

January 12, 2006

Mr. B.B. Blevins  
Executive Director  
California Energy Commission  
1516 Ninth Street  
Sacramento, CA 95814

Dear Mr. Blevins:

SUBJECT: SUPPLEMENT IN RESPONSE TO DATA ADEQUACY  
COMMENTS ON THE APPLICATION FOR CERTIFICATION FOR  
THE SUN VALLEY ENERGY PROJECT (05-AFC-03)

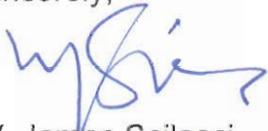
Dear Mr. Blevins:

In accordance with the provisions of Title 20, California Code of Regulations, Valle del Sol Energy, LLC hereby submits this document titled *Supplement in Response to Data Adequacy Comments on the Application for Certification for the Sun Valley Energy Project (05-AFC-03)*. The Sun Valley Energy Project is a 500 megawatt, natural gas-fired power plant to be located near Romoland, Riverside County, California.

As an officer of the company, I hereby attest, under penalty of perjury, that the contents of this application are truthful and accurate to the best of my knowledge.

Dated this 12<sup>th</sup> day of January 2006.

Sincerely,



W. James Scilacci  
Senior Vice President & Chief Financial Officer

WJS:bpm

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*Supplement*

**In Response to Data Adequacy Review**

of the

**Application for Certification**

for the

**Sun Valley Energy Project**

Romoland, California

(05-AFC-03)

Submitted to the

**California Energy Commission**

Submitted by:

**Valle del Sol Energy, LLC**

A wholly-owned subsidiary of



With Technical Assistance by:



Sacramento, California  
January 2006

# Contents

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# 1.0 Introduction

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This supplement to Valle del Sol Energy, LLC's (VSE's) Application for Certification (AFC) for the Sun Valley Energy Project (SVEP) (05-AFC-03), responds to comments that California Energy Commission (CEC) Staff have made as a result of their data adequacy review of the AFC. The intention of this supplement is to provide all additional information necessary for Staff to find that the AFC contains sufficient and adequate data to begin a power plant site certification proceeding under Title 20, California Code of Regulations and the Warren-Alquist Energy Resources Conservation and Development Act.

The format for this supplement follows the order of the AFC, and provides additional information and responses to CEC information requests on Project Overview (Chapter 2), Transmission System Engineering (Chapter 6), Air Quality (Chapter 8.1), Socioeconomics (8.10), and Water Resources (Chapter 8.15). Only sections for which CEC Staff posed requests or questions related to data adequacy are addressed in this supplement. If the response calls for additional appended material, it is included at the end of each subsection.

Each subsection contains data adequacy questions or information requests, with numbers and summary titles and, in parentheses, the citation from Appendix B, Title 22, California Code of Regulations (Regulations Pertaining to the Rules of Practice and Procedure and Power Plant Site Certification) indicating a particular information requirement for the AFC. Each item follows with the CEC Staff comment on data adequacy for this item, under the heading "Information required to make AFC conform with regulations" followed by VSE's response to the information request and the information requested.

## 2.0 Project Overview

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### **1. Photographic Reproduction (Appendix B [a] [1] [D])**

*A full-page color photographic reproduction depicting the visual appearance of the site prior to construction, and a full-page color simulation or artist's rendering of the site and all project components at the site, after construction.*

#### **Information required to make AFC conform with regulations:**

*Please provide a full-page color photographic reproduction depicting the visual appearance of the site prior to construction.*

**Response** – See attached photo (Figure 2.1-S1)

### **2. Transmission Line (Appendix B [b] [2] [B])**

*A full-page color photographic reproduction depicting the visual appearance of the site prior to construction, and a full-page color simulation or artist's rendering of the site and all project components at the site, after construction.*

#### **Information required to make AFC conform with regulations:**

*Please provide a full-page color photographic reproduction depicting a representative above ground section of the transmission line route prior to construction and a full-page color photographic simulation of that section of the transmission line route after construction.*

**Response** – See attached photographic simulation of the transmission line (Figure 2.1-S2)



**Figure 2.1-S1**  
**View of the SVEP site, September 2005, looking north towards the Valley Substation**



**Figure 2.1-S2a**  
**SVEP Project transmission corridor before project construction**



**Figure 2.1-S2b**  
**Simulated view of the transmission corridor after project construction**

# 6.0 Transmission System Engineering

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## **1. Power-Flow Diagrams (Appendix B [b][2][C])**

*A detailed description of the design, construction, and operation of any electric transmission facilities, such as power lines, substations, switchyards, or other transmission equipment, which will be constructed or modified to transmit electrical power from the proposed power plant to the load centers to be served by the facility.... This description shall include power load flow diagrams which demonstrate conformance or nonconformance with utility reliability and planning criteria at the time the facility is expected to be placed in operation and five years thereafter;*

### **Information required to make AFC conform with regulations:**

*Provide power flow diagrams (MVA, % loading & P. U. voltage) for all N-1 and N-2 contingencies where overloads or voltage violations appear.*

**Response** – Power flow diagrams for cases for which the SVEP would aggravate existing transmission system overloads are attached.

# **Power Flow Diagrams Sun Valley Energy Project**

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Table 3-1. North Gila - Imperial Valley Outage

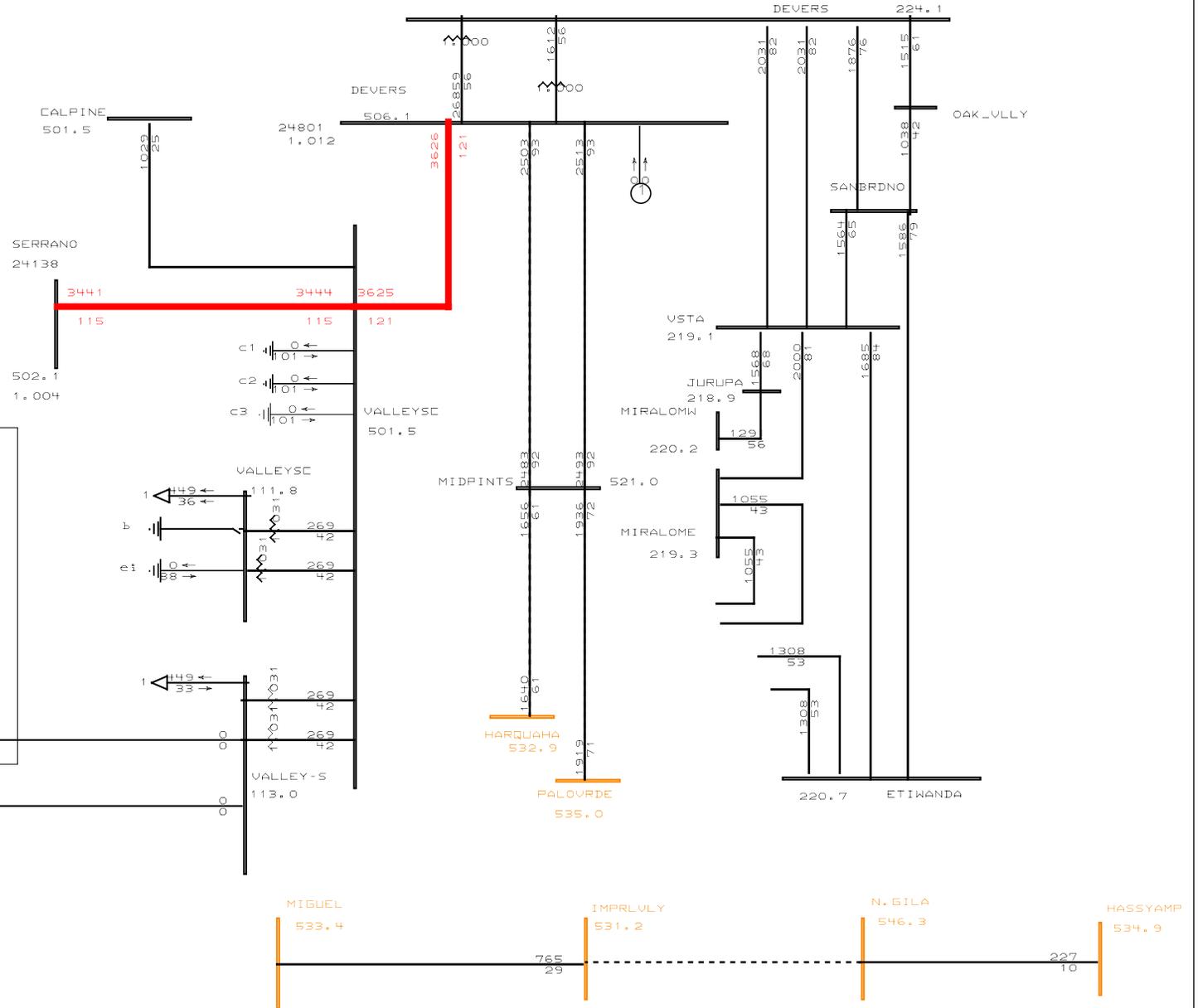
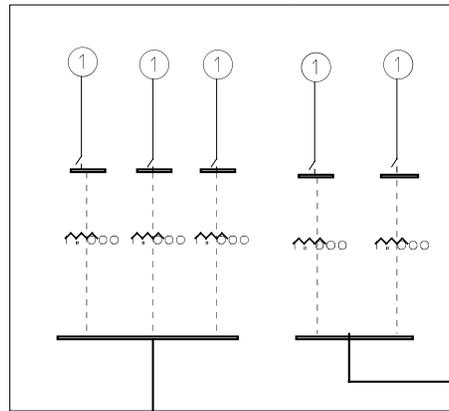
Devers-Valley Area 500/230kV System

SCE Area Summary

Gen. 10616 MW  
 Pump -574 MW  
 Load 14837 MW  
 -459 MVAR

Devers 500kV Import 4385 MW  
 West of Dever Flow 5385 MW  
 East of River Flow ( 9113MW)

