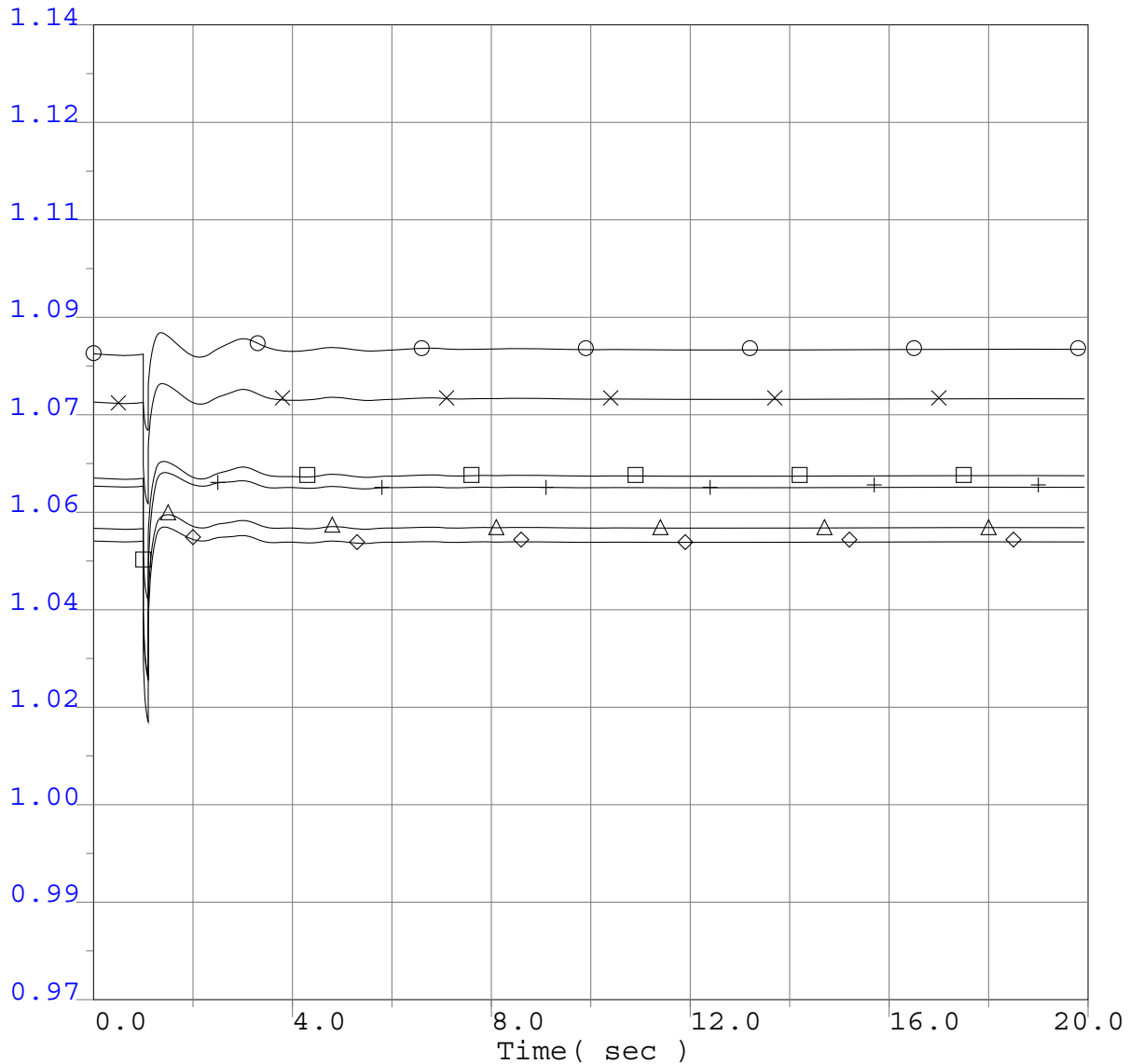


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Manteca 115kV double-line outage
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Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots



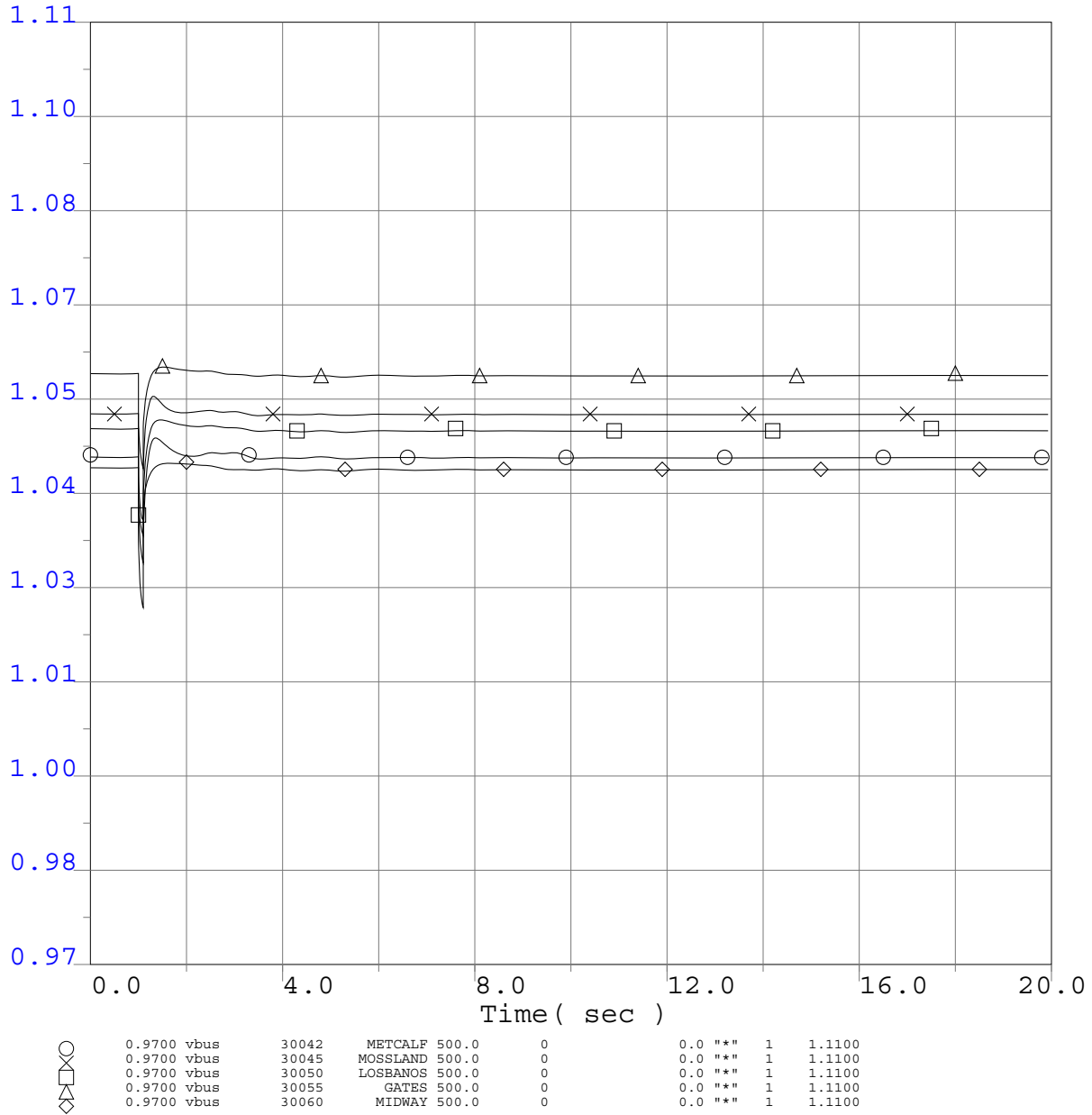
○	0.9700 vbus	40687	MALIN 500.0	0	0.0	""	1	1.1400
×	0.9700 vbus	30005	ROUND MT 500.0	0	0.0	""	1	1.1400
□	0.9700 vbus	30015	TABLE MT 500.0	0	0.0	""	1	1.1400
△	0.9700 vbus	30030	VACA-DIX 500.0	0	0.0	""	1	1.1400
◇	0.9700 vbus	30040	TESLA 500.0	0	0.0	""	1	1.1400
+	0.9700 vbus	30035	TRACY 500.0	0	0.0	""	1	1.1400

Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
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Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

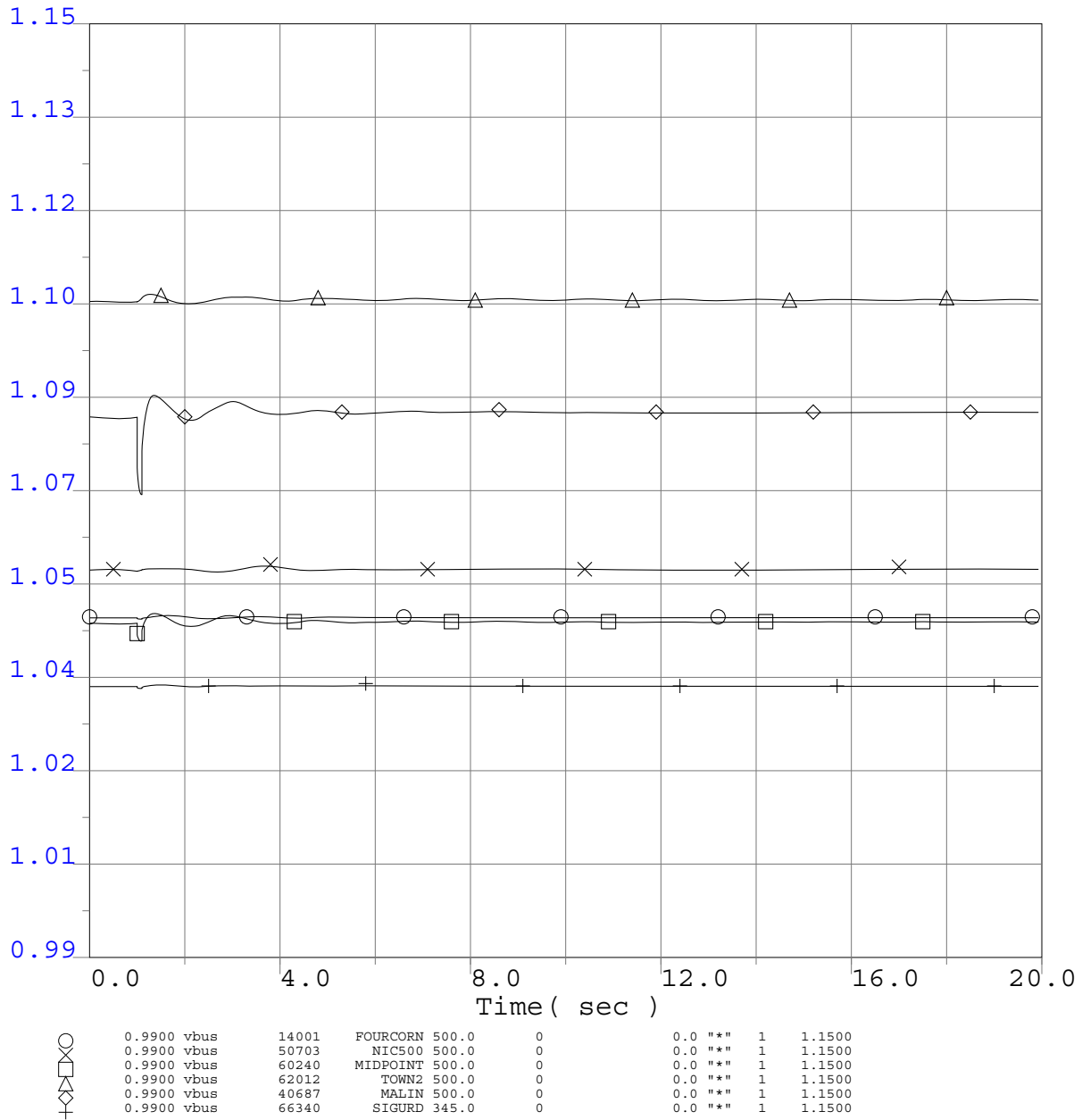


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Manteca 115kV double-line outage
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte+Manteca-kasson 115kV l



Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

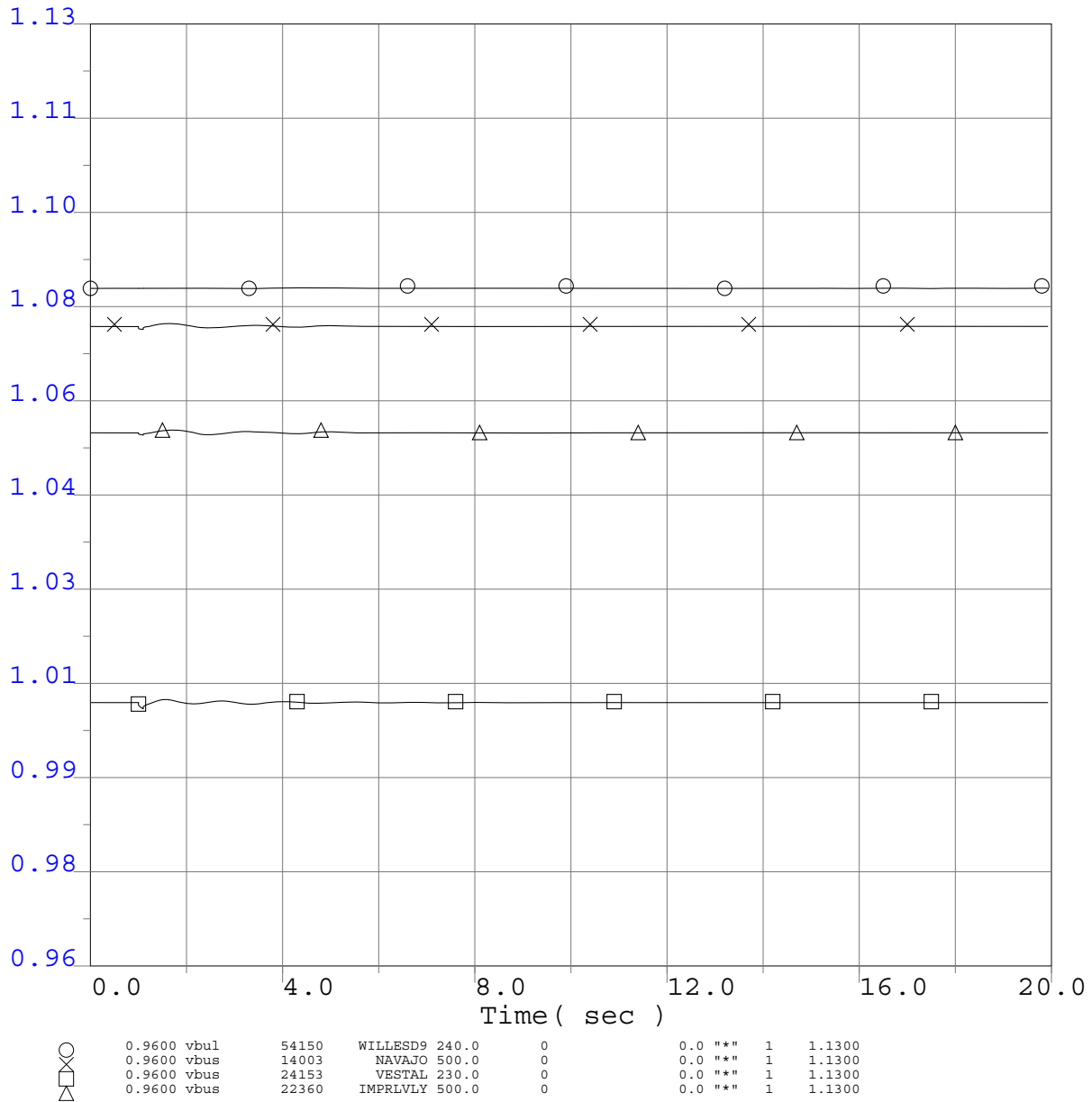


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Manteca 115kV double-line outage
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Q268 Project Interconnection System Impact Study

