

DOCKETED

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Cosumnes Power Plant Transmission System Impact Study

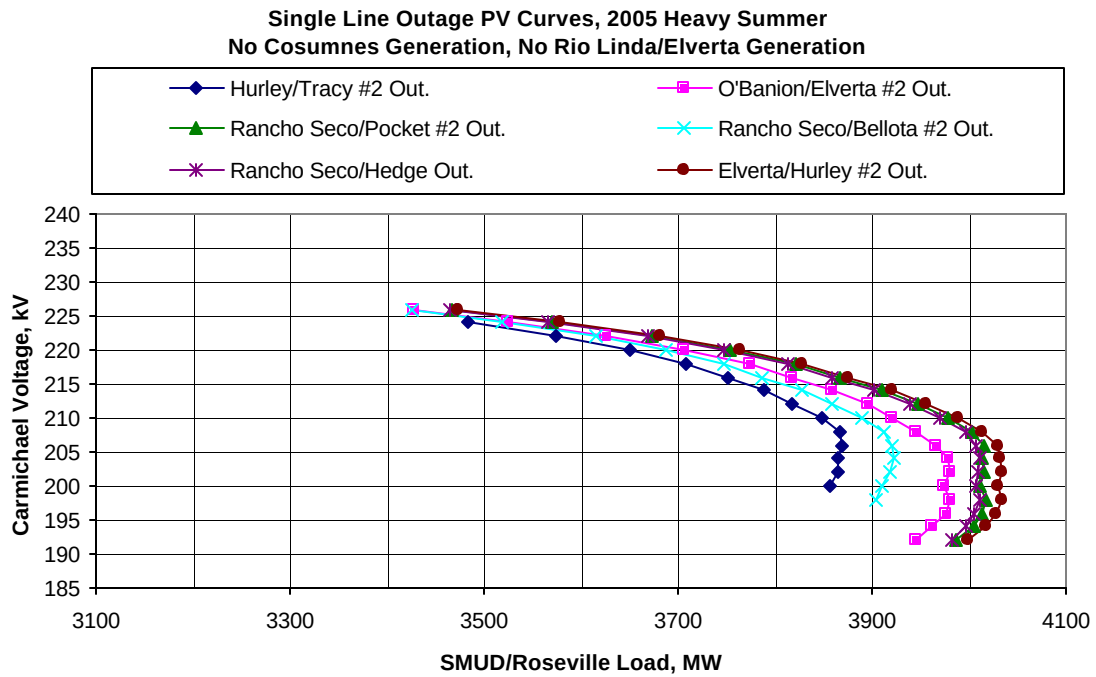


Figure 1

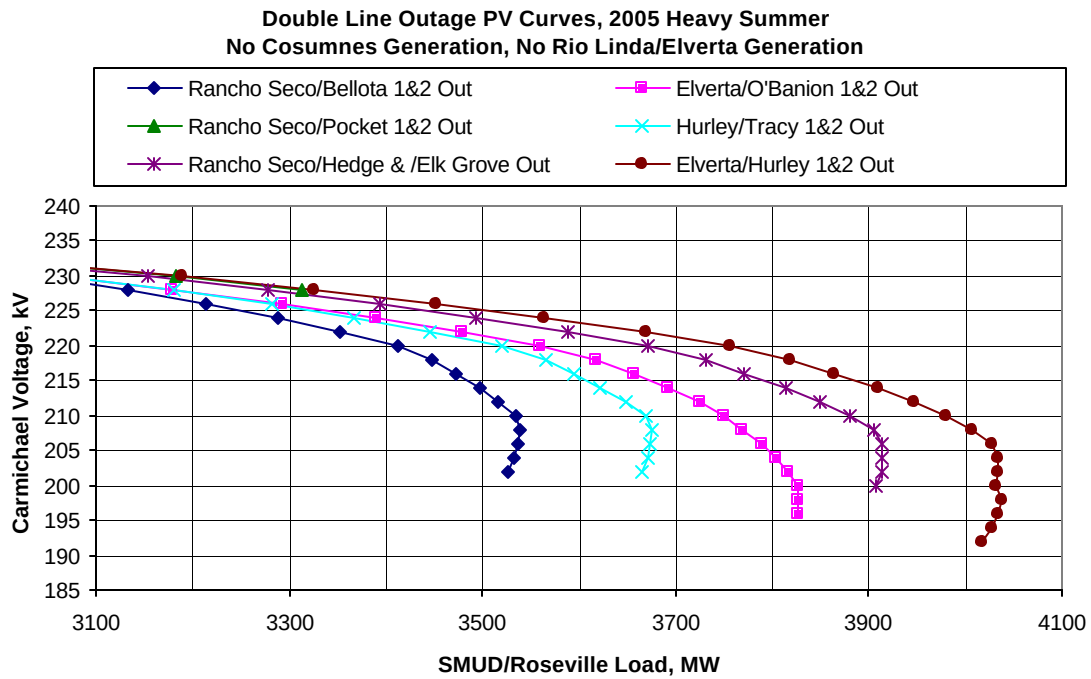
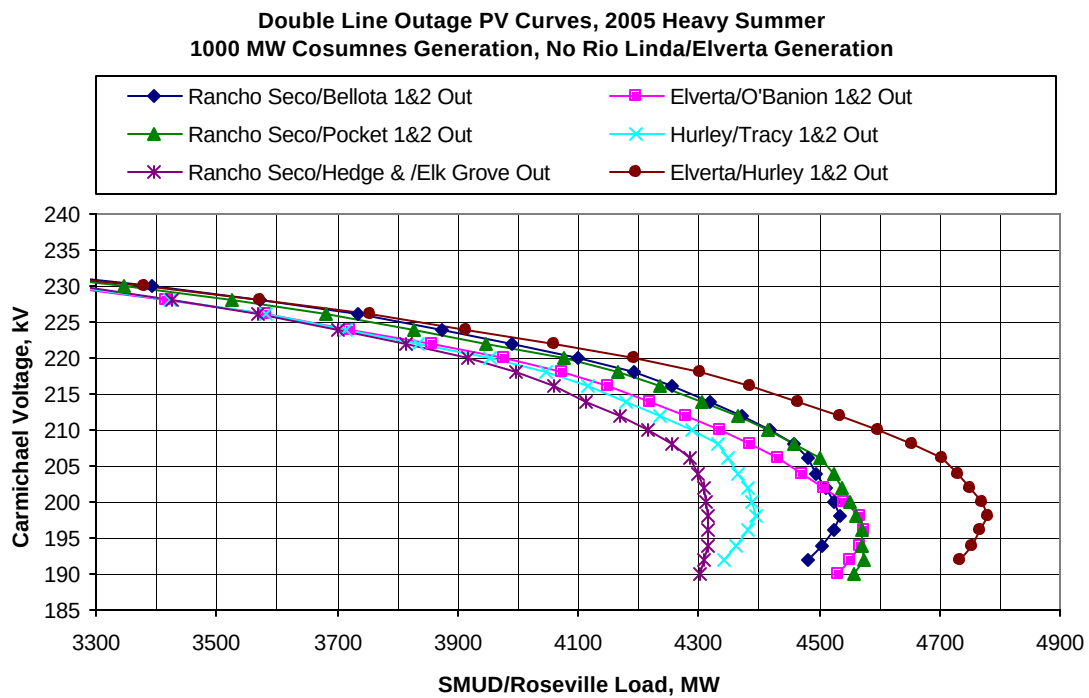
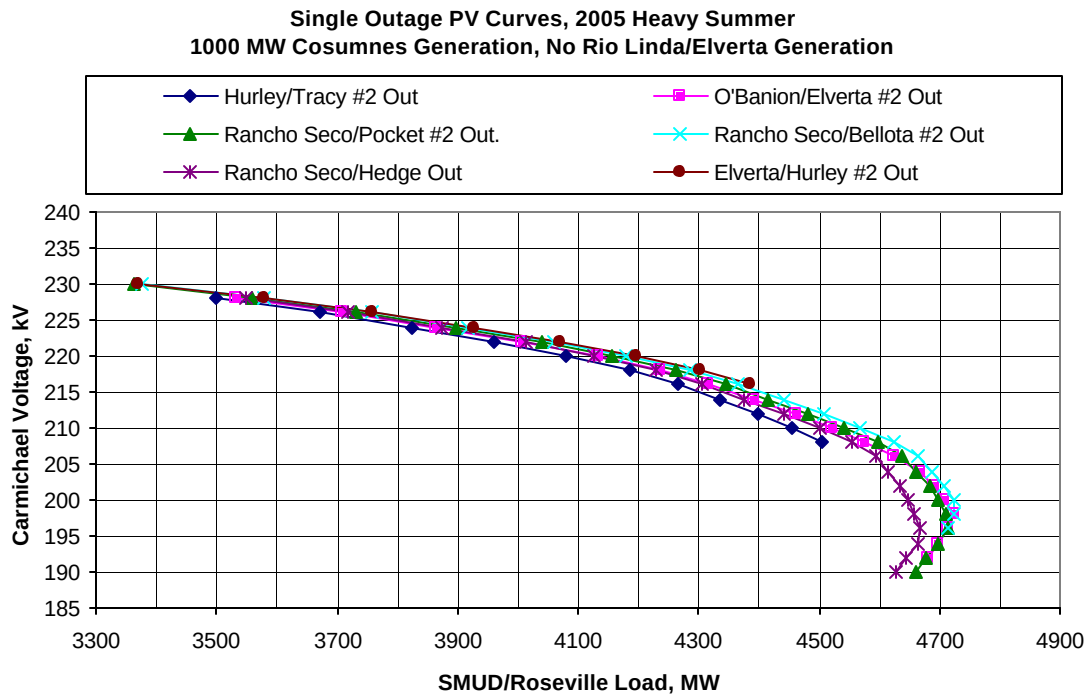


Figure 2

Cosumnes Power Plant Transmission System Impact Study



Cosumnes Power Plant Transmission System Impact Study

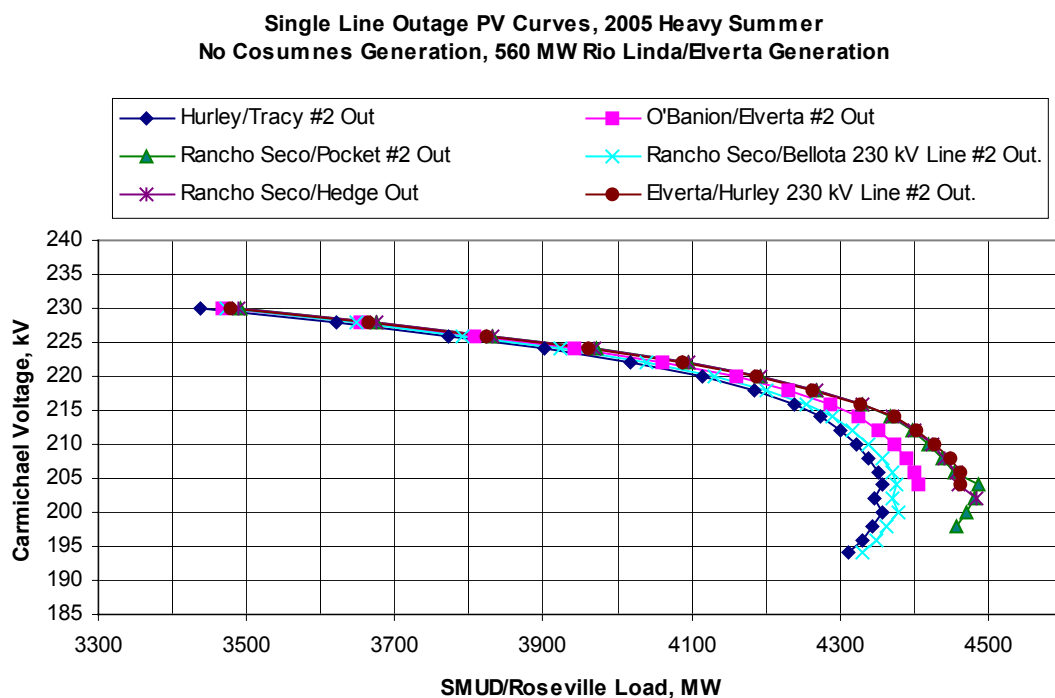


Figure 5

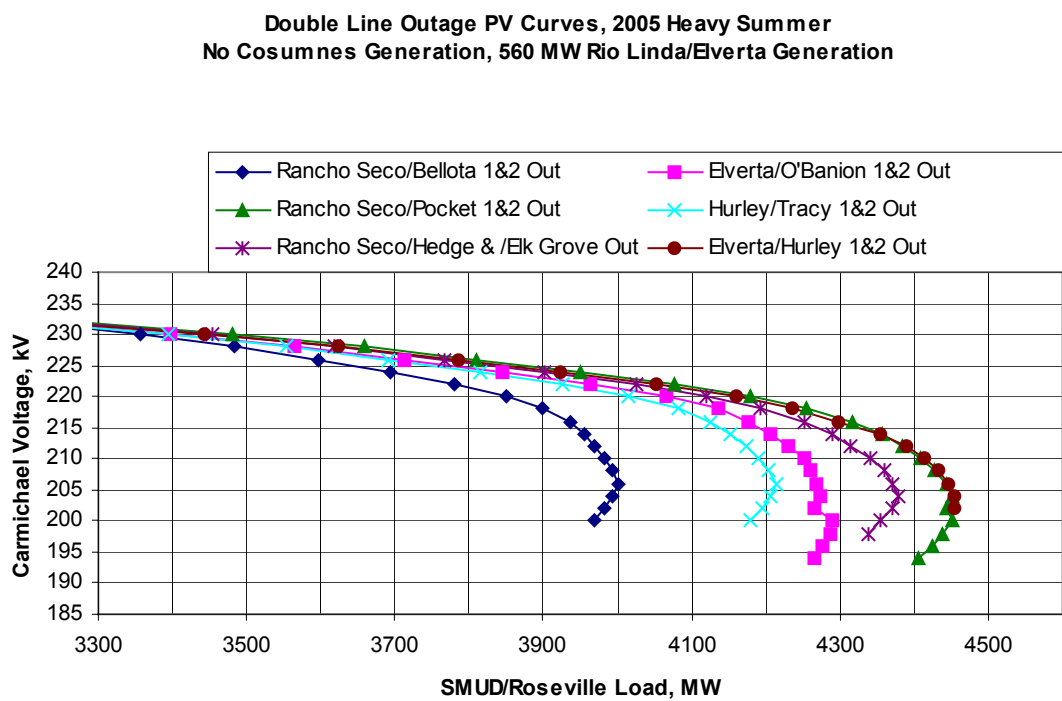


Figure 6

Cosumnes Power Plant Transmission System Impact Study

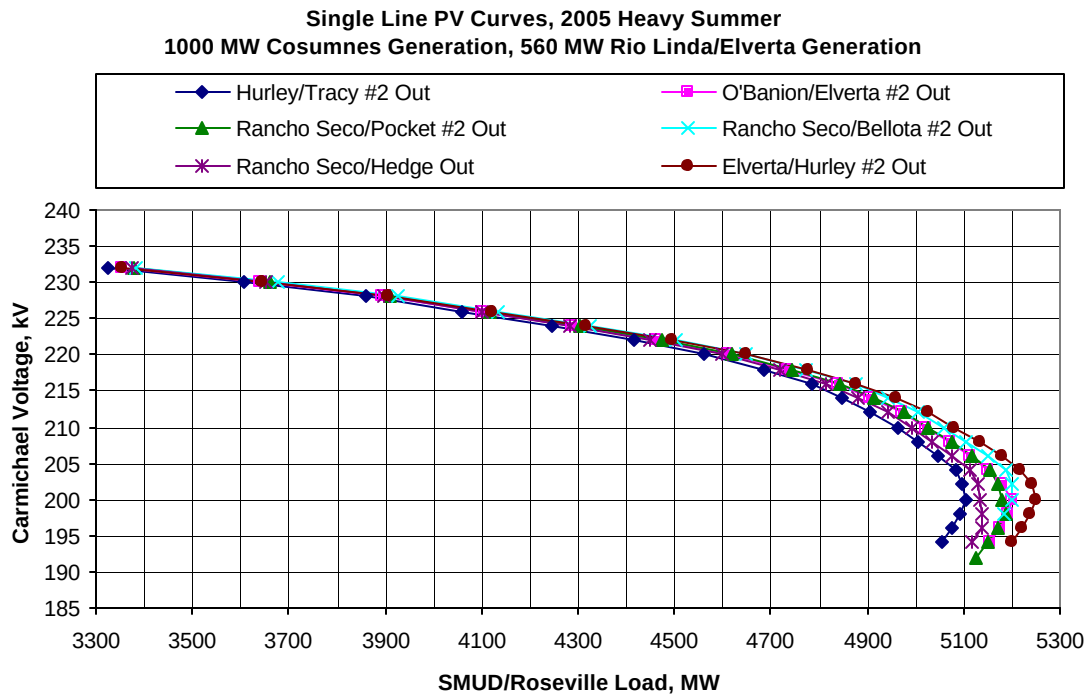


Figure 7

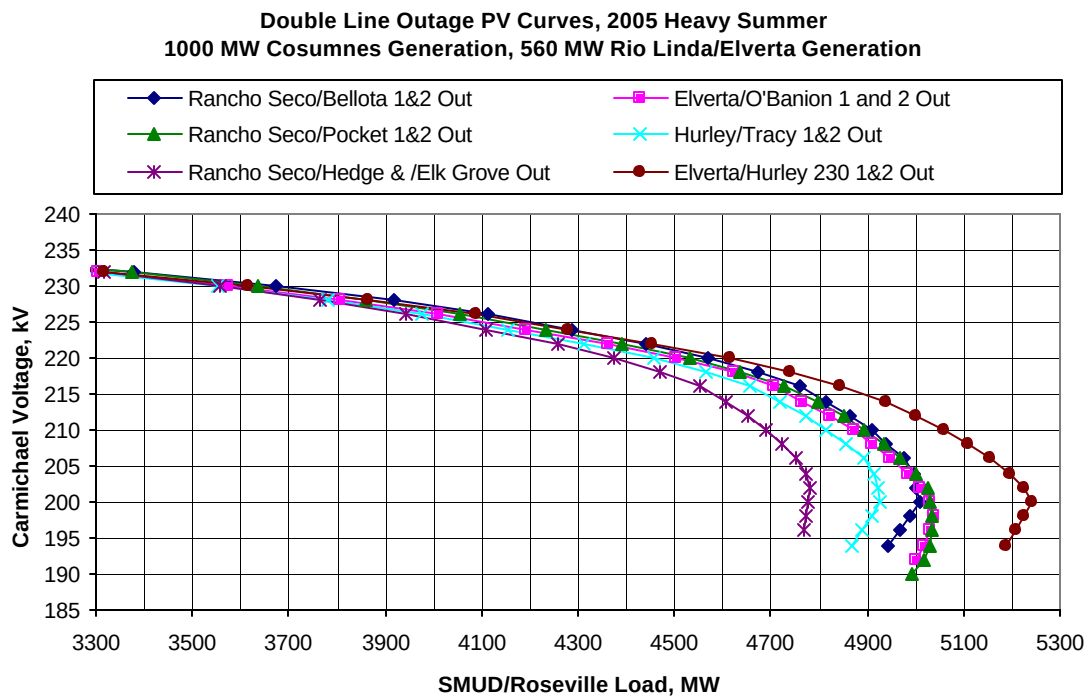


Figure 8

Cosumnes Power Plant Transmission System Impact Study

Table 1

Power Flows Without and With Cosumnes Generation
2005 Heavy Summer, No New Generation at Elverta

From		To		ID	Cosumnes Generation					
					0 MW		1000 MW		Increase	
Name	kV	Name	kV		MVA	% Rate	MVA	% Rate	MVA	% Rate
ROUND MT	500.0	TABLE MT	500.0	2	1627.0	99.2	1635.7	99.1	8.7	-0.1
ROUND MT	500.0	TABLE MT	500.0	1	1613.2	98.3	1621.8	98.2	8.6	-0.1
BRIGHTON	230.0	BRGHTN M	230.0	1	136.9	114.0	143.8	119.8	6.9	5.8
LOCKFORD	230.0	LOCKFRD	60.0	1	154.5	115.0	156.8	116.7	2.3	1.7
LOSBANOS	230.0	LOS BANS	70.0	1	116.9	97.4	119.1	99.2	2.2	1.8
HYATT	230.0	HYATT 2	12.5	1	122.8	99.2	122.9	99.2	0.1	0.0
HYATT	230.0	HYATT 4	12.5	1	122.8	99.2	122.9	99.2	0.1	0.0
HYATT	230.0	HYATT 6	12.5	1	122.8	99.2	122.9	99.2	0.1	0.0
BLLTA 1M	230.0	BELLTA T	13.8	1	37.9	100.0	38.0	100.0	0.1	0.0
STD. OIL	115.0	ChevGen2	13.8	1	59.5	99.6	59.6	99.6	0.1	0.0
FOLSOM	230.0	FOLSOM2	13.8	1	62.2	98.3	62.3	98.3	0.1	0.0
HYATT	230.0	HYATT 1	12.5	1	122.9	99.3	123.0	99.3	0.1	0.0
HYATT	230.0	HYATT 3	12.5	1	122.9	99.3	123.0	99.3	0.1	0.0
HYATT	230.0	HYATT 5	12.5	1	122.9	99.3	123.0	99.3	0.1	0.0
CH.STN	115.0	CH.STN.	13.8	1	23.9	98.4	23.9	98.4	0.0	0.0
DRUM	115.0	DRUM 5	13.8	1	46.4	99.6	46.4	99.6	0.0	0.0
STD. OIL	115.0	ChevGen1	13.8	1	59.5	99.6	59.5	99.6	0.0	0.0
TOSCO	12.5	FOSTER W	12.5	1	117.1	99.9	117.1	99.8	0.0	-0.1
WADHMJCT	60.0	WESCOT2	60.0	1	35.7	118.8	35.7	118.6	0.0	-0.2
MOSHERJT	60.0	MSHR 60V	60.0	1	38.8	106.0	38.8	104.6	0.0	-1.4
CAPEHORN	60.0	ROLLINS	60.0	1	28.5	99.1	28.4	97.4	-0.1	-1.7
VACA-DIX	115.0	VACA-DXN	60.0	1	79.2	99.0	79.1	98.9	-0.1	-0.1
MONTAVIS	230.0	MNTA VSA	60.0	1	145.6	108.3	145.4	108.2	-0.2	-0.1
ATLANTC	230.0	ATLANTIC	60.0	1	150.2	111.7	150.0	111.6	-0.2	-0.1
FRBSTNTP	115.0	FORBSTWN	11.5	1	30.8	99.9	30.6	98.7	-0.2	-1.2
PRDE JCT	60.0	PRDE 1-3	7.2	1	18.4	98.3	18.2	97.1	-0.2	-1.2
CAPEHORN	60.0	BONNIE N	60.0	1	30.4	105.0	30.2	103.2	-0.2	-1.8
FMC	115.0	FMC CT	12.0	1	50.6	98.2	50.4	97.5	-0.2	-0.7
POCKET	230.0	POCKET 2	69.0	2	223.4	99.8	223.2	99.7	-0.2	-0.1
DRUM	60.0	BONNIE N	60.0	1	32.8	109.5	32.5	107.6	-0.3	-1.9
BLACK	230.0	JBBLACK1	13.8	1	82.4	98.5	82.1	97.7	-0.3	-0.8
BLACK	230.0	JBBLACK2	13.8	1	82.4	98.5	82.1	97.7	-0.3	-0.8
PANOCH	230.0	PNCH 2M	230.0	2	123.0	101.0	122.4	100.5	-0.6	-0.5
PNCH 2M	230.0	PANOCH	115.0	2	122.1	100.2	121.5	99.7	-0.6	-0.5
LAKEWD-C	115.0	LKWD_JCT	115.0	1	197.3	120.8	195.6	119.6	-1.7	-1.2
ULTPWRJ	115.0	ULTR.PWR	9.1	1	20.1	98.7	18.3	89.6	-1.8	-9.1
COLGATE	230.0	COLGATE2	13.8	1	149.6	99.1	147.5	97.0	-2.1	-2.1
MELONE1	13.8	MELONES	230.0	1	191.6	99.8	187.4	97.6	-4.2	-2.2
PITSBURG	230.0	TASSAJAR	230.0	1	366.2	100.6	359.2	98.5	-7.0	-2.1
TBL MT D	230.0	RIO OSO	230.0	1	329.2	103.5	283.2	88.4	-46.0	-15.1

Cosumnes Power Plant Transmission System Impact Study

Table 2

Power Flows Without and With Cosumnes Generation
2005 Heavy Summer, 560 MW New Generation at Elverta

				Cosumnes Generation						
From		To		ID	0 MW		1000 MW		Increase	
Name	kV	Name	kV		MVA	% Rate	MVA	% Rate	MVA	% Rate
WARNERVL	230.0	WRNRVLE	115.0	1	131.0	87.4	149.4	99.6	18.4	12.2
WARNERVL	230.0	WRNRVLE	115.0	3	65.5	87.4	74.7	99.6	9.2	12.2
WARNERVL	230.0	WRNRVLE	115.0	2	65.5	87.4	74.7	99.6	9.2	12.2
BRIGHTON	230.0	BRGHTN M	230.0	1	137.1	114.2	144.4	120.3	7.3	6.1
ROUND MT	500.0	TABLE MT	500.0	2	1624.4	98.3	1629.5	98.3	5.1	0.0
LOCKFORD	230.0	LOCKEFRD	60.0	1	152.6	113.5	153.6	114.3	1.0	0.8
LOSBANOS	230.0	LOS BANS	70.0	1	120.4	100.3	121.2	101.0	0.8	0.7
ELVRTAX1	230.0	ELVERTA1	69.0	1	125.8	113.6	126.4	114.1	0.6	0.5
MARTIN C	115.0	MRTN ABG	12.0	1	54.9	99.8	54.9	99.9	0.0	0.1
BLLTA 1M	230.0	BELLTA T	13.8	1	38.0	100.0	38.0	100.0	0.0	0.0
DRUM	115.0	DRUM 5	13.8	1	46.5	99.6	46.5	99.6	0.0	0.0
ELVRTAX2	230.0	ELVERTA2	69.0	1	116.3	104.8	116.3	104.8	0.0	0.0
FOLSOM	230.0	FOLSOM2	13.8	1	62.3	98.3	62.3	98.3	0.0	0.0
HYATT	230.0	HYATT 1	12.5	1	123.0	99.3	123.0	99.3	0.0	0.0
HYATT	230.0	HYATT 2	12.5	1	122.9	99.2	122.9	99.2	0.0	0.0
HYATT	230.0	HYATT 3	12.5	1	123.0	99.3	123.0	99.3	0.0	0.0
HYATT	230.0	HYATT 4	12.5	1	122.9	99.2	122.9	99.2	0.0	0.0
HYATT	230.0	HYATT 5	12.5	1	123.0	99.3	123.0	99.3	0.0	0.0
HYATT	230.0	HYATT 6	12.5	1	122.9	99.2	122.9	99.2	0.0	0.0
POTRERO	115.0	POTRERO1	12.0	1	67.5	99.3	67.5	99.3	0.0	0.0
PRDE JCT	60.0	PRDE 1-3	7.2	1	18.4	98.3	18.4	98.3	0.0	0.0
STD. OIL	115.0	ChevGen1	13.8	1	59.6	99.6	59.6	99.6	0.0	0.0
STD. OIL	115.0	ChevGen2	13.8	1	59.6	99.6	59.6	99.6	0.0	0.0
TOSCO	12.5	FOSTER W	12.5	1	117.1	99.9	117.1	99.9	0.0	0.0
WADHMJCT	60.0	WESCOT2	60.0	1	34.1	113.5	34.1	113.4	0.0	-0.1
OREGON	115.0	OREGON1	12.5	1	22.4	106.7	22.4	106.6	0.0	-0.1
MONTAVIS	230.0	MNTA VSA	60.0	1	150.5	111.9	150.4	111.9	-0.1	0.0
CH.STN	115.0	CH.STN.	13.8	1	23.9	98.4	23.8	97.8	-0.1	-0.6
HNTRSPD	12.0	HNTRS P1	12.0	1	53.9	99.9	53.8	99.7	-0.1	-0.2
ATLANTC	230.0	ATLANTIC	60.0	1	131.8	98.0	131.7	98.0	-0.1	0.0
DONNELLS	115.0	DONNELLS	13.8	1	65.7	98.3	65.5	98.0	-0.2	-0.3
FMC	115.0	FMC CT	12.0	1	50.6	98.5	50.4	97.7	-0.2	-0.8
MELONE1	13.8	MELONES	230.0	1	188.5	98.2	187.4	97.6	-1.1	-0.6
ULTPWRJ	115.0	ULTR.PWR	9.1	1	20.2	99.6	19.1	94.0	-1.1	-5.6
LAKEWD-C	115.0	LKWD_JCT	115.0	1	198.0	121.0	196.4	120.0	-1.6	-1.0
PANOCH	230.0	PNCH 2M	230.0	2	124.9	102.6	122.4	100.5	-2.5	-2.1
PNCH 2M	230.0	PANOCH	115.0	2	124.0	101.8	121.4	99.7	-2.6	-2.1
PITSBURG	230.0	TASSAJAR	230.0	1	372.8	102.2	366.1	100.3	-6.7	-1.9
TEMPLETN	230.0	MORROBAY	230.0	1	305.0	98.4	261.7	83.9	-43.3	-14.5

Cosumnes Power Plant Transmission System Impact Study

Table 3

Power Flows Without and With Cosumnes Generation
2005 Heavy Summer, No New Generation at Elverta