Sun Valley Generating Facility



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Mon Jan 09 14:21:57 2006



EME Sun Valley Pre Project  
 2008 Off-Peak Load Case

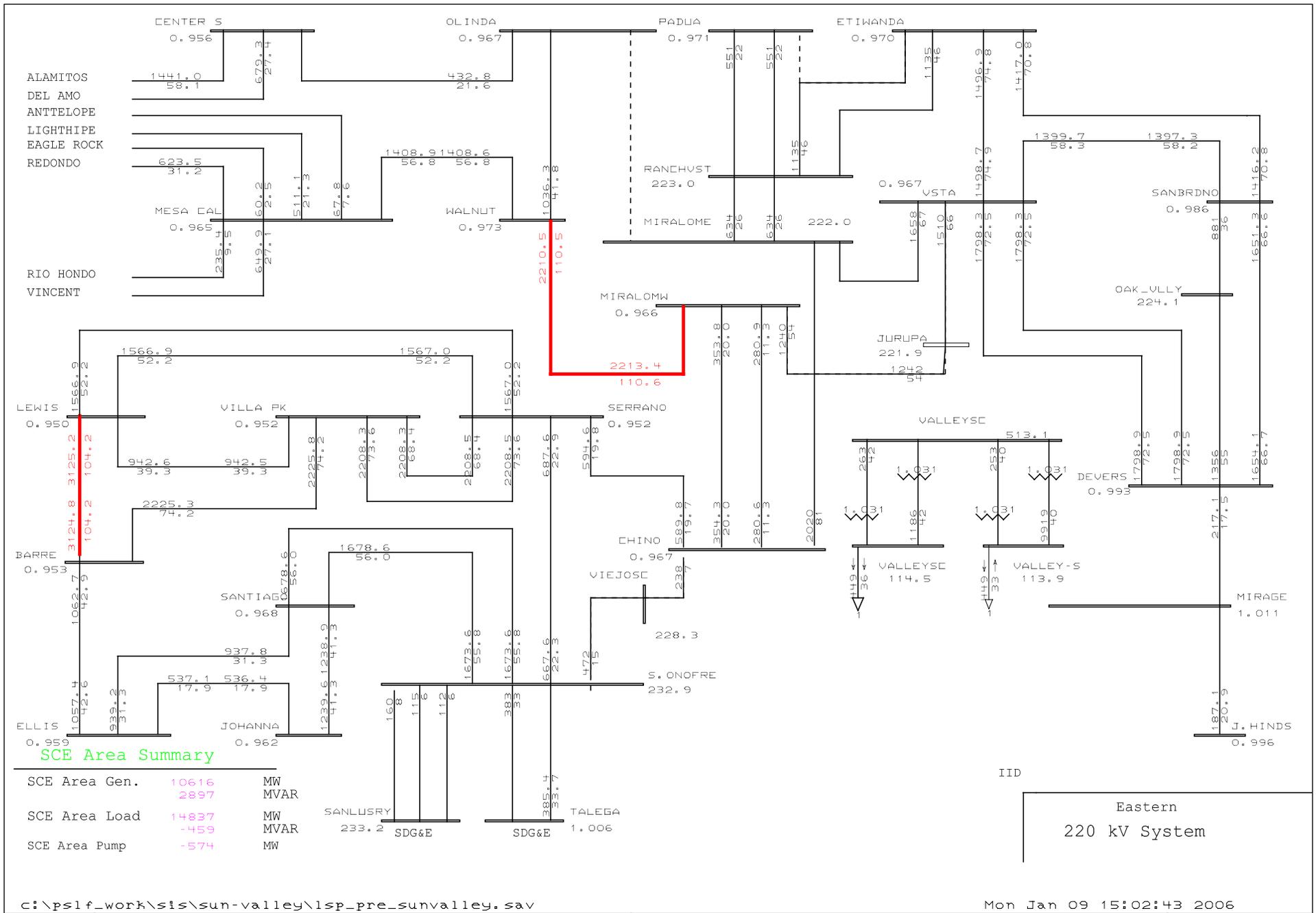
PSLF Program  
 svgf-sis.drw  
 Rating = 1







**Table 3-1. Mira Loma - Olinda Outage**



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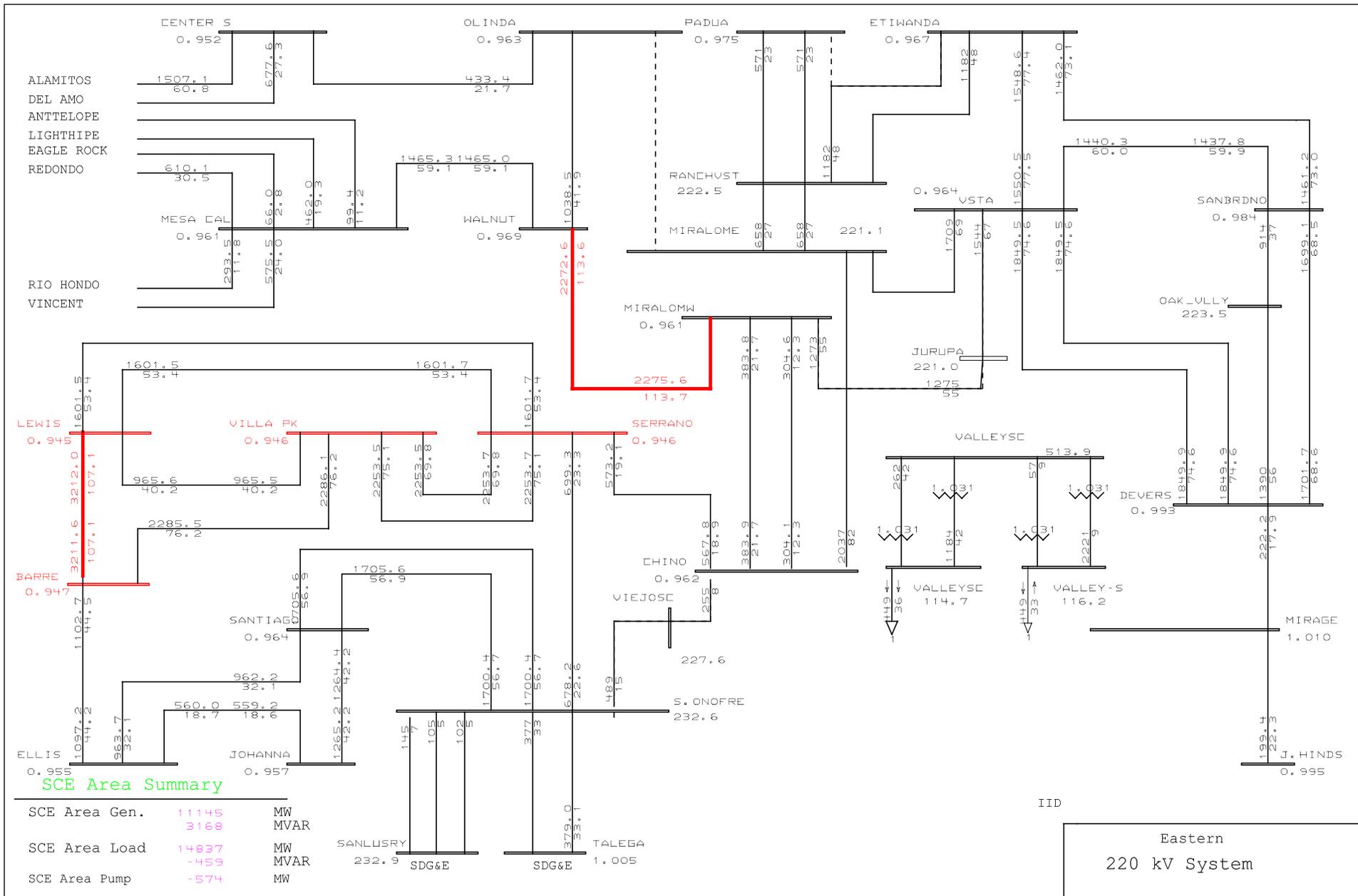
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EME Sun Valley Pre Project  
2008 Off-Peak Load Case

PSLF Program  
svgf-eastern.  
Rating = 1

**Table 3-1. Mira Loma - Olinda Outage**



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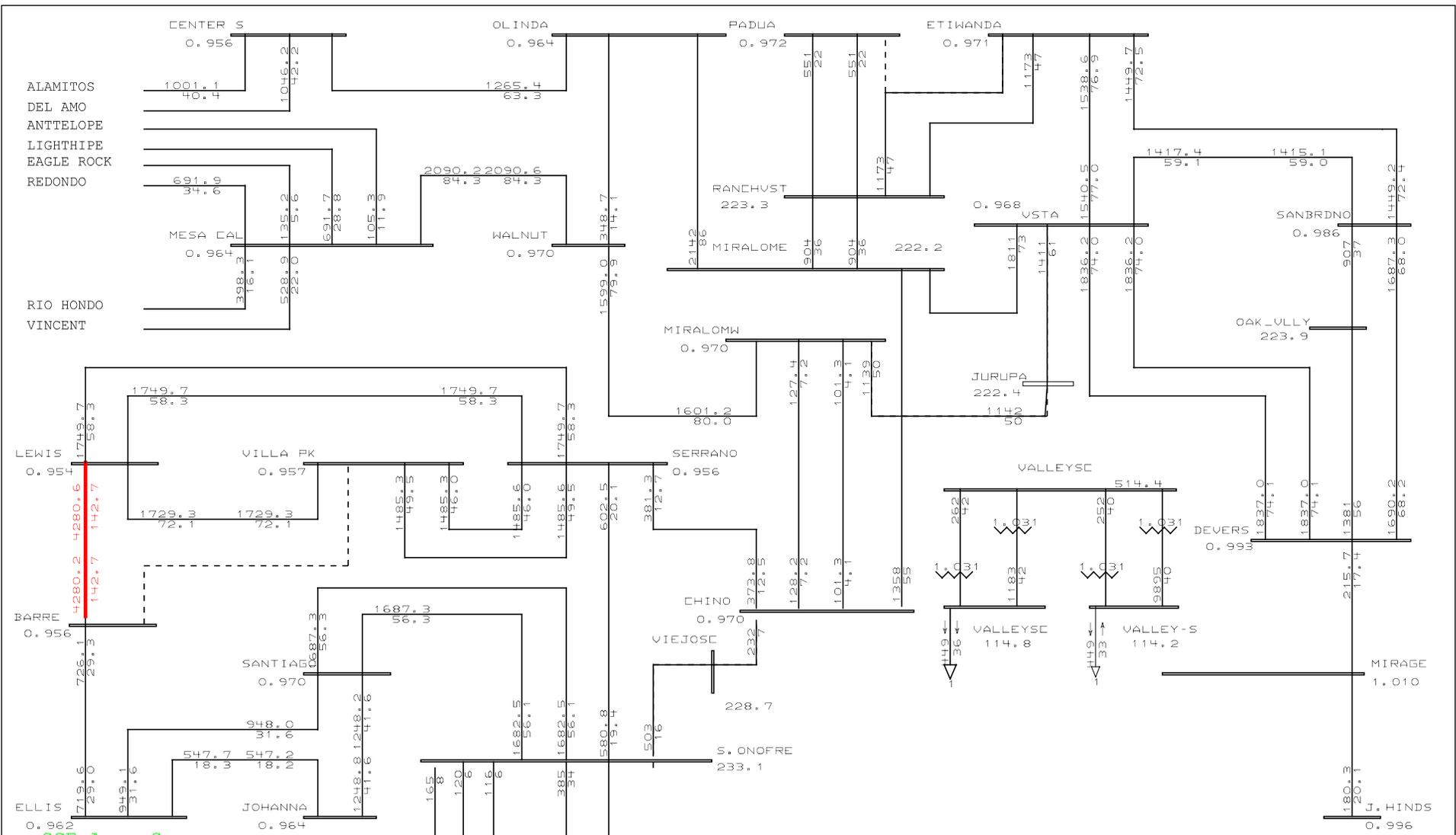
Mon Jan 09 15:04:41 2006