Selected WECC Bus Voltage Plots

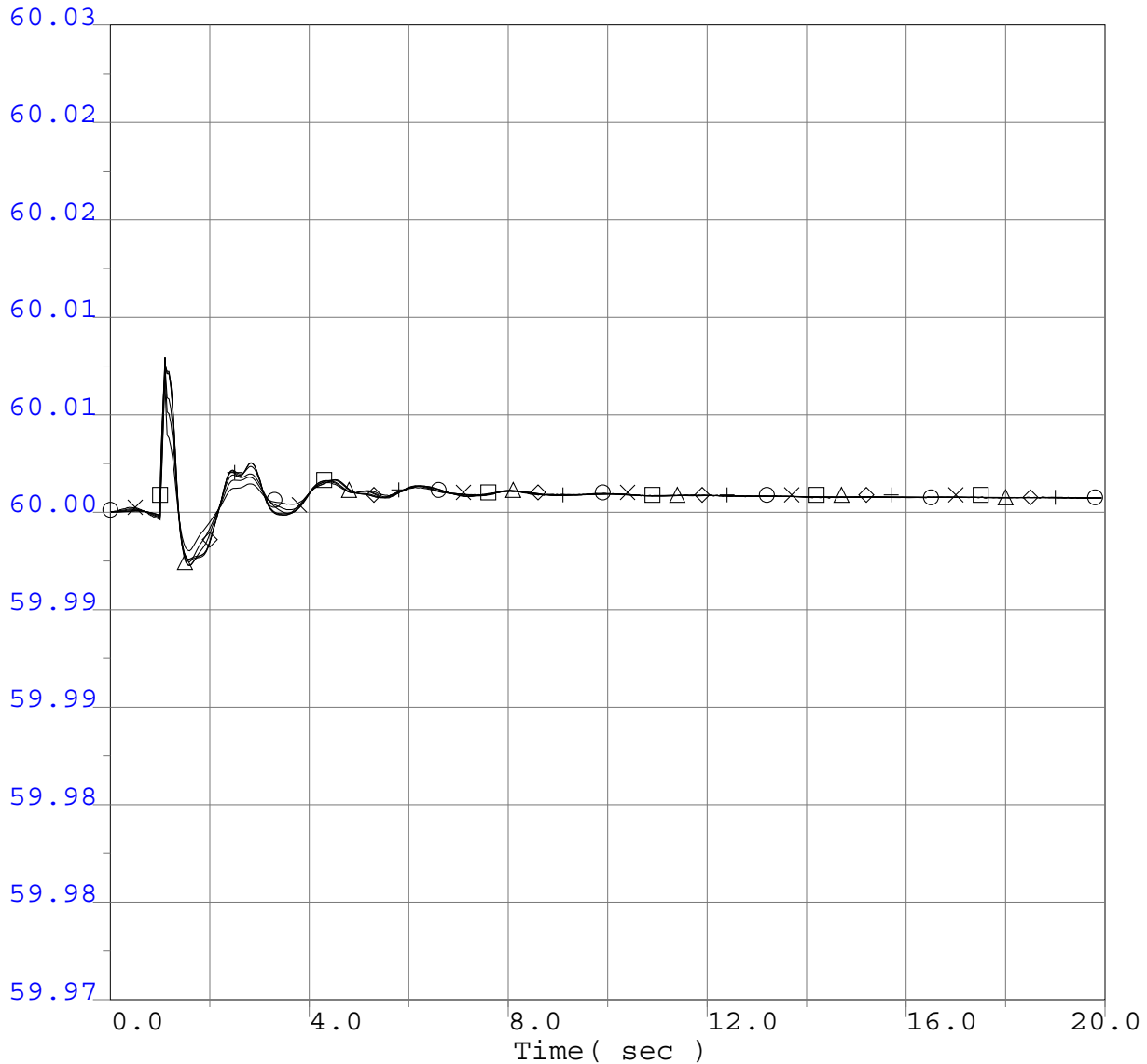


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Manteca 115kV double-line outage
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte+Manteca-kasson 115kV l



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



○	59.9700 Ebus	40687	MALIN 500.0	0	0.0	""	1	60.0300
×	59.9700 Ebus	30005	ROUND MT 500.0	0	0.0	""	1	60.0300
□	59.9700 Ebus	30015	TABLE MT 500.0	0	0.0	""	1	60.0300
△	59.9700 Ebus	30030	VACA-DIX 500.0	0	0.0	""	1	60.0300
◇	59.9700 Ebus	30040	TESLA 500.0	0	0.0	""	1	60.0300
+	59.9700 Ebus	30035	TRACY 500.0	0	0.0	""	1	60.0300

Q268 Project Interconnection System Impact Study

2013 Summer Peak Base Case

Q268 @ 154.7MW

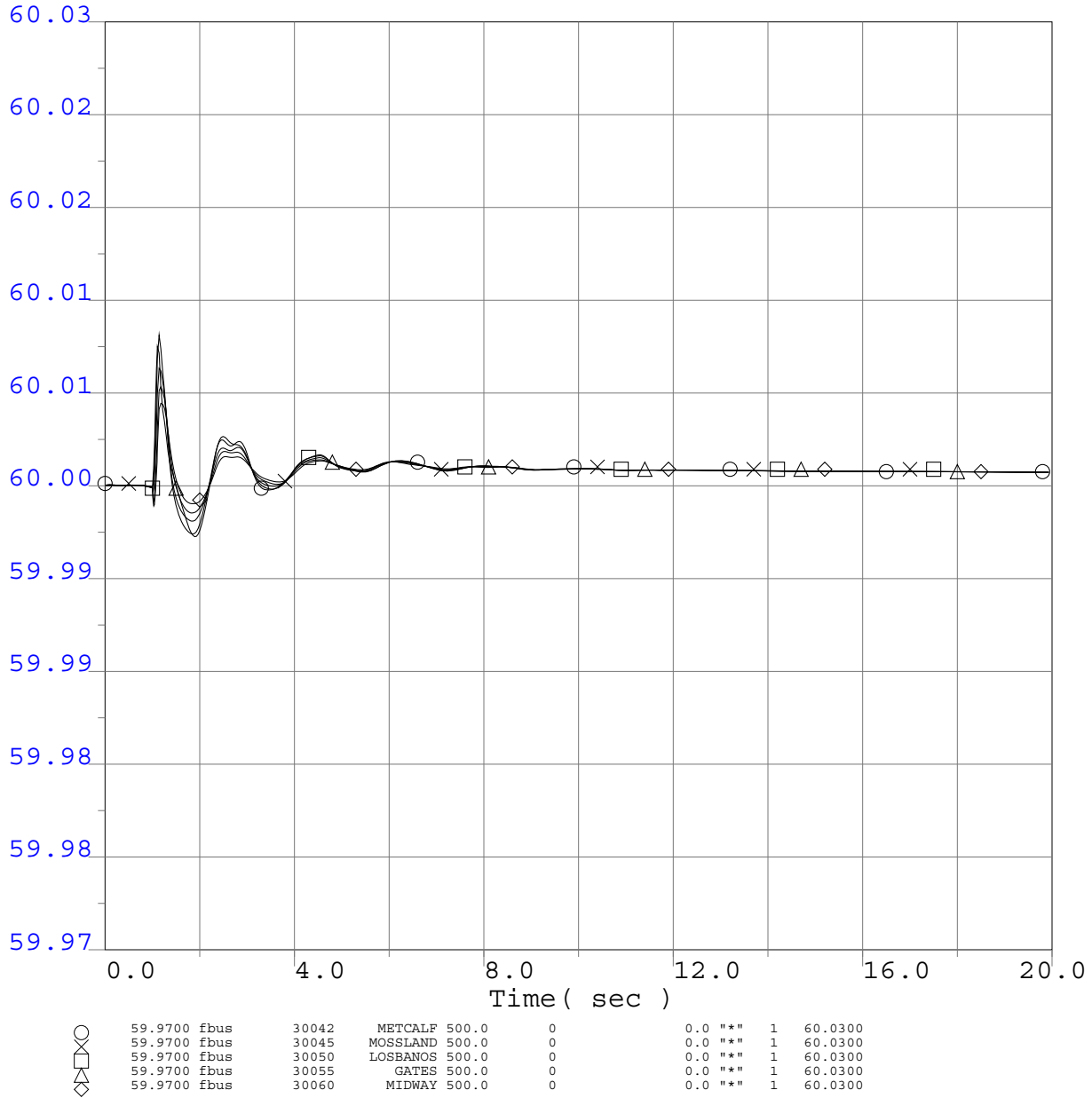
Manteca-Schulte+Kasson-Manteca 115kV double-line outage