Rancho Seco to Bellota 230 kV Lines 1 and 2 Out

					Cosumnes Generation					
From		To			0 MW		1000 MW		Increase	
Name	kV	Name	kV	ID	MVA	% Rate	MVA	% Rate	MVA	% Rate
PANOCH	230.0	PNCHE 2M	230.0	2	117.1	96.1	122.5	100.6	5.4	4.5
PNCHE 2M	230.0	PANOCH	115.0	2	116.3	95.5	121.6	99.8	5.3	4.3
FOLSOM	230.0	FOLSOM2	13.8	1	62.0	98.3	62.3	98.3	0.3	0.0
HYATT	230.0	HYATT 2	12.5	1	122.8	99.2	122.9	99.2	0.1	0.0
HYATT	230.0	HYATT 4	12.5	1	122.8	99.2	122.9	99.2	0.1	0.0
HYATT	230.0	HYATT 6	12.5	1	122.8	99.2	122.9	99.2	0.1	0.0
BLLTA 1M	230.0	BELLTA T	13.8	1	37.9	100.0	38.0	100.0	0.1	0.0
STD. OIL	115.0	ChevGen2	13.8	1	59.5	99.6	59.6	99.6	0.1	0.0
HYATT	230.0	HYATT 1	12.5	1	122.9	99.3	123.0	99.3	0.1	0.0
HYATT	230.0	HYATT 3	12.5	1	122.9	99.3	123.0	99.3	0.1	0.0
HYATT	230.0	HYATT 5	12.5	1	122.9	99.3	123.0	99.3	0.1	0.0
WADH MJCT	60.0	WESCOT2	60.0	1	35.7	101.6	35.7	101.2	0.0	-0.4
TOSCO	12.5	FOSTER W	12.5	1	117.1	99.9	117.1	99.8	0.0	-0.1
CH.STN	115.0	CH.STN.	13.8	1	23.9	98.4	23.9	98.4	0.0	0.0
DRUM	115.0	DRUM 5	13.8	1	46.4	99.6	46.4	99.6	0.0	0.0
PRDE JCT	60.0	PRDE 1-3	7.2	1	18.4	98.3	18.4	98.3	0.0	0.0
STD. OIL	115.0	ChevGen1	13.8	1	59.5	99.6	59.5	99.6	0.0	0.0
FMC	115.0	FMC CT	12.0	1	50.6	98.5	50.3	97.5	-0.3	-1.0
FRBSTNTP	115.0	FORBSTWN	11.5	1	31.0	100.6	30.6	98.7	-0.4	-1.9
BLACK	230.0	JBBLACK1	13.8	1	82.8	99.3	82.1	97.7	-0.7	-1.6
BLACK	230.0	JBBLACK2	13.8	1	82.8	99.3	82.1	97.7	-0.7	-1.6
POCKET	230.0	POCKET 2	69.0	2	224.2	100.1	223.3	99.7	-0.9	-0.4
DRUM	60.0	BONNIE N	60.0	1	34.1	98.9	32.5	92.6	-1.6	-6.3
ULTPWRJ	115.0	ULTR.PWR	9.1	1	20.0	98.5	18.3	89.6	-1.7	-8.9
LAKEWD-C	115.0	LKWD_JCT	115.0	1	197.3	103.9	195.6	102.8	-1.7	-1.1
RALSTON	230.0	RALSTON	13.8	1	83.4	99.7	80.4	93.8	-3.0	-5.9
MELONE1	13.8	MELONES	230.0	1	190.5	99.2	187.3	97.5	-3.2	-1.7
COLGATE	230.0	COLGATE2	13.8	1	150.9	100.3	147.5	97.0	-3.4	-3.3
SPRINGCR	13.8	SPRINGCR	230.0	1	192.1	98.5	187.8	96.3	-4.3	-2.2
BRIGHTON	230.0	BRGHTN M	230.0	1	149.1	103.5	143.6	99.7	-5.5	-3.8

Cosumnes Power Plant Transmission System Impact Study

Table 4

Power Flows Without and With Cosumnes Generation
2005 Heavy Summer, 560 MW New Generation at Elverta

Rancho Seco to Bellota 230 kV Lines 1 and 2 Out

					Cosumnes Generation					
From		To			0 MW		1000 MW		Increase	
Name	kV	Name	kV	ID	MVA	% Rate	MVA	% Rate	MVA	% Rate
PANOCH	230.0	PNCHE 2M	230.0	2	121.6	99.8	124.1	101.9	2.5	2.1
PNCHE 2M	230.0	PANOCH	115.0	2	120.6	99.0	123.1	101.0	2.5	2.0
ELVRTAX1	230.0	ELVERTA1	69.0	1	124.9	112.7	126.4	114.1	1.5	1.4
ELVRTAX2	230.0	ELVERTA2	69.0	1	115.5	104.0	116.3	104.8	0.8	0.8
BLLTA 1M	230.0	BELLTA T	13.8	1	38.0	100.0	38.0	100.0	0.0	0.0
CH.STN	115.0	CH.STN.	13.8	1	23.9	98.4	23.9	98.4	0.0	0.0
DRUM	115.0	DRUM 5	13.8	1	46.5	99.6	46.5	99.6	0.0	0.0
FOLSOM	230.0	FOLSOM2	13.8	1	62.3	98.3	62.3	98.3	0.0	0.0
HYATT	230.0	HYATT 1	12.5	1	123.0	99.3	123.0	99.3	0.0	0.0
HYATT	230.0	HYATT 2	12.5	1	122.9	99.2	122.9	99.2	0.0	0.0
HYATT	230.0	HYATT 3	12.5	1	123.0	99.3	123.0	99.3	0.0	0.0
HYATT	230.0	HYATT 4	12.5	1	122.9	99.2	122.9	99.2	0.0	0.0
HYATT	230.0	HYATT 5	12.5	1	123.0	99.3	123.0	99.3	0.0	0.0
HYATT	230.0	HYATT 6	12.5	1	122.9	99.2	122.9	99.2	0.0	0.0
POTRERO	115.0	POTRERO1	12.0	1	67.5	99.3	67.5	99.3	0.0	0.0
PRDE JCT	60.0	PRDE 1-3	7.2	1	18.4	98.3	18.4	98.3	0.0	0.0
STD. OIL	115.0	ChevGen1	13.8	1	59.6	99.6	59.6	99.6	0.0	0.0
STD. OIL	115.0	ChevGen2	13.8	1	59.6	99.6	59.6	99.6	0.0	0.0
TOSCO	12.5	FOSTER W	12.5	1	117.1	99.9	117.1	99.9	0.0	0.0
DONNELLS	115.0	DONNELLS	13.8	1	65.6	98.1	65.6	98.0	0.0	-0.1
OREGON	115.0	OREGON1	12.5	1	22.4	106.7	22.4	106.6	0.0	-0.1
HNTRSPTD	12.0	HNTRS P1	12.0	1	53.9	99.9	53.8	99.7	-0.1	-0.2
FMC	115.0	FMC CT	12.0	1	50.6	98.5	50.4	97.8	-0.2	-0.7
MELONE1	13.8	MELONES	230.0	1	188.2	98.0	187.4	97.6	-0.8	-0.4
ULTPWRJ	115.0	ULTR.PWR	9.1	1	20.2	99.6	19.3	94.7	-0.9	-4.9
LAKEWD-C	115.0	LKWD_JCT	115.0	1	198.0	103.9	196.5	103.1	-1.5	-0.8
BRIGHTON	230.0	BRGHTN M	230.0	1	144.1	100.0	140.5	97.6	-3.6	-2.4

Cosumnes Power Plant Transmission System Impact Study

Table 5

Power Flows Without and With Cosumnes Generation
2005 Heavy Summer, No New Generation at Elverta

Rancho Seco to Pocket 230 kV Lines 1 and 2 Out

					Cosumnes Generation					
From		To			0 MW		1000 MW		Increase	
Name	kV	Name	kV	ID	MVA	% Rate	MVA	% Rate	MVA	% Rate
BRIGHTON	230.0	BRGHTN M	230.0	1	137.7	95.6	145.2	100.9	7.5	5.3
HYATT	230.0	HYATT 2	12.5	1	122.8	99.2	122.9	99.2	0.1	0.0
HYATT	230.0	HYATT 4	12.5	1	122.8	99.2	122.9	99.2	0.1	0.0
HYATT	230.0	HYATT 6	12.5	1	122.8	99.2	122.9	99.2	0.1	0.0
BLLTA 1M	230.0	BELLTA T	13.8	1	37.9	100.0	38.0	100.0	0.1	0.0
STD. OIL	115.0	ChevGen2	13.8	1	59.5	99.6	59.6	99.6	0.1	0.0
HYATT	230.0	HYATT 3	12.5	1	122.9	99.3	123.0	99.3	0.1	0.0
HYATT	230.0	HYATT 5	12.5	1	122.9	99.3	123.0	99.3	0.1	0.0
CH.STN	115.0	CH.STN.	13.8	1	23.9	98.4	23.9	98.4	0.0	0.0
DRUM	115.0	DRUM 5	13.8	1	46.4	99.6	46.4	99.6	0.0	0.0
FOLSOM	230.0	FOLSOM2	13.8	1	62.2	98.3	62.2	98.3	0.0	0.0
HYATT	230.0	HYATT 1	12.5	1	122.9	99.3	122.9	99.3	0.0	0.0
STD. OIL	115.0	ChevGen1	13.8	1	59.5	99.6	59.5	99.6	0.0	0.0
TOSCO	12.5	FOSTER W	12.5	1	117.1	99.9	117.1	99.9	0.0	0.0
WADH MJCT	60.0	WESCOT2	60.0	1	35.7	101.3	35.7	101.2	0.0	-0.1
POCKET	230.0	POCKET 2	69.0	2	223.5	99.8	223.3	99.7	-0.2	-0.1
PRDE JCT	60.0	PRDE 1-3	7.2	1	18.4	98.3	18.2	97.3	-0.2	-1.0
FMC	115.0	FMC CT	12.0	1	50.6	98.4	50.4	97.6	-0.2	-0.8
FRBSTNTP	115.0	FORBSTWN	11.5	1	30.9	100.0	30.6	98.7	-0.3	-1.3
BLACK	230.0	JBBLACK1	13.8	1	82.4	98.5	82.1	97.8	-0.3	-0.7
BLACK	230.0	JBBLACK2	13.8	1	82.4	98.5	82.1	97.8	-0.3	-0.7
PANOCH	230.0	PNCHE 2M	230.0	2	122.6	100.7	121.8	100.0	-0.8	-0.7
PNCHE 2M	230.0	PANOCH	115.0	2	121.7	99.9	120.8	99.2	-0.9	-0.7
ULTPWRJ	115.0	ULTR.PWR	9.1	1	20.1	98.9	18.3	89.6	-1.8	-9.3
LAKEWD-C	115.0	LKWD_JCT	115.0	1	197.4	103.9	195.6	102.8	-1.8	-1.1
COLGATE	230.0	COLGATE2	13.8	1	149.8	99.3	147.6	97.1	-2.2	-2.2
MELONE1	13.8	MELONES	230.0	1	191.6	99.8	187.6	97.7	-4.0	-2.1
ELVRTAX2	230.0	ELVERTA2	69.0	1	114.7	103.3	104.4	97.6	-10.3	-5.7
ELVRTAX1	230.0	ELVERTA1	69.0	1	123.6	111.6	104.5	94.2	-19.1	-17.4

Cosumnes Power Plant Transmission System Impact Study

Table 6

Power Flows Without and With Cosumnes Generation
2005 Heavy Summer, 560 MW New Generation at Elverta

Rancho Seco to Pocket 230 kV Lines 1 and 2 Out

					Cosumnes Generation					
From		To			0 MW		1000 MW		Increase	
Name	kV	Name	kV	ID	MVA	% Rate	MVA	% Rate	MVA	% Rate
WARNERVL	230.0	WRNRVLLE	115.0	1	132.4	88.3	151.2	100.8	18.8	12.5
WARNERVL	230.0	WRNRVLLE	115.0	3	66.2	88.3	75.6	100.8	9.4	12.5
WARNERVL	230.0	WRNRVLLE	115.0	2	66.2	88.3	75.6	100.8	9.4	12.5
BRIGHTON	230.0	BRGHTN M	230.0	1	137.5	95.5	145.5	101.0	8.0	5.5
ELVRTAX1	230.0	ELVERTA1	69.0	1	125.6	113.4	126.3	114.0	0.7	0.6
HNTRSPTD	12.0	HNTRS P1	12.0	1	53.8	99.8	53.9	99.8	0.1	0.0
ELVRTAX2	230.0	ELVERTA2	69.0	1	116.2	104.7	116.3	104.8	0.1	0.1
TOSCO	12.5	FOSTER W	12.5	1	117.1	99.8	117.1	99.9	0.0	0.1
BLLTA 1M	230.0	BELLTA T	13.8	1	38.0	100.0	38.0	100.0	0.0	0.0
DRUM	115.0	DRUM 5	13.8	1	46.5	99.6	46.5	99.6	0.0	0.0
FOLSOM	230.0	FOLSOM2	13.8	1	62.3	98.3	62.3	98.3	0.0	0.0
HYATT	230.0	HYATT 1	12.5	1	123.0	99.3	123.0	99.3	0.0	0.0
HYATT	230.0	HYATT 2	12.5	1	122.9	99.2	122.9	99.2	0.0	0.0
HYATT	230.0	HYATT 3	12.5	1	123.0	99.3	123.0	99.3	0.0	0.0
HYATT	230.0	HYATT 4	12.5	1	122.9	99.2	122.9	99.2	0.0	0.0
HYATT	230.0	HYATT 5	12.5	1	123.0	99.3	123.0	99.3	0.0	0.0
HYATT	230.0	HYATT 6	12.5	1	122.9	99.2	122.9	99.2	0.0	0.0
POTRERO	115.0	POTRERO1	12.0	1	67.5	99.3	67.5	99.3	0.0	0.0
PRDE JCT	60.0	PRDE 1-3	7.2	1	18.4	98.3	18.4	98.3	0.0	0.0
STD. OIL	115.0	ChevGen1	13.8	1	59.6	99.6	59.6	99.6	0.0	0.0
STD. OIL	115.0	ChevGen2	13.8	1	59.6	99.6	59.6	99.6	0.0	0.0
OREGON	115.0	OREGON1	12.5	1	22.4	106.7	22.4	106.6	0.0	-0.1
CH.STN	115.0	CH.STN.	13.8	1	23.9	98.4	23.8	97.9	-0.1	-0.5
DONNELLS	115.0	DONNELLS	13.8	1	65.7	98.3	65.5	98.0	-0.2	-0.3
FMC	115.0	FMC CT	12.0	1	50.6	98.5	50.4	97.7	-0.2	-0.8
MELONE1	13.8	MELONES	230.0	1	188.8	98.3	187.8	97.8	-1.0	-0.5
ULTPWRJ	115.0	ULTR.PWR	9.1	1	20.2	99.6	19.2	94.1	-1.0	-5.5
LAKEWD-C	115.0	LKWD_JCT	115.0	1	198.0	104.0	196.4	103.1	-1.6	-0.9
PANOCH	230.0	PNCHE 2M	230.0	2	125.0	102.6	121.9	100.1	-3.1	-2.5
PNCHE 2M	230.0	PANOCH	115.0	2	124.0	101.8	120.9	99.2	-3.1	-2.6

Cosumnes Power Plant Transmission System Impact Study

Table 7

Power Flows Without and With Cosumnes Generation
2005 Heavy Summer, No New Generation at Elverta

Rancho Seco to Hedge and Rancho Seco to Elk Grove 230 kV Lines Out

					Cosumnes Generation					
					0 MW		1000 MW			
From		To		ID	MVA	% Rate	MVA	% Rate	MVA	% Rate
Name	kV	Name	kV		MVA	% Rate	MVA	% Rate	MVA	% Rate
BRIGHTON	230.0	BRGHTN M	230.0	1	138.7	96.3	146.8	101.9	8.1	5.6
HYATT	230.0	HYATT 2	12.5	1	122.8	99.2	122.9	99.2	0.1	0.0
HYATT	230.0	HYATT 4	12.5	1	122.8	99.2	122.9	99.2	0.1	0.0
HYATT	230.0	HYATT 6	12.5	1	122.8	99.2	122.9	99.2	0.1	0.0
BLLTA 1M	230.0	BELLTA T	13.8	1	37.9	100.0	38.0	100.0	0.1	0.0
STD. OIL	115.0	ChevGen2	13.8	1	59.5	99.6	59.6	99.6	0.1	0.0
HYATT	230.0	HYATT 3	12.5	1	122.9	99.3	123.0	99.3	0.1	0.0
HYATT	230.0	HYATT 5	12.5	1	122.9	99.3	123.0	99.3	0.1	0.0
CH.STN	115.0	CH.STN.	13.8	1	23.9	98.4	23.9	98.4	0.0	0.0
DRUM	115.0	DRUM 5	13.8	1	46.4	99.6	46.4	99.6	0.0	0.0
FOLSOM	230.0	FOLSOM2	13.8	1	62.2	98.3	62.2	98.3	0.0	0.0
HYATT	230.0	HYATT 1	12.5	1	122.9	99.3	122.9	99.3	0.0	0.0
STD. OIL	115.0	ChevGen1	13.8	1	59.5	99.6	59.5	99.6	0.0	0.0
TOSCO	12.5	FOSTER W	12.5	1	117.1	99.9	117.1	99.9	0.0	0.0
WADH MJCT	60.0	WESCOT2	60.0	1	35.7	101.4	35.7	101.2	0.0	-0.2
PRDE JCT	60.0	PRDE 1-3	7.2	1	18.4	98.3	18.3	97.3	-0.1	-1.0
POCKET	230.0	POCKET 2	69.0	2	223.6	99.8	223.4	99.7	-0.2	-0.1
FRBSTNTP	115.0	FORBSTWN	11.5	1	30.8	100.0	30.6	98.8	-0.2	-1.2
FMC	115.0	FMC CT	12.0	1	50.6	98.4	50.4	97.7	-0.2	-0.7
BLACK	230.0	JBBLACK1	13.8	1	82.4	98.6	82.1	97.8	-0.3	-0.8
BLACK	230.0	JBBLACK2	13.8	1	82.4	98.6	82.1	97.8	-0.3	-0.8
PANOCH	230.0	PNCHE 2M	230.0	2	122.0	100.2	120.9	99.3	-1.1	-0.9
PNCHE 2M	230.0	PANOCH	115.0	2	121.1	99.5	120.0	98.5	-1.1	-1.0
ULTPWRJ	115.0	ULTR.PWR	9.1	1	20.1	98.8	18.3	89.6	-1.8	-9.2
LAKEWD-C	115.0	LKWD_JCT	115.0	1	197.4	103.9	195.6	102.8	-1.8	-1.1
COLGATE	230.0	COLGATE2	13.8	1	149.8	99.3	147.6	97.2	-2.2	-2.1
MELONE1	13.8	MELONES	230.0	1	191.6	99.8	187.8	97.8	-3.8	-2.0

Cosumnes Power Plant Transmission System Impact Study

Table 8

Power Flows Without and With Cosumnes Generation
2005 Heavy Summer, 560 MW New Generation at Elverta

Rancho Seco to Hedge and Rancho Seco to Elk Grove 230 kV Lines Out

					Cosumnes Generation					
From		To			0 MW		1000 MW		Increase	
Name	kV	Name	kV	ID	MVA	% Rate	MVA	% Rate	MVA	% Rate
WARNERVL	230.0	WRNRVLLE	115.0	1	134.0	89.3	153.9	102.6	19.9	13.3
WARNERVL	230.0	WRNRVLLE	115.0	2	67.0	89.3	76.9	102.6	9.9	13.3
WARNERVL	230.0	WRNRVLLE	115.0	3	67.0	89.3	76.9	102.6	9.9	13.3
BRIGHTON	230.0	BRGHTN M	230.0	1	138.3	96.0	146.7	101.9	8.4	5.9
ELVRTAX1	230.0	ELVERTA1	69.0	1	125.5	113.3	125.9	113.7	0.4	0.4
HNTRSPTD	12.0	HNTRS P1	12.0	1	53.8	99.8	53.9	99.8	0.1	0.0
ELVRTAX2	230.0	ELVERTA2	69.0	1	116.2	104.7	116.3	104.8	0.1	0.1
BLLTA 1M	230.0	BELLTA T	13.8	1	38.0	100.0	38.0	100.0	0.0	0.0
DRUM	115.0	DRUM 5	13.8	1	46.5	99.6	46.5	99.6	0.0	0.0
FOLSOM	230.0	FOLSOM2	13.8	1	62.3	98.3	62.3	98.3	0.0	0.0
HYATT	230.0	HYATT 1	12.5	1	123.0	99.3	123.0	99.3	0.0	0.0
HYATT	230.0	HYATT 2	12.5	1	122.9	99.2	122.9	99.2	0.0	0.0
HYATT	230.0	HYATT 3	12.5	1	123.0	99.3	123.0	99.3	0.0	0.0
HYATT	230.0	HYATT 4	12.5	1	122.9	99.2	122.9	99.2	0.0	0.0
HYATT	230.0	HYATT 5	12.5	1	123.0	99.3	123.0	99.3	0.0	0.0
HYATT	230.0	HYATT 6	12.5	1	122.9	99.2	122.9	99.2	0.0	0.0
POTRERO	115.0	POTRERO1	12.0	1	67.5	99.3	67.5	99.3	0.0	0.0
PRDE JCT	60.0	PRDE 1-3	7.2	1	18.4	98.3	18.4	98.3	0.0	0.0
STD. OIL	115.0	ChevGen1	13.8	1	59.6	99.6	59.6	99.6	0.0	0.0
STD. OIL	115.0	ChevGen2	13.8	1	59.6	99.6	59.6	99.6	0.0	0.0
TOSCO	12.5	FOSTER W	12.5	1	117.1	99.9	117.1	99.9	0.0	0.0
OREGON	115.0	OREGON1	12.5	1	22.4	106.7	22.4	106.6	0.0	-0.1
CH.STN	115.0	CH.STN.	13.8	1	23.9	98.4	23.8	97.8	-0.1	-0.6
DONNELLS	115.0	DONNELLS	13.8	1	65.7	98.2	65.5	97.9	-0.2	-0.3
FMC	115.0	FMC CT	12.0	1	50.6	98.5	50.4	97.8	-0.2	-0.7
MELONE1	13.8	MELONES	230.0	1	188.5	98.2	188.0	97.9	-0.5	-0.3
ULTPWRJ	115.0	ULTR.PWR	9.1	1	20.2	99.6	19.2	94.1	-1.0	-5.5
LAKEWD-C	115.0	LKWD_JCT	115.0	1	198.0	104.0	196.4	103.1	-1.6	-0.9
PANOCH	230.0	PNCHE 2M	230.0	2	124.6	102.3	121.3	99.6	-3.3	-2.7
PNCHE 2M	230.0	PANOCH	115.0	2	123.6	101.5	120.2	98.7	-3.4	-2.8

Cosumnes Power Plant Transmission System Impact Study

Table 9

Power Flows Without and With Cosumnes Generation
2005 Heavy Summer, No New Generation at Elverta

Hurley to Tracy 230 kV Lines 1 and 2 Out

					Cosumnes Generation					
					0 MW		1000 MW			
From		To		ID	MVA	% Rate	MVA	% Rate	MVA	% Rate
Name	kV	Name	kV		MVA	% Rate	MVA	% Rate	MVA	% Rate
BRIGHTON	230.0	BRGHTN M	230.0	1	134.8	93.6	142.3	98.8	7.5	5.2
HYATT	230.0	HYATT 2	12.5	1	122.8	99.2	122.9	99.2	0.1	0.0
HYATT	230.0	HYATT 4	12.5	1	122.8	99.2	122.9	99.2	0.1	0.0
HYATT	230.0	HYATT 6	12.5	1	122.8	99.2	122.9	99.2	0.1	0.0
BLT TA 1M	230.0	BELLTA T	13.8	1	37.9	100.0	38.0	100.0	0.1	0.0
FOLSOM	230.0	FOLSOM2	13.8	1	62.1	98.3	62.2	98.3	0.1	0.0
STD. OIL	115.0	ChevGen2	13.8	1	59.5	99.6	59.6	99.6	0.1	0.0
HYATT	230.0	HYATT 1	12.5	1	122.9	99.3	123.0	99.3	0.1	0.0
HYATT	230.0	HYATT 3	12.5	1	122.9	99.3	123.0	99.3	0.1	0.0
HYATT	230.0	HYATT 5	12.5	1	122.9	99.3	123.0	99.3	0.1	0.0
CH.STN	115.0	CH.STN.	13.8	1	23.9	98.4	23.9	98.4	0.0	0.0
DRUM	115.0	DRUM 5	13.8	1	46.4	99.6	46.4	99.6	0.0	0.0
STD. OIL	115.0	ChevGen1	13.8	1	59.5	99.6	59.5	99.6	0.0	0.0
TOSCO	12.5	FOSTER W	12.5	1	117.1	99.9	117.1	99.9	0.0	0.0
WADH MJCT	60.0	WESCOT2	60.0	1	35.7	101.4	35.7	101.2	0.0	-0.2
PRDE JCT	60.0	PRDE 1-3	7.2	1	18.4	98.3	18.3	97.4	-0.1	-0.9
FMC	115.0	FMC CT	12.0	1	50.6	98.5	50.3	97.3	-0.3	-1.2
POCKET	230.0	POCKET 2	69.0	2	223.8	99.9	223.3	99.7	-0.5	-0.2
BLACK	230.0	JBBLACK1	13.8	1	82.6	98.8	82.1	97.7	-0.5	-1.1
BLACK	230.0	JBBLACK2	13.8	1	82.6	98.8	82.1	97.7	-0.5	-1.1
FRBSTNTP	115.0	FORBSTWN	11.5	1	31.1	101.1	30.6	98.7	-0.5	-2.4
ULTPWRJ	115.0	ULTR.PWR	9.1	1	20.2	99.6	18.3	89.6	-1.9	-10.0
LAKEWD-C	115.0	LKWD_JCT	115.0	1	198.1	104.3	195.9	102.9	-2.2	-1.4
RALSTON	230.0	RALSTON	13.8	1	82.8	98.6	80.5	94.1	-2.3	-4.5
PANOCH	230.0	PNCHE 2M	230.0	2	126.3	103.7	123.9	101.7	-2.4	-2.0
PNCHE 2M	230.0	PANOCH	115.0	2	125.3	102.9	122.9	100.9	-2.4	-2.0
MELONE1	13.8	MELONES	230.0	1	191.6	99.8	187.6	97.7	-4.0	-2.1
COLGATE	230.0	COLGATE2	13.8	1	151.8	101.2	147.7	97.2	-4.1	-4.0

Cosumnes Power Plant Transmission System Impact Study

Table 10

Power Flows Without and With Cosumnes Generation
2005 Heavy Summer, 560 MW New Generation at Elverta

Hurley to Tracy 230 kV Lines 1 and 2 Out

					Cosumnes Generation					
From		To			0 MW		1000 MW		Increase	
Name	kV	Name	kV	ID	MVA	% Rate	MVA	% Rate	MVA	% Rate
WARNERVL	230.0	WRNRVLLE	115.0	1	124.5	83.0	148.7	99.1	24.2	16.1
WARNERVL	230.0	WRNRVLLE	115.0	2	62.3	83.0	74.3	99.1	12.0	16.1
WARNERVL	230.0	WRNRVLLE	115.0	3	62.3	83.0	74.3	99.1	12.0	16.1
BRIGHTON	230.0	BRGHTN M	230.0	1	135.2	93.9	144.2	100.1	9.0	6.2
ELVRTAX1	230.0	ELVERTA1	69.0	1	125.2	113.1	126.0	113.8	0.8	0.7
ELVRTAX2	230.0	ELVERTA2	69.0	1	116.1	104.6	116.2	104.7	0.1	0.1
HNTRSPTD	12.0	HNTRS P1	12.0	1	53.8	99.8	53.9	99.8	0.1	0.0
TOSCO	12.5	FOSTER W	12.5	1	117.1	99.8	117.1	99.9	0.0	0.1
FMC	115.0	FMC CT	12.0	1	50.6	98.4	50.6	98.5	0.0	0.1
BLLTA 1M	230.0	BELLTA T	13.8	1	38.0	100.0	38.0	100.0	0.0	0.0
DRUM	115.0	DRUM 5	13.8	1	46.5	99.6	46.5	99.6	0.0	0.0
FOLSOM	230.0	FOLSOM2	13.8	1	62.3	98.3	62.3	98.3	0.0	0.0
HYATT	230.0	HYATT 1	12.5	1	123.0	99.3	123.0	99.3	0.0	0.0
HYATT	230.0	HYATT 2	12.5	1	122.9	99.2	122.9	99.2	0.0	0.0
HYATT	230.0	HYATT 3	12.5	1	123.0	99.3	123.0	99.3	0.0	0.0
HYATT	230.0	HYATT 4	12.5	1	122.9	99.2	122.9	99.2	0.0	0.0
HYATT	230.0	HYATT 5	12.5	1	123.0	99.3	123.0	99.3	0.0	0.0
HYATT	230.0	HYATT 6	12.5	1	122.9	99.2	122.9	99.2	0.0	0.0
POTRERO	115.0	POTRERO1	12.0	1	67.5	99.3	67.5	99.3	0.0	0.0
PRDE JCT	60.0	PRDE 1-3	7.2	1	18.4	98.3	18.4	98.3	0.0	0.0
STD. OIL	115.0	ChevGen1	13.8	1	59.6	99.6	59.6	99.6	0.0	0.0
STD. OIL	115.0	ChevGen2	13.8	1	59.6	99.6	59.6	99.6	0.0	0.0
OREGON	115.0	OREGON1	12.5	1	22.4	106.7	22.4	106.6	0.0	-0.1
CH.STN	115.0	CH.STN.	13.8	1	23.9	98.4	23.8	98.0	-0.1	-0.4
DONNELLS	115.0	DONNELLS	13.8	1	65.7	98.4	65.5	98.0	-0.2	-0.4
ULTPWRJ	115.0	ULTR.PWR	9.1	1	20.2	99.6	19.2	94.2	-1.0	-5.4
LAKEWD-C	115.0	LKWD_JCT	115.0	1	198.4	104.1	196.6	103.2	-1.8	-0.9
MELONE1	13.8	MELONES	230.0	1	189.4	98.7	187.6	97.7	-1.8	-1.0
PANOCH	230.0	PNCHE 2M	230.0	2	126.9	104.2	122.6	100.6	-4.3	-3.6
PNCHE 2M	230.0	PANOCH	115.0	2	125.9	103.3	121.5	99.7	-4.4	-3.6

Cosumnes Power Plant Transmission System Impact Study

Table 11

Power Flows Without and With Cosumnes Generation
2005 Heavy Summer, No New Generation at Elverta

Elverta to Hurley 230 kV Lines 1 and 2 Out

					Cosumnes Generation					
From		To			0 MW		1000 MW		Increase	
Name	kV	Name	kV	ID	MVA	% Rate	MVA	% Rate	MVA	% Rate
BRIGHTON	230.0	BRGHTN M	230.0	1	136.7	95.0	143.7	99.8	7.0	4.8
HYATT	230.0	HYATT 2	12.5	1	122.8	99.2	122.9	99.2	0.1	0.0
HYATT	230.0	HYATT 4	12.5	1	122.8	99.2	122.9	99.2	0.1	0.0
HYATT	230.0	HYATT 6	12.5	1	122.8	99.2	122.9	99.2	0.1	0.0
BLLTA 1M	230.0	BELLTA T	13.8	1	37.9	100.0	38.0	100.0	0.1	0.0
STD. OIL	115.0	ChevGen2	13.8	1	59.5	99.6	59.6	99.6	0.1	0.0
ULTPWRJ	115.0	ULTR.PWR	9.1	1	20.1	99.1	20.2	99.7	0.1	0.6
FOLSOM	230.0	FOLSOM2	13.8	1	62.2	98.3	62.3	98.3	0.1	0.0
HYATT	230.0	HYATT 3	12.5	1	122.9	99.3	123.0	99.3	0.1	0.0
HYATT	230.0	HYATT 5	12.5	1	122.9	99.3	123.0	99.3	0.1	0.0
FMC	115.0	FMC CT	12.0	1	50.6	98.4	50.6	98.5	0.0	0.1
CH.STN	115.0	CH.STN.	13.8	1	23.9	98.4	23.9	98.4	0.0	0.0
DRUM	115.0	DRUM 5	13.8	1	46.4	99.6	46.4	99.6	0.0	0.0
HYATT	230.0	HYATT 1	12.5	1	122.9	99.3	122.9	99.3	0.0	0.0
PRDE JCT	60.0	PRDE 1-3	7.2	1	18.4	98.3	18.4	98.3	0.0	0.0
STD. OIL	115.0	ChevGen1	13.8	1	59.5	99.6	59.5	99.6	0.0	0.0
TOSCO	12.5	FOSTER W	12.5	1	117.1	99.9	117.1	99.9	0.0	0.0
WADH MJCT	60.0	WESCOT2	60.0	1	35.7	101.3	35.7	101.2	0.0	-0.1
FRBSTNTP	115.0	FORBSTWN	11.5	1	30.8	99.9	30.6	98.7	-0.2	-1.2
POCKET	230.0	POCKET 2	69.0	2	223.5	99.8	223.2	99.7	-0.3	-0.1
BLACK	230.0	JBBLACK1	13.8	1	82.4	98.5	82.1	97.7	-0.3	-0.8
BLACK	230.0	JBBLACK2	13.8	1	82.4	98.5	82.1	97.7	-0.3	-0.8
PANOCH	230.0	PNCHE 2M	230.0	2	123.0	101.0	122.5	100.6	-0.5	-0.4
PNCHE 2M	230.0	PANOCH	115.0	2	122.1	100.3	121.5	99.8	-0.6	-0.5
LAKEWD-C	115.0	LKWD_JCT	115.0	1	197.3	103.8	195.6	102.8	-1.7	-1.0
MELONE1	13.8	MELONES	230.0	1	191.6	99.8	188.9	98.4	-2.7	-1.4
COLGATE	230.0	COLGATE2	13.8	1	149.7	99.3	146.7	96.2	-3.0	-3.1