EME Sun Valley Post Project  
 2008 Off-Peak Load Case

PSLF Program  
 svgf-eastern.  
 Rating = 1

**Table 3-1. Barre - Villa Park Outage**



**SCE Area Summary**

SCE Area Gen.	10616	MW
	2828	MVAR
SCE Area Load	14837	MW
	-459	MVAR
SCE Area Pump	-574	MW

SANLUSRY 233.4  
SDG&E  
SDG&E  
TALEGA 1.006

IID

Eastern  
220 kV System

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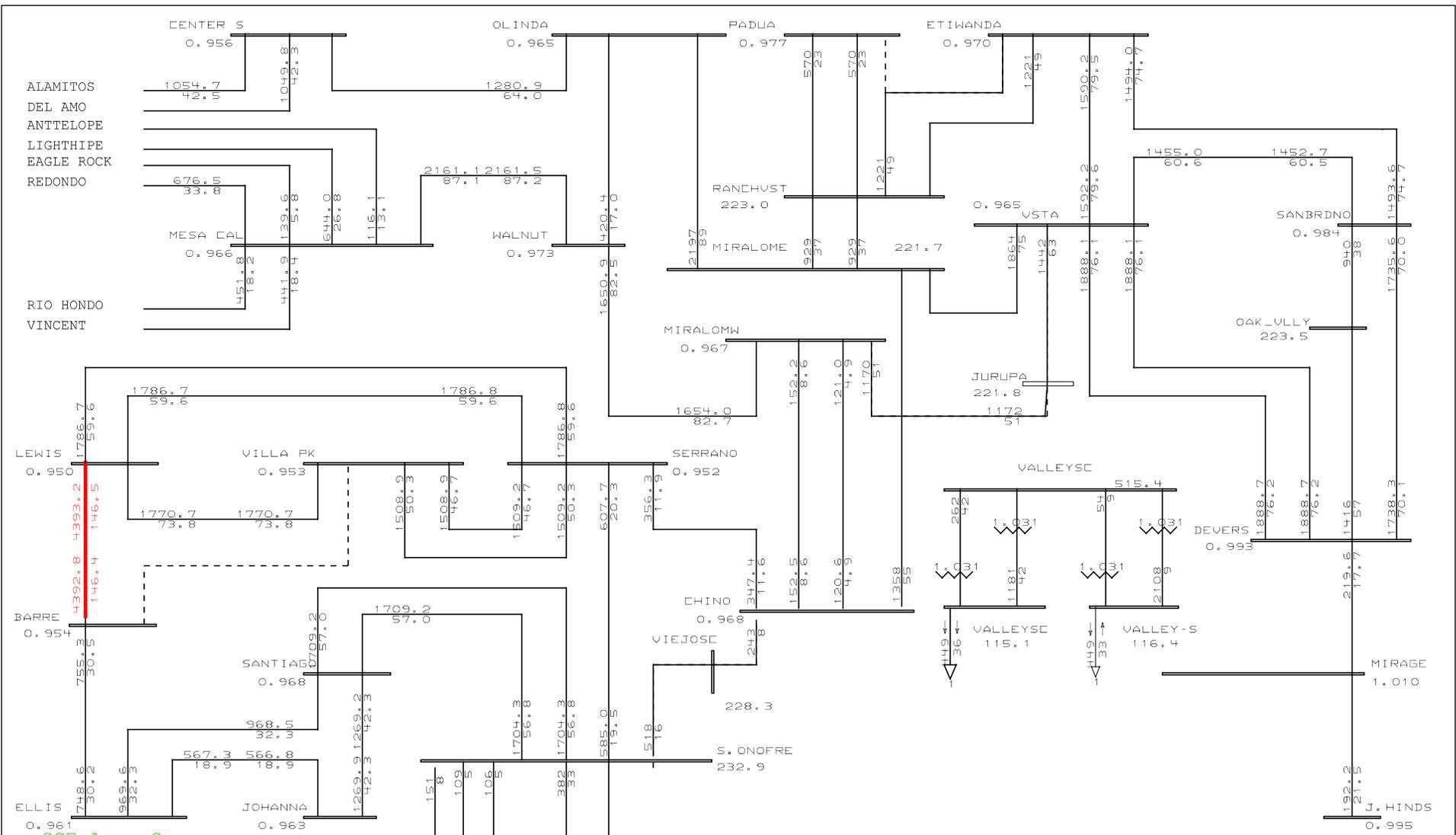
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EME Sun Valley Pre Project  
2008 Off-Peak Load Case

PSLF Program  
svgf-eastern.  
Rating = 1

**Table 3-1. Barre - Villa Park Outage**



**SCE Area Summary**

SCE Area Gen.	11145	MW
	3010	MVAR
SCE Area Load	14837	MW
	-459	MVAR
SCE Area Pump	-574	MW

SANLUSRY 233.2 SDG&E  
 TALEGA 1.006 SDG&E

IID

Eastern  
 220 kV System

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Mon Jan 09 15:09:32 2006



EME Sun Valley Post Project  
 2008 Off-Peak Load Case

PSLF Program  
 svgf-eastern.  
 Rating = 1



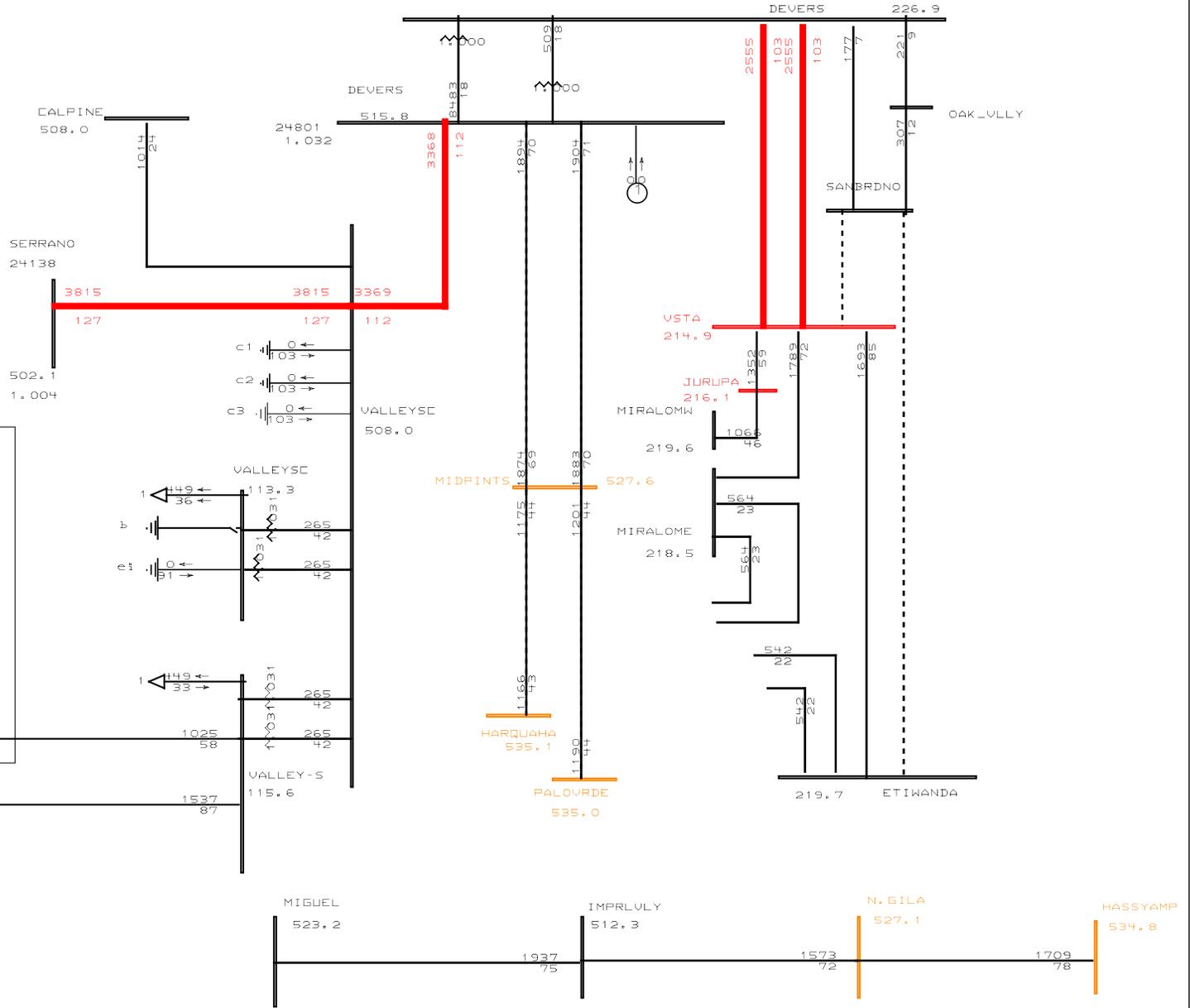
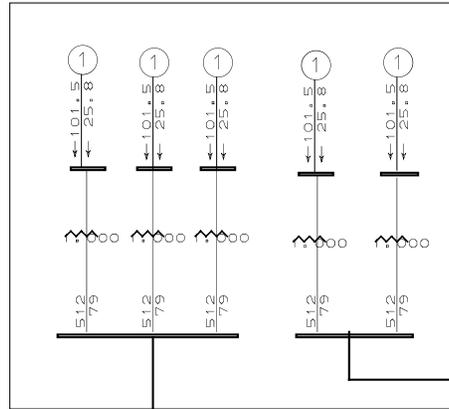
### Devers-Valley Area 500/230kV System

#### SCE Area Summary

Gen.	11145	MW
Pump	-574	MW
Load	14837	MW
	-459	MVAR

Devers 500kV Import	3373	MW
West of Dever Flow	4884	MW
East of River Flow	( 9144MW)	