3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte+Manteca-kasson 115kV l



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots

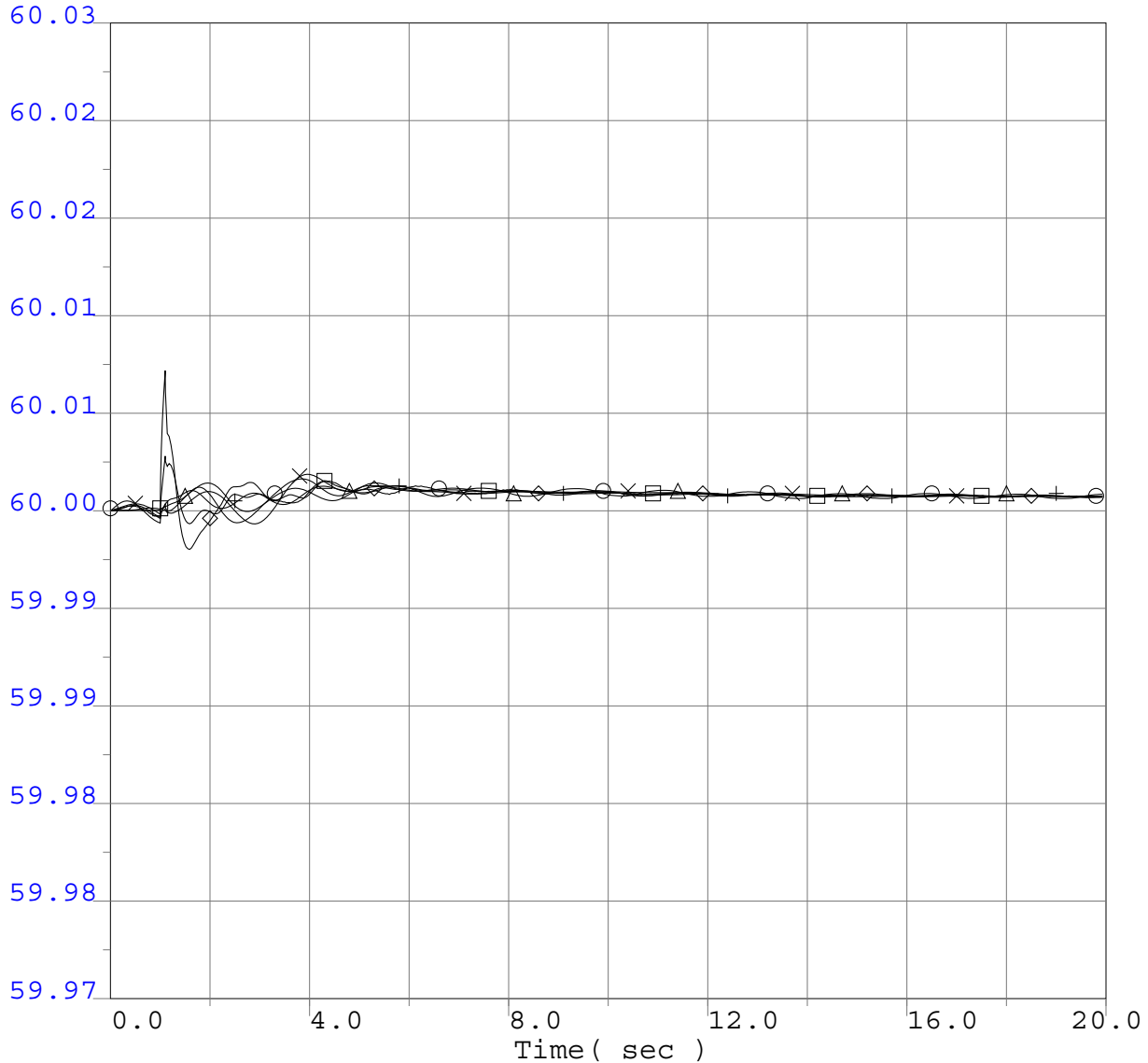


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Manteca 115kV double-line outage
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte+Manteca-kasson 115kV l



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots



○	59.9700 Ebus	14001	FOURCORN 500.0	0	0.0	""	1	60.0300
□	59.9700 Ebus	50703	NIC500 500.0	0	0.0	""	1	60.0300
△	59.9700 Ebus	60240	MIDPOINT 500.0	0	0.0	""	1	60.0300
◇	59.9700 Ebus	62012	TOWN2 500.0	0	0.0	""	1	60.0300
+	59.9700 Ebus	40687	MALIN 500.0	0	0.0	""	1	60.0300
×	59.9700 Ebus	66340	SIGURD 345.0	0	0.0	""	1	60.0300