Cosumnes Power Plant Transmission System Impact Study

Table 12

Power Flows Without and With Cosumnes Generation
2005 Heavy Summer, 560 MW New Generation at Elverta

Elverta to Hurley 230 kV Lines 1 and 2 Out

					Cosumnes Generation					
From		To			0 MW		1000 MW		Increase	
Name	kV	Name	kV	ID	MVA	% Rate	MVA	% Rate	MVA	% Rate
WARNERVL	230.0	WRNRVLLE	115.0	1	131.6	87.7	149.1	99.4	17.5	11.7
WARNERVL	230.0	WRNRVLLE	115.0	3	65.8	87.7	74.6	99.4	8.8	11.7
WARNERVL	230.0	WRNRVLLE	115.0	2	65.8	97.7	74.6	99.4	8.8	1.7
BRIGHTON	230.0	BRGHTN M	230.0	1	136.7	94.9	144.0	100.0	7.3	5.1
ELVRTAX1	230.0	ELVERTA1	69.0	1	125.5	113.3	126.1	113.9	0.6	0.6
ELVRTAX2	230.0	ELVERTA2	69.0	1	116.3	104.8	116.4	104.9	0.1	0.1
TOSCO	12.5	FOSTER W	12.5	1	117.1	99.8	117.1	99.9	0.0	0.1
BLLTA 1M	230.0	BELLTA T	13.8	1	38.0	100.0	38.0	100.0	0.0	0.0
DRUM	115.0	DRUM 5	13.8	1	46.5	99.6	46.5	99.6	0.0	0.0
FOLSOM	230.0	FOLSOM2	13.8	1	62.3	98.3	62.3	98.3	0.0	0.0
HNTRSPTD	12.0	HNTRS P1	12.0	1	53.8	99.8	53.8	99.8	0.0	0.0
HYATT	230.0	HYATT 1	12.5	1	123.0	99.3	123.0	99.3	0.0	0.0
HYATT	230.0	HYATT 2	12.5	1	122.9	99.2	122.9	99.2	0.0	0.0
HYATT	230.0	HYATT 3	12.5	1	123.0	99.3	123.0	99.3	0.0	0.0
HYATT	230.0	HYATT 4	12.5	1	122.9	99.2	122.9	99.2	0.0	0.0
HYATT	230.0	HYATT 5	12.5	1	123.0	99.3	123.0	99.3	0.0	0.0
HYATT	230.0	HYATT 6	12.5	1	122.9	99.2	122.9	99.2	0.0	0.0
POTRERO	115.0	POTRERO1	12.0	1	67.5	99.3	67.5	99.3	0.0	0.0
PRDE JCT	60.0	PRDE 1-3	7.2	1	18.4	98.3	18.4	98.3	0.0	0.0
STD. OIL	115.0	ChevGen1	13.8	1	59.6	99.6	59.6	99.6	0.0	0.0
STD. OIL	115.0	ChevGen2	13.8	1	59.6	99.6	59.6	99.6	0.0	0.0
OREGON	115.0	OREGON1	12.5	1	22.4	106.7	22.4	106.6	0.0	-0.1
CH.STN	115.0	CH.STN.	13.8	1	23.9	98.4	23.8	98.0	-0.1	-0.4
DONNELLS	115.0	DONNELLS	13.8	1	65.7	98.3	65.5	98.0	-0.2	-0.3
FMC	115.0	FMC CT	12.0	1	50.6	98.5	50.4	97.8	-0.2	-0.7
ULTPWRJ	115.0	ULTR.PWR	9.1	1	20.2	99.6	19.2	94.3	-1.0	-5.3
MELONE1	13.8	MELONES	230.0	1	188.9	98.4	187.6	97.7	-1.3	-0.7
LAKEWD-C	115.0	LKWD_JCT	115.0	1	198.0	104.0	196.4	103.1	-1.6	-0.9
PANOCH	230.0	PNCHE 2M	230.0	2	125.3	102.8	122.5	100.6	-2.8	-2.2
PNCHE 2M	230.0	PANOCH	115.0	2	124.3	102.0	121.4	99.7	-2.9	-2.3

Cosumnes Power Plant Transmission System Impact Study

Table 13

Power Flows Without and With Cosumnes Generation
2005 Heavy Summer, No New Generation at Elverta

O'Banion to Elverta 230 kV Lines 1 and 2 Out

					Cosumnes Generation					
From		To			0 MW		1000 MW		Increase	
Name	kV	Name	kV	ID	MVA	% Rate	MVA	% Rate	MVA	% Rate
BRIGHTON	230.0	BRGHTN M	230.0	1	136.0	94.4	142.9	99.2	6.9	4.8
HYATT	230.0	HYATT 2	12.5	1	122.8	99.2	122.9	99.2	0.1	0.0
HYATT	230.0	HYATT 4	12.5	1	122.8	99.2	122.9	99.2	0.1	0.0
HYATT	230.0	HYATT 6	12.5	1	122.8	99.2	122.9	99.2	0.1	0.0
BLLTA 1M	230.0	BELLTA T	13.8	1	37.9	100.0	38.0	100.0	0.1	0.0
FOLSOM	230.0	FOLSOM2	13.8	1	62.1	98.3	62.2	98.3	0.1	0.0
STD. OIL	115.0	ChevGen2	13.8	1	59.5	99.6	59.6	99.6	0.1	0.0
HYATT	230.0	HYATT 3	12.5	1	122.9	99.3	123.0	99.3	0.1	0.0
HYATT	230.0	HYATT 5	12.5	1	122.9	99.3	123.0	99.3	0.1	0.0
TOSCO	12.5	FOSTER W	12.5	1	117.1	99.8	117.1	99.9	0.0	0.1
CH.STN	115.0	CH.STN.	13.8	1	23.9	98.4	23.9	98.4	0.0	0.0
DRUM	115.0	DRUM 5	13.8	1	46.4	99.6	46.4	99.6	0.0	0.0
HYATT	230.0	HYATT 1	12.5	1	122.9	99.3	122.9	99.3	0.0	0.0
STD. OIL	115.0	ChevGen1	13.8	1	59.5	99.6	59.5	99.6	0.0	0.0
WADH MJCT	60.0	WESCOT2	60.0	1	35.7	101.6	35.7	101.3	0.0	-0.3
PRDE JCT	60.0	PRDE 1-3	7.2	1	18.4	98.3	18.3	97.5	-0.1	-0.8
FMC	115.0	FMC CT	12.0	1	50.6	98.5	50.5	98.0	-0.1	-0.5
POCKET	230.0	POCKET 2	69.0	2	223.7	99.9	223.3	99.7	-0.4	-0.2
BLACK	230.0	JBBLACK1	13.8	1	82.6	98.9	82.2	98.0	-0.4	-0.9
BLACK	230.0	JBBLACK2	13.8	1	82.6	98.9	82.2	98.0	-0.4	-0.9
FRBSTNTP	115.0	FORBSTWN	11.5	1	31.0	100.7	30.6	98.9	-0.4	-1.8
PANOCH	230.0	PNCHE 2M	230.0	2	123.6	101.5	122.9	100.9	-0.7	-0.6
PNCHE 2M	230.0	PANOCH	115.0	2	122.7	100.8	121.9	100.1	-0.8	-0.7
ULTPWRJ	115.0	ULTR.PWR	9.1	1	20.2	99.6	18.5	90.5	-1.7	-9.1
LAKEWD-C	115.0	LKWD_JCT	115.0	1	197.3	103.9	195.5	102.8	-1.8	-1.1
COLGATE	230.0	COLGATE2	13.8	1	151.0	100.4	147.9	97.5	-3.1	-2.9
MELONE1	13.8	MELONES	230.0	1	191.6	99.8	187.8	97.8	-3.8	-2.0
SUTTER	230.0	ELVERTAW	230.0	1	749.6	103.2	675.6	92.0	-74.0	-11.2

Cosumnes Power Plant Transmission System Impact Study

Table 14

Power Flows Without and With Cosumnes Generation
2005 Heavy Summer, 560 MW New Generation at Elverta

O'Banion to Elverta 230 kV Lines 1 and 2 Out

				Cosumnes Generation							
From		To			0 MW		1000 MW		Increase		
Name	kV	Name	kV	ID	MVA	% Rate	MVA	% Rate	MVA	% Rate	
WARNERVL	230.0	WRNRVLE	115.0	1	129.2	86.1	147.8	98.5	18.6	12.4	
WARNERVL	230.0	WRNRVLE	115.0	2	64.6	86.1	73.9	98.5	9.3	12.4	
WARNERVL	230.0	WRNRVLE	115.0	3	64.6	86.1	73.9	98.5	9.3	12.4	
BRIGHTON	230.0	BRGHTN M	230.0	1	136.0	94.5	143.5	99.7	7.5	5.2	
ELVRTAX1	230.0	ELVERTA1	69.0	1	125.2	113.0	126.0	113.8	0.8	0.8	
ELVRTAX2	230.0	ELVERTA2	69.0	1	116.1	104.6	116.2	104.7	0.1	0.1	
HYATT	230.0	HYATT 1	12.5	1	122.9	99.3	123.0	99.3	0.1	0.0	
BLLTA 1M	230.0	BELLTA T	13.8	1	38.0	100.0	38.0	100.0	0.0	0.0	
DRUM	115.0	DRUM 5	13.8	1	46.5	99.6	46.5	99.6	0.0	0.0	
FOLSOM	230.0	FOLSOM2	13.8	1	62.3	98.3	62.3	98.3	0.0	0.0	
HYATT	230.0	HYATT 2	12.5	1	122.9	99.2	122.9	99.2	0.0	0.0	
HYATT	230.0	HYATT 3	12.5	1	123.0	99.3	123.0	99.3	0.0	0.0	
HYATT	230.0	HYATT 4	12.5	1	122.9	99.2	122.9	99.2	0.0	0.0	
HYATT	230.0	HYATT 5	12.5	1	123.0	99.3	123.0	99.3	0.0	0.0	
HYATT	230.0	HYATT 6	12.5	1	122.9	99.2	122.9	99.2	0.0	0.0	
POTRERO	115.0	POTRERO1	12.0	1	67.5	99.3	67.5	99.3	0.0	0.0	
PRDE JCT	60.0	PRDE 1-3	7.2	1	18.4	98.3	18.4	98.3	0.0	0.0	
STD. OIL	115.0	ChevGen1	13.8	1	59.6	99.6	59.6	99.6	0.0	0.0	
STD. OIL	115.0	ChevGen2	13.8	1	59.6	99.6	59.6	99.6	0.0	0.0	
TOSCO	12.5	FOSTER W	12.5	1	117.1	99.9	117.1	99.9	0.0	0.0	
CH.STN	115.0	CH.STN.	13.8	1	23.9	98.4	23.9	98.3	0.0	-0.1	
OREGON	115.0	OREGON1	12.5	1	22.4	106.7	22.4	106.6	0.0	-0.1	
HNTRSPTD	12.0	HNTRS P1	12.0	1	53.9	99.9	53.8	99.8	-0.1	-0.1	
FMC	115.0	FMC CT	12.0	1	50.6	98.5	50.5	98.0	-0.1	-0.5	
DONNELLS	115.0	DONNELLS	13.8	1	65.7	98.4	65.5	98.0	-0.2	-0.4	
ULTPWRJ	115.0	ULTR.PWR	9.1	1	20.2	99.6	19.3	94.8	-0.9	-4.8	
LAKEWD-C	115.0	LKWD_JCT	115.0	1	198.0	104.0	196.4	103.1	-1.6	-0.9	
MELONE1	13.8	MELONES	230.0	1	189.4	98.7	187.7	97.8	-1.7	-0.9	
PANOCH	230.0	PNCHE 2M	230.0	2	125.6	103.1	122.8	100.8	-2.8	-2.3	
PNCHE 2M	230.0	PANOCH	115.0	2	124.6	102.3	121.8	100.0	-2.8	-2.3	

Cosumnes Power Plant Transmission System Impact Study

Table 15

Power Flows Without and With Cosumnes Generation
2004 Spring, No New Generation at Elverta

No New Generation at Elverta					Rancho Seco Generation					
From		To		ID	0 MW		1000 MW		Increase	
Name	kV	Name	kV		MVA	% Rate	MVA	% Rate	MVA	% Rate
RVRBKJCT	115.0	MANTECA	115.0	1	53.6	76.4	70.4	100.1	16.8	23.7
WLLW SLJ	60.0	KNGHTSLJ	60.0	1	15.2	94.2	15.9	98.5	0.7	4.3
KRN OL M	70.0	KERN OIL	11.0	1	5.5	109.0	5.8	115.2	0.3	6.2
TAFT M	115.0	TAFT	12.5	1	10.6	150.9	10.6	150.9	0.0	0.0
SPICER	21.0	NEWSPICE	4.2	1	5.0	99.6	5.0	99.6	0.0	0.0
MID CTY3	22.0	UCDMC	22.0	1	23.1	99.0	23.1	99.9	0.0	0.9
MNDTA TP	115.0	MENDOTA	70.0	1	18.9	151.5	18.7	149.7	-0.2	-1.8
TWISLMN	70.0	TX-LOSTH	9.1	1	10.9	99.5	10.4	94.8	-0.5	-4.7
WITCO	115.0	GOLD.BER	9.1	1	19.1	121.5	18.5	117.9	-0.6	-3.6

Table 16

Power Flows Without and With Cosumnes Generation
2004 Spring, 560 MW New Generation at Elverta

560 MW New Generation at Elverta					Rancho Seco Generation					
From		To		ID	0 MW		1000 MW		Increase	
Name	kV	Name	kV		MVA	% Rate	MVA	% Rate	MVA	% Rate
RVRBKJCT	115.0	MANTECA	115.0	1	58.2	82.9	75.1	106.9	16.9	24.0
WESTLEY	230.0	TRCY PMP	230.0	1	348.0	97.4	361.5	101.9	13.5	4.5
KRN OL M	70.0	KERN OIL	11.0	1	5.6	111.6	6.0	119.4	0.4	7.8
WLLW SLJ	60.0	KNGHTSLJ	60.0	1	15.3	95.0	16.1	100.0	0.8	5.0
TAFT M	115.0	TAFT	12.5	1	10.6	150.9	10.6	150.9	0.0	0.0
SPICER	21.0	NEWSPICE	4.2	1	5.0	99.6	5.0	99.6	0.0	0.0
MID CTY3	22.0	UCDMC	22.0	1	23.1	99.6	23.1	100.4	0.0	0.8
MNDTA TP	115.0	MENDOTA	70.0	1	18.8	150.7	18.7	149.4	-0.1	-1.3
WITCO	115.0	GOLD.BER	9.1	1	18.8	120.0	18.3	116.6	-0.5	-3.4

Cosumnes Power Plant Transmission System Impact Study

Table 17

Power Flows Without and With Cosumnes Generation
2004 Spring, No New Generation at Elverta

Rancho Seco to Bellota 230 kV Lines 1 and 2 Out

					Rancho Seco Generation					
					0 MW		1000 MW			
From		To		ID	MVA	% Rate	MVA	% Rate	MVA	% Rate
HURLEY S	230.0	PROCTER	230.0	1	65.4	15.2	590.1	139.7	524.7	124.5
HEDGE	230.0	PROCTER	230.0	1	95.7	22.2	445.6	104.8	349.9	82.6
HURLEY W	230.0	TRCY PMP	230.0	2	128.2	39.7	365.4	115.6	237.2	75.9
HURLEY W	230.0	TRCY PMP	230.0	1	125.5	38.9	357.0	113.0	231.5	74.1
WESTLEY	230.0	TRCY PMP	230.0	1	334.7	93.3	408.9	115.4	74.2	22.1
KRN OL M	70.0	KERN OIL	11.0	1	5.4	108.9	5.7	114.8	0.3	5.9
MNDTA TP	115.0	MENDOTA	70.0	1	19.0	151.7	19.0	151.7	0.0	0.0
TAFT M	115.0	TAFT	12.5	1	10.6	150.9	10.6	150.9	0.0	0.0
SPICER	21.0	NEWSPICE	4.2	1	5.0	99.6	5.0	99.6	0.0	0.0
TWISLMN	70.0	TX-LOSTH	9.1	1	10.9	99.5	10.5	95.0	-0.4	-4.5
MID CTY3	22.0	UCDMC	22.0	1	23.1	99.2	22.7	99.0	-0.4	-0.2
WITCO	115.0	GOLD.BER	9.1	1	19.1	121.5	18.6	118.4	-0.5	-3.1

Table 18

Power Flows Without and With Cosumnes Generation
2004 Spring, 560 MW New Generation at Elverta

Rancho Seco to Bellota 230 kV Lines 1 and 2 Out

					Rancho Seco Generation					
					0 MW		1000 MW			
From		To		ID	MVA	% Rate	MVA	% Rate	MVA	% Rate
HURLEY S	230.0	PROCTER	230.0	1	67.5	15.8	577.5	138.4	510.0	122.6
HEDGE	230.0	PROCTER	230.0	1	108.6	25.3	432.4	102.4	323.8	77.1
HURLEY W	230.0	TRCY PMP	230.0	1	256.0	79.9	497.3	159.3	241.3	79.4
HURLEY W	230.0	TRCY PMP	230.0	2	262.0	81.7	485.7	155.5	223.7	73.8
COTWDPGE	230.0	COTWDWAP	230.0	1	395.6	77.7	513.3	101.5	117.7	23.8
WESTLEY	230.0	TRCY PMP	230.0	1	378.7	106.4	448.2	127.8	69.5	21.4
KRN OL M	70.0	KERN OIL	11.0	1	5.6	111.1	5.9	118.0	0.3	6.9
MNDTA TP	115.0	MENDOTA	70.0	1	18.9	151.4	18.9	151.4	0.0	0.0
TAFT M	115.0	TAFT	12.5	1	10.6	150.9	10.6	150.9	0.0	0.0
SPICER	21.0	NEWSPICE	4.2	1	5.0	99.6	5.0	99.6	0.0	0.0
WITCO	115.0	GOLD.BER	9.1	1	18.9	120.5	18.6	118.3	-0.3	-2.2
MID CTY3	22.0	UCDMC	22.0	1	23.1	99.9	22.2	96.5	-0.9	-3.4

Cosumnes Power Plant Transmission System Impact Study

Base Case Title:

rs05hs00, 2005 Heavy Summer Cosumnes Generation Study Case
No Cosumnes Generation Plant, No FPLE Generation Plant
 From Western FPLE Study Case 05hs-no-fple

Transfer Schedule Case Title:

rs05hs00, 2005 Heavy Summer Cosumnes Generation Study Case
 No Cosumnes Generation Plant, No FPLE Generation Plant
 From Western FPLE Study Case 05hs-no-fple
 100 MW INCREMENTAL SCHEDULE INTO SMUD/ROSEVILLE LOAD AREA

No non-rated lines were identified.

1 overloaded lines were detected:

From Bus	To Bus	ID	Sens.	Percent Overload
BRGHTN M 230	BRIGHTN	115	1 -0.0050	11.7% Overload

8 forward schedule normal limits were detected:

From Bus	To Bus	ID	Sens.	Schedule MW Limit
HURLEY W 230	TRCY PMP 230	2	-0.1680	523
HURLEY W 230	TRCY PMP 230	1	-0.1680	549
CARMICAL 230	HURLEY S 230	1	-0.1010	916
BELLOTA 230	RNCHSECO 230	1	0.2140	959
BELLOTA 230	RNCHSECO 230	2	0.2140	959
GOLDHILL 230	LAKE 230	1	0.1120	1236
HURLEY 115	HURLEY S 230	1	-0.0400	1403
COTWDWAP 230	ROSEVILL 230	1	0.0580	1908

20 forward schedule outage limits were found:

Limiting Element					Outage					Schedule	
From Bus	To Bus	ID			From Bus	To Bus	ID	Sens.	MW Limit		
ELVERTAW 230	OBANION 230	1			ELVERTAW 230	OBANION 230	2	-0.0575	-5.8%	Overload	
ELVERTAW 230	OBANION 230	2			ELVERTAW 230	OBANION 230	1	-0.0575	-5.8%	Overload	
ATLANTC 230	RIO OSO 230	1			GOLDHILL 230	RIO OSO 230	1	-0.0221	-5.1%	Overload	
HURLEY 115	HURLEY S 230	1			HEDGE 230	PROCTER 230	1	-0.0391	110		
HURLEY 115	HURLEY S 230	1			ELVERTAS 115	NORTHCTY 115	1	-0.0413	559		
HURLEY 115	HURLEY S 230	1			EAST CTY 115	HEDGE 115	1	-0.0491	750		
HURLEY 115	HURLEY S 230	1			HURLEY S 230	PROCTER 230	1	-0.0391	828		
HURLEY 115	HURLEY S 230	1			HEDGE 115	HEDGE 230	6	-0.0460	923		
HURLEY W 230	TRCY PMP 230	2			HURLEY W 230	TRCY PMP 230	1	-0.2121	129		
HURLEY W 230	TRCY PMP 230	2			COTWDWAP 230	ROSEVILL 230	1	-0.1778	293		
HURLEY W 230	TRCY PMP 230	2			BELLOTA 230	RNCHSECO 230	1	-0.1896	312		
HURLEY W 230	TRCY PMP 230	2			BELLOTA 230	RNCHSECO 230	2	-0.1896	312		
HURLEY W 230	TRCY PMP 230	2			GOLDHILL 230	LAKE 230	1	-0.1871	331		

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HURLEY W	230	TRCY PMP	230	1	HURLEY W	230	TRCY PMP	230	2	-0.2124	142
HURLEY W	230	TRCY PMP	230	1	COTWDWAP	230	ROSEVILL	230	1	-0.1776	322
HURLEY W	230	TRCY PMP	230	1	BELLOTA	230	RNCHSECO	230	1	-0.1893	338
HURLEY W	230	TRCY PMP	230	1	BELLOTA	230	RNCHSECO	230	2	-0.1893	338
HURLEY W	230	TRCY PMP	230	1	GOLDHILL	230	LAKE	230	1	-0.1868	358
GOLDHILL	230	RIO OSO	230	1	ATLANTC	230	RIO OSO	230	1	-0.0221	202
BELLOTA	230	RNCHSECO	230	1	BELLOTA	230	RNCHSECO	230	2	0.3492	346
BELLOTA	230	RNCHSECO	230	2	BELLOTA	230	RNCHSECO	230	1	0.3492	346
CARMICAL	230	HURLEY S	230	1	ELVERTAS	230	FOOTHILL	230	1	-0.1258	420
CARMICAL	230	HURLEY S	230	1	HEDGE	230	PROCTER	230	1	-0.0993	421
CARMICAL	230	HURLEY S	230	1	ELVERTAS	230	ORANGEVL	230	1	-0.1135	560
CARMICAL	230	HURLEY S	230	1	GOLDHILL	230	LAKE	230	1	-0.1407	609
CARMICAL	230	HURLEY S	230	1	ORANGEVL	230	WHITEROK	230	1	-0.1043	723
EAST CTY	115	HEDGE	115	1	HURLEY	115	HURLEY S	230	1	-0.0505	1069
EAST CTY	115	HEDGE	115	1	SOUTHCTY	115	STA. B	115	1	-0.0501	1665
HEDGE	115	SOUTHCTY	115	1	HEDGE	115	SOUTHCTY	115	2	0.0334	1147
HEDGE	115	SOUTHCTY	115	1	EAST CTY	115	HEDGE	115	1	0.0317	1438
HEDGE	115	SOUTHCTY	115	1	HURLEY	115	HURLEY S	230	1	0.0264	1862
HEDGE	115	SOUTHCTY	115	2	HEDGE	115	SOUTHCTY	115	1	0.0334	1147
HEDGE	115	SOUTHCTY	115	2	EAST CTY	115	HEDGE	115	1	0.0317	1438
HEDGE	115	SOUTHCTY	115	2	HURLEY	115	HURLEY S	230	1	0.0264	1862
GOLDHILL	230	LAKE	230	1	HURLEY W	230	TRCY PMP	230	2	0.1319	1185
GOLDHILL	230	LAKE	230	1	HURLEY W	230	TRCY PMP	230	1	0.1316	1196
GOLDHILL	230	LAKE	230	1	BELLOTA	230	RNCHSECO	230	1	0.1310	1214
GOLDHILL	230	LAKE	230	1	BELLOTA	230	RNCHSECO	230	2	0.1310	1214
COTWDWAP	230	ROSEVILL	230	1	HURLEY W	230	TRCY PMP	230	2	0.0704	1325
COTWDWAP	230	ROSEVILL	230	1	HURLEY W	230	TRCY PMP	230	1	0.0703	1334
COTWDWAP	230	ROSEVILL	230	1	BELLOTA	230	RNCHSECO	230	1	0.0653	1546
COTWDWAP	230	ROSEVILL	230	1	BELLOTA	230	RNCHSECO	230	2	0.0653	1546
COTWDWAP	230	ROSEVILL	230	1	GOLDHILL	230	LAKE	230	1	0.0651	1553
HEDGE	115	HEDGE	230	4	HEDGE	115	HEDGE	230	6	-0.0393	1599
HEDGE	115	HEDGE	230	4	HURLEY	115	HURLEY S	230	1	-0.0337	1930
HEDGE	115	HEDGE	230	2	HEDGE	115	HEDGE	230	6	-0.0306	1661
BELLOTA	230	COTTLE B	230	1	TESLA E	230	WEBER	230	1	-0.1162	1796
BELLOTA	230	COTTLE B	230	1	BELLOTA	230	TESLA E	230	1	-0.1157	1889
BELLOTA	230	COTTLE B	230	1	BELLOTA	230	COTTLE A	230	1	-0.1161	1927
BELLOTA	230	COTTLE B	230	1	CARMICAL	230	ORANGEVL	230	1	-0.1240	1946
HEDGE	115	HEDGE	230	6	HURLEY	115	HURLEY S	230	1	-0.0456	1822
ELVERTAS	230	FOOTHILL	230	1	CARMICAL	230	HURLEY S	230	1	0.0717	1843

Cosumnes Power Plant Transmission System Impact Study

Base Case Title:

rs05hs10, 2005 Heavy Summer Cosumnes Generation Study Case
Cosumnes Generation = 1000 MW, No FPLE Generation Plant
 From Western FPLE Study Case 05hs-no-fple

Transfer Schedule Case Title:

rs05hs10, 2005 Heavy Summer Cosumnes Generation Study Case
 Cosumnes Generation = 1000 MW, No FPLE Generation Plant
 From Western FPLE Study Case 05hs-no-fple
 100 MW INCREMENTAL SCHEDULE INTO SMUD/ROSEVILLE LOAD AREA

No non-rated lines were identified.