#### Sun Valley Generating Facility



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Mon Jan 09 16:24:46 2006



EME Sun Valley Post Project  
2008 Off-Peak Load Case

PSLF Program  
svgf-sis.drw  
Rating = 1

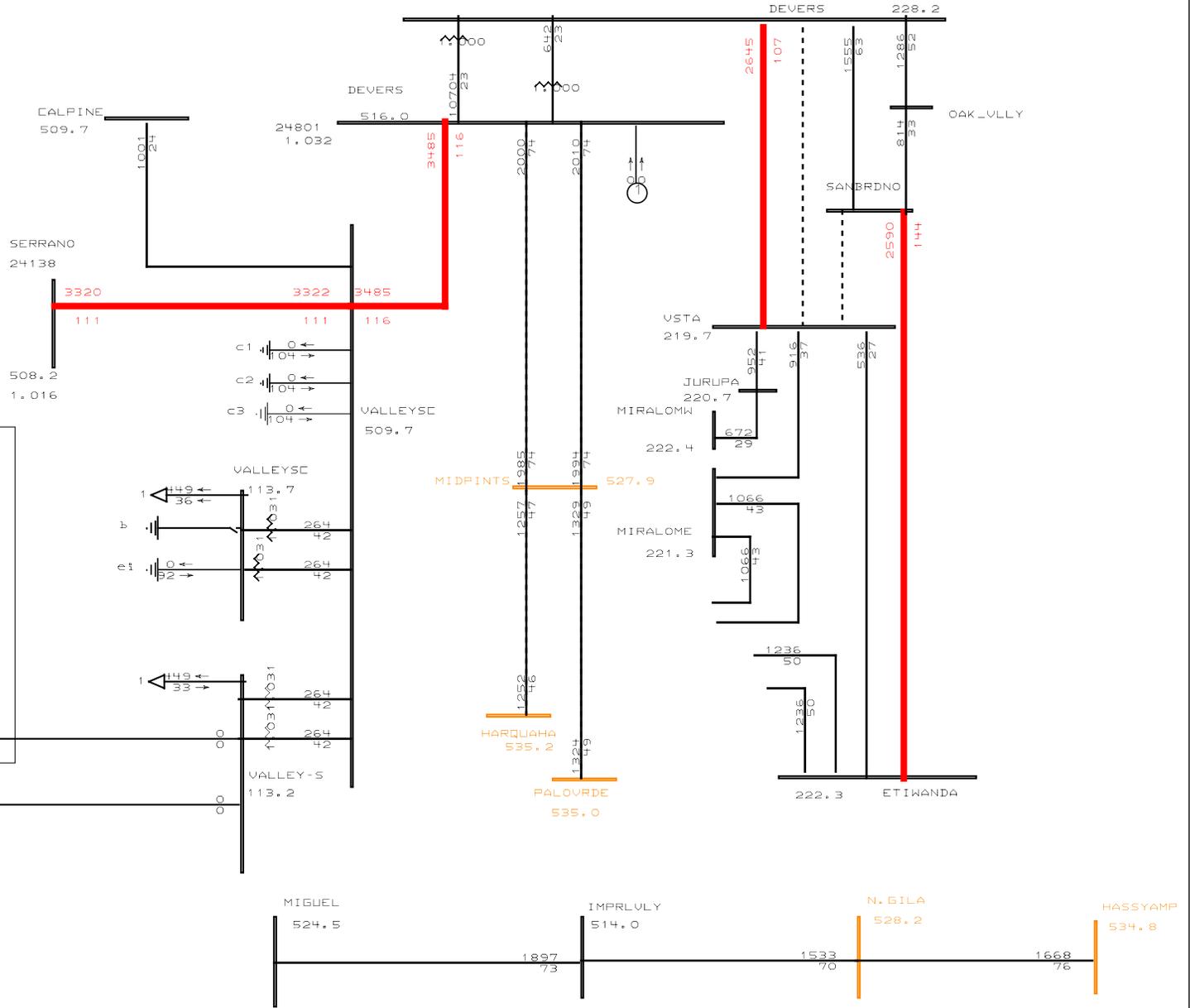
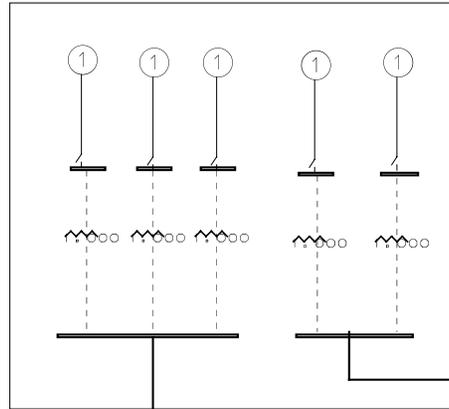
### Devers-Valley Area 500/230kV System

#### SCE Area Summary

Gen. 10616 MW  
 Pump -574 MW  
 Load 14837 MW  
 -459 MVAR

Devers 500kV Import 3572 MW  
 West of Dever Flow 4656 MW  
 East of River Flow ( 9208MW)

#### Sun Valley Generating Facility



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EME Sun Valley Pre Project  
 2008 Off-Peak Load Case

PSLF Program  
 svgf-sis.drw  
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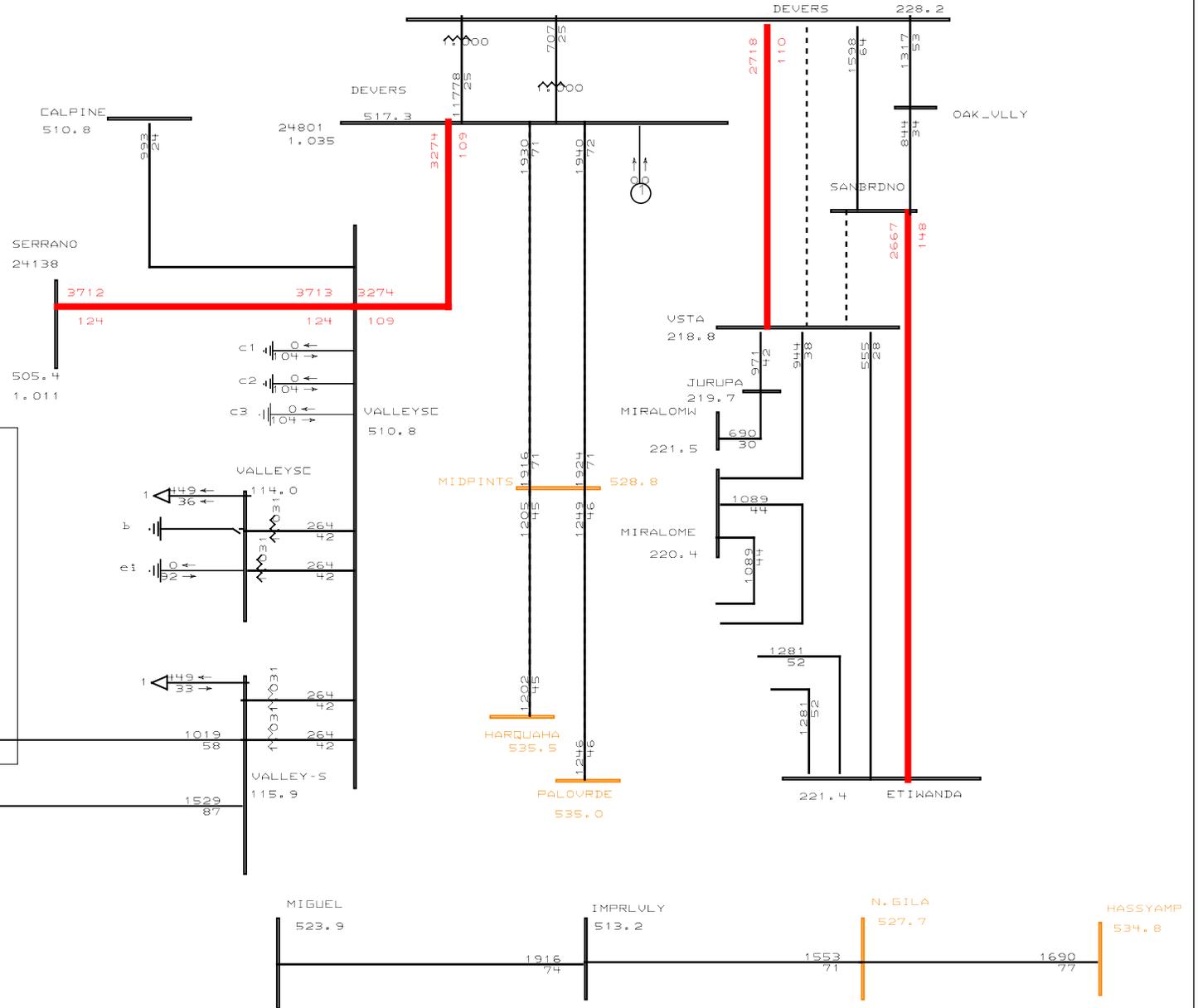
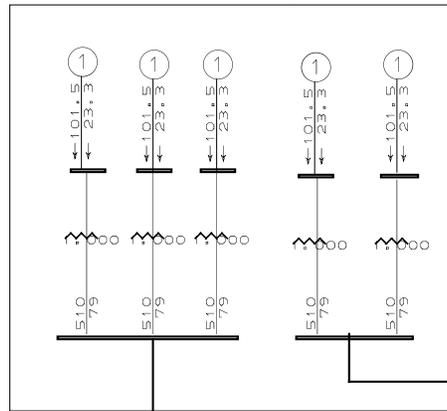
### Devers-Valley Area 500/230kV System

#### SCE Area Summary

Gen. 11145 MW  
 Pump -574 MW  
 Load 14837 MW  
 MVAR -459

Devers 500kV Import 3456 MW  
 West of Dever Flow 4516 MW  
 East of River Flow ( 9157MW)