Q268 Project Interconnection System Impact Study

2013 Summer Peak Base Case

Q268 @ 154.7MW

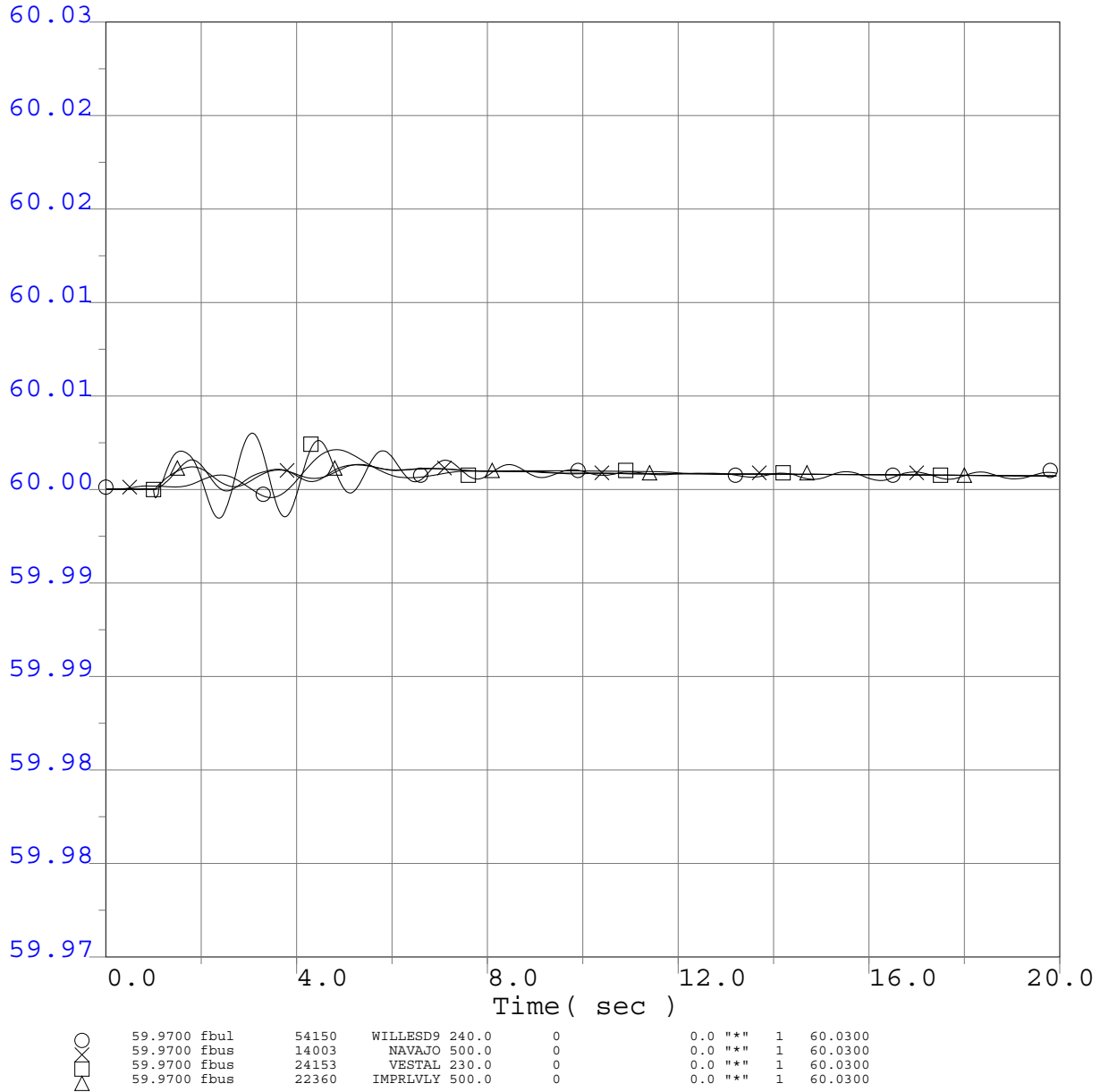
Manteca-Schulte+Kasson-Manteca 115kV double-line outage

3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte+Manteca-kasson 115kV l



Q268 Project Interconnection System Impact Study

Selected WECC Bus Frequency Plots

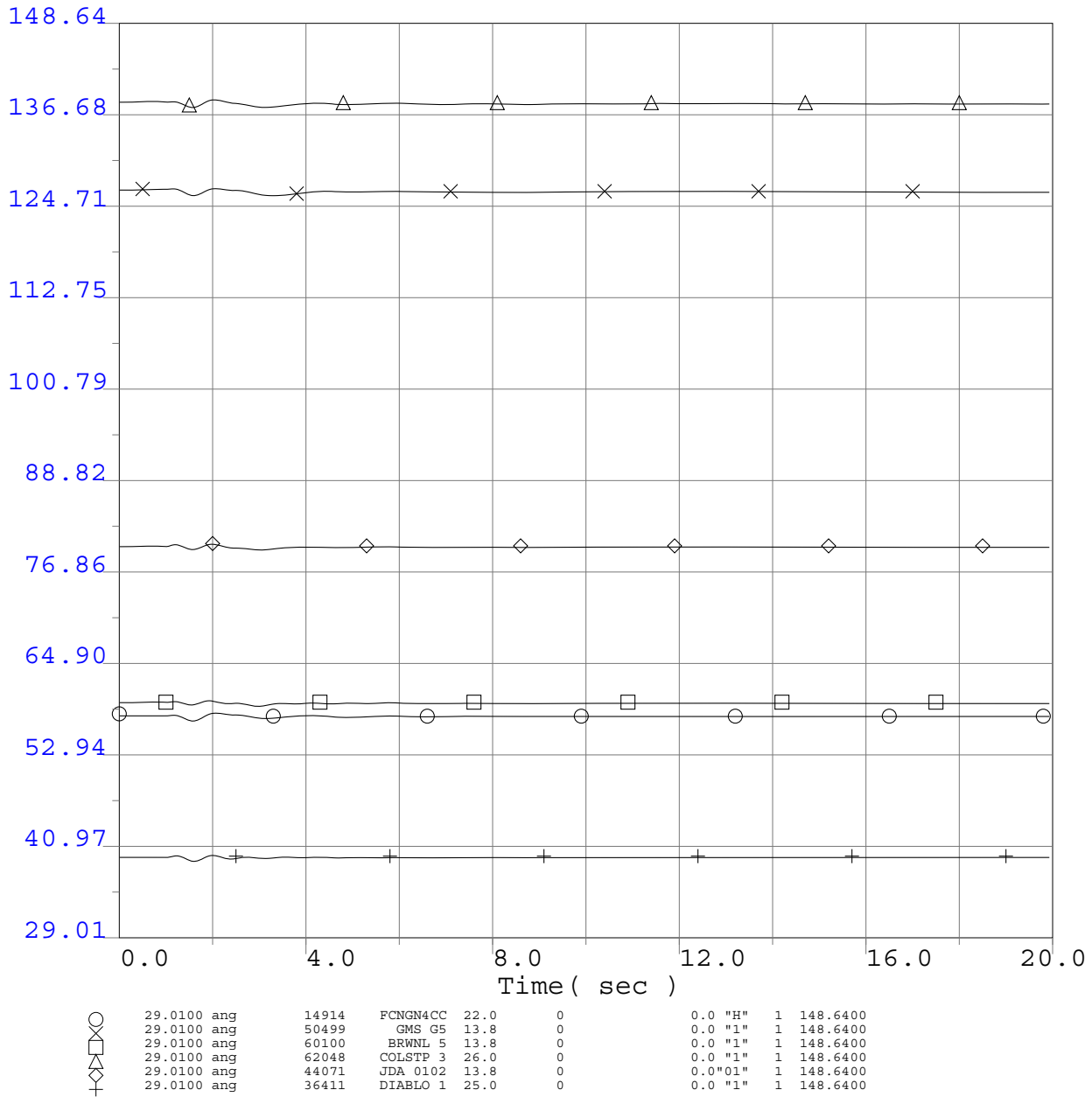


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Manteca 115kV double-line outage
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte+Manteca-kasson 115kV l