1 overloaded lines were detected:

From Bus	To Bus	ID	Sens.	Percent Overload
BRGHTN M 230	BRIGHTN	115	1 -0.0060	17.8% Overload

8 forward schedule normal limits were detected:

From Bus	To Bus	ID	Sens.	Schedule MW Limit
CARMICAL 230	HURLEY S 230	1	-0.1020	1188
HURLEY W 230	TRCY PMP 230	2	-0.1650	1275
HURLEY W 230	TRCY PMP 230	1	-0.1620	1310
EAST CTY 115	HEDGE 115	1	-0.0350	1417
ELKGROVE 230	RNCHSECO 230	1	-0.1410	1735
HEDGE 115	SOUTHCTY 115	1	0.0210	1903
HEDGE 115	SOUTHCTY 115	2	0.0210	1903
GOLDHILL 230	LAKE 230	1	0.1100	1952

20 forward schedule outage limits were found:

Limiting Element					Outage					Schedule	
From Bus	To Bus	ID			From Bus	To Bus	ID	Sens.	MW Limit		
ATLANTC 230	RIO OSO 230	1			GOLDHILL 230	RIO OSO 230	1	-0.0237		-3.4% Overload	
ELVERTAW 230	OBANION 230	1			ELVERTAW 230	OBANION 230	2	-0.0589	394		
ELVERTAW 230	OBANION 230	2			ELVERTAW 230	OBANION 230	1	-0.0589	394		
GOLDHILL 230	RIO OSO 230	1			ATLANTC 230	RIO OSO 230	1	-0.0237	443		
HEDGE 115	SOUTHCTY 115	1			HEDGE 115	SOUTHCTY 115	2	0.0335	552		
HEDGE 115	SOUTHCTY 115	1			EAST CTY 115	HEDGE 115	1	0.0312	796		
HEDGE 115	SOUTHCTY 115	1			HURLEY 115	HURLEY S 230	1	0.0266	1538		
HEDGE 115	SOUTHCTY 115	2			HEDGE 115	SOUTHCTY 115	1	0.0335	552		
HEDGE 115	SOUTHCTY 115	2			EAST CTY 115	HEDGE 115	1	0.0312	796		
HEDGE 115	SOUTHCTY 115	2			HURLEY 115	HURLEY S 230	1	0.0266	1538		

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CARMICAL	230	HURLEY S	230	1	ELVERTAS	230	FOOTHILL	230	1	-0.1269	701
CARMICAL	230	HURLEY S	230	1	ELVERTAS	230	ORANGEVL	230	1	-0.1152	907
CARMICAL	230	HURLEY S	230	1	ORANGEVL	230	WHITEROK	230	1	-0.1053	915
CARMICAL	230	HURLEY S	230	1	GOLDHILL	230	LAKE	230	1	-0.1411	996
EAST CTY	115	HEDGE	115	1	HURLEY	115	HURLEY S	230	1	-0.0487	729
EAST CTY	115	HEDGE	115	1	SOUTHCTY	115	STA. B	115	1	-0.0475	838
HURLEY W	230	TRCY PMP	230	2	HURLEY W	230	TRCY PMP	230	1	-0.2076	869
HURLEY W	230	TRCY PMP	230	2	COTWDWAP	230	ROSEVILL	230	1	-0.1751	1040
HURLEY W	230	TRCY PMP	230	2	GOLDHILL	230	LAKE	230	1	-0.1834	1075
HURLEY W	230	TRCY PMP	230	2	ELKGROVE	230	RNCHSECO	230	1	-0.1713	1133
HURLEY W	230	TRCY PMP	230	2	BELLOTA	230	RNCHSECO	230	1	-0.1845	1143
HURLEY W	230	TRCY PMP	230	1	HURLEY W	230	TRCY PMP	230	2	-0.2051	888
HURLEY W	230	TRCY PMP	230	1	COTWDWAP	230	ROSEVILL	230	1	-0.1718	1076
HURLEY W	230	TRCY PMP	230	1	GOLDHILL	230	LAKE	230	1	-0.1798	1109
HURLEY W	230	TRCY PMP	230	1	ELKGROVE	230	RNCHSECO	230	1	-0.1682	1167
HURLEY W	230	TRCY PMP	230	1	BELLOTA	230	RNCHSECO	230	1	-0.1815	1172
HEDGE	115	HEDGE	230	4	HEDGE	115	HEDGE	230	6	-0.0379	933
HEDGE	115	HEDGE	230	4	HURLEY	115	HURLEY S	230	1	-0.0329	1589
HEDGE	115	HEDGE	230	4	HEDGE	115	HEDGE	230	2	-0.0312	1799
HEDGE	115	HEDGE	230	2	HEDGE	115	HEDGE	230	6	-0.0303	958
HEDGE	115	HEDGE	230	2	HEDGE	115	HEDGE	230	4	-0.0266	1518
HEDGE	115	HEDGE	230	2	HURLEY	115	HURLEY S	230	1	-0.0263	1613
HURLEY	115	HURLEY S	230	1	EAST CTY	115	HEDGE	115	1	-0.0496	1141
HURLEY	115	HURLEY S	230	1	HEDGE	115	HEDGE	230	6	-0.0469	1397
HURLEY	115	HURLEY S	230	1	ELVERTAS	115	NORTHCTY	115	1	-0.0428	1485
HURLEY	115	HURLEY S	230	1	SOUTHCTY	115	STA. B	115	1	-0.0454	1572
HURLEY	115	HURLEY S	230	1	HEDGE	115	HEDGE	230	4	-0.0448	1611
ELKGROVE	230	RNCHSECO	230	1	HEDGE	230	RNCHSECO	230	1	-0.1846	1300
HEDGE	115	HEDGE	230	6	HEDGE	115	HEDGE	230	4	-0.0454	1365
HEDGE	115	HEDGE	230	6	HURLEY	115	HURLEY S	230	1	-0.0449	1460
HEDGE	115	HEDGE	230	6	HEDGE	115	HEDGE	230	2	-0.0426	1663
SOUTHCTY	115	STA. B	115	1	EAST CTY	115	HEDGE	115	1	0.0411	1509
BELLOTA	230	RNCHSECO	230	1	BELLOTA	230	RNCHSECO	230	2	0.3478	1726
BELLOTA	230	RNCHSECO	230	2	BELLOTA	230	RNCHSECO	230	1	0.3478	1726
HEDGE	230	RNCHSECO	230	1	ELKGROVE	230	RNCHSECO	230	1	-0.1662	1834
GOLDHILL	230	LAKE	230	1	HURLEY W	230	TRCY PMP	230	2	0.1297	1908
GOLDHILL	230	LAKE	230	1	HURLEY W	230	TRCY PMP	230	1	0.1291	1920

Cosumnes Power Plant Transmission System Impact Study

Base Case Title:

rs05hs01, 2005 Heavy Summer Cosumnes Generation Study Case
No Cosumnes Generation Plant, FPLE Generation = 560 MW
 From Western FPLE Study Case 05s-pgepeak_fplesrev1

Transfer Schedule Case Title:

rs05hs01, 2005 Heavy Summer Cosumnes Generation Study Case
 No Cosumnes Generation Plant, FPLE Generation = 560 MW
 From Western FPLE Study Case 05s-pgepeak_fplesrev1
 100 MW INCREMENTAL SCHEDULE INTO SMUD/ROSEVILLE LOAD AREA

No non-rated lines were identified.

2 overloaded lines were detected:

From Bus	To Bus	ID	Sens.	Percent Overload
BRGHTN M 230	BRIGHTN 115	1	-0.0060	7.0% Overload
HEDGE 230	PROCTER 230	1	-0.0010	-28.8% Overload

7 forward schedule normal limits were detected:

From Bus	To Bus	ID	Sens.	Schedule MW Limit
CARMICAL 230	HURLEY S 230	1	-0.1020	976
HURLEY W 230	TRCY PMP 230	2	-0.1640	1193
HURLEY W 230	TRCY PMP 230	1	-0.1610	1231
HURLEY 115	HURLEY S 230	1	-0.0410	1232
BELLOTA 230	RNCHSECO 230	1	0.2070	1486
BELLOTA 230	RNCHSECO 230	2	0.2070	1486
GOLDHILL 230	LAKE 230	1	0.1110	1661

20 forward schedule outage limits were found:

Limiting Element				Outage				Schedule	
From Bus	To Bus	ID		From Bus	To Bus	ID	Sens.	MW Limit	
HURLEY 115	HURLEY S 230	1		HEDGE 230	PROCTER 230	1	-0.0412	-10.3%	Overload
HURLEY 115	HURLEY S 230	1		ELVERTAS 115	NORTHCTY 115	1	-0.0432	74	
HURLEY 115	HURLEY S 230	1		HURLEY S 230	PROCTER 230	1	-0.0412	172	
HURLEY 115	HURLEY S 230	1		EAST CTY 115	HEDGE 115	1	-0.0499	720	
HURLEY 115	HURLEY S 230	1		HEDGE 115	HEDGE 230	6	-0.0469	846	
ELVERTAW 230	HURLEY W 230	2		ELVERTAS 230	HURLEY S 230	3	-0.0270	4.6%	Overload
ELVERTAW 230	HURLEY W 230	2		ELVERTAW 230	HURLEY W 230	1	-0.0283	4.3%	Overload
ELVERTAW 230	HURLEY W 230	1		ELVERTAW 230	HURLEY W 230	2	-0.0275	1.9%	Overload
ELVERTAW 230	HURLEY W 230	1		ELVERTAS 230	HURLEY S 230	3	-0.0258	1.0%	Overload
CARMICAL 230	HURLEY S 230	1		HEDGE 230	PROCTER 230	1	-0.1023	134	
CARMICAL 230	HURLEY S 230	1		ELVERTAS 230	FOOTHILL 230	1	-0.1273	334	
CARMICAL 230	HURLEY S 230	1		ELVERTAS 230	ORANGEVL 230	1	-0.1151	353	
CARMICAL 230	HURLEY S 230	1		HURLEY S 230	PROCTER 230	1	-0.1023	645	
CARMICAL 230	HURLEY S 230	1		GOLDHILL 230	LAKE 230	1	-0.1415	759	

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ELVERTAW	230	OBANION	230	1	ELVERTAW	230	OBANION	230	2	-0.0604	468
ELVERTAW	230	OBANION	230	2	ELVERTAW	230	OBANION	230	1	-0.0604	468
ATLANTC	230	RIO OSO	230	1	GOLDHILL	230	RIO OSO	230	1	-0.0237	727
HURLEY W	230	TRCY PMP	230	2	HURLEY W	230	TRCY PMP	230	1	-0.2059	788
HURLEY W	230	TRCY PMP	230	2	BELLOTA	230	RNCHSECO	230	1	-0.1845	959
HURLEY W	230	TRCY PMP	230	2	BELLOTA	230	RNCHSECO	230	2	-0.1845	959
HURLEY W	230	TRCY PMP	230	2	COTWDWAP	230	ROSEVILL	230	1	-0.1743	966
HURLEY W	230	TRCY PMP	230	2	GOLDHILL	230	LAKE	230	1	-0.1823	971
HURLEY W	230	TRCY PMP	230	1	HURLEY W	230	TRCY PMP	230	2	-0.2035	808
HURLEY W	230	TRCY PMP	230	1	BELLOTA	230	RNCHSECO	230	1	-0.1811	993
HURLEY W	230	TRCY PMP	230	1	BELLOTA	230	RNCHSECO	230	2	-0.1811	993
HURLEY W	230	TRCY PMP	230	1	COTWDWAP	230	ROSEVILL	230	1	-0.1710	1003
HURLEY W	230	TRCY PMP	230	1	GOLDHILL	230	LAKE	230	1	-0.1789	1006
BELLOTA	230	RNCHSECO	230	1	BELLOTA	230	RNCHSECO	230	2	0.3374	845
BELLOTA	230	RNCHSECO	230	2	BELLOTA	230	RNCHSECO	230	1	0.3374	845
ELVERTAS	230	FOOTHILL	230	1	CARMICAL	230	HURLEY S	230	1	0.0731	1443
EAST CTY	115	HEDGE	115	1	HURLEY	115	HURLEY S	230	1	-0.0498	1504
ELVERTAS	230	ORANGEVL	230	1	CARMICAL	230	HURLEY S	230	1	0.0614	1543
GOLDHILL	230	RIO OSO	230	1	ATLANTC	230	RIO OSO	230	1	-0.0237	1590
HEDGE	115	SOUTHCTY	115	1	HEDGE	115	SOUTHCTY	115	2	0.0334	1646
HEDGE	115	SOUTHCTY	115	1	EAST CTY	115	HEDGE	115	1	0.0314	1994
HEDGE	115	SOUTHCTY	115	2	HEDGE	115	SOUTHCTY	115	1	0.0334	1646
HEDGE	115	SOUTHCTY	115	2	EAST CTY	115	HEDGE	115	1	0.0314	1994
GOLDHILL	230	LAKE	230	1	HURLEY W	230	TRCY PMP	230	2	0.1305	1654
GOLDHILL	230	LAKE	230	1	BELLOTA	230	RNCHSECO	230	1	0.1293	1660
GOLDHILL	230	LAKE	230	1	BELLOTA	230	RNCHSECO	230	2	0.1293	1660
LOCKFORD	230	RIO OSO	230	1	BELLOTA	230	LOCKFORD	230	1	-0.1102	1753
STAGG	230	TESLA E	230	1	BELLOTA	230	LOCKFORD	230	1	-0.1147	1785

Cosumnes Power Plant Transmission System Impact Study

Base Case Title:

rs05hs11, 2005 Heavy Summer Cosumnes Generation Study Case
Cosumnes Generation = 1000 MW, FPLE Generation = 560 MW
 From Western FPLE Study Case 05s-pgepeak_fplesrev1

Transfer Schedule Case Title:

rs05hs11, 2005 Heavy Summer Cosumnes Generation Study Case
 Cosumnes Generation = 1000 MW, FPLE Generation = 560 MW
 From Western FPLE Study Case 05s-pgepeak_fplesrev1
 100 MW INCREMENTAL SCHEDULE INTO SMUD/ROSEVILLE LOAD AREA

No non-rated lines were identified.

1 overloaded lines were detected:

From Bus	To Bus	ID	Sens.	Percent Overload
BRGHTN M 230	BRIGHTN	115	1 -0.0060	13.8% Overload

4 forward schedule normal limits were detected:

From Bus	To Bus	ID	Sens.	Schedule MW Limit
CARMICAL 230	HURLEY S 230	1	-0.1020	1244
HURLEY 115	HURLEY S 230	1	-0.0410	1912
HURLEY W 230	TRCY PMP 230	2	-0.1620	1953
HURLEY W 230	TRCY PMP 230	1	-0.1580	1999

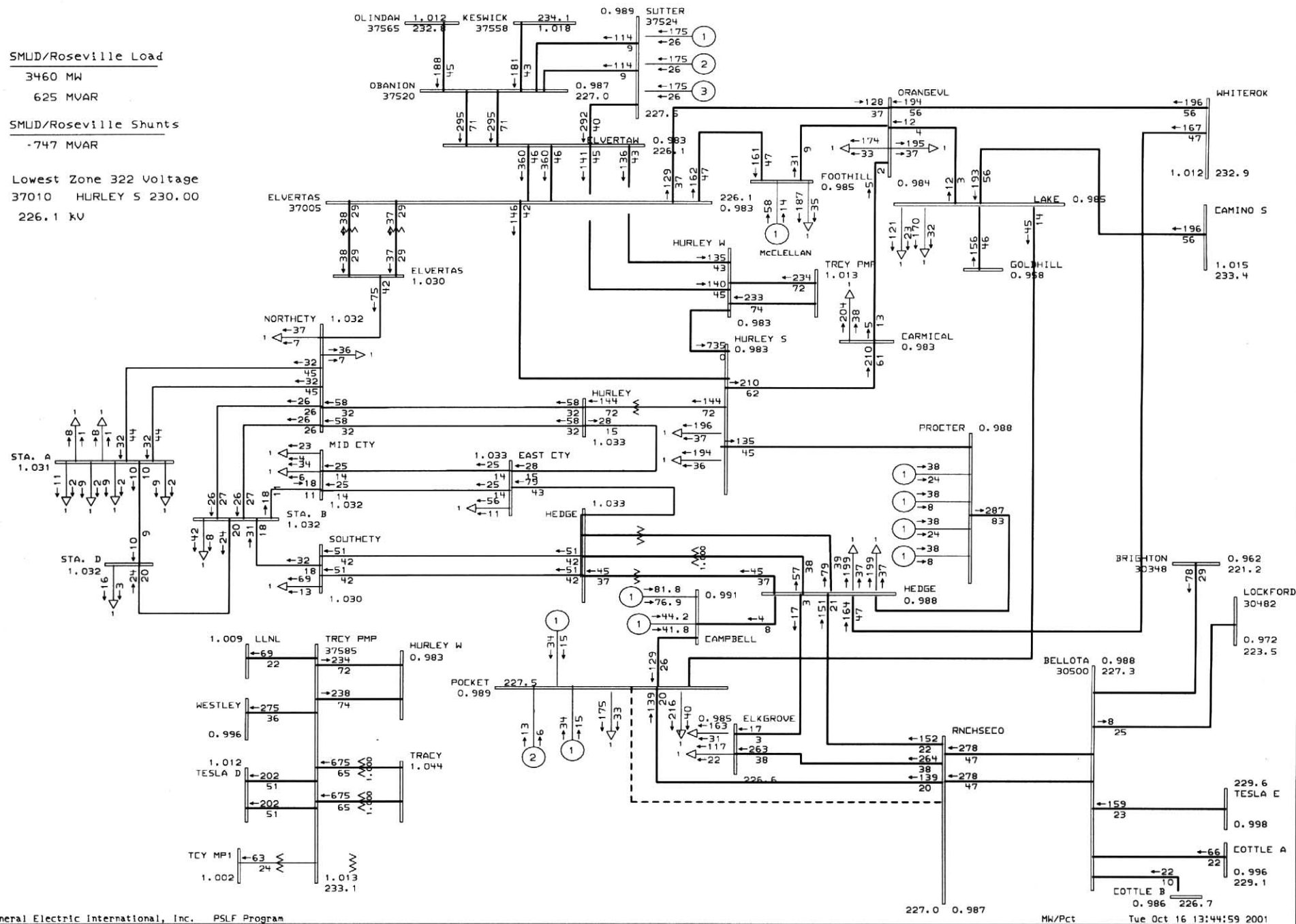
16 forward schedule outage limits were found:

Limiting Element					Outage					Schedule MW Limit
From Bus	To Bus	ID			From Bus	To Bus	ID	Sens.		
CARMICAL 230	HURLEY S 230	1	ELVERTAS 230	FOOTHILL 230	1	-0.1274	606			
CARMICAL 230	HURLEY S 230	1	ELVERTAS 230	ORANGEVL 230	1	-0.1152	698			
CARMICAL 230	HURLEY S 230	1	ORANGEVL 230	WHITEROK 230	1	-0.1053	1028			
CARMICAL 230	HURLEY S 230	1	GOLDHILL 230	LAKE 230	1	-0.1409	1143			
ATLANTC 230	RIO OSO 230	1	GOLDHILL 230	RIO OSO 230	1	-0.0237	885			
HURLEY 115	HURLEY S 230	1	ELVERTAS 115	NORTHCTY 115	1	-0.0436	1020			
HURLEY 115	HURLEY S 230	1	EAST CTY 115	HEDGE 115	1	-0.0496	1132			
HURLEY 115	HURLEY S 230	1	HEDGE 115	HEDGE 230	6	-0.0467	1356			
HURLEY 115	HURLEY S 230	1	CARMICAL 230	HURLEY S 230	1	-0.0460	1516			
HURLEY 115	HURLEY S 230	1	HEDGE 115	HEDGE 230	4	-0.0446	1542			
HEDGE 115	SOUTHCTY 115	1	HEDGE 115	SOUTHCTY 115	2	0.0318	1065			
HEDGE 115	SOUTHCTY 115	1	EAST CTY 115	HEDGE 115	1	0.0301	1346			
HEDGE 115	SOUTHCTY 115	1	HURLEY 115	HURLEY S 230	1	0.0255	1965			
HEDGE 115	SOUTHCTY 115	2	HEDGE 115	SOUTHCTY 115	1	0.0318	1065			
HEDGE 115	SOUTHCTY 115	2	EAST CTY 115	HEDGE 115	1	0.0301	1346			
HEDGE 115	SOUTHCTY 115	2	HURLEY 115	HURLEY S 230	1	0.0255	1965			

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EAST CTY	115	HEDGE	115	1	HURLEY	115	HURLEY S	230	1	-0.0487	1124
EAST CTY	115	HEDGE	115	1	SOUTHCTY	115	STA. B	115	1	-0.0468	1523
ELVERTAW	230	OBANION	230	1	ELVERTAW	230	OBANION	230	2	-0.0604	1234
ELVERTAW	230	OBANION	230	2	ELVERTAW	230	OBANION	230	1	-0.0604	1234
HEDGE	115	HEDGE	230	4	HEDGE	115	HEDGE	230	6	-0.0366	1455
HEDGE	115	HEDGE	230	4	HURLEY	115	HURLEY S	230	1	-0.0319	1979
HEDGE	115	HEDGE	230	2	HEDGE	115	HEDGE	230	6	-0.0290	1492
HURLEY W	230	TRCY PMP	230	2	HURLEY W	230	TRCY PMP	230	1	-0.2048	1529
HURLEY W	230	TRCY PMP	230	2	COTWDWAP	230	ROSEVILL	230	1	-0.1724	1720
HURLEY W	230	TRCY PMP	230	2	GOLDHILL	230	LAKE	230	1	-0.1798	1724
HURLEY W	230	TRCY PMP	230	2	BELLOTA	230	RNCHSECO	230	1	-0.1817	1792
HURLEY W	230	TRCY PMP	230	2	BELLOTA	230	RNCHSECO	230	2	-0.1817	1792
HURLEY W	230	TRCY PMP	230	1	HURLEY W	230	TRCY PMP	230	2	-0.2028	1541
HURLEY W	230	TRCY PMP	230	1	COTWDWAP	230	ROSEVILL	230	1	-0.1681	1764
HURLEY W	230	TRCY PMP	230	1	GOLDHILL	230	LAKE	230	1	-0.1752	1767
HURLEY W	230	TRCY PMP	230	1	BELLOTA	230	RNCHSECO	230	1	-0.1773	1833
HURLEY W	230	TRCY PMP	230	1	BELLOTA	230	RNCHSECO	230	2	-0.1773	1833
ELVERTAS	230	FOOTHILL	230	1	CARMICAL	230	HURLEY S	230	1	0.0731	1746
GOLDHILL	230	RIO OSO	230	1	ATLANTC	230	RIO OSO	230	1	-0.0237	1753
ELKGROVE	230	RNCHSECO	230	1	HEDGE	230	RNCHSECO	230	1	-0.1807	1779
HEDGE	115	HEDGE	230	6	HURLEY	115	HURLEY S	230	1	-0.0439	1831
HEDGE	115	HEDGE	230	6	HEDGE	115	HEDGE	230	4	-0.0440	1899

Lowest Zone 322 Voltage
37010 HURLEY S 230.00
226.1 kV



SMUD

rs05hs00, 2005 Heavy Summer Rancho Seco Generation Study Case
No Rancho Seco Generation Plant, No FPLE Generation Plant
From Western FPLE Study Case 05hs-no-fple

POCKET	230.00	-RNEHSECO	230.00	12
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MW/Pct

Tue Oct 16 13:44:59 2001

sac-gb2.drw
t.wrk
Rating = 2

SMUD/Roseville Load

3460 MW

625 MVAR

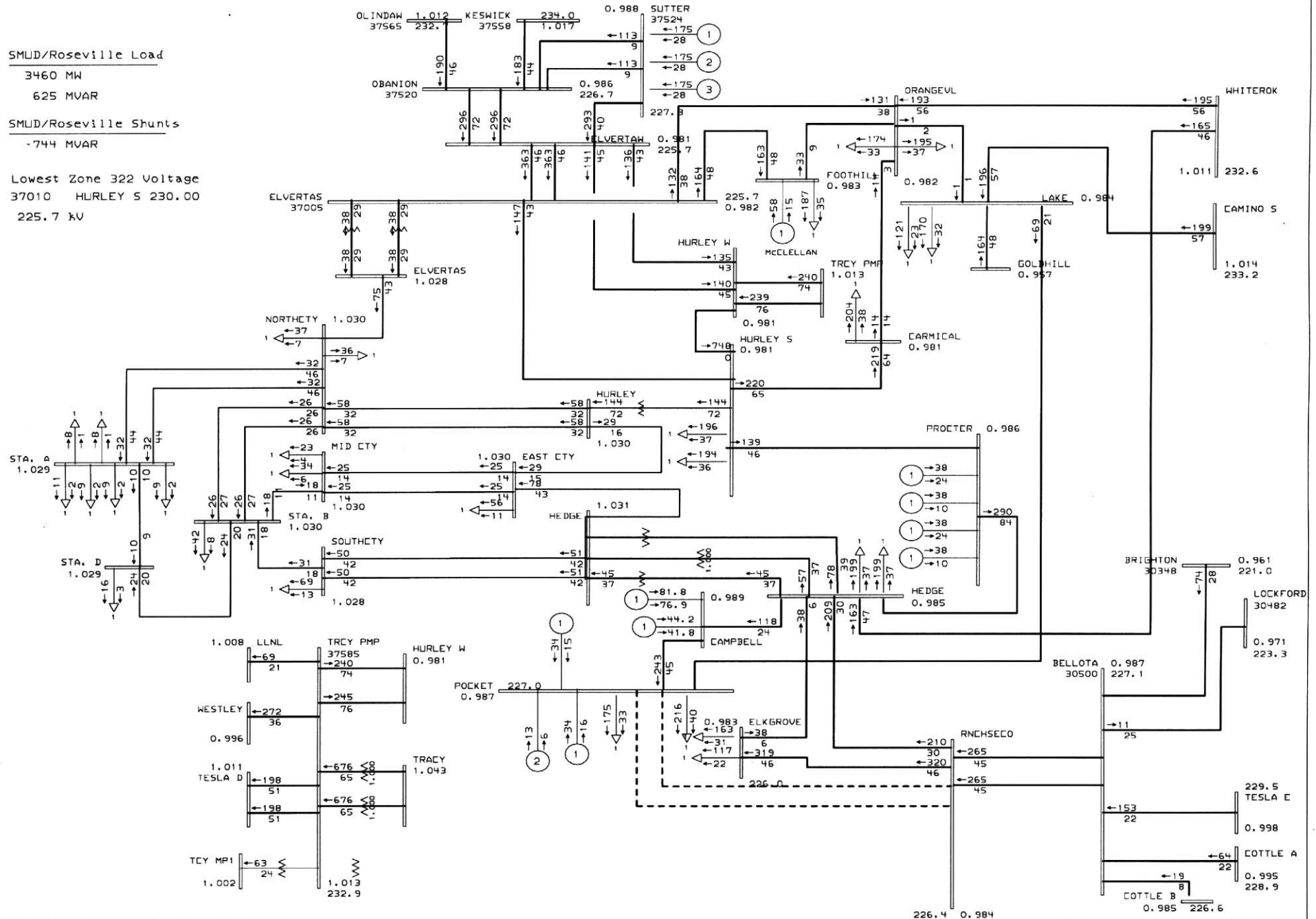
SMUD/Roseville Shunts

-744 MVAR

Lowest Zone 322 Voltage

37010 HURLEY S 230.00

225.7 kV



General Electric International, Inc. PSLF Program

SMUD

rs05hs00, 2005 Heavy Summer Rancho Seco Generation Study Case
 No Rancho Seco Generation Plant, No FPLE Generation Plant
 From Western FPLE Study Case 05hs-no-fple

POCKET 230.00 -RNCHSECO 230.00 #1
 POCKET 230.00 -RNCHSECO 230.00 #2

MW/Pct

Tue Oct 16 13:45:04 2001

sac-gb2.drw
 t.wrk
 Rating = 2

SMUD/Roseville Load

3460 MW

625 MVAR

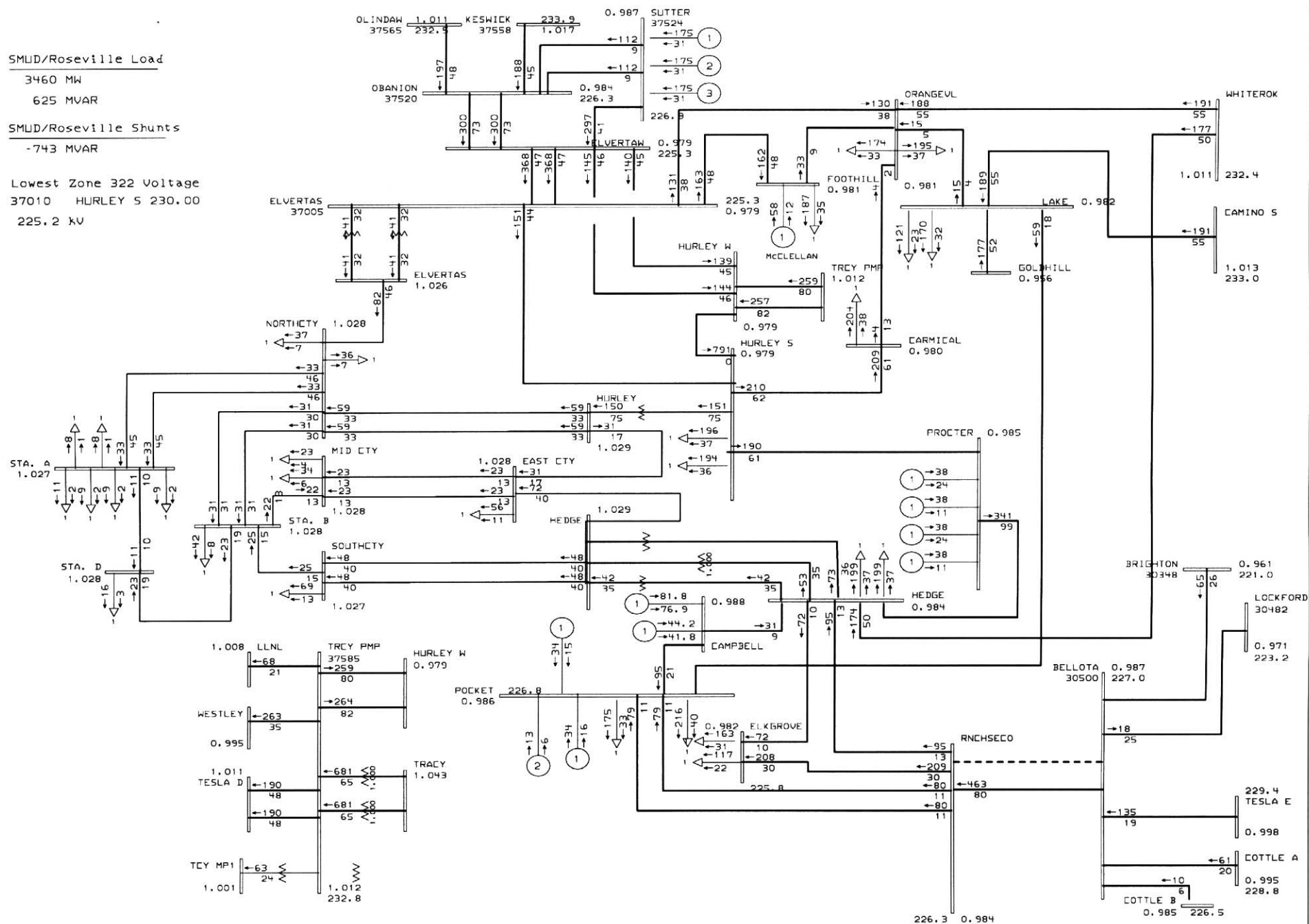
SMUD/Roseville Shunts

-743 MVAR

Lowest Zone 322 Voltage

37010 HURLEY S 230.00

225.2 kV



General Electric International, Inc. PSLF Program

SMUD

rs05hs00, 2005 Heavy Summer Rancho Seco Generation Study Case
 No Rancho Seco Generation Plant, No FPLE Generation Plant
 From Western FPLE Study Case 05hs-no-fple

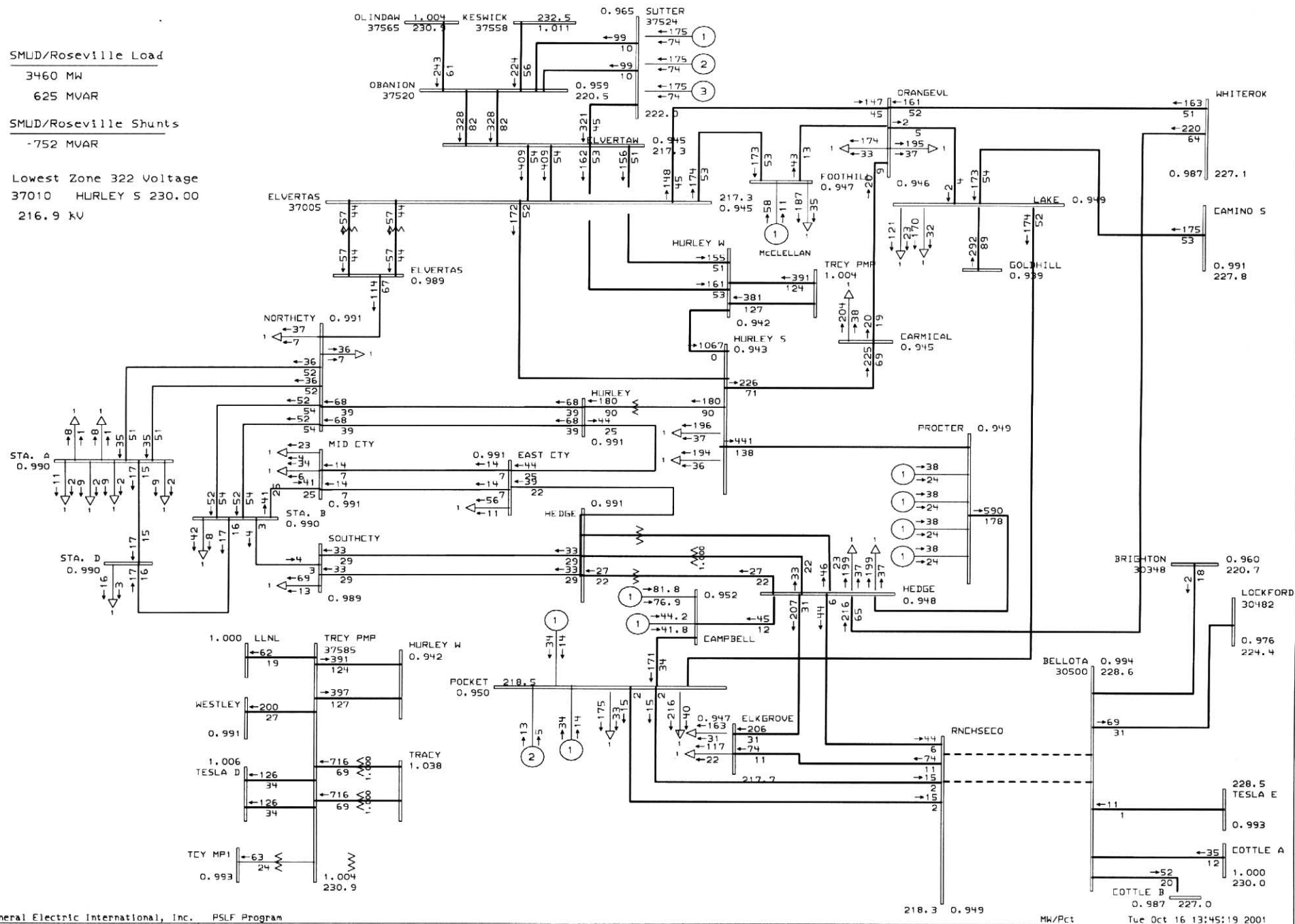
RCHSECO 230.00 -BELLOTA 230.00 #1

MW/Pct

Tue Oct 16 13:45:09 2001

sac-gb2.drw
 t.wrk
 Rating = 2

Lowest Zone 322 Voltage
37010 HURLEY S 230.00
216.9 kV



General Electric International, Inc. PSLF Program

SMUD

rs05hs00, 2005 Heavy Summer Rancho Seco Generation Study Case
No Rancho Seco Generation Plant, No FPLE Generation Plant
From Western FPLE Study Case 05hs-no-fple