#### Sun Valley Generating Facility



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Mon Jan 09 16:29:24 2006



EME Sun Valley Post Project  
 2008 Off-Peak Load Case

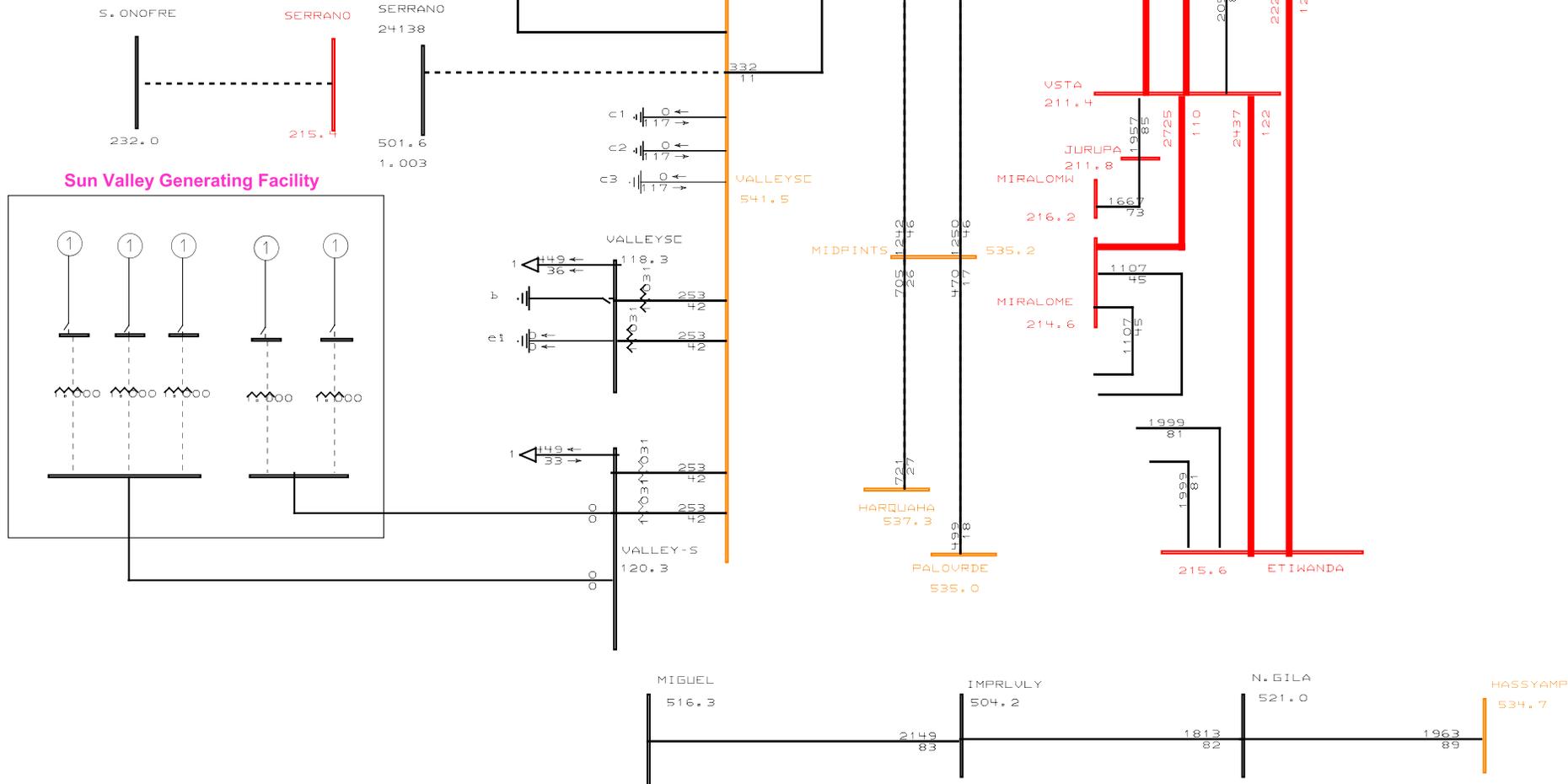
PSLF Program  
 svgf-sis.drw  
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### Devers-Valley Area 500/230kV System

#### SCE Area Summary

Gen.	10616	MW
Pump	-574	MW
Load	14837	MW
	-459	MVAR

Devers 500kV Import	2283	MW
West of Dever Flow	3061	MW
East of River Flow	( 8994MW)	



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EME Sun Valley Pre Project  
2008 Off-Peak Load Case

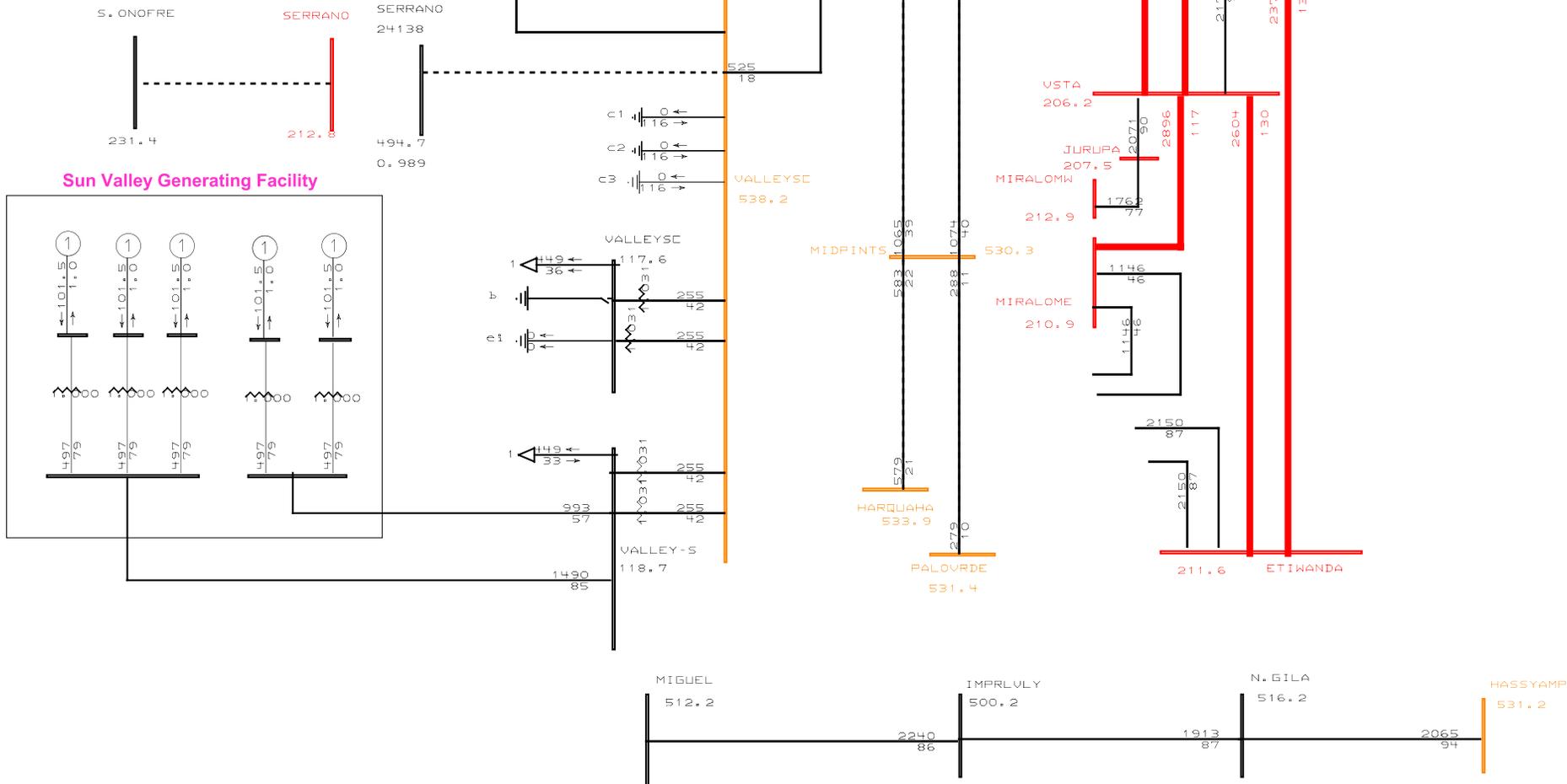
PSLF Program  
svgf-sis.drw  
Rating = 1

### Devers-Valley Area 500/230kV System

#### SCE Area Summary

Gen.	11145	MW
Pump	-574	MW
Load	14837	MW
	-459	MVAR

Devers 500kV Import	1943	MW
West of Dever Flow	2662	MW
East of River Flow	( 8898MW)	



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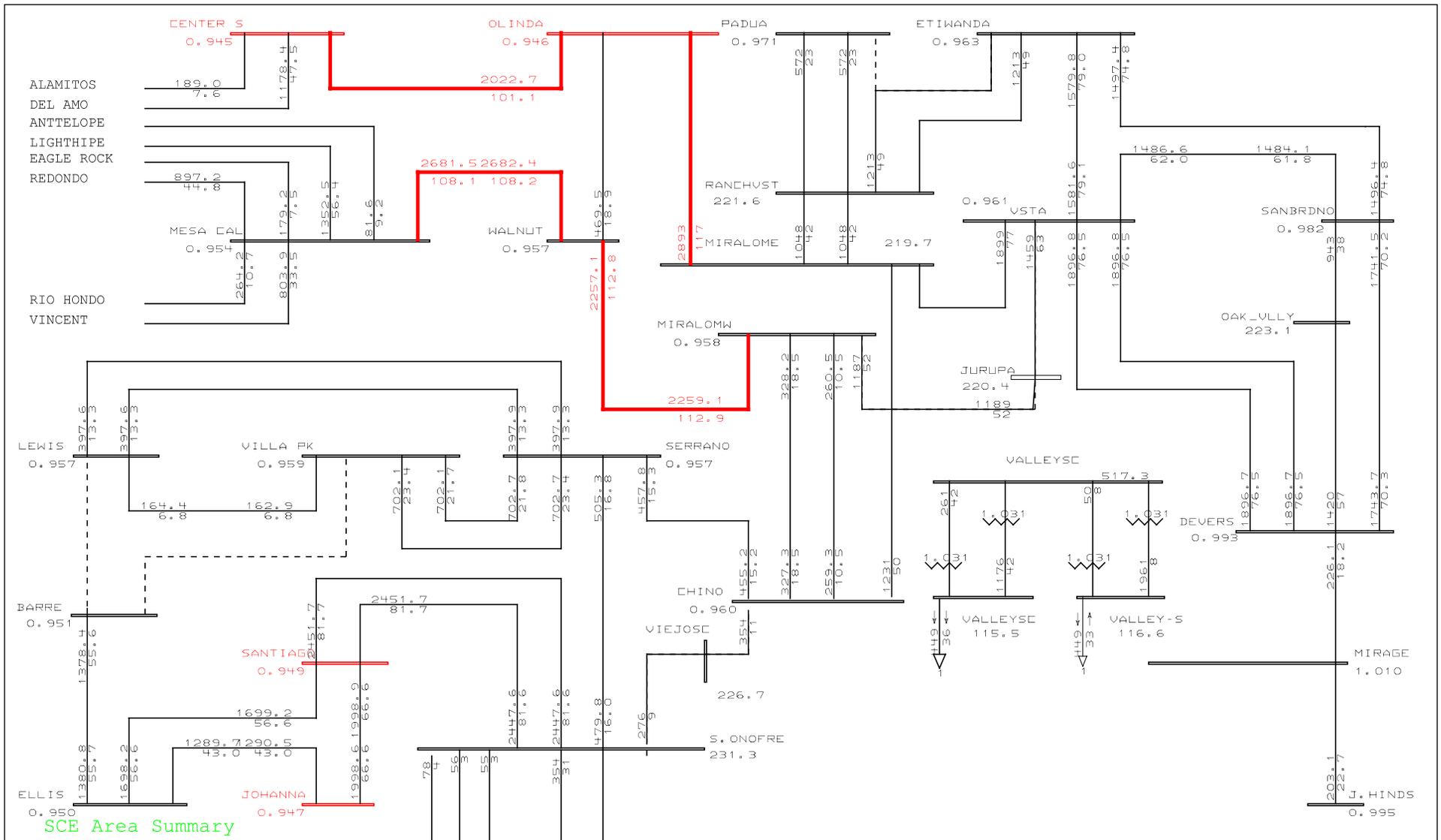