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle

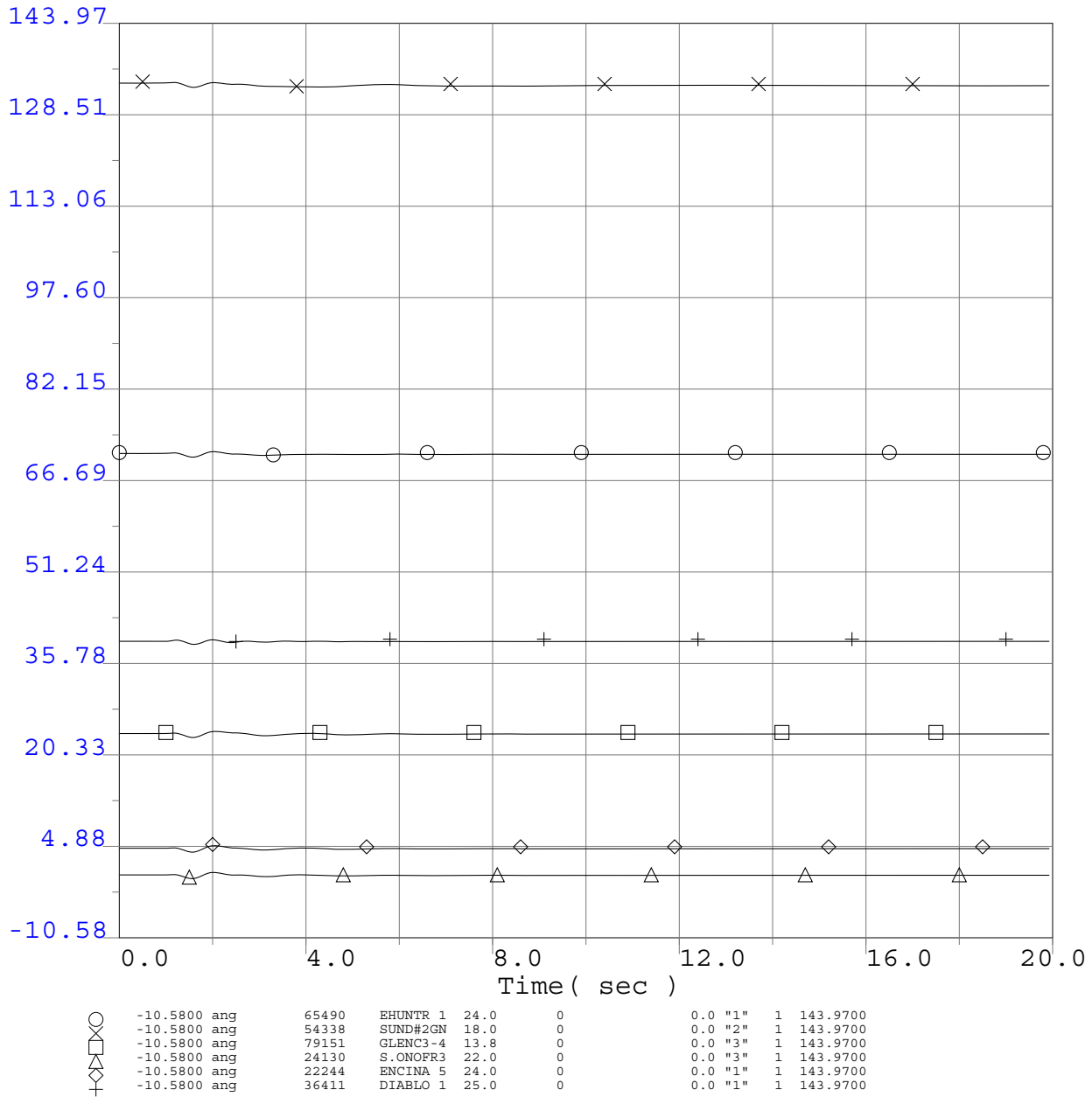


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
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 Manteca-Schulte+Kasson-Manteca 115kV double-line outage
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte+Manteca-kasson 115kV l



Q268 Project Interconnection System Impact Study

WECC Generator Rotor Angle

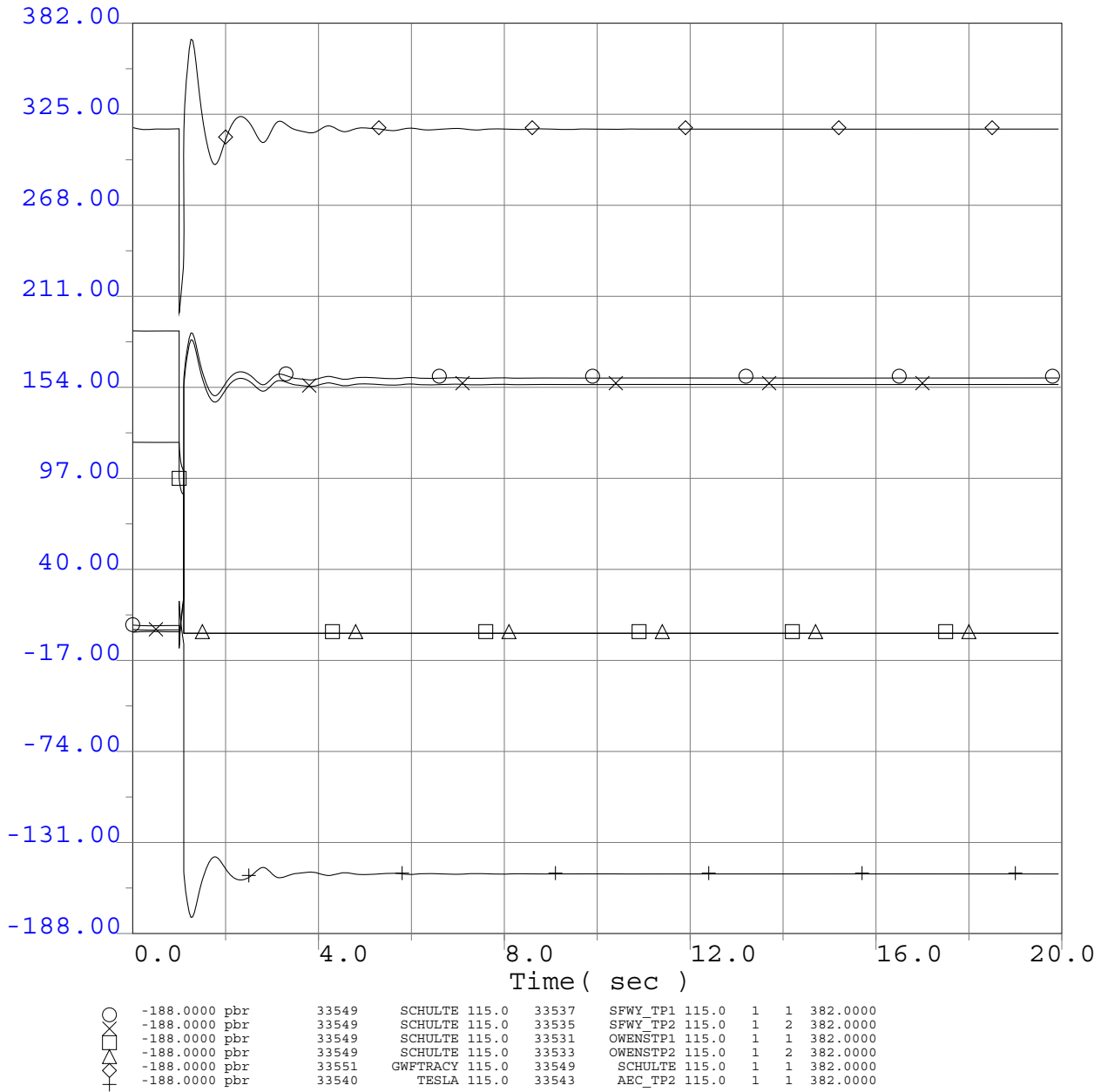


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
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 Manteca-Schulte+Kasson-Manteca 115kV double-line outage
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte+Manteca-kasson 115kV l



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)