RNCHSECO	230.00	-BELLOTA	230.00	#1
RNCHSECO	230.00	-BELLOTA	230.00	#2

MW/Pct

Tue Oct 16 13:45:19 2001

sac-gb2.drw	
t.wrk	
Rating = 2	

SMUD/Roseville Load

3460 MW

625 MVAR

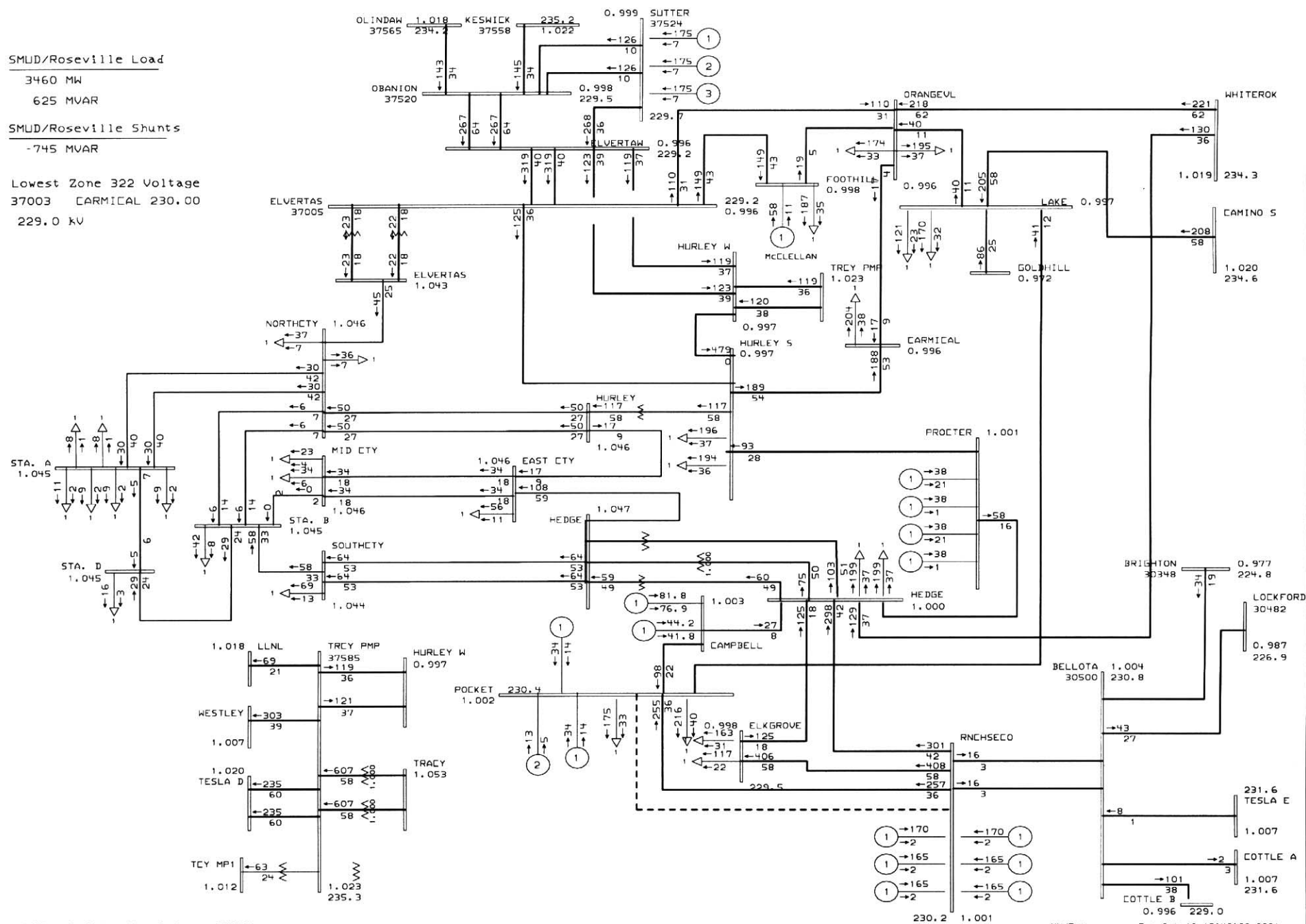
SMUD/Roseville Shunts

-745 MVAR

Lowest Zone 322 Voltage

37003 CARMICAL 230.00

229.0 kV



General Electric International, Inc. PSLE Program

SMUD

rs05hs10, 2005 Heavy Summer Rancho Seco Generation Study Case
 Rancho Seco Generation = 1000 MW, No FPLE Generation Plant
 From Western FPLE Study Case 05hs-no-fple

POCKET 230.00 -RCHSECO 230.00 #2

MW/Pct

Tue Oct 16 13:48:26 2001

sac-gb2.drw
 t.wrk
 Rating = 2

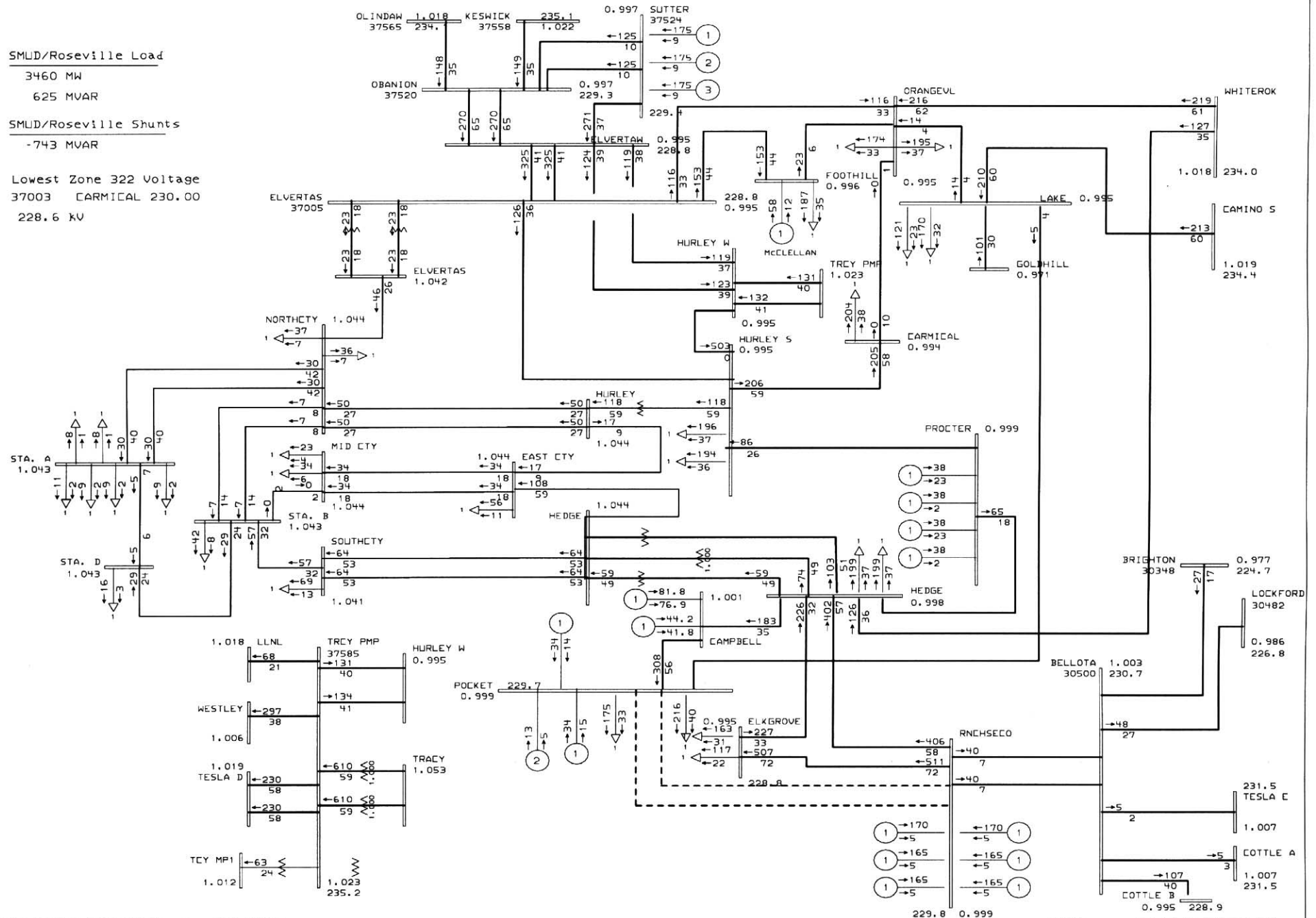
SMUD/Roseville Load

3460 MW
625 MVAR

SMUD/Roseville Shunts

-743 MVAR

Lowest Zone 322 Voltage
37003 CARMICAL 230.00
228.6 kV



General Electric International, Inc. PSLF Program

SMUD

rs05hs10, 2005 Heavy Summer Rancho Seco Generation Study Case
Rancho Seco Generation = 1000 MW, No FPLE Generation Plant
From Western FPLE Study Case 05hs-no-fple

POCKET 230.00 -RANCHSECO 230.00 #1
POCKET 230.00 -RANCHSECO 230.00 #2

MW/Pct Tue Oct 16 13:48:31 2001

sac-gb2.drw
t.wrk
Rating = 2

SMUD/Roseville Load

3460 MW

625 MVAR

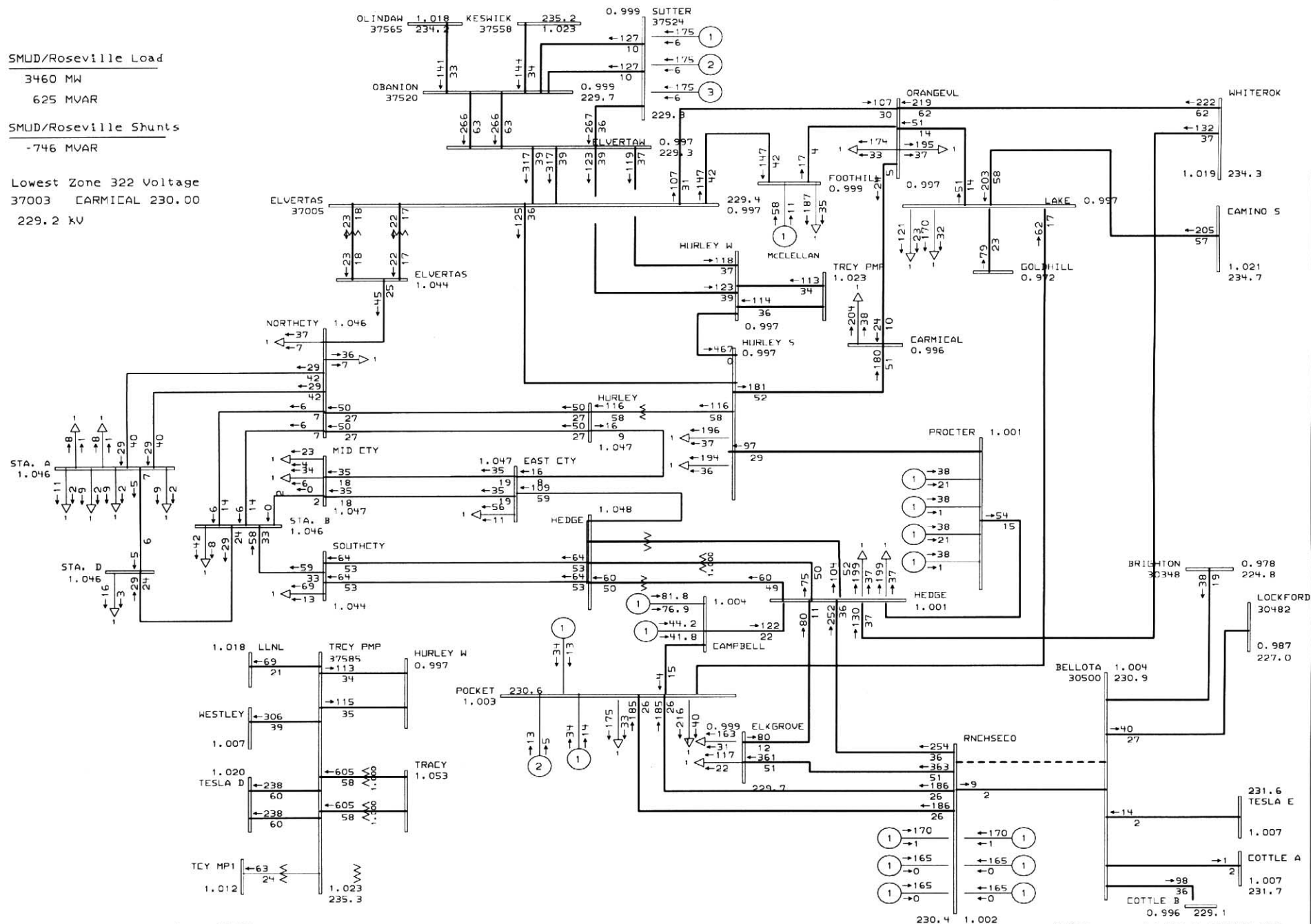
SMUD/Roseville Shunts

-746 MVAR

Lowest Zone 322 Voltage

37003 CARMICAL 230.00

229.2 kV



General Electric International, Inc. PSLF Program

SMUD

rs05hs10, 2005 Heavy Summer Rancho Seco Generation Study Case
 Rancho Seco Generation = 1000 MW, No FPLE Generation Plant
 From Western FPLE Study Case 05hs-no-fple

RCHSECO 230.00 -BELLOTA 230.00 #1

MW/Pct

Tue Oct 16 13:48:36 2001
 sac-gb2.drw
 t.wrk
 Rating = 2

SMUD/Roseville Load

3460 MW

625 MVAR

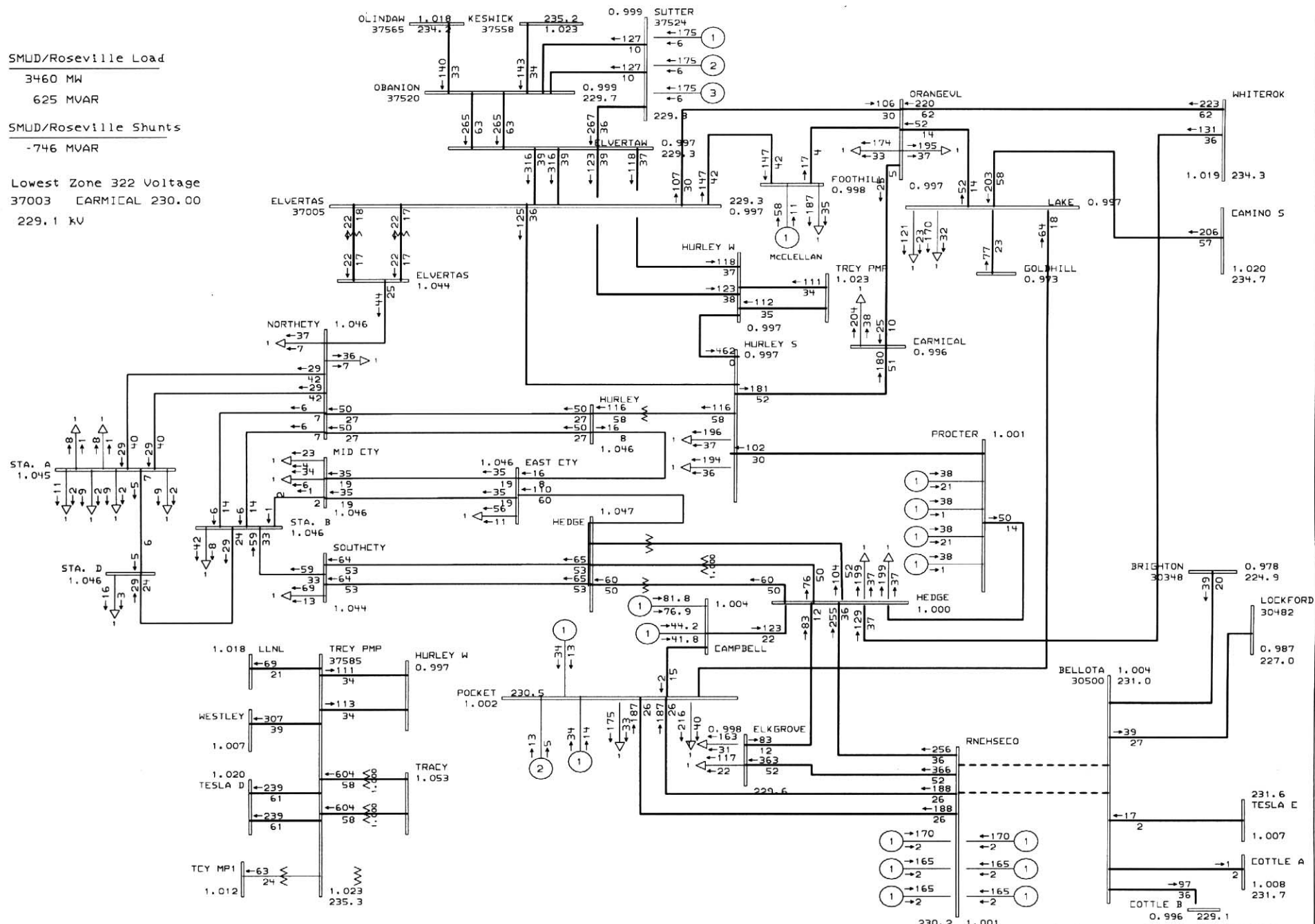
SMUD/Roseville Shunts

-746 MVAR

Lowest Zone 322 Voltage

37003 CARMICAL 230.00

229.1 kV



General Electric International, Inc. PSLF Program

SMUD

rs05hs10, 2005 Heavy Summer Rancho Seco Generation Study Case
 Rancho Seco Generation = 1000 MW, No FPLE Generation Plant
 From Western FPLE Study Case 05hs-no-fple

RCHSECO 230.00 - BELLOTA 230.00 #1
 RCHSECO 230.00 - BELLOTA 230.00 #2

MW/Pct

Tue Oct 16 13:48:40 2001

sac-gb2.drw
 t.wrk
 Rating = 2

SMUD/Roseville Load

3460 MW

625 MVAR

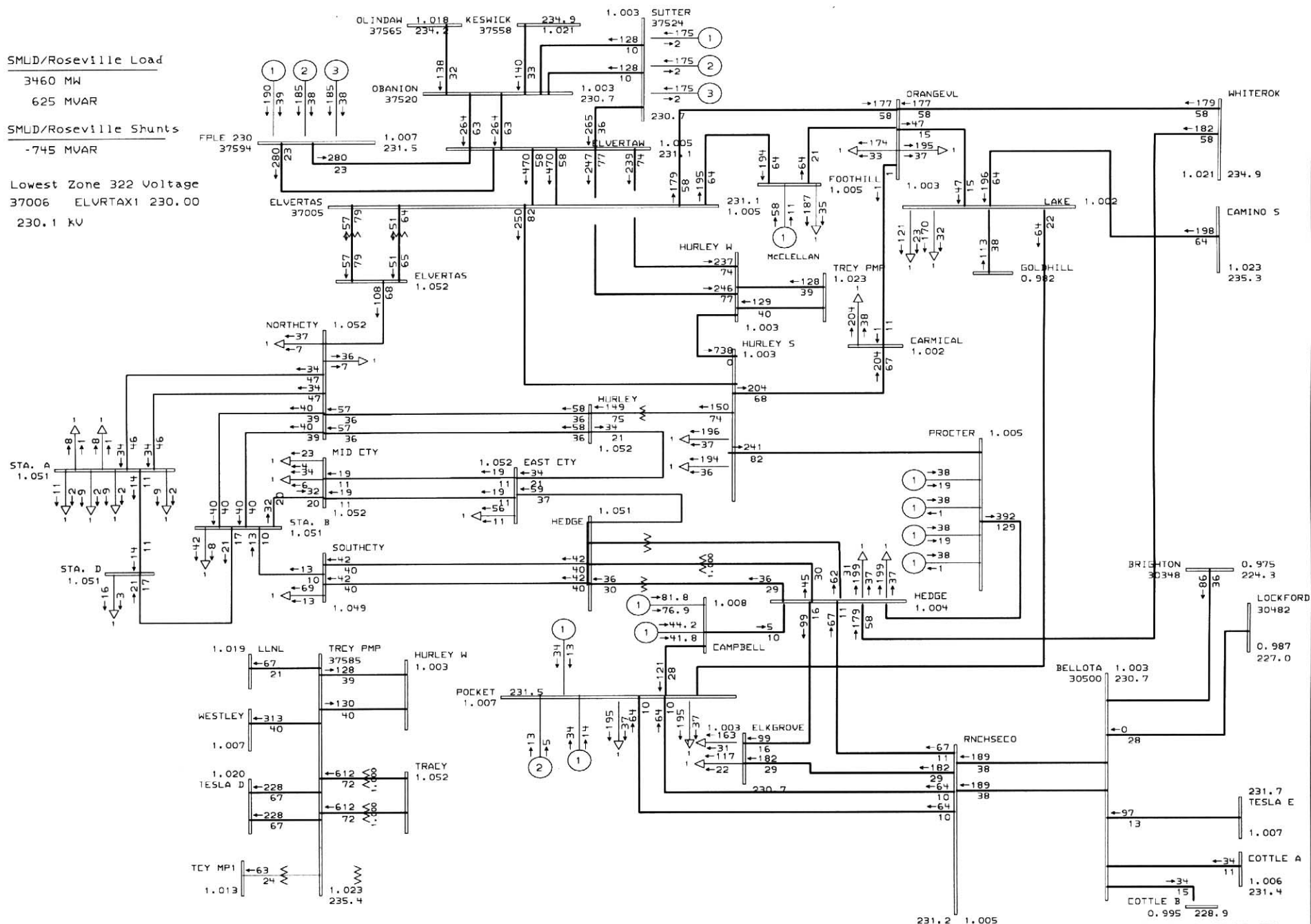
SMUD/Roseville Shunts

-745 MVAR

Lowest Zone 322 Voltage

37006 ELVRTAX1 230.00

230.1 kV



General Electric International, Inc. PSIF Program

rs05hs01, 2005 Heavy Summer Rancho Seco Generation Study Case
 No Rancho Seco Generation Plant, FPLE Generation = 560 MW
 From Western FPLE Study Case 05s-pgepeak.fplesrev1

BASE CASE

Mk/Pct

Tue Oct 16 13:46:31 2001

SMUD

sac-gb2.drw
 t.wrk
 Rating = 1

SMUD/Roseville Load

3460 MW

625 MVAR

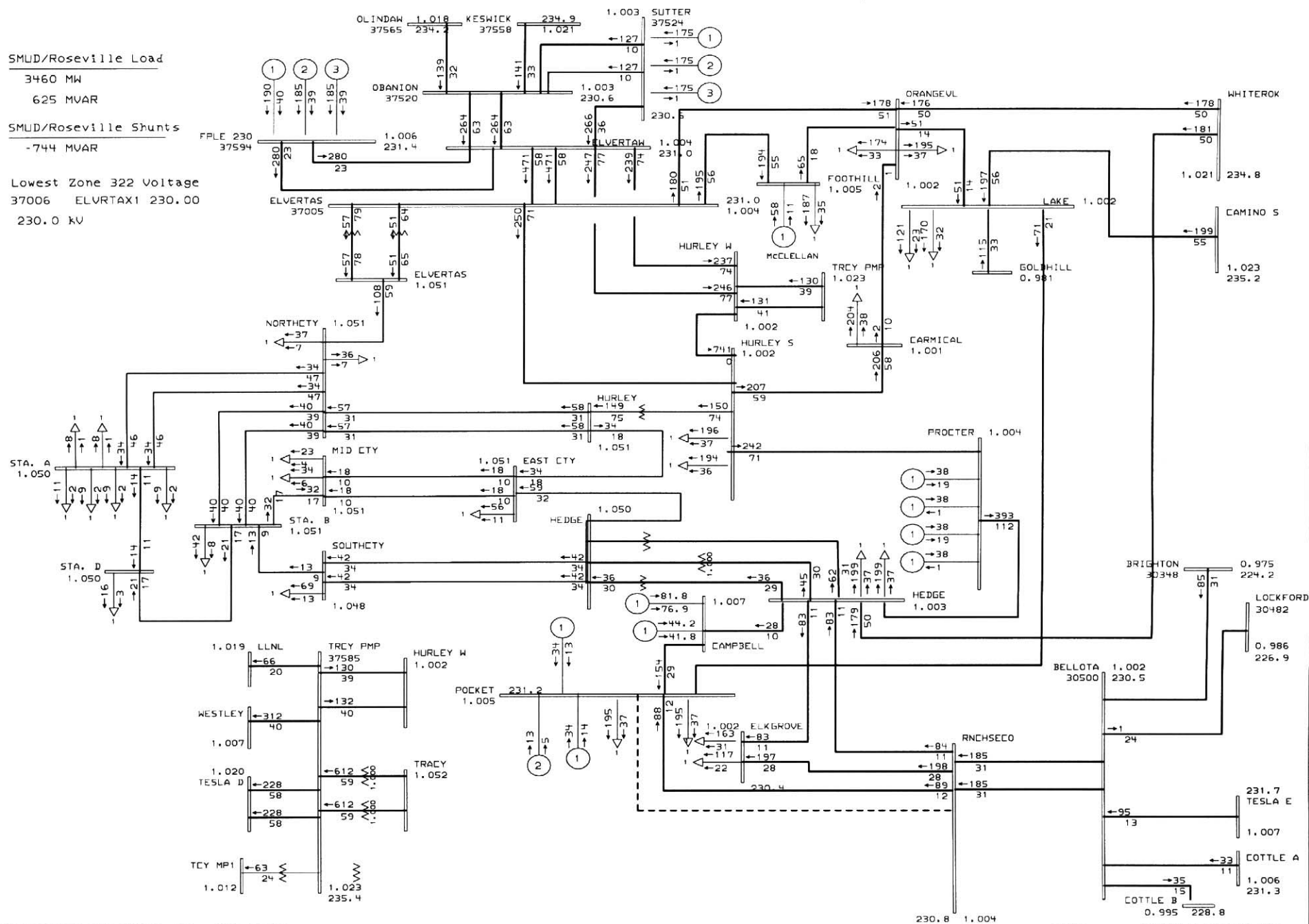
SMUD/Roseville Shunts

-744 MVAR

Lowest Zone 322 Voltage

37006 ELVRTAX1 230.00

230.0 kV



General Electric International, Inc. PSLE Program

SMUD

rs05hs01, 2005 Heavy Summer Rancho Seco Generation Study Case
 No Rancho Seco Generation Plant, FPLE Generation = 560 MW
 From Western FPLE Study Case 055-pgepeak-fplesrev1

POCKET 230.00 -RCHSECO 230.00 #2

MW/Pct

Tue Oct 16 13:46:36 2001

sac:gb2.drw
 t.wrk
 Rating = 2

SMUD/Roseville Load

3460 MW

625 MVAR

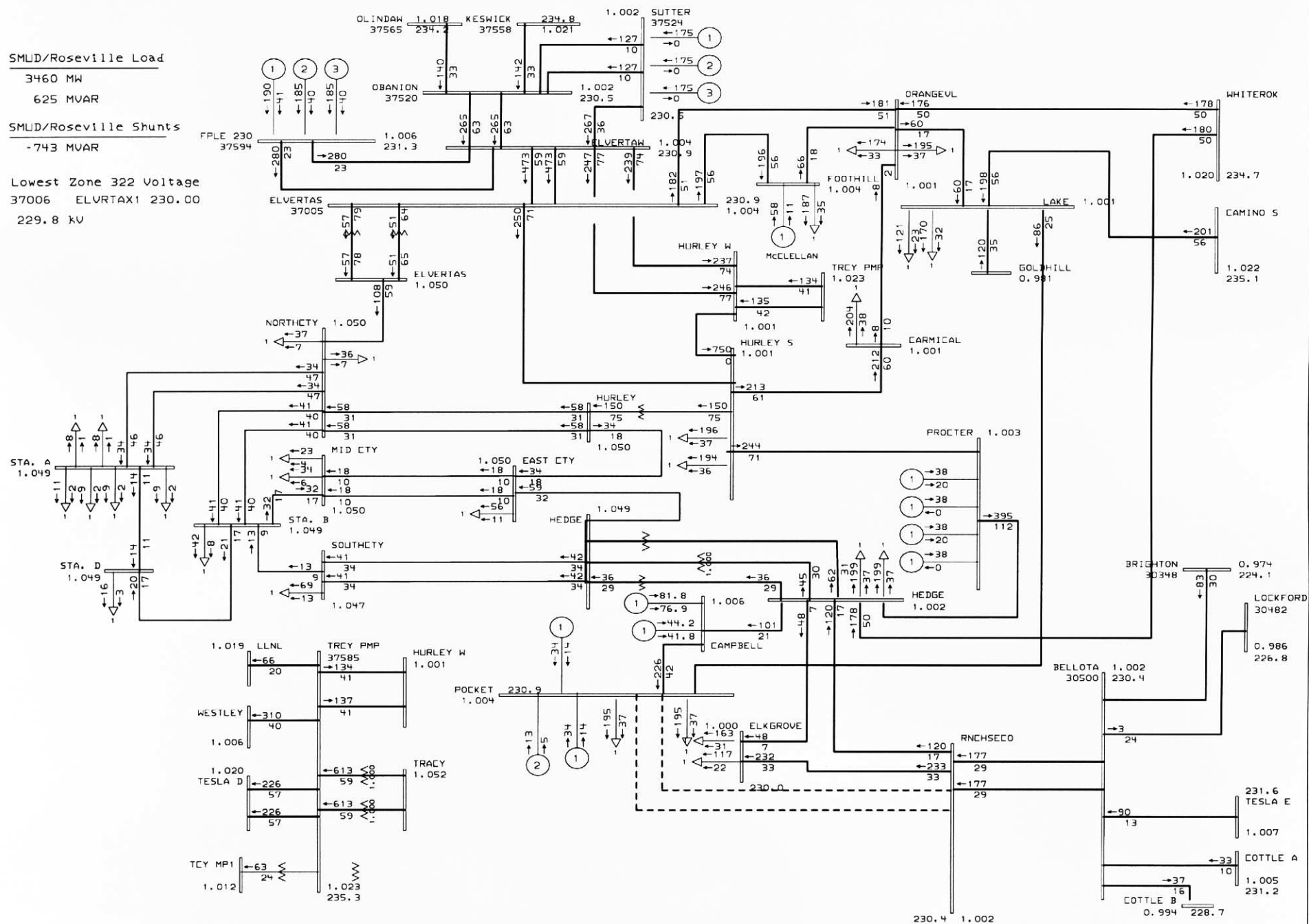
SMUD/Roseville Shunts

-743 MVAR

Lowest Zone 322 Voltage

37006 ELVRTAX1 230.00

229.8 kV



General Electric International, Inc. PSLF Program

SMUD

rs05hs01, 2005 Heavy Summer Rancho Seco Generation Study Case
 No Rancho Seco Generation Plant, FPLE Generation = 560 MW
 From Western FPLE Study Case 05s-pgepeak.fplesrev1