EME Sun Valley Post Project  
2008 Off-Peak Load Case

PSLF Program  
svgf-sis.drw  
Rating = 1



Table 3-2. Barre-Villa Park & Barre-Lewis Outage



SCE Area Summary

SCE Area Gen.	11145	MW
	3400	MVAR
SCE Area Load	14837	MW
	-459	MVAR
SCE Area Pump	-574	MW

IID

Eastern  
220 kV System

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EME Sun Valley Post Project  
2008 Off-Peak Load Case

PSLF Program  
svgf-eastern.  
Rating = 1



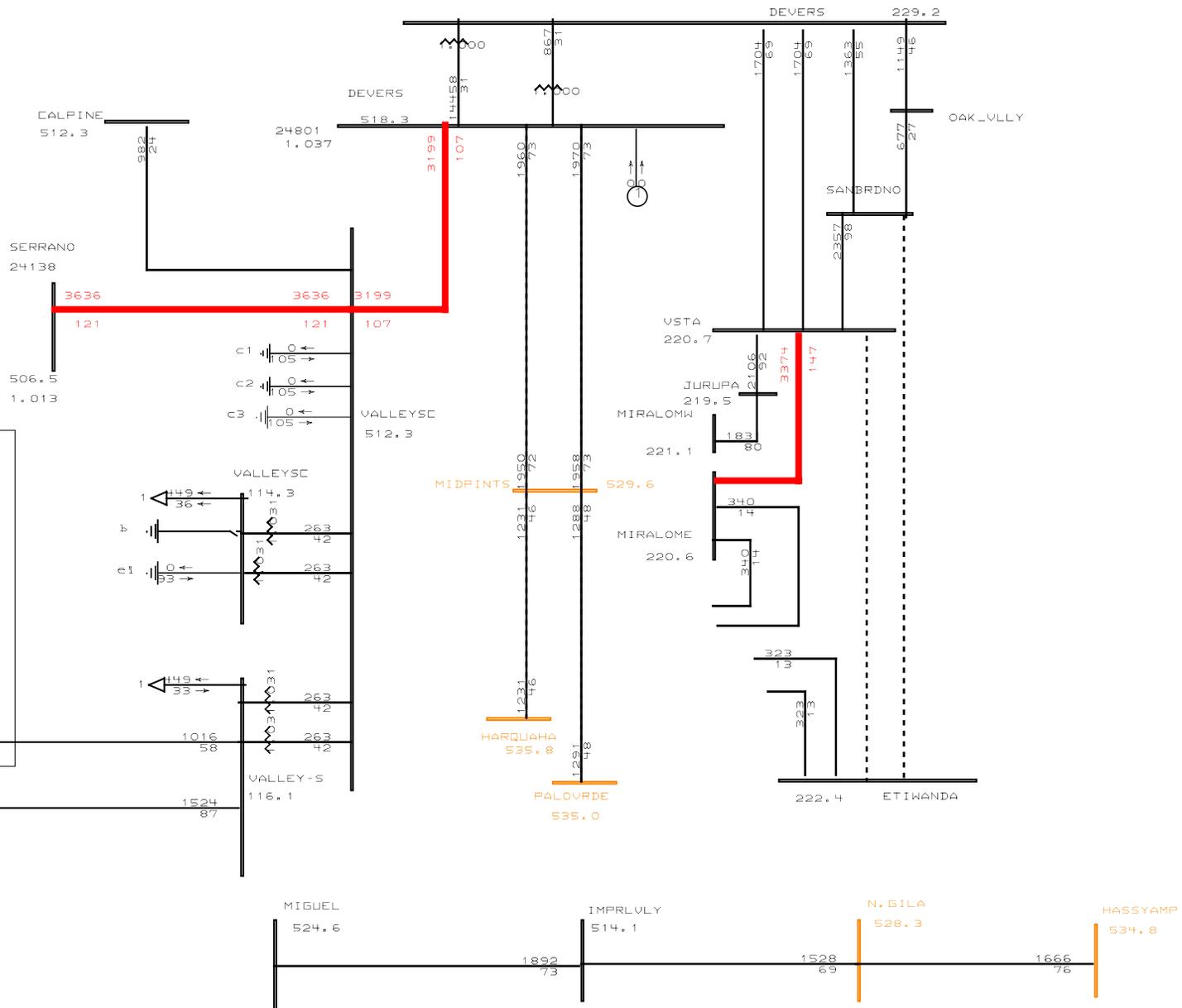
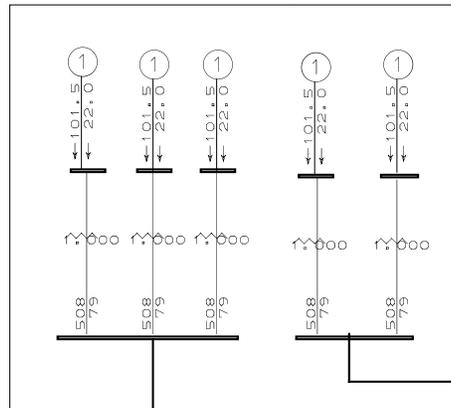
### Devers-Valley Area 500/230kV System

#### SCE Area Summary

Gen.	11145	MW
Pump	-574	MW
Load	14837	MW
	-459	MVAR

Devers 500kV Import	3521	MW
West of Dever Flow	4692	MW
East of River Flow	( 9165MW)	

#### Sun Valley Generating Facility



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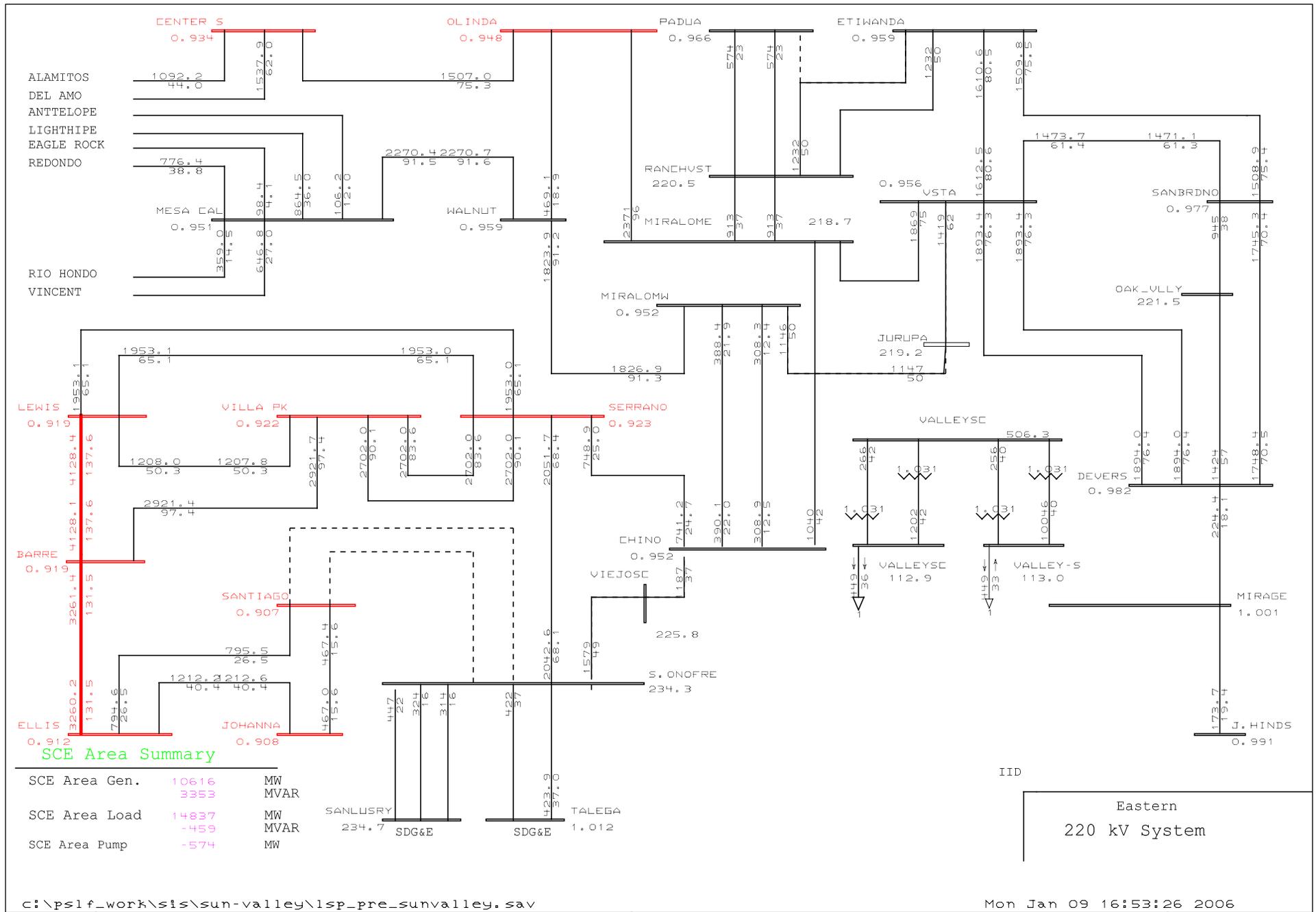
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EME Sun Valley Post Project  
2008 Off-Peak Load Case