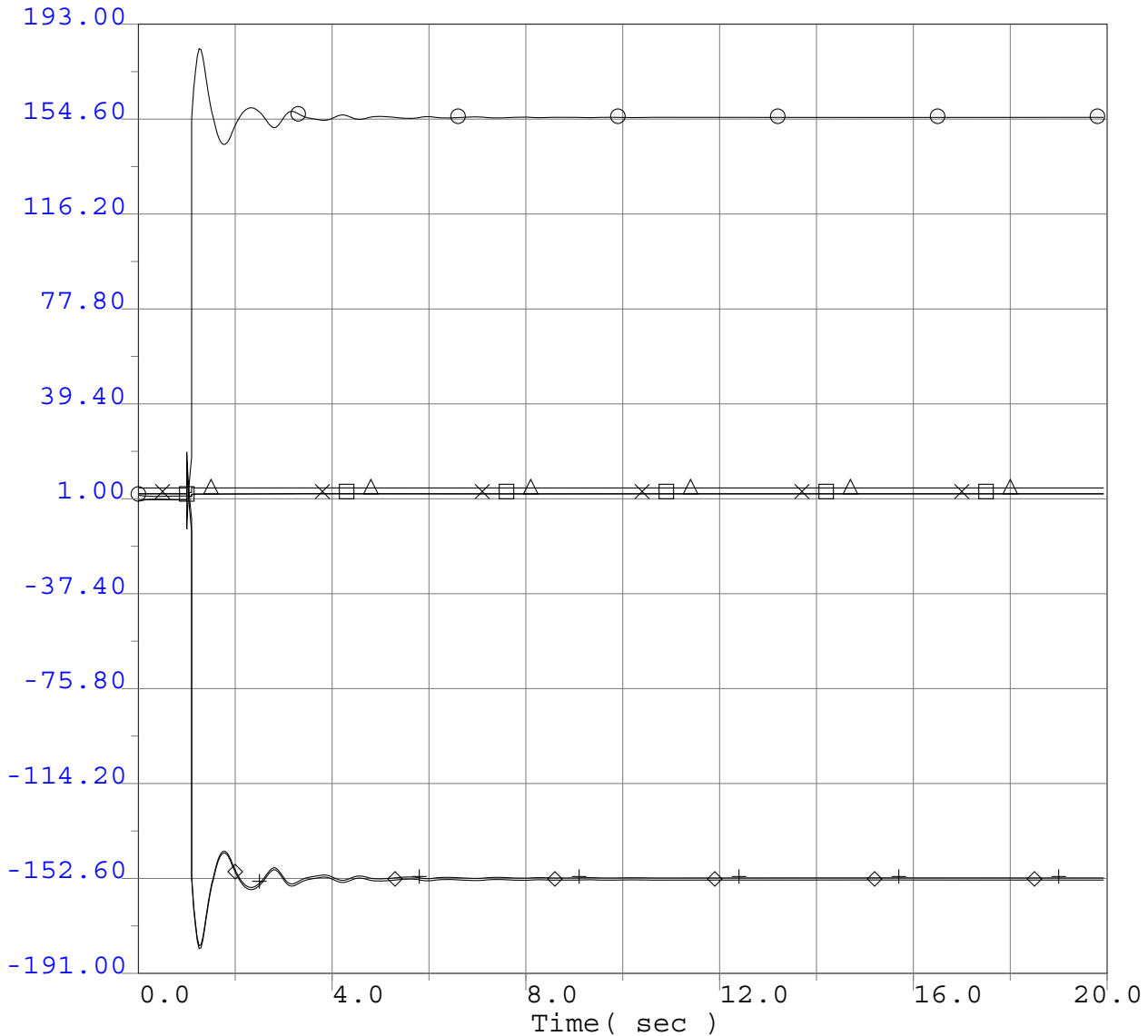


Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Manteca 115kV double-line outage
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte+Manteca-kasson 115kV l



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)



○	-191.0000 pbr	33535	SFWY_TP2 115.0	33543	AEC_TP2 115.0	1	1	193.0000
○	-191.0000 pbr	33543	AEC_TP2 115.0	33545	AEC_JCT 115.0	1	1	193.0000
△	-191.0000 pbr	33545	AEC_JCT 115.0	33547	AEC_300 115.0	1	1	193.0000
△	-191.0000 pbr	33537	SFWY_TP1 115.0	33534	SAFEWAY 115.0	1	1	193.0000
△	-191.0000 pbr	33541	AEC_TP1 115.0	33537	SFWY_TP1 115.0	1	1	193.0000
◇	-191.0000 pbr	33540	TESLA 115.0	33541	AEC_TP1 115.0	1	1	193.0000

Q268 Project Interconnection System Impact Study

2013 Summer Peak Base Case

Q268 @ 154.7MW

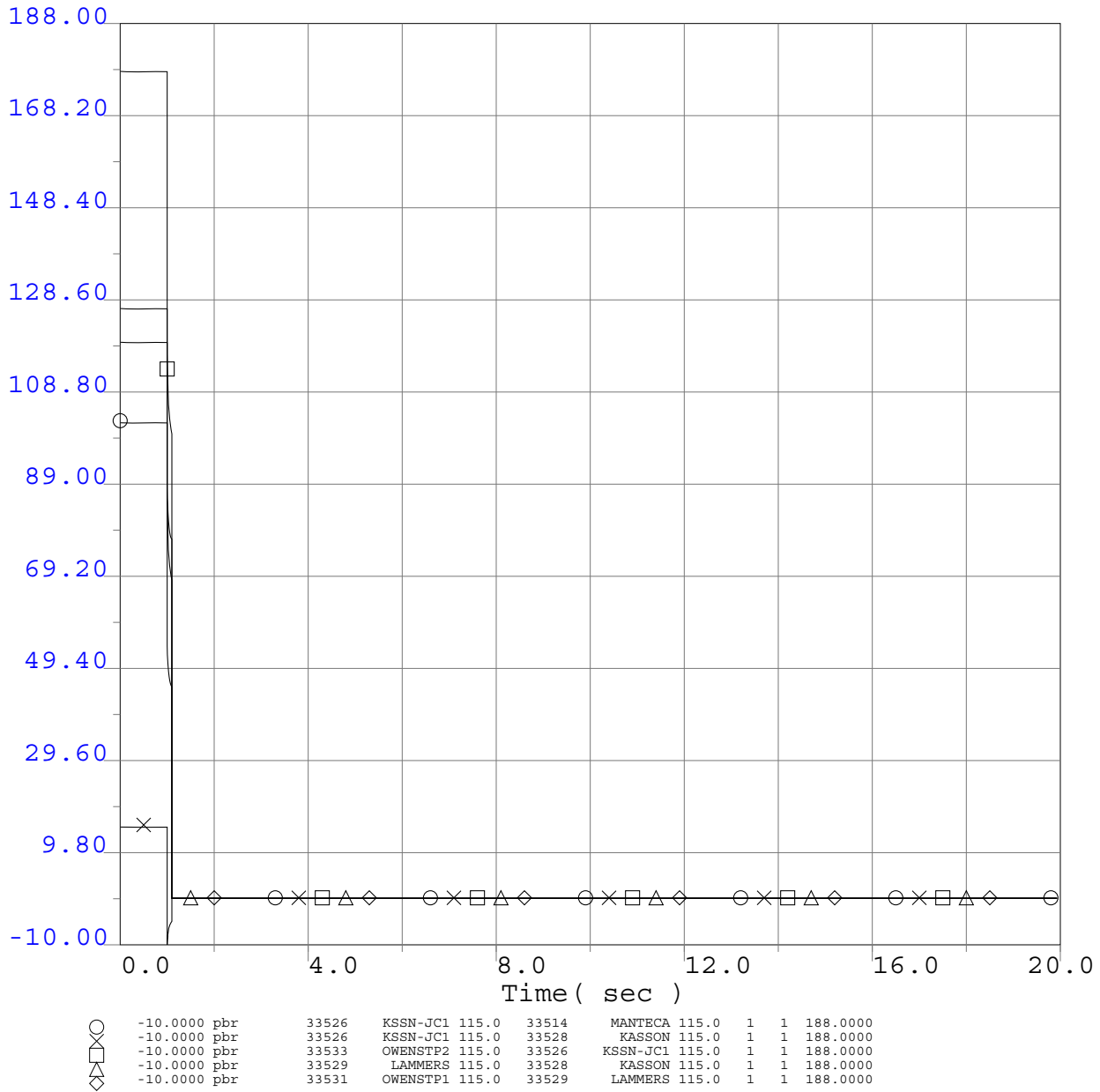
Manteca-Schulte+Kasson-Manteca 115kV double-line outage