POCKET 230.00 -RNCHSECO 230.00 #1
 POCKET 230.00 -RNCHSECO 230.00 #2

MK/Pct

Tue Oct 16 13:46:42 2001

sac-gb2.drw
 t.wrk
 Rating = 2

SMUD/Roseville Load

3460 MW

625 MVAR

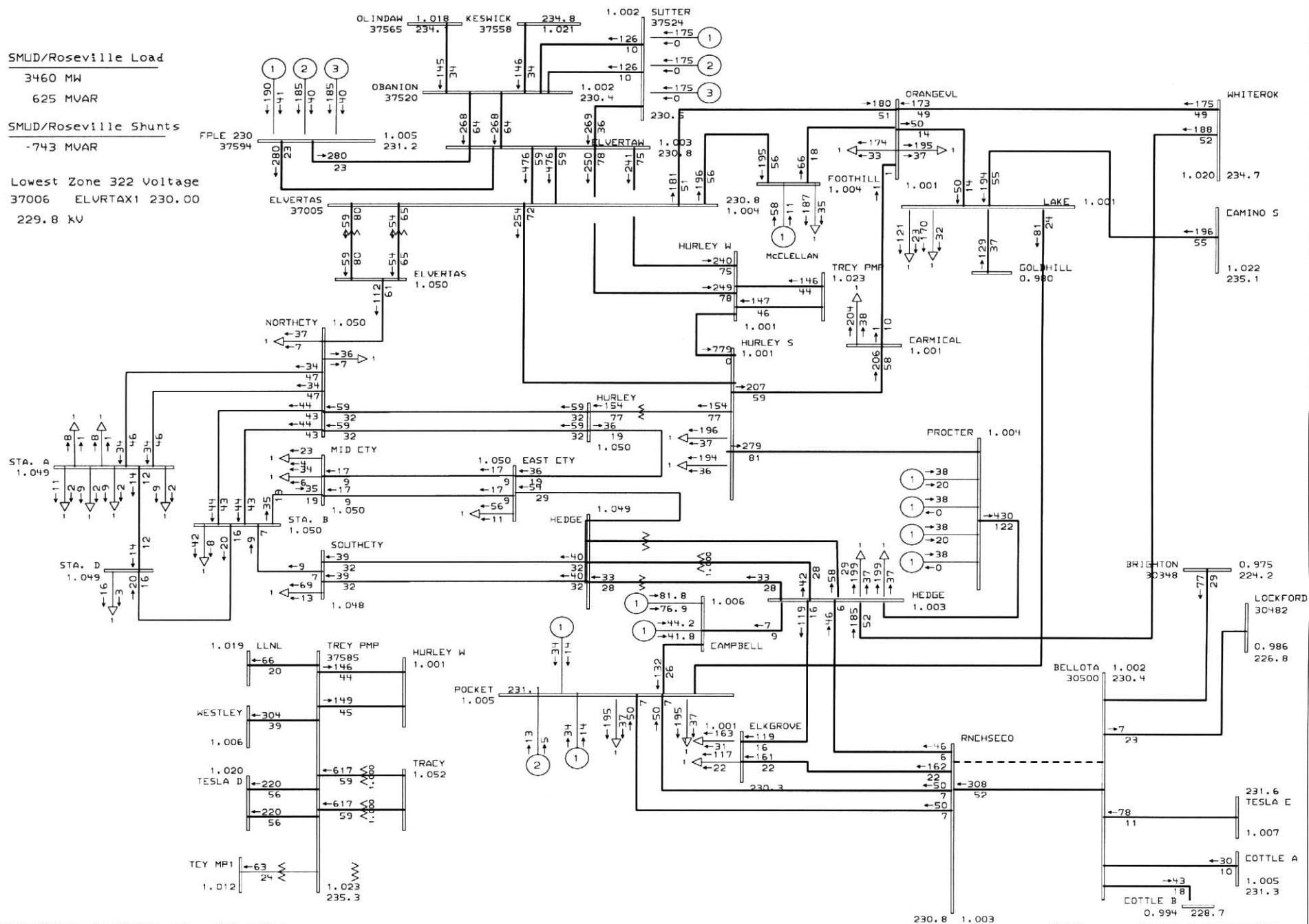
SMUD/Roseville Shunts

-743 MVAR

Lowest Zone 322 Voltage

37006 ELVRTAX1 230.00

229.8 kV



General Electric International, Inc. PSLE Program

SMUD

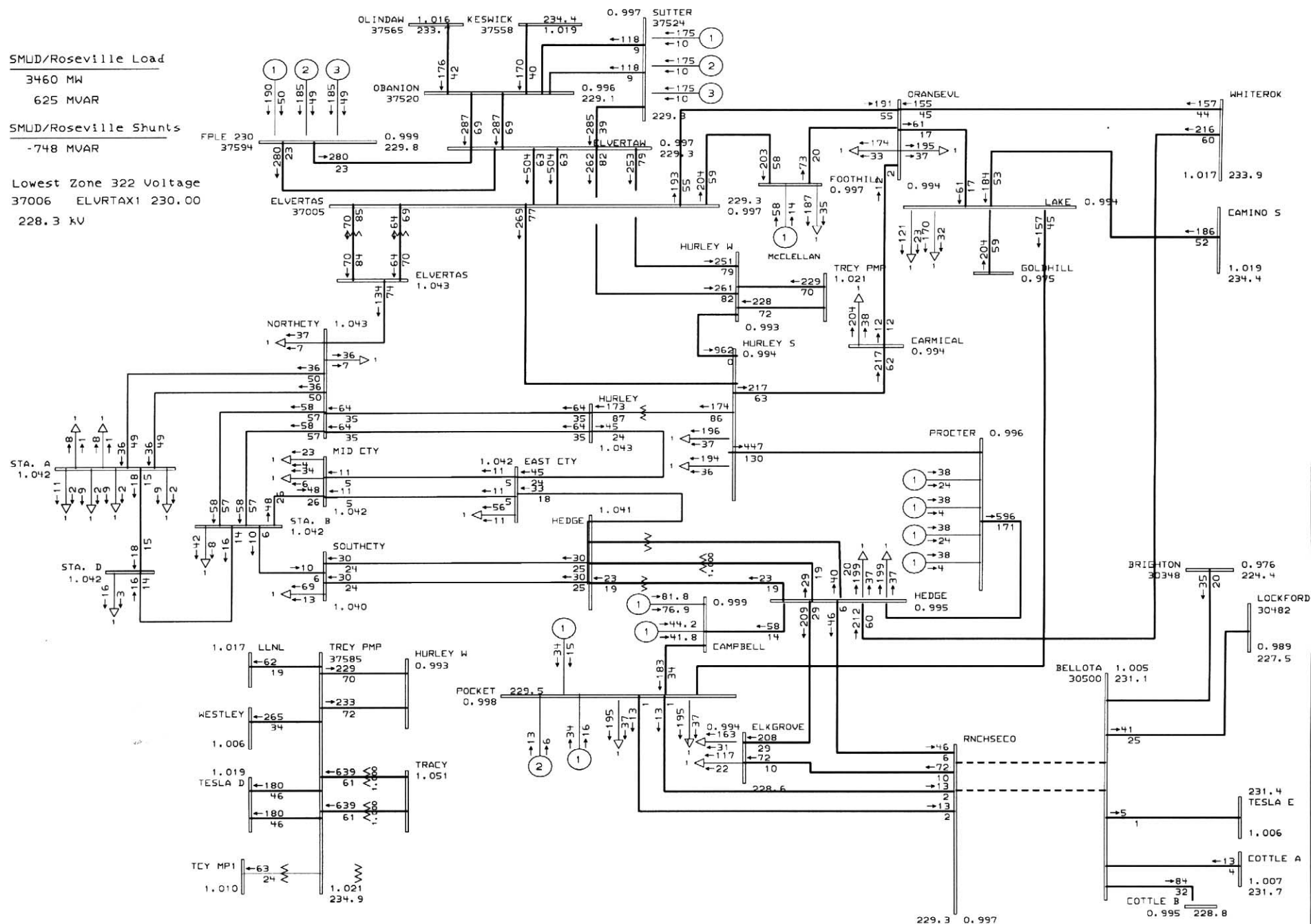
rs05hs01, 2005 Heavy Summer Rancho Seco Generation Study Case
 No Rancho Seco Generation Plant, FPLE Generation = 560 MW
 From Western FPLE Study Case 05s-pgepeak-fplesrev1

RNCHSECO 230.00 -BELLOTA 230.00 #1

Mk/Pct

Tue Oct 16 13:46:48 2001

sac:gb2.drw
 t.wrk
 Rating = 2



SMUD/Roseville Load

3460 MW

625 MVAR

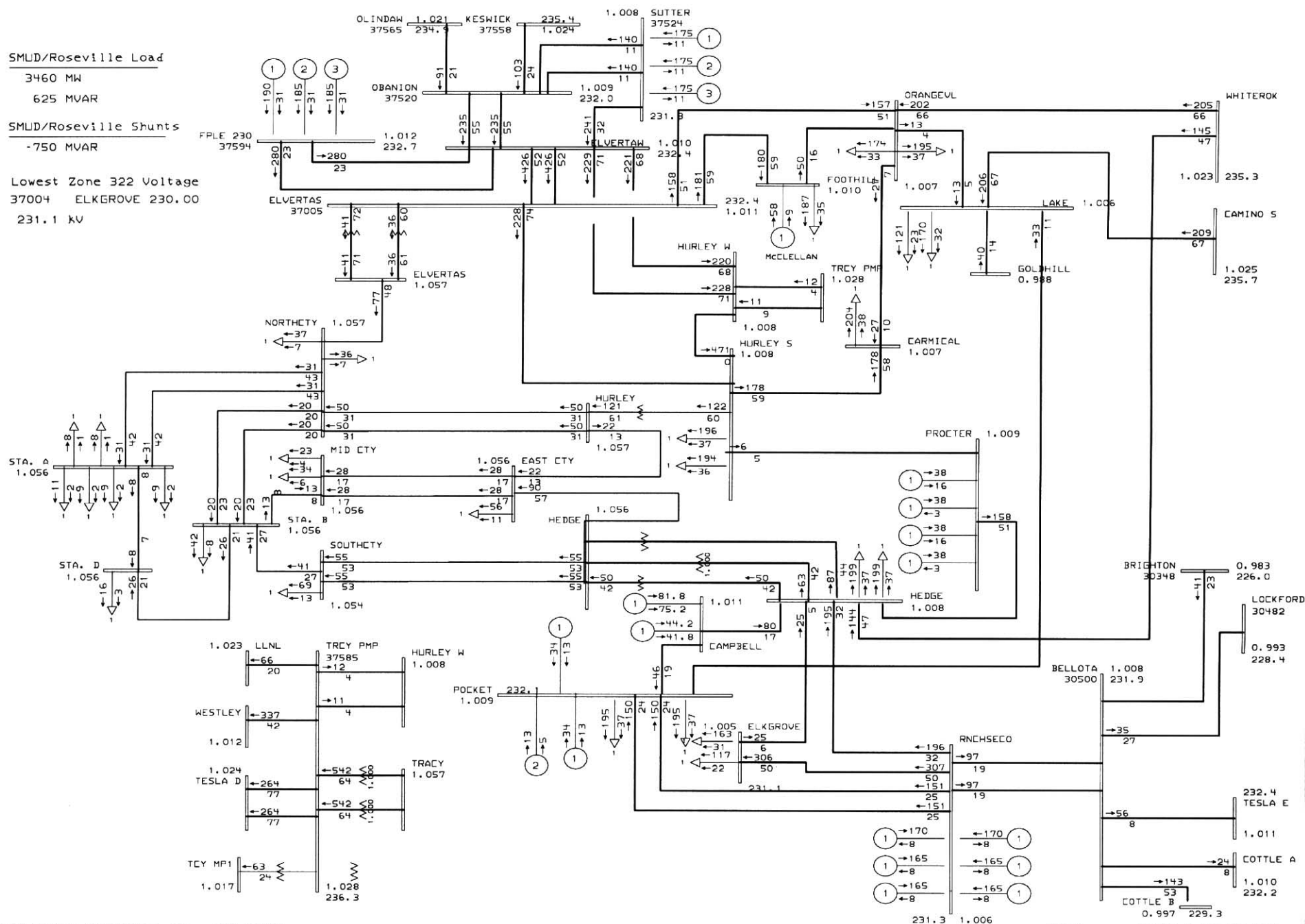
SMUD/Roseville Shunts

-750 MVAR

Lowest Zone 322 Voltage

37004 ELKGROVE 230.00

231.1 kV



General Electric International, Inc. PSLF Program

SMUD

rs05hs11, 2005 Heavy Summer Rancho Seco Generation Study Case
 Rancho Seco Generation = 1000 MW, FPLE Generation = 560 MW
 From Western FPLE Study Case 05s-pgepeak-fplesrev1

BASE CASE

MW/Pct Tue Oct 16 13:49:21 2001

sac:gb2.drw
 t.wrk
 Rating = 1

SMUD/Roseville Load

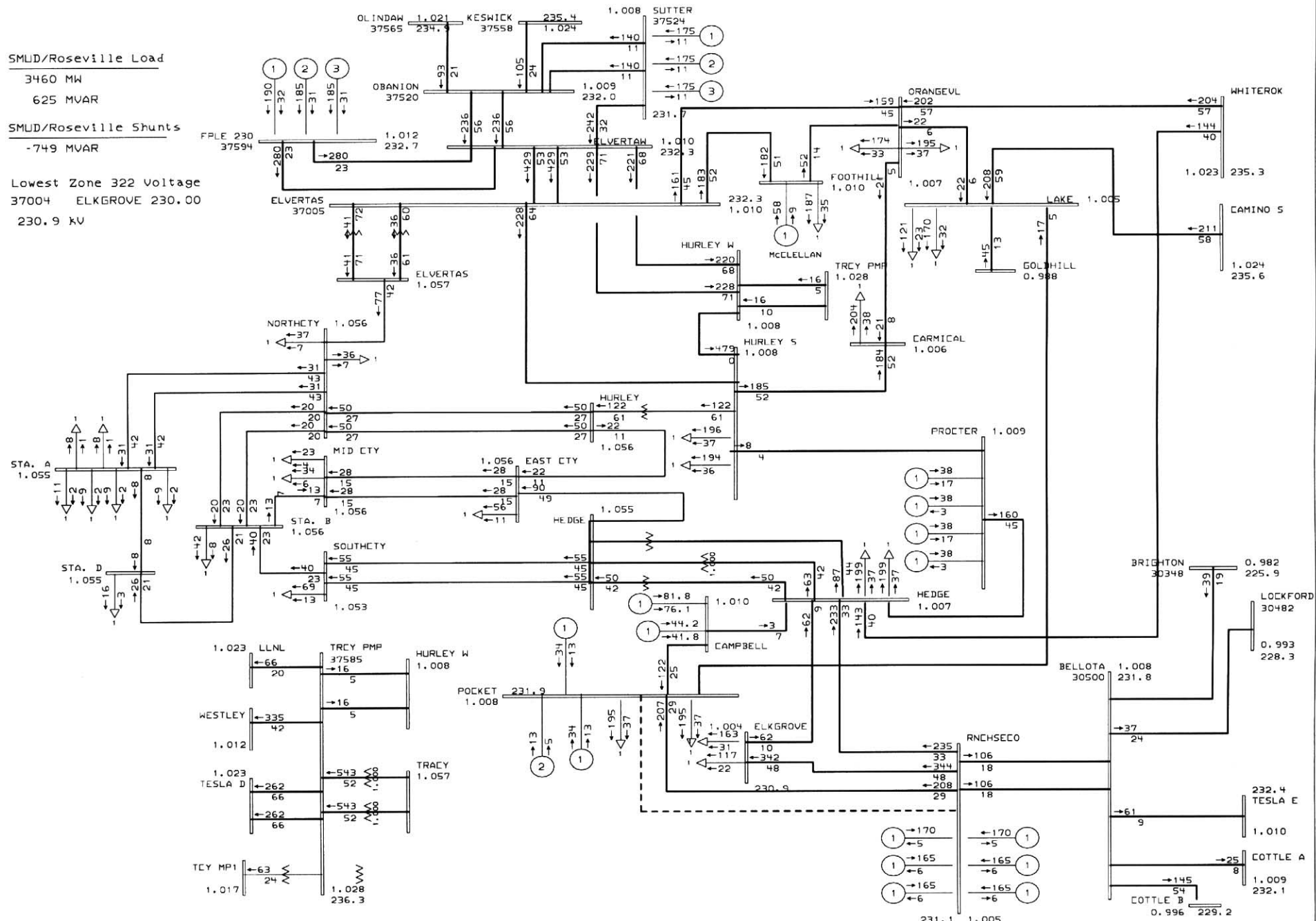
3460 MW

625 MVAR

SMUD/Roseville Shunts

-749 MVAR

Lowest Zone 322 Voltage
 37004 ELKGROVE 230.00
 230.9 kV



General Electric International, Inc. PSLE Program

SMUD

rs05hs11, 2005 Heavy Summer Rancho Seco Generation Study Case
 Rancho Seco Generation = 1000 MW, FPLE Generation = 560 MW
 From Western FPLE Study Case 05s-pgepeak-fplesrev1

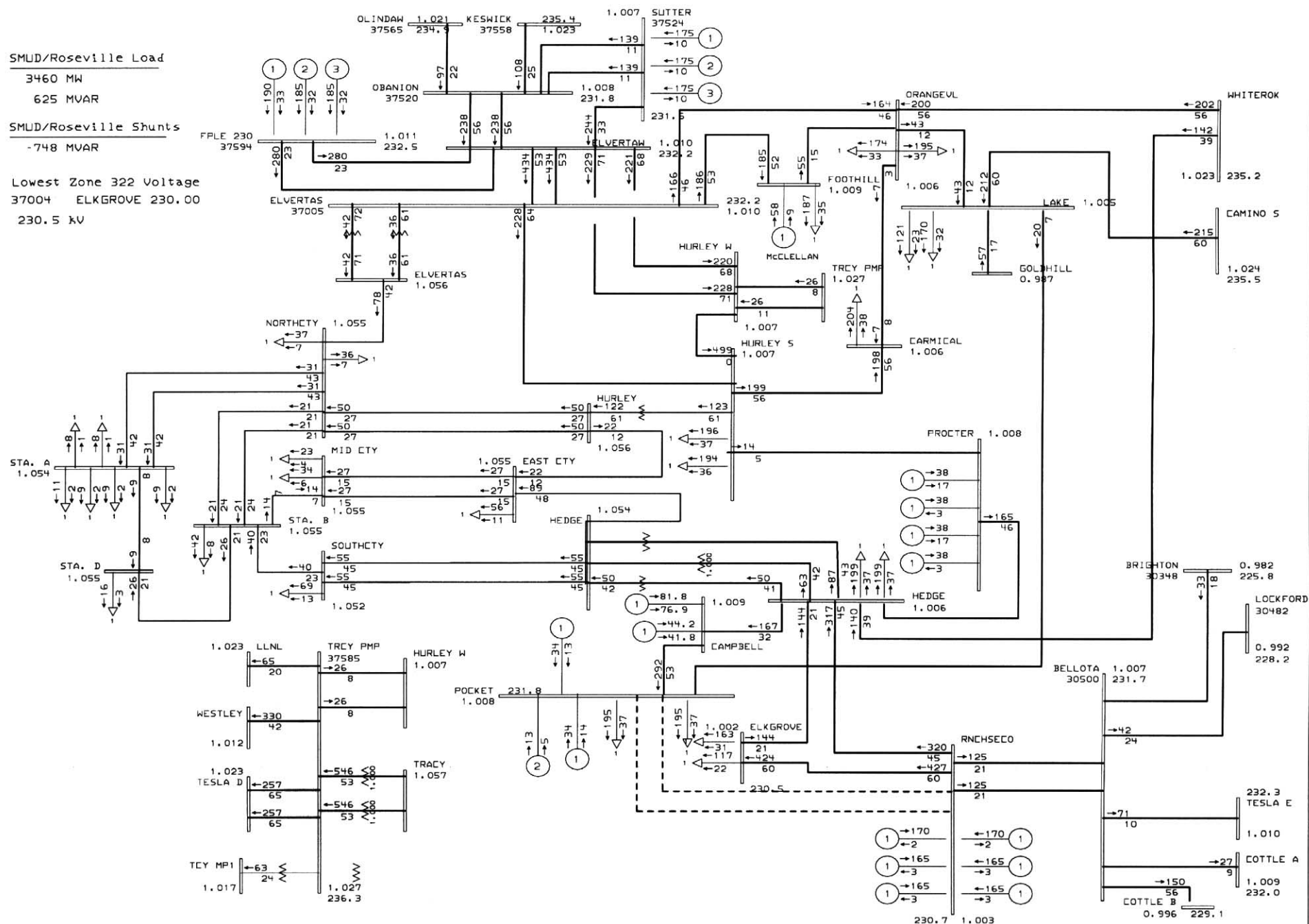
POCKET 230.00 -RCHSECO 230.00 #2

MW/Pct

Tue Oct 16 13:49:28 2001

SAC-9b2.drw
 t.wrk
 Rating = 2

Lowest Zone 322 Voltage
37004 ELKGROVE 230.00
230.5 kV



General Electric International, Inc. PSLF Program

SMUD

rs05hs11, 2005 Heavy Summer Rancho Seco Generation Study Case
Rancho Seco Generation = 1000 MW, FPLE Generation = 560 MW
From Western FPLE Study Case 05s-pgepeak_fplesrev1

POCKET	230.00	-RNCHSECO	230.00	#1
POCKET	230.00	-RNCHSECO	230.00	#2

MW/Pct

Tue Oct 16 13:49:35 2001

sac-gb2.drw	
t.wrk	
Rating = 2	

SMUD/Roseville Load

3460 MW

625 MVAR

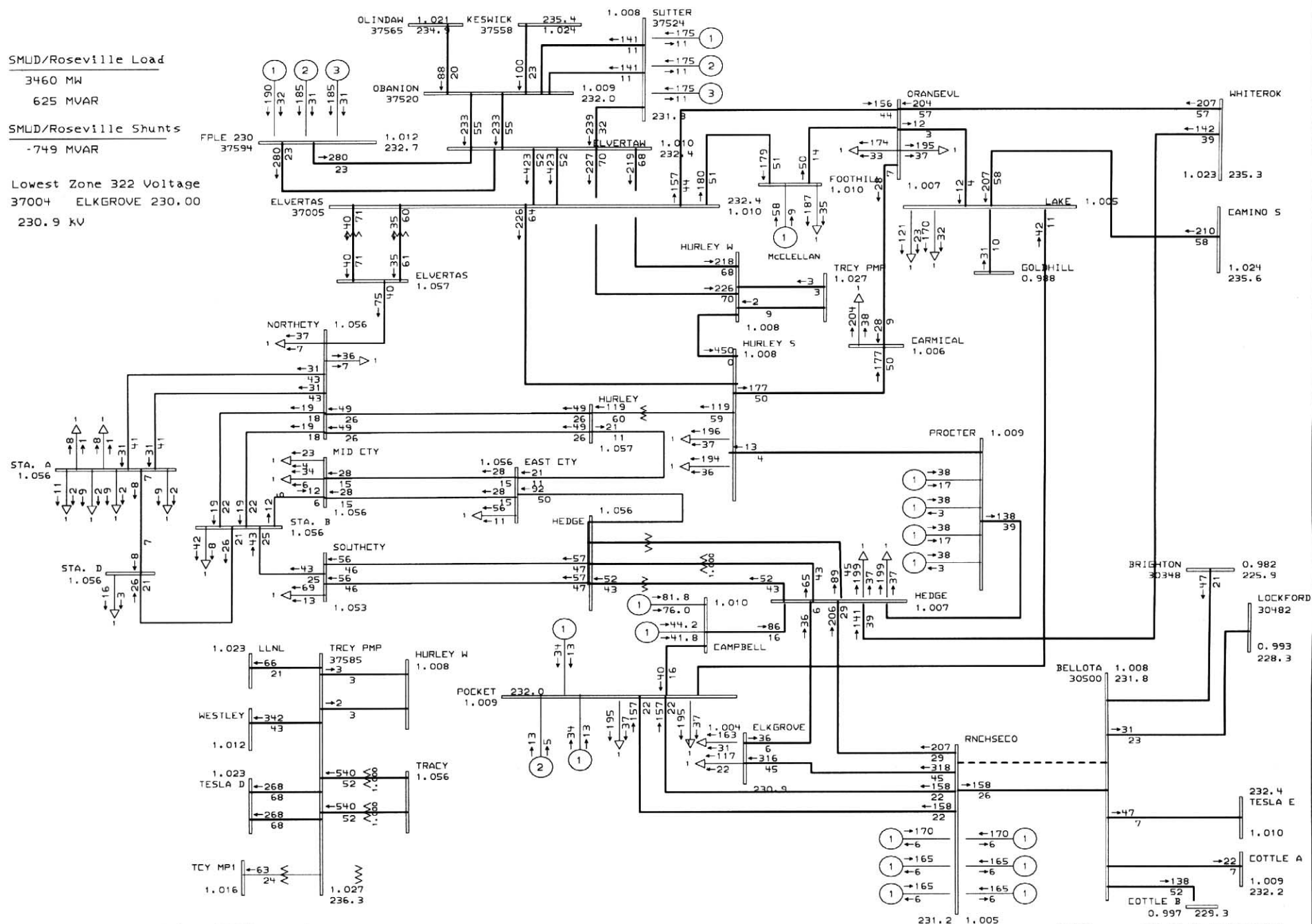
SMUD/Roseville Shunts

-749 MVAR

Lowest Zone 322 Voltage

37004 ELKGROVE 230.00

230.9 KV



General Electric International, Inc. PSLE Program

SMUD

rs05hs11, 2005 Heavy Summer Rancho Seco Generation Study Case
 Rancho Seco Generation = 1000 MW, FPLE Generation = 560 MW
 From Western FPLE Study Case 05s-pgepeak-fplesrev1

RCHSECO 230.00 -BELLOTA 230.00 #1

MW/Pct

Tue Oct 16 13:49:42 2001

sac-gb2.drw
 t.wrk
 Rating = 2

SMUD/Roseville Load

3460 MW

625 MVAR

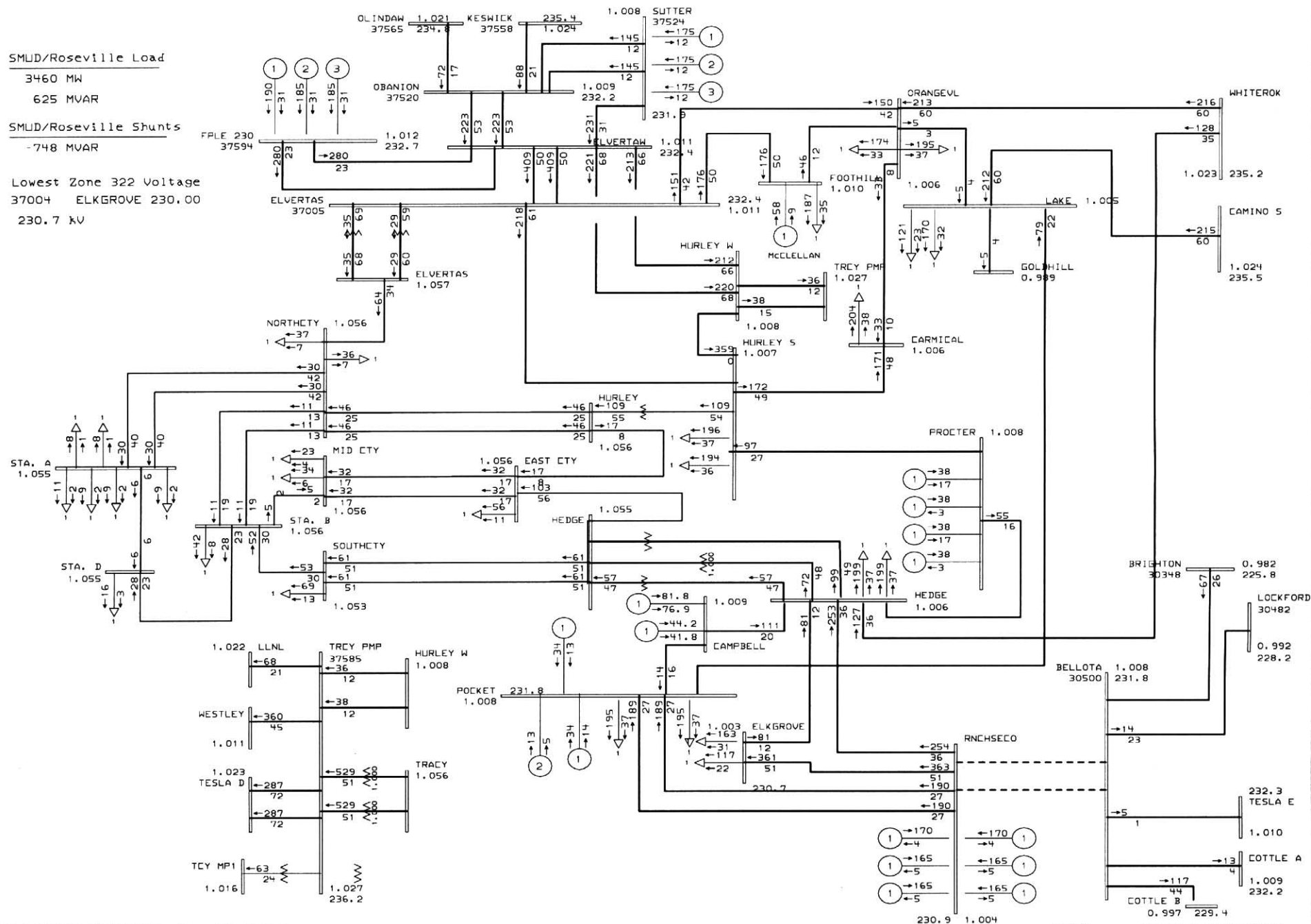
SMUD/Roseville Shunts

-748 MVAR

Lowest Zone 322 Voltage

37004 ELKGROVE 230.00

230.7 kV



General Electric International, Inc. PSLEF Program

SMUD

rs05hs11, 2005 Heavy Summer Rancho Seco Generation Study Case
 Rancho Seco Generation = 1000 MW, FPLE Generation = 560 MW
 From Western FPLE Study Case 05s-pgepeak_fplestev1