PSLF Program  
svgf-sis01.dr  
Rating = 1

Table 3-2. San Onofre-Santiago No.1 and No.2 Outage

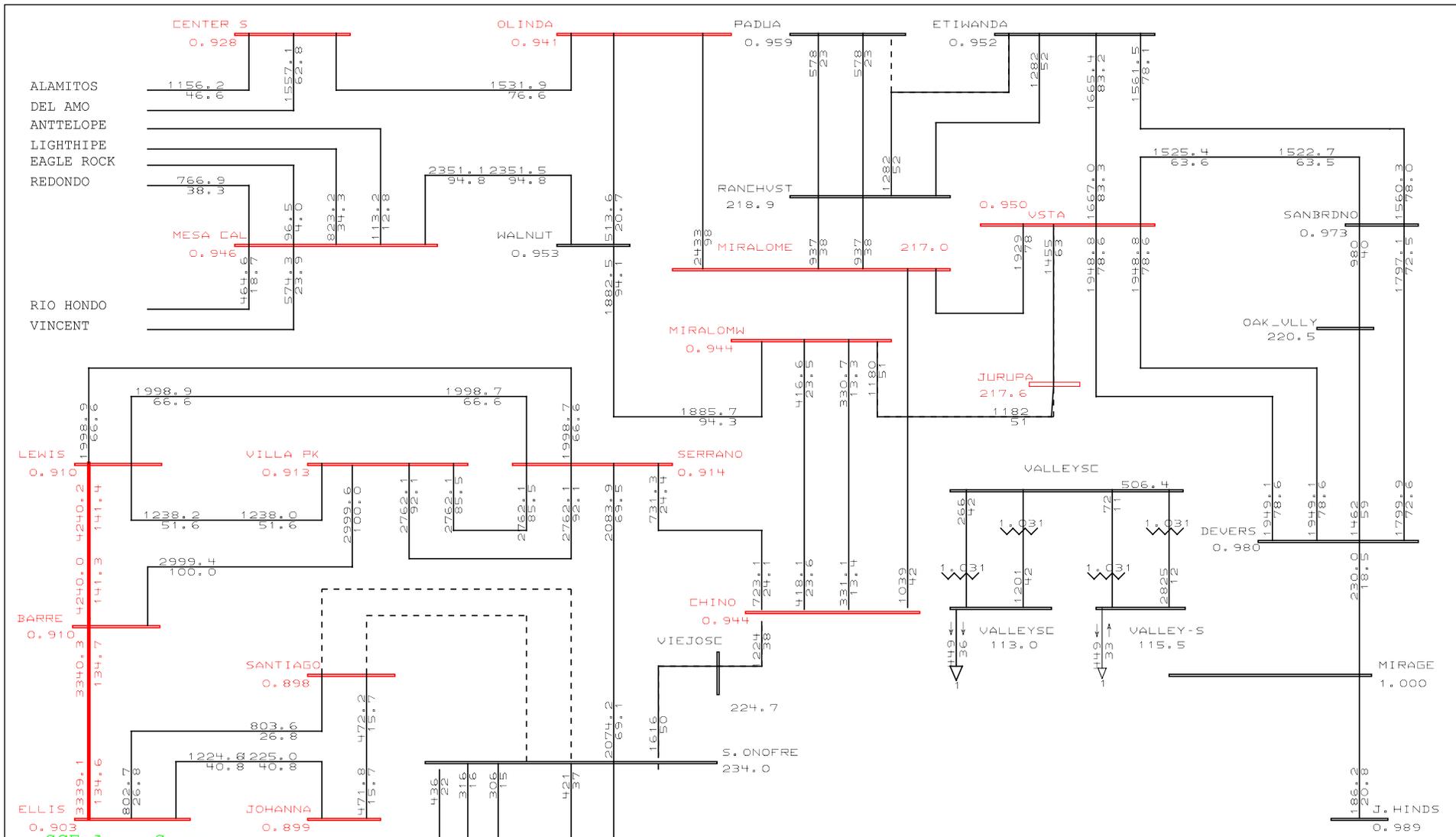


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EME Sun Valley Pre Project  
2008 Off-Peak Load Case

PSLF Program  
svgf-eastern.  
Rating = 1



SCE Area Summary

SCE Area Gen.	11145	MW
	3727	MVAR
SCE Area Load	14837	MW
	-459	MVAR
SCE Area Pump	-574	MW

SANLUSRY 234.4  
SDG&E  
SDG&E  
TALEGA 1.010

IID

Eastern  
220 kV System

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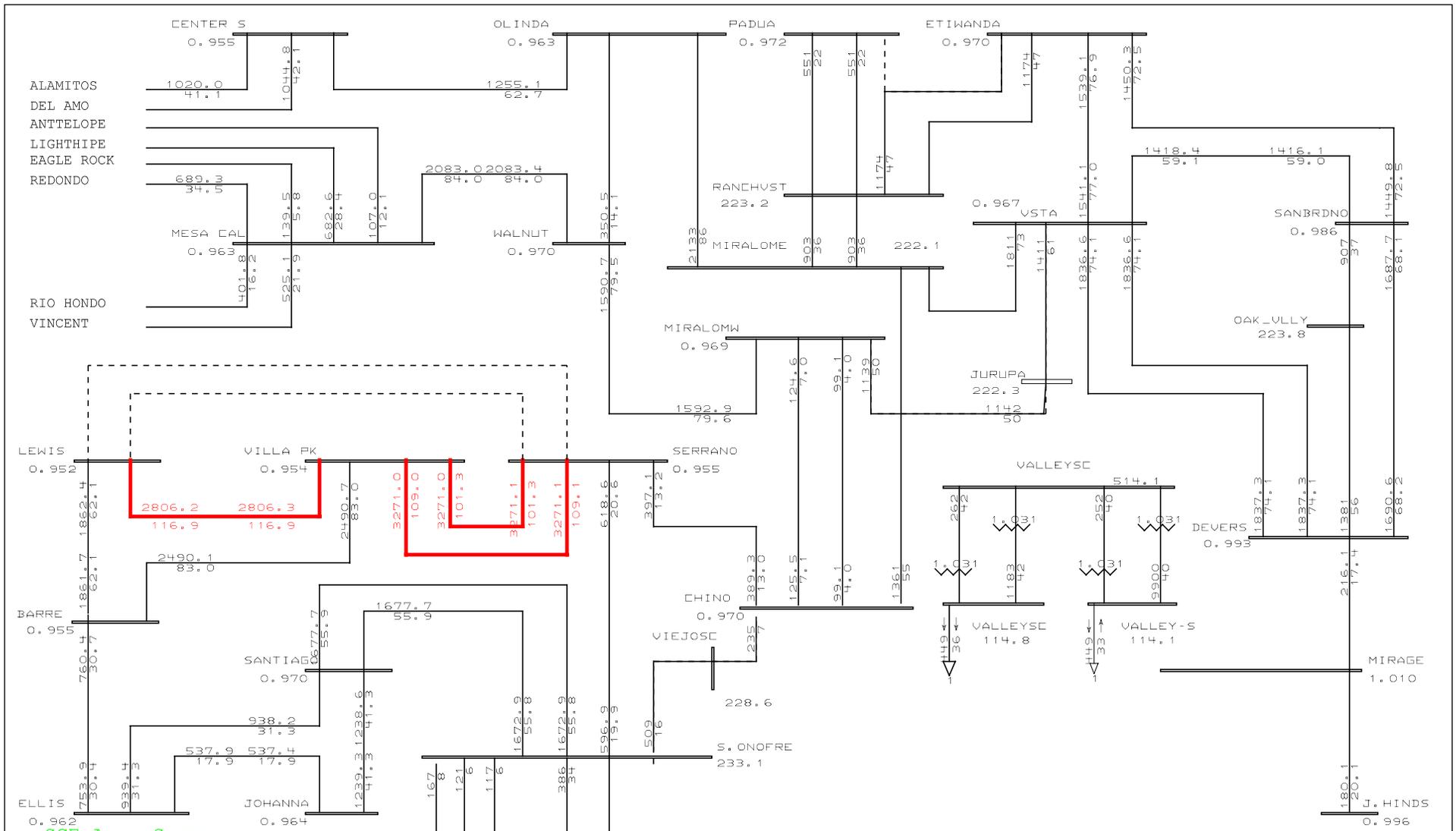
Mon Jan 09 16:54:49 2006



EME Sun Valley Post Project  
2008 Off-Peak Load Case

PSLF Program  
svgf-eastern.  
Rating = 1

Table 3-2. Lewis-Serrano No.1 and No.2 Outage



SCE Area Summary

SCE Area Gen.	10616	MW
	2850	MVAR
SCE Area Load	14837	MW
	-459	MVAR
SCE Area Pump	-574	MW

SANLUSRY 233.3  
SDG&E  
SDG&E  
TALEGA 1.006

IID

Eastern  
220 kV System

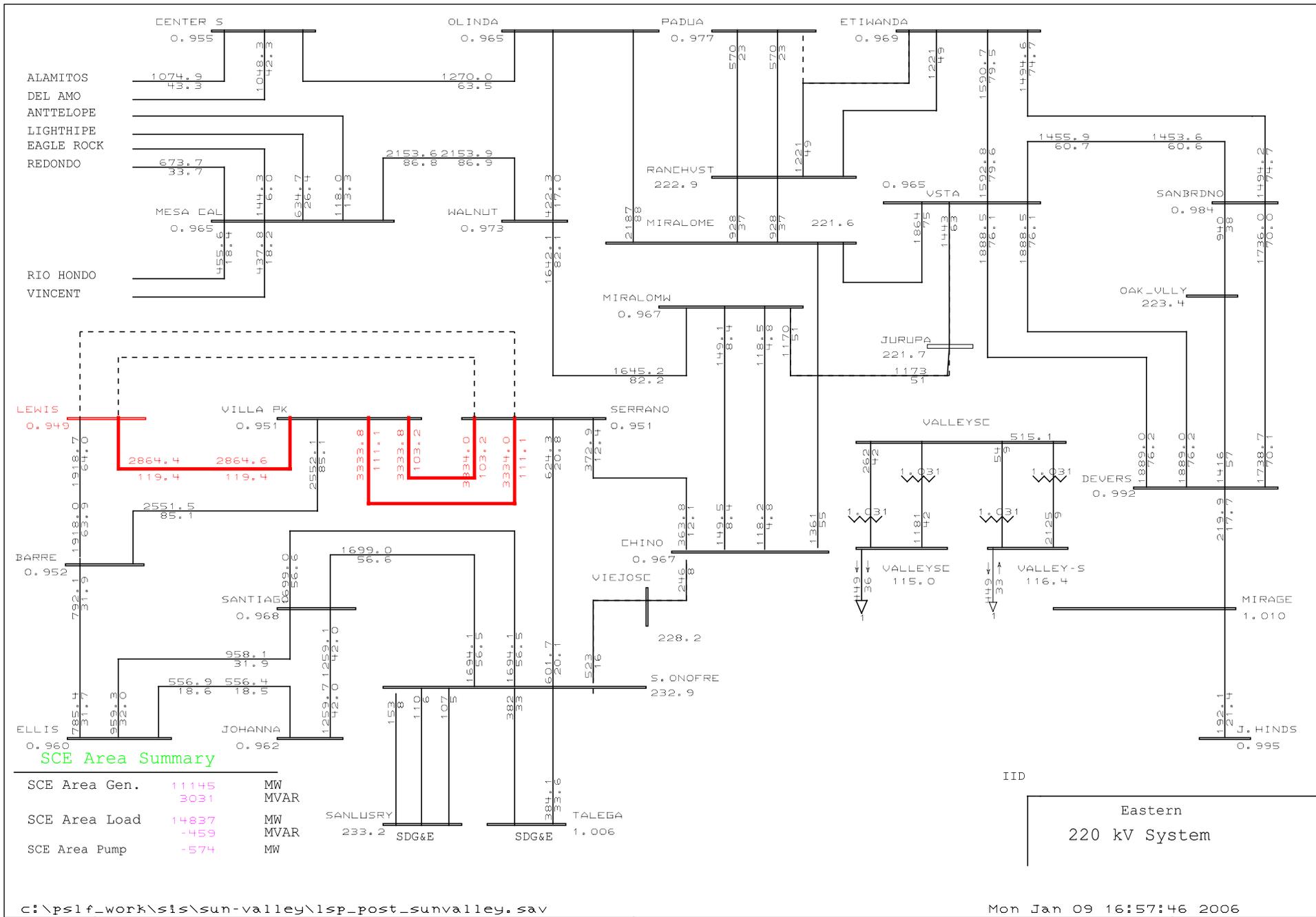
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EME Sun Valley Pre Project  
2008 Off-Peak Load Case