3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte+Manteca-kasson 115kV l



Q268 Project Interconnection System Impact Study

Selected PG&E Transmission Line Flows (MW)



Q268 Project Interconnection System Impact Study
 2013 Summer Peak Base Case
 Q268 @ 154.7MW
 Manteca-Schulte+Kasson-Manteca 115kV double-line outage
 3 ph 6 cyc flt @ Manteca 115kV bus & clr Manteca-Schulte+Manteca-kasson 115kV l



Appendix G

Protection Requirement

GWF Tracy Interconnection Project
03/20/08

System Protection Requirements
For
GWF Tracy Interconnection Project

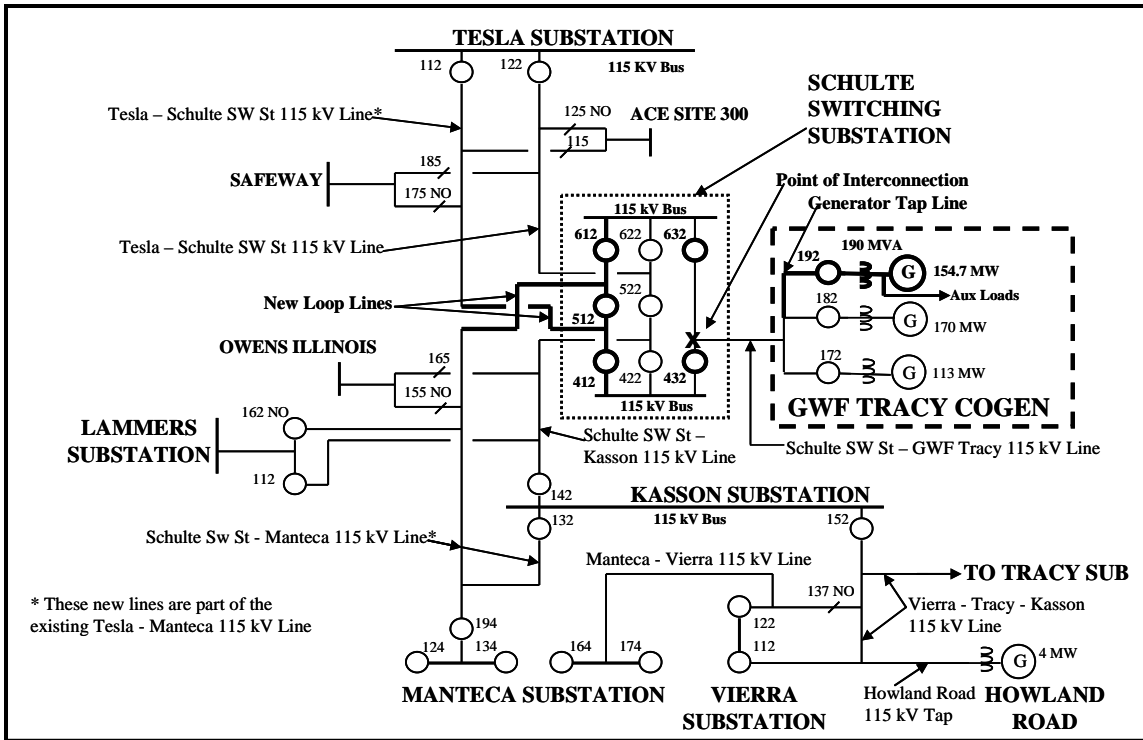
Project Scope:

The Tesla Manteca 115 kV line will be looped into Schulte Switching Station. This would require the following:

Protection Requirements

Assumptions

PG&E owned Schulte Switching Substation will be converted from the existing ring bus configuration to a Breaker and a half (BAAH) configuration. In addition, the Tesla – Manteca 115 kV line will be looped into the Schulte Switching Station. A total of five lines will terminate at the switchyard. The new configuration is shown in the figure below.



Note: Above diagram is from Interconnection System Impact Study

GWF Tracy Interconnection Project
03/20/08

Schulte Switching Station

Install 5 new 115 kV circuit breakers along with the existing 115 kV breakers at Schulte Switching Substation and configure the bus as a 3 bay Breaker and a half (BAAH) bus.

CB 612 / CB 512 (Tesla – Schulte 115 kV line)

- Install a non-integrated, non-pilot, step distance protection using GE D60, SEL 311C (substitute GE-D60 for the REL 512 relay and substitute SEL-311C for SEL-321).

CB 512 / CB 412 (Schulte – Manteca 115 kV line)

- Install a non-integrated, non-pilot, step distance protection using GE D60, SEL 311C (substitute GE-D60 for the REL 512 relay and substitute SEL-311C for SEL-321).

CB 632 / CB 432 (GWF Tracy 115 kV line)

- On line terminal to GWF Tracy 115 kV line, the protective relays will stay the same. Rewire existing line differential protection to new CB CTs. Modify the trip circuits to trip the new circuit breakers.

Bus Differential Protection

- Install 2 bus high impedance bus differential scheme for BAAH configuration

CB 612

- Install breaker fail protection using Basler BEI-BPR relay.
- Install SEL 279 relay for the Automatics will all automatic features and LT Restore memory on all reclosing.

CB 512

- Install a breaker fail protection using Basler BEI-BPR relay.
- Install SEL 279 relay for the Automatics will all automatic features and LT Restore memory on all reclosing.

CB 412

- Install a breaker fail protection using Basler BEI-BPR relay.
- Install SEL 279 relay for the Automatics will all automatic features and LT Restore memory on all reclosing.

GWF Tracy Interconnection Project
03/20/08

CB 632

- Install a breaker fail protection using Basler BEI-BPR relay.
- Install SEL 279 relay for the Automatics will all automatic features.

CB 432

- Install a breaker fail protection using Basler BEI-BPR relay.
- Install SEL 279 relay for the Automatics will all automatic features.

CB 422, 522, 622

- Study and reset line relays due to increased fault duty.

Tesla Substation

CB 112, 122

- Study and reset line relays due to increased fault duty and line reconfiguration.

CB 102, 132, 142, 152, 162, 422, 432

- Study and reset line relays due to increased fault duty.

CB 172 / 372, CB 182 / 382

- Study and reset transmission bank (115 kV / 60 kV) relays due to increased fault duty.

Kasson Substation

CB 132

- Line Relays for Kasson CB 132 will be replaced with the SEL 311C and GE D60 relays for step distance protection (substitute GE-D60 for the REL 512 relay and substitute SEL-311C for SEL-321).
- Breaker fail relay Basler BEI-BPR and SEL 279 relay for automatics will also be added.

CB 142, 152

- Study and reset line relays due to increased fault duty.

**GWF Tracy Interconnection Project
03/20/08**

CB 176

- Study and reset high side transmission bank relays due to increased fault duty.

Lammers Substation

CB 112 / 122, 152 / 162

- Study and reset line relays due to increased fault duty.

CB 112 / 162, CB 122 / 152

- Study and reset bank relays due to increased fault duty

Manteca Substation

CB 194

- Study and reset line relays due to line reconfiguration.

Generator Protection

- Generator Protection must conform to Section G2 of the PG&E Interconnection Handbook.