RCHSECO 230.00 -BELLLOTA 230.00 #1
 RCHSECO 230.00 -BELLLOTA 230.00 #2

MW/Pct

Tue Oct 16 13:49:48 2001
 sac-gb2.drw
 t.wrk
 Rating = 2

SMUD/Roseville Load

1548 MW

266 MVAR

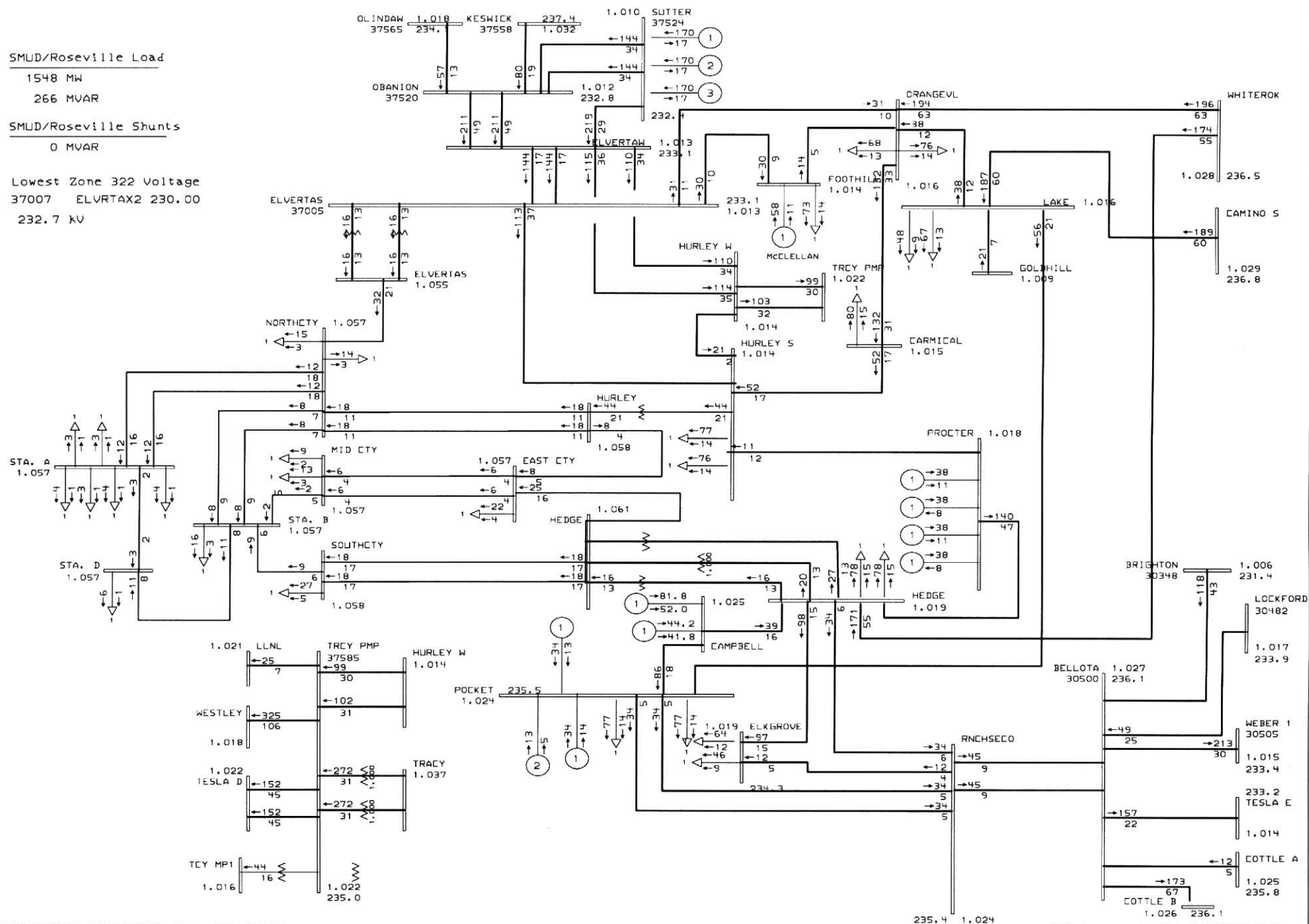
SMUD/Roseville Shunts

0 MVAR

Lowest Zone 322 Voltage

37007 ELVRTAX2 230.00

232.7 kV



General Electric International, Inc. PSLE Program

rs04sp00, 2004 Spring Rancho Seco Generation Base Case
 No Rancho Seco Generation Plant, No FPLE Generation Plant
 From Western FPLE Study Case 04sp-fplesrev

BASE CASE

MK/Pct Tue Oct 16 13:36:58 2001

SMUD

sac-gb2.drw
 t.wrk
 Rating = 1

SMUD/Roseville Load

1548 MW

266 MVAR

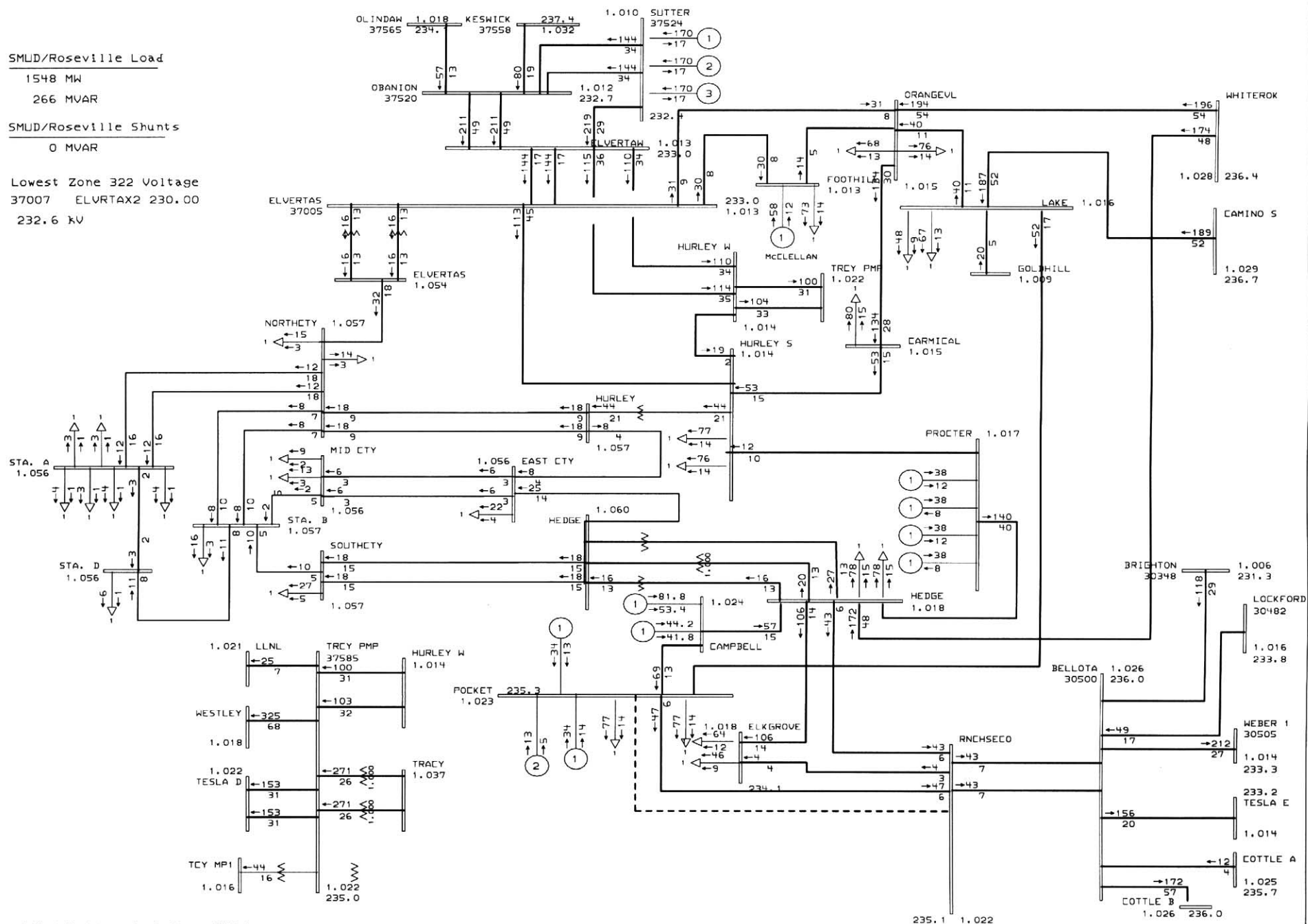
SMUD/Roseville Shunts

0 MVAR

Lowest Zone 322 Voltage

37007 ELVRTAX2 230.00

232.6 kV



General Electric International, Inc. PSLF Program

SMUD

rs04sp00, 2004 Spring Rancho Seco Generation Base Case
 No Rancho Seco Generation Plant, No FPLE Generation Plant
 From Western FPLE Study Case 04sp-fplesrev

POCKET 230.00 -RNCHSECO 230.00 #2

MW/Pct

Tue Oct 16 13:37:02 2001

sac-gb2.drw
 t.wr
 Rating = 2

SMUD/Roseville Load

1548 MW

266 MVAR

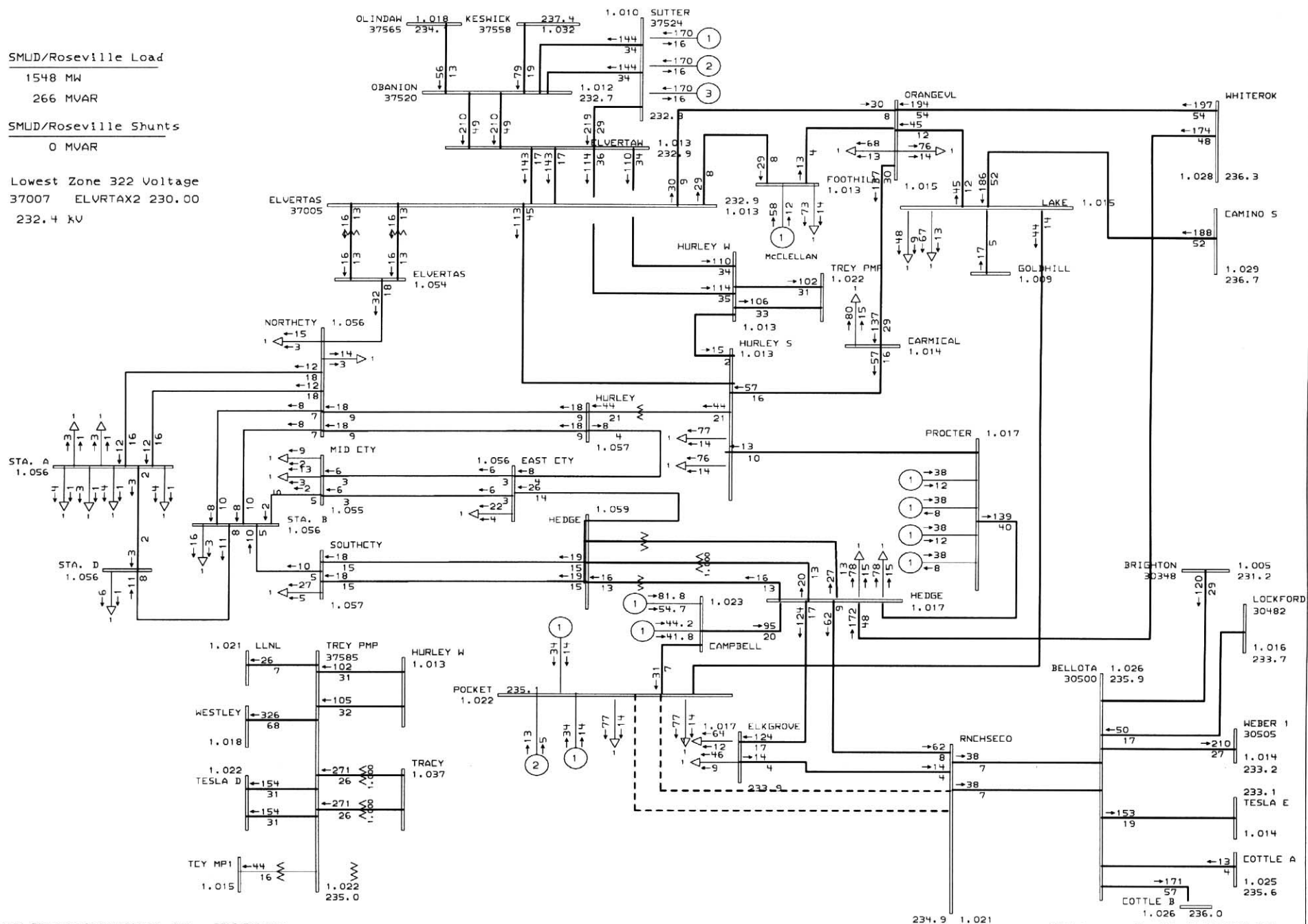
SMUD/Roseville Shunts

0 MVAR

Lowest Zone 322 Voltage

37007 ELVRTAX2 230.00

232.4 kV



General Electric International, Inc. PSLF Program

SMUD

rs04sp00, 2004 Spring Rancho Seco Generation Base Case
 No Rancho Seco Generation Plant, No FPLE Generation Plant
 From Western FPLE Study Case 04sp-fplesrev

POCKET 230.00 -RNCHSECO 230.00 #1
 POCKET 230.00 -RNCHSECO 230.00 #2

MW/Pct Tue Oct 16 13:37:12 2001

sac-gb2.drw
 t.wrk
 Rating = 2

SMUD/Roseville Load

1548 MW

266 MVAR

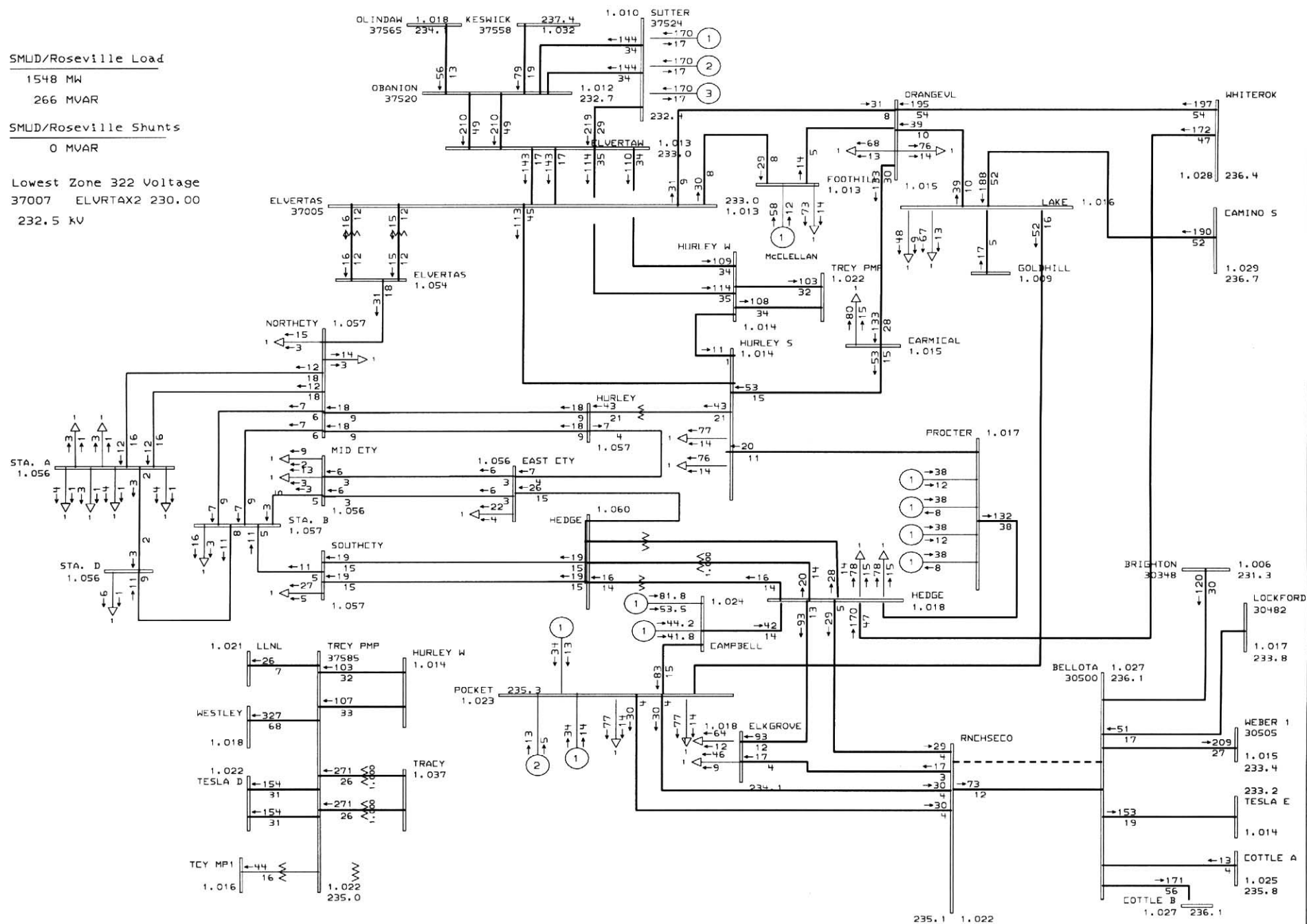
SMUD/Roseville Shunts

0 MVAR

Lowest Zone 322 Voltage

37007 ELVRTAX2 230.00

232.5 kV



General Electric International, Inc. PSLE Program

SMUD

rs04sp00, 2004 Spring Rancho Seco Generation Base Case
 No Rancho Seco Generation Plant, No FPLE Generation Plant
 From Western FPLE Study Case 04sp-fplesrev

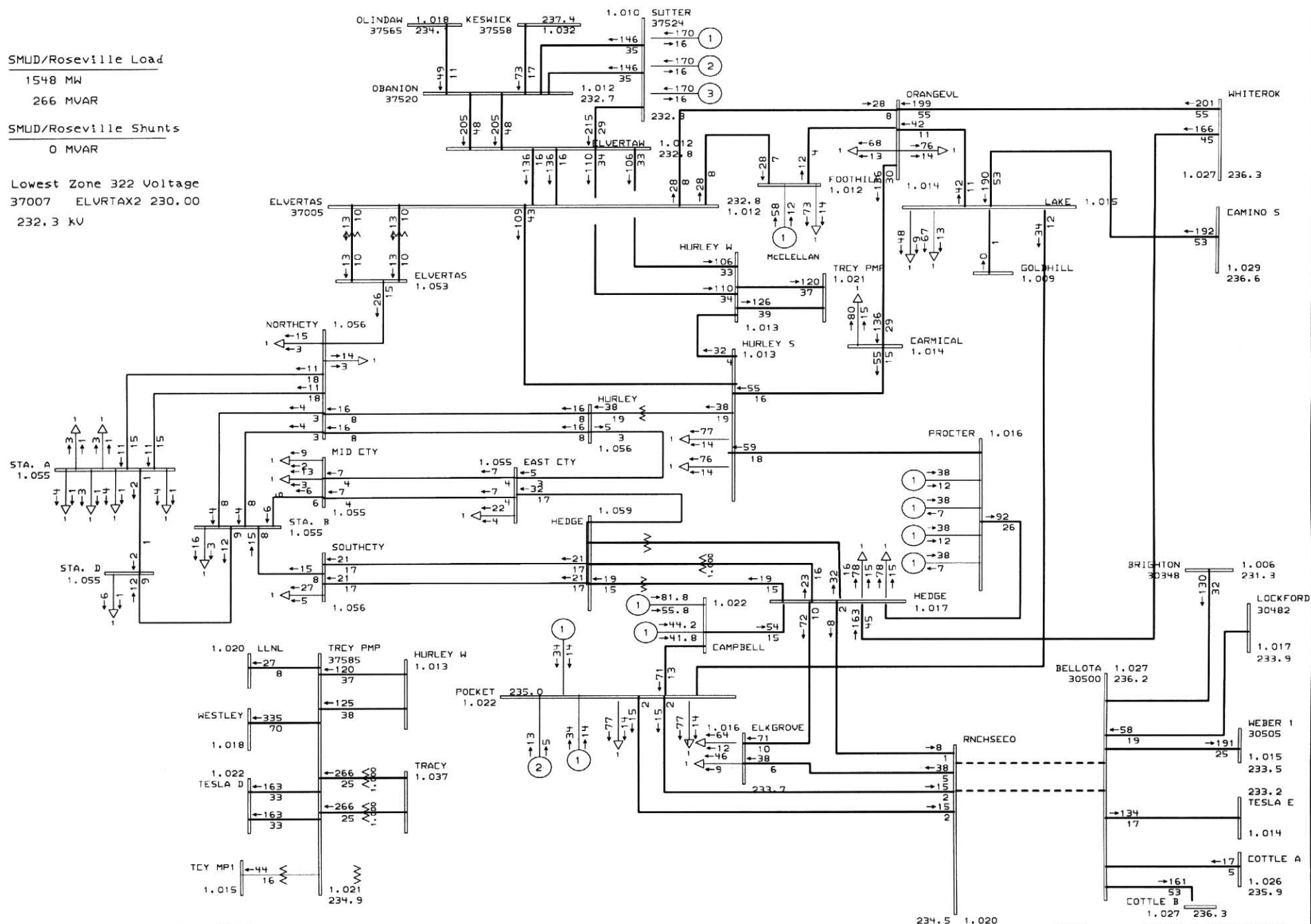
RNCHSECO 230.00 -BELLOTA 230.00 #1

MW/Pct

Tue Oct 16 13:37:17 2001

sac-gb2.drw
 t.wrk
 Rating = 2

232.3 kV



General Electric International, Inc. PSLF Program

SMUD

rs04sp00, 2004 Spring Rancho Seco Generation Base Case
No Rancho Seco Generation Plant, No FPLE Generation Plant
From Western FPLE Study Case 04sp-fplesrev

RNCHSECO	230.00	-BELLOTA	230.00	#1
RNCHSECO	230.00	-BELLOTA	230.00	#2

MW/Pct

sac-gb2.drw
t.wrk
Rating = 2

SMUD/Roseville Load

1548 MW

266 MVAR

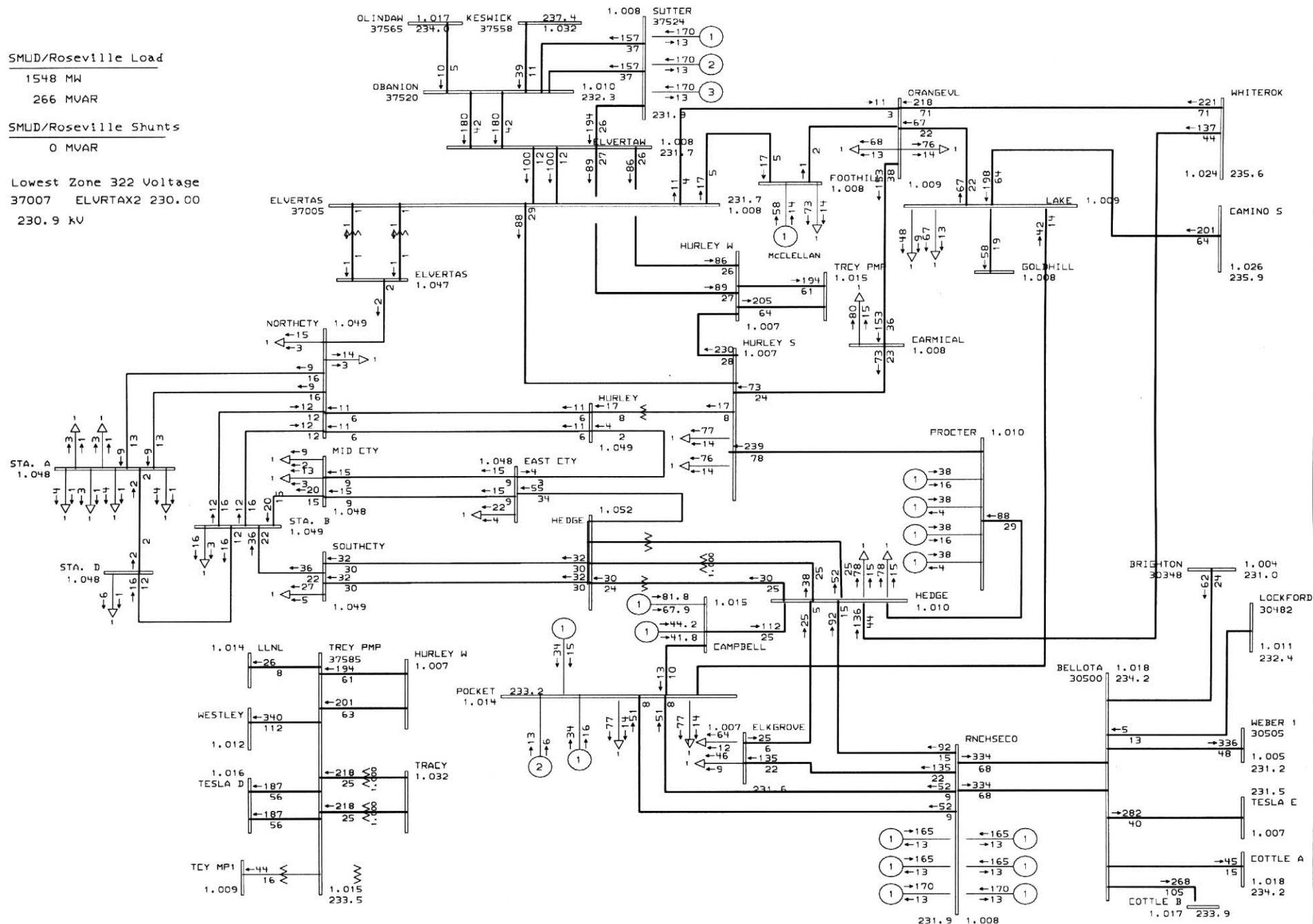
SMUD/Roseville Shunts

0 MVAR

Lowest Zone 322 Voltage

37007 ELVRTAX2 230.00

230.9 kV



General Electric International, Inc. PSLF Program

SMUD

rs04sp10, 2004 Spring Rancho Seco Generation Base Case
 1000 MW Rancho Seco Generation, No FPLE Generation Plant
 From Western FPLE Study Lase 04sp-fplesrev

BASE CASE

MW/Pct

Tue Oct 16 13:41:31 2001

sac-gb2.drw
 t.wrk
 Rating = 1

SMUD/Roseville Load

1548 MW

266 MVAR

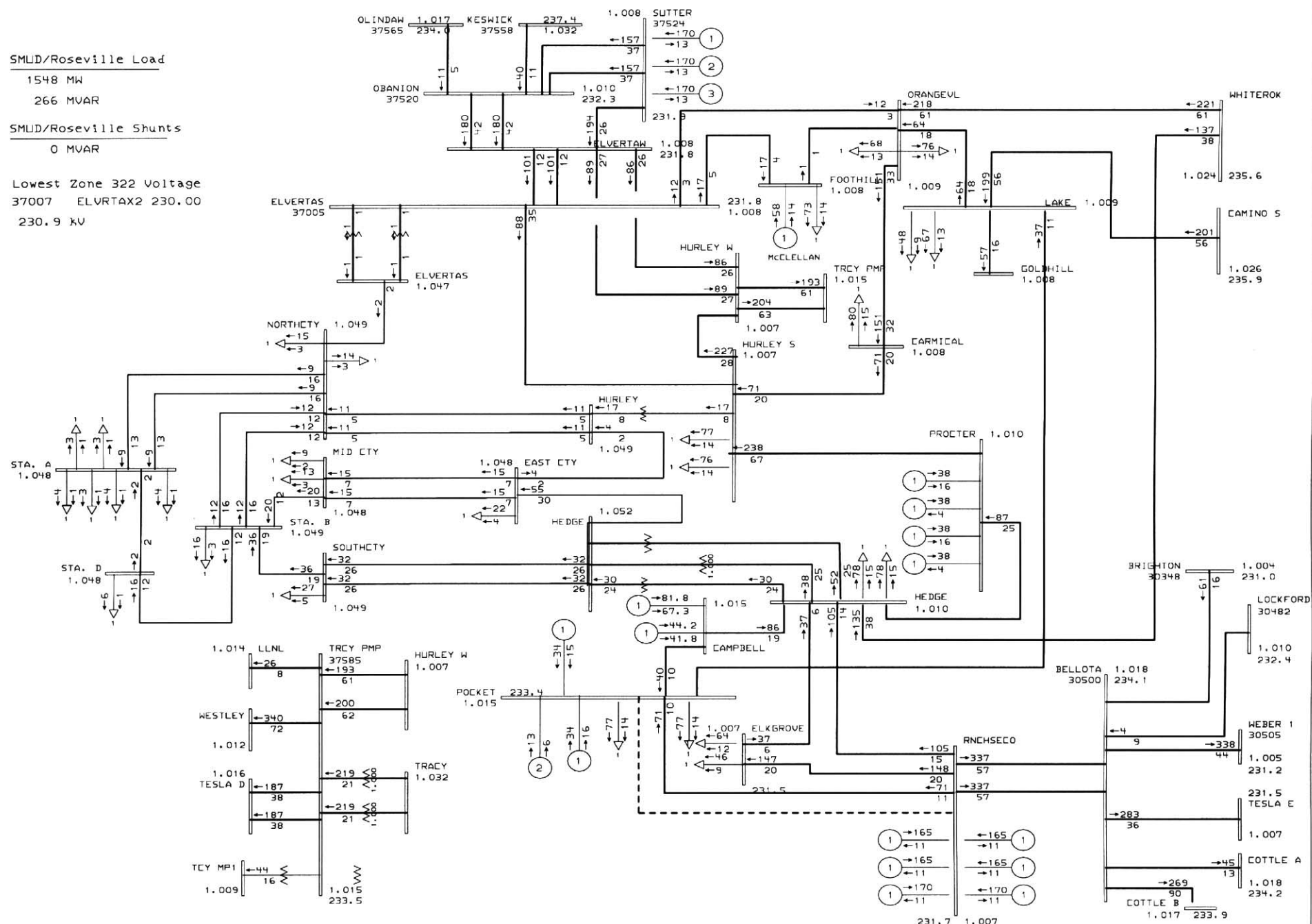
SMUD/Roseville Shunts

0 MVAR

Lowest Zone 322 Voltage

37007 ELVRTAX2 230.00

230.9 kV



General Electric International, Inc. PSLF Program

SMUD

rs04sp10, 2004 Spring Rancho Seco Generation Base Case
 1000 MW Rancho Seco Generation, No FPLE Generation Plant
 From Western FPLE Study Case 04sp-fplesrev