PSLF Program  
svgf-eastern.  
Rating = 1



SCE Area Summary

SCE Area Gen.	11145	MW
	3031	MVAR
SCE Area Load	14837	MW
	-459	MVAR
SCE Area Pump	-574	MW

IID

Eastern  
220 kV System

c:\pslf\_work\sis\sun-valley\lsp\_post\_sunvalley.sav

Mon Jan 09 16:57:46 2006



EME Sun Valley Post Project  
2008 Off-Peak Load Case

PSLF Program  
svgf-eastern.  
Rating = 1

# 8.1 Air Quality

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## **1. Effectiveness of Potential Offsets (Appendix B[g][1]):**

*...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.*

### **Information required to make AFC conform with regulations:**

*Need to identify specific locations and quantity of emission reduction credits that are earmarked for this project. Also, need to include a discussion of the effectiveness of the identified emission reduction credits (offsets) in mitigating the project impacts.*

**Response** – VSE will offset its emissions in accordance with state and federal law and as administered by the South Coast Air Quality Management District (SCAQMD). VSE has prepared a “Confidential Offset Strategy” document that has been filed under separate cover along with its Request for Confidential Designation. The information contained in the Confidential Offset Strategy discusses each criteria pollutant and the offset strategy to be employed to ensure the SVEP complies with all applicable LORS and does not result in significant air quality impacts.

## **2. Potential Offset Sources (Appendix B[g][8][j][ii]):**

*Potential offset sources, including location, and quantity of emission reductions;*

### **Information required to make AFC conform with regulations:**

*Need to identify specific locations and quantity of emission reduction credits that are earmarked for this project.*

**Response** – The list of offset holders with whom SVE has entered into negotiations is contained in our Confidential Offset Strategy, which has been filed under separate cover.

## **3. Emission Reduction Method (Appendix B[g][8][j][iii]):**

*Method of emission reduction.*

### **Information required to make AFC conform with regulations:**

*Need to provide the method to achieve the reductions for the potential emission reduction credits identified above.*

**Response** – This information is included in the Confidential Offset Strategy, which has been filed under separate cover.

## 8.10 Socioeconomics

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### **1. School Impact Fees (Appendix B [g][7][B][vi]):**

*An estimate of applicable school impact fees*

#### **Information required to make AFC conform with regulations:**

*Please provide an estimate of school impact fees.*

**Response**— Developments (industrial or residential) within Romoland School District are currently charged a one-time assessment of \$0.33 per square foot of building. Based on 10,600 square foot of proposed occupied structures, SVEP will pay \$3,498 in school impact fees. In addition, the Perris Union High School District school impact fee assessment for industrial developments is \$0.095 per square foot of occupied structures. This fee will amount to \$1,007 for the SVEP.

### **2. Locally Purchased Materials During Operation (Appendix B [g][7][B][viii]):**

*An estimate of the expenditures for locally purchased materials for the construction and operation phases of the project;*

#### **Information required to make AFC conform with regulations:**

*Please provide an estimate of locally (within Riverside County) purchased materials for the SVEP during the operations phase.*

**Response**— Section 8.10.2.3.5 of the SVEP AFC, “Fiscal Impacts,” states “The annual operations budget is expected to be approximately \$3 million, all of which, it is assumed, would be spent locally within Riverside County.” The \$3 million represents expenditures on locally purchased materials for SVEP during operation.

### **3. Tax Revenues (Appendix B [g][7][B][ix]):**

*An estimate of the capital cost of the project of the potential impacts on tax revenues from construction and operation of the project.*

#### **Information required to make AFC conform with regulations:**

*Please provide an estimate of property taxes on the SVEP and its distribution.*

**Response**— SVEP is expected to bring property tax revenues to Riverside County. The basic countywide property tax rate of 1.0 percent will be applied to the estimated valuation. If the facility is assessed at \$220 million to \$250 million, the total property tax obligation will range from \$2.2 to \$2.5 million annually.

The County will not realize the \$2.2 to \$2.5 million in annual property tax revenue until construction is completed. Collected property taxes go to the state, where they are reallocated back to the cities, counties, and special districts. The property tax allocation in Tax Rate Area 70-000 (project area) is as shown in the table below.

TABLE 8.10-S1  
Property Tax Distribution for Tax Rate Area 70-000

Agency/Use	Percent	Tax	
		\$2.2 Million	\$2.5 Million
County Free Library	2.94	\$6,474,741	\$7,357,660
County Structure Fire Protection	6.34	\$13,938,170	\$15,838,830
County Waste Resource Management District	-	-	-
CSA 146	-	-	-
CSA 152	-	-	-
Eastern Municipal Water Implementation District 13	0.92	\$2,033,627	\$2,310,940
Eastern Municipal Water Implementation District A	-	-	-
Eastern Municipal Water Adjacent	5.18	\$11,404,408	\$12,959,555
Flood Control Administration	0.29	\$635,232	\$721,855
Flood Control Zone 4	4.76	\$10,471,413	\$11,899,333
General	30.40	\$66,871,215	\$75,990,018
General Purposes	-	-	-
Mount San Jacinto Junior College	4.28	\$9,414,343	\$10,698,118
MWD Adjacent 1301999	-	-	-
Perris Area Elementary School Fund	10.3	\$22,821,502	\$25,933,525
Perris Union Junior High School	6.92	\$15,227,384	\$17,303,845
Perris Union High School	19.27	\$42,404,529	\$48,186,965
Perris Valley Cemetery	0.22	\$494,622	\$562,070
Riverside County Regional Park and Open Space	0.46	\$1,011,542	\$1,149,480
Riverside County Office of Education	4.54	\$9,990,026	\$11,352,303
Romoland School	3.07	\$6,754,308	\$7,675,350
San Jacinto Basin Resource Conservation	0.02	\$52,936	\$60,155
Valley Health System Hospital District	-	-	-
<b>Total</b>	<b>100.00</b>	<b>\$2,200,000</b>	<b>\$2,500,000</b>

## 8.15 Water Resources

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### **1. Hydrostatic Test Water (Appendix B [g][14][C][iii]):**

*Average and maximum daily and annual water demand and waste water discharge for both the construction and operation phases of the project; and*

#### **Information required to make AFC conform with regulations:**

*Provide the average and maximum daily and annual water demand and wastewater discharge for the construction phase of the project including hydrostatic test water for the brine return and natural gas pipelines.*

**Response** – Water use during construction is divided into three types: (1) dust control, (2) equipment washdown, and (3) hydrostatic testing. With regard to dust control, approximately 85,000 gallons per day (gpd) will be used. This assumes that the 10-acre construction site will be watered 3 times per day, applying 0.1 inches of water each time to the site. Dust control is expected to be required during 3 months of the construction period (see Air Quality appendix of the AFC). This amount of water applied during this 3-month period equals a total water use of 23.8 acre-feet. The source of this water will be the Eastern Municipal Water District (EMWD) potable water supply. Because this water is applied to the entire site, there will be no discharge.

Water will also be used to wash down construction equipment. Assuming 23 construction vehicles are operating (the maximum number from the Air Quality appendix), it is expected that 32,000 gallons will be used during the entire duration of onsite grading (3 months). This is based on each piece of equipment being washed once per day using 25 gallons per wash. The source of washdown water will be the EMWD potable water supply. Appropriate controls will be constructed at the washdown station to ensure that no offsite discharge occurs.

Hydrostatic testing will be required for the brine line connection and for the natural gas pipeline. The brine line is approximately 0.75 miles long and 8 inches in diameter. Hydrostatic testing of the brine line is expected to require 10,400 gallons of water. The natural gas pipeline is 750 feet and 12 inches in diameter. Hydrostatic testing of a pipeline of this size would require 4,400 total gallons. Water for all hydrostatic testing is assumed to be potable water from EMWD. Because these pipelines will be completed toward the end of project construction, discharge of hydrostatic testing water will be to the sanitary sewer.

### **2. Water Demand (Appendix B [g][14][E][i]):**

*The effects of project demand on the water supply and other users of this source;*

#### **Information required to make AFC conform with regulations:**

*Provide an assessment of SVEP's recycled and potable water demand on other users and the ability of Eastern Municipal Water District to provide an adequate and reliable supply.*

**Response** – EMWD is a member agency of Metropolitan Water District (MWD) and has a 555 square mile service area. EMWD is currently updating their 2000 Urban Water Management Plan (UWMP). The information provided below is taken from the 2005 EMWD Draft Urban

Water Management Plan (UWMP). The UWMP assures the reliability of imported water supply to its member agencies through a multiple-year drought or single dry year through 2030.

EMWD has three sources of water supply: (1) imported water from MWD, (2) local groundwater production, and (3) reclaimed water. EMWD's primary customers are retail purchasers of potable water, and include residential, commercial, industrial, institutional, and landscape users. The UWMP asserts that the reclaimed water supply will increase as the population increases in the service area. In all year types (average, single dry, and multiple dry years) EMWD's projection through 2030 shows 100% supply reliability.

The total maximum yearly water demand for SVEP is approximately 879 acre-feet. Of that amount, 875 acre-feet is reclaimed water used for process, cooling and equipment wash water, and 3.9 acre-feet is for potable use. The reclaimed water use by SVEP averages approximately 1.5 percent of the total EMWD reclaimed water supply projected for the years 2010, 2015, 2020, 2025, and 2030. The potable water use averages approximately 0.0029 percent for the same time period.

### **3. DHS Contact (Appendix B [h][3]):**

*The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.*

#### **Information required to make AFC conform with regulations:**

*Please provide the name, title, phone number, and address, if known, of an official with the Dept. of Health Services responsible for reviewing and approving the Title 22 Engineering Report.*

**Response** – The Santa Ana Regional Water Quality Control Board is the permitting agency for the onsite use of Title 22 water. The contact is: June Martinez, Senior Water Resources Control Engineer, 3737 Main Street, Suite 500, Riverside, CA 92501. (951) 782-3258.

California Department of Health Services (DHS) reviews and provides comment to the RWQCB. The contact is: Steve Williams, District Engineer (Riverside District), 1350 Front Street, Room 2050, San Diego, CA 92101. (619) 525-4159.