POCKET 230.00 -RCHSECO 230.00 #2

MW/Pct

Tue Oct 16 13:41:36 2001

sac-gb2.drw
 t.wrk
 Rating = 2

SMUD/Roseville Load

1548 MW

266 MVAR

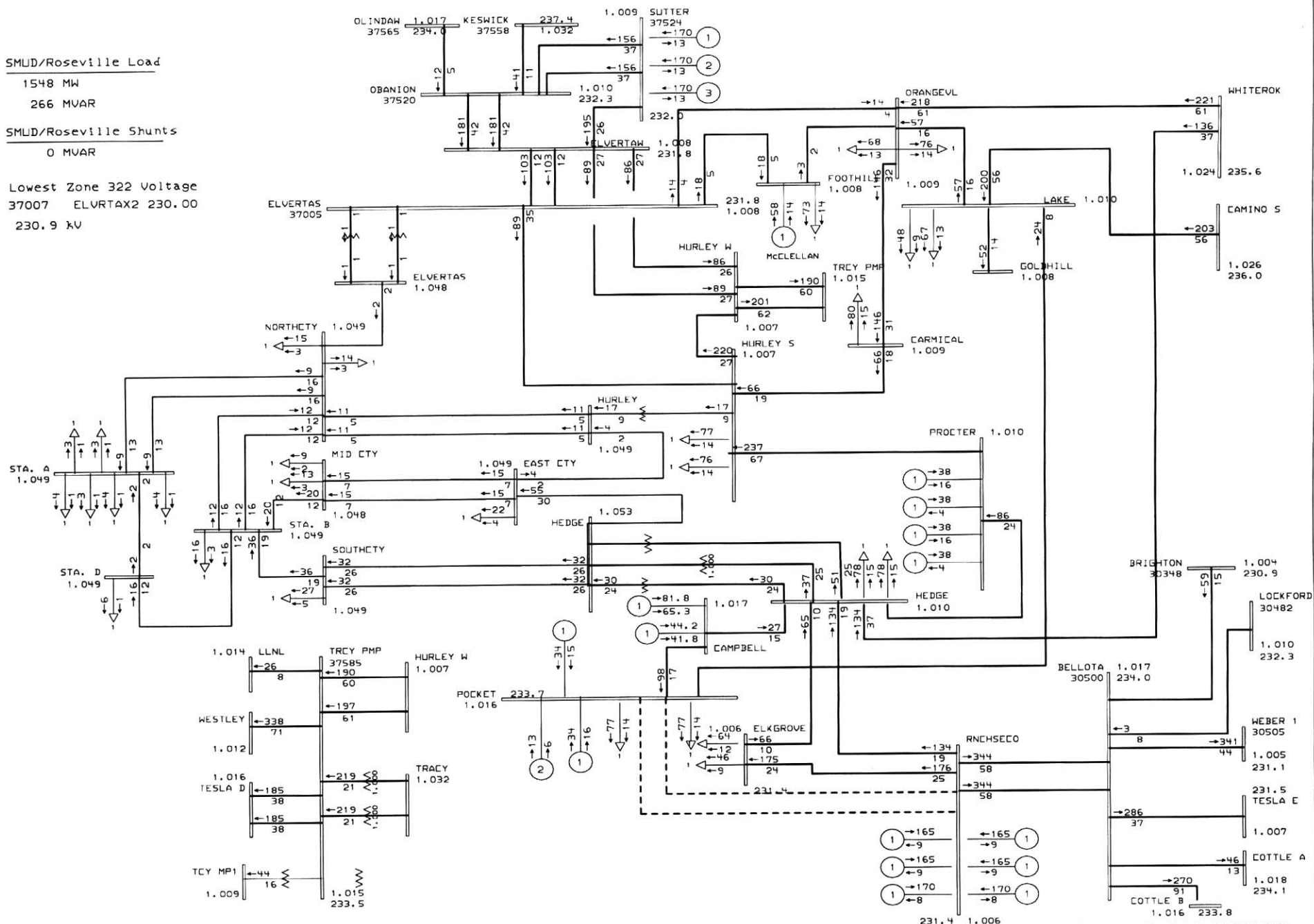
SMUD/Roseville Shunts

0 MVAR

Lowest Zone 322 Voltage

37007 ELVRTAX2 230.00

230.9 kV



General Electric International, Inc. PSLE Program

SMUD

rs04sp10, 2004 Spring Rancho Seco Generation Base Case
 1000 MW Rancho Seco Generation, No FPLE Generation Plant
 From Western FPLE Study Case 04sp-fplesrev

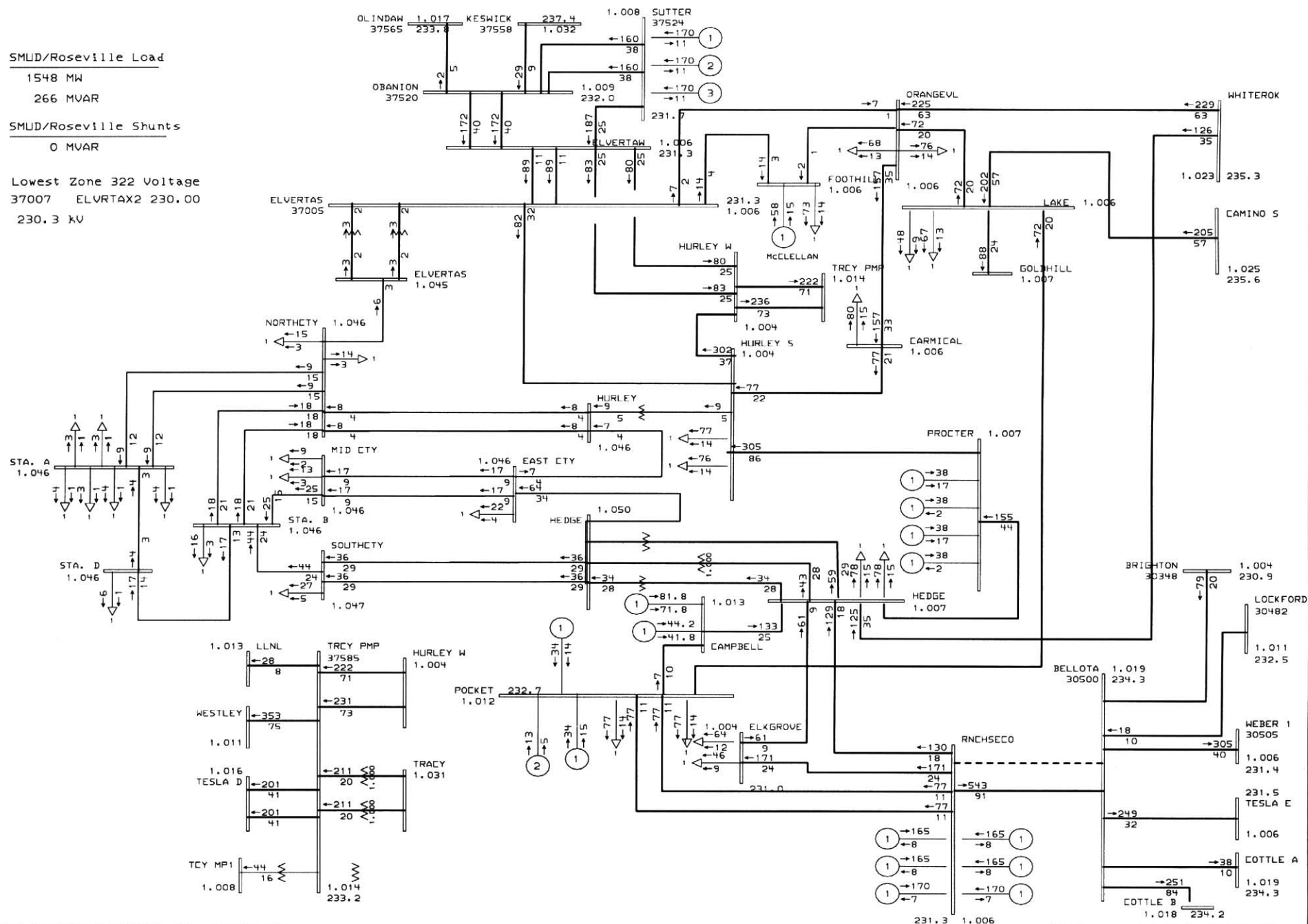
POLKET 230.00 -RNHSECO 230.00 #1
 POCKET 230.00 -RNHSECO 230.00 #2

MW/Pct

Tue Oct 16 13:41:41 2001

sac-gb2.drw
 t.wrk
 Rating = 2

230.3 kV



General Electric International, Inc. PSLF Program

SMUD

rs04sp10, 2004 Spring Rancho Seco Generation Base Case
1000 MW Rancho Seco Generation, No FPLE Generation Plant
From Western FPLE Study Case 04sp-fplesrev

RNCHSECO	230.00	- BELLOTA	230.00	1
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MW/Pct

Tue Oct 16 13:41:45 2001

sac-gb2.drw
t.wrk
Rating = 2

SMUD/Roseville Load

1548 MW

266 MVAR

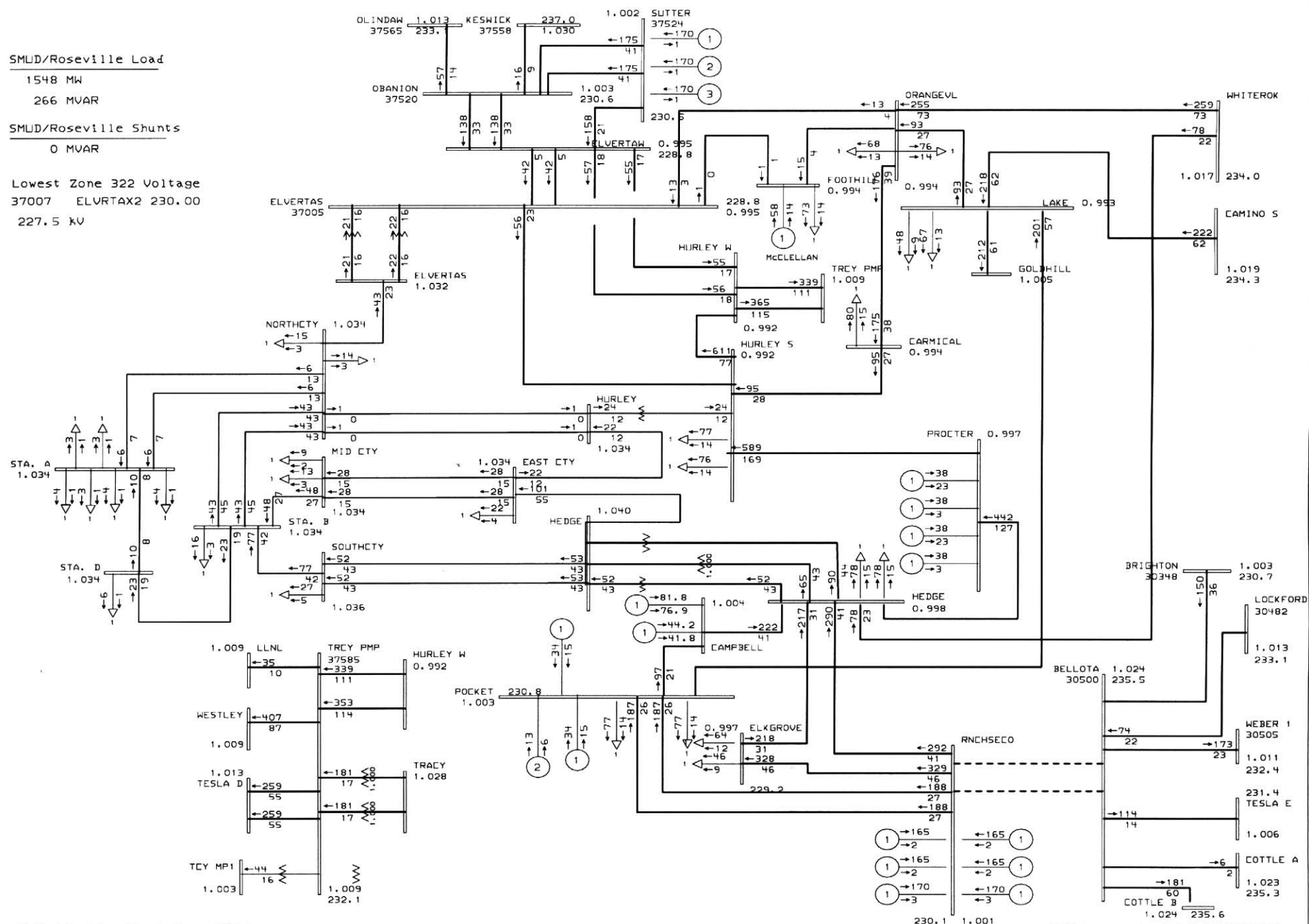
SMUD/Roseville Shunts

0 MVAR

Lowest Zone 322 Voltage

37007 ELVRTAX2 230.00

227.5 kV



General Electric International, Inc. PSLF Program

SMUD

rs04sp10, 2004 Spring Rancho Seco Generation Base Case
 1000 MW Rancho Seco Generation, No FPLE Generation Plant
 From Western FPLE Study Case 04sp-fplesrev

RNCHSECO 230.00 -BELLOTA 230.00 #1
 RNCHSECO 230.00 -BELLOTA 230.00 #2

MW/Pct

Tue Oct 16 13:41:49 2001

sac-gb2.drw
 t.wrk
 Rating = 2

SMUD/Roseville Load

1548 MW

266 MVAR

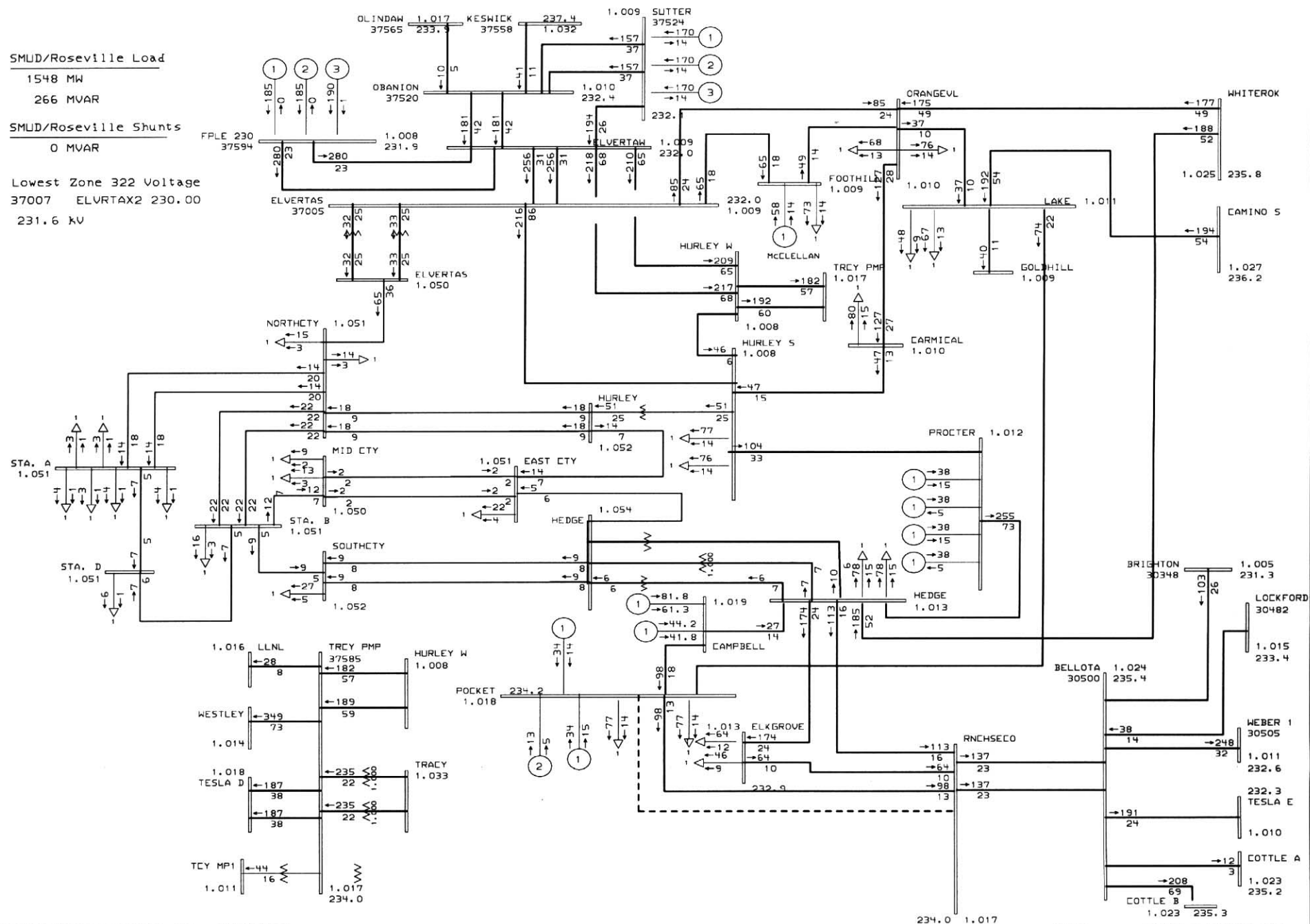
SMUD/Roseville Shunts

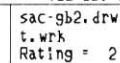
0 MVAR

Lowest Zone 322 Voltage

37007 ELVRTAX2 230.00

231.6 kV





SMUD/Roseville Load

1548 MW

266 MVAR

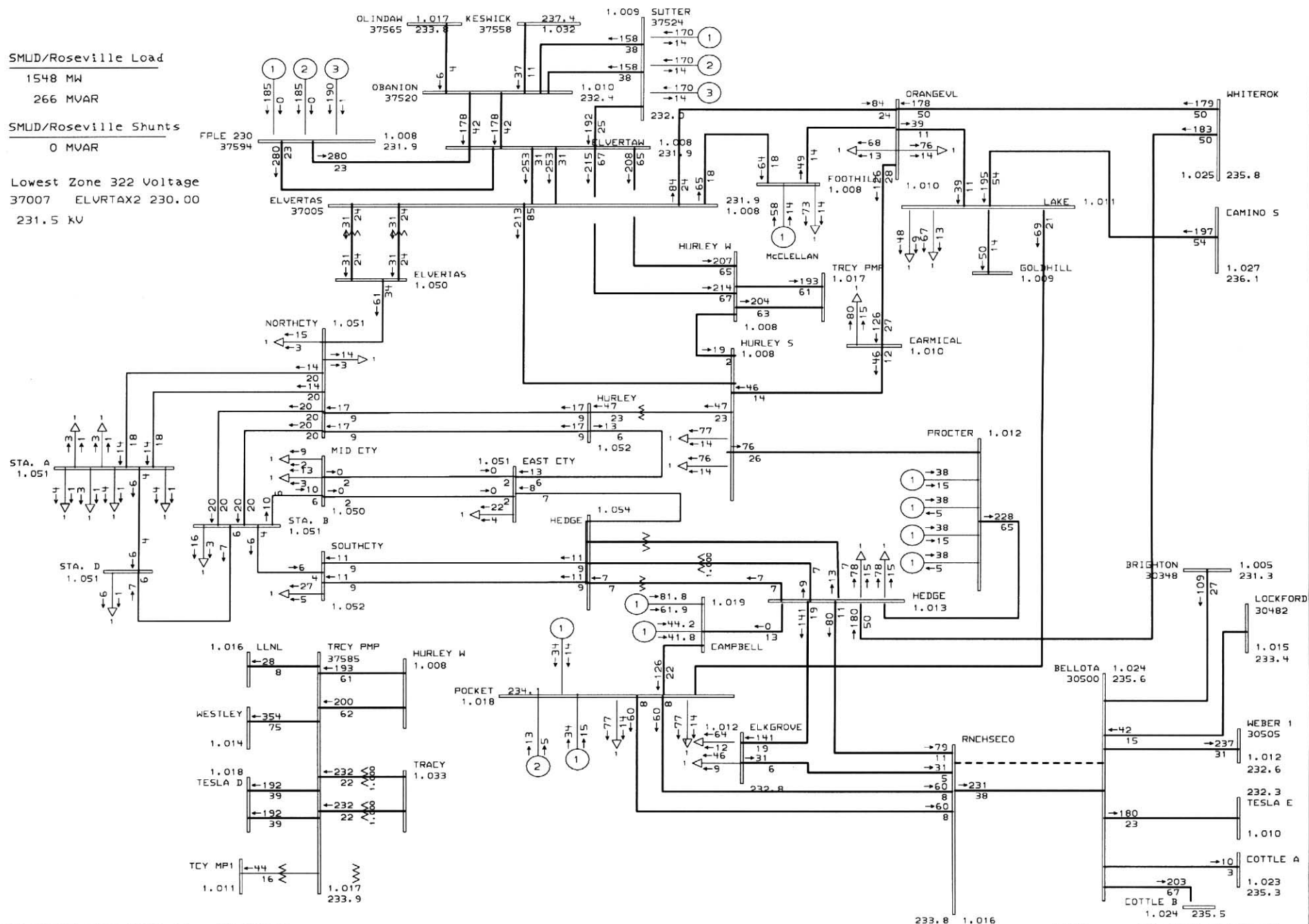
SMUD/Roseville Shunts

0 MVAR

Lowest Zone 322 Voltage

37007 ELVRTAX2 230.00

231.5 kV



General Electric International, Inc. PSLE Program

rs04sp01, 2004 Spring Rancho Seco Generation Base Case
 No Rancho Seco Generation Plant, FPLE Generation at 560 MW
 From Western FPLE Study Case 04sp-fplesrev

RNHSECO 230.00 -BELLOTA 230.00 #1

MW/Pct

Tue Oct 16 13:36:22 2001

SMUD

sac-gb2.drw
 t.wrk
 Rating = 2

SMUD/Roseville Load

1548 MW

266 MVAR

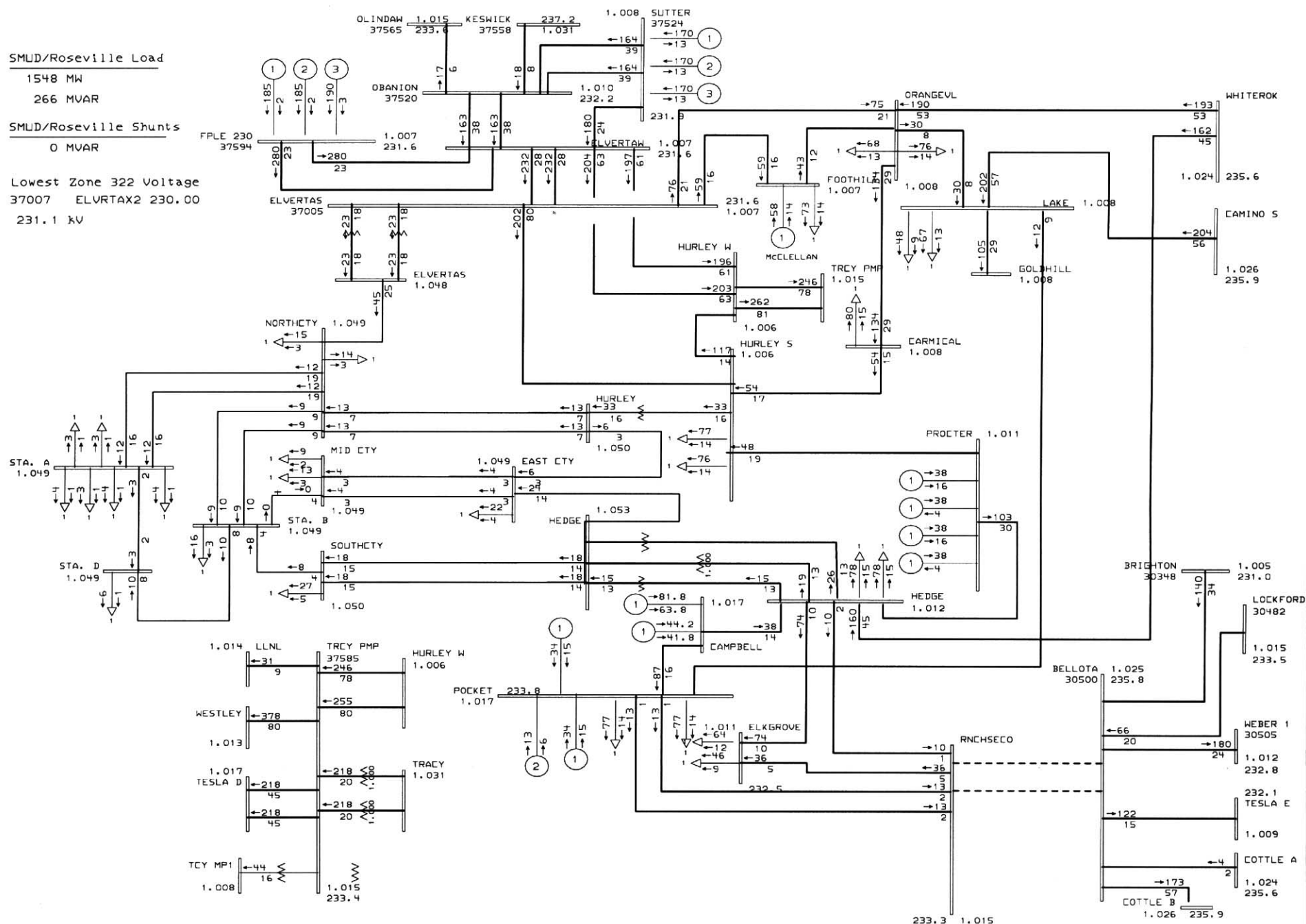
SMUD/Roseville Shunts

0 MVAR

Lowest Zone 322 Voltage

37007 ELVRTAX2 230.00

231.1 kV



General Electric International, Inc. PSLF Program

SMUD

rs04sp01, 2004 Spring Rancho Seco Generation Base Case
 No Rancho Seco Generation Plant, FPLE Generation at 560 MW
 From Western FPLE Study Case 04sp-fplesrev

RCHSECO 230.00 -BELLOTA 230.00 #1
 RCHSECO 230.00 -BELLOTA 230.00 #2

MW/Pct

Tue Oct 16 13:36:26 2001

sac:gb2.drw
 t.wrk
 Rating = 2

SMUD/Roseville Load

1548 MW

266 MVAR

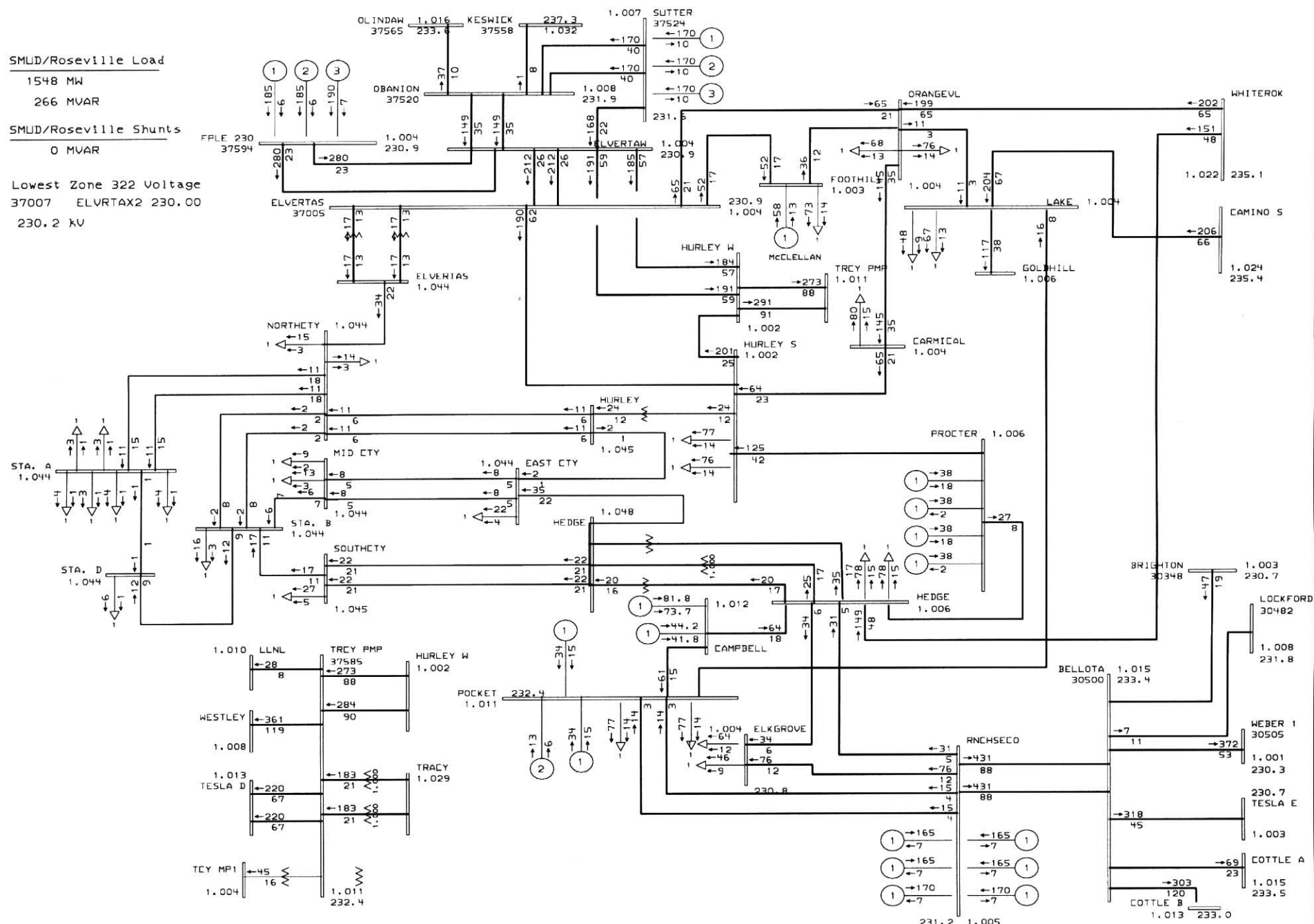
SMUD/Roseville Shunts

0 MVAR

Lowest Zone 322 Voltage

37007 ELVRTAX2 230.00

230.2 kV



General Electric International, Inc. PSLE Program

SMUD

rs04sp11, 2004 Spring Rancho Seco Generation Base Case
 1000 MW Rancho Seco Generation, FPLE Generation at 560 MW
 From Western FPLE Study Case 04sp-fplesrev

BASE CASE

MW/Pct

Tue Oct 16 13:43:17 2001

sac:gb2.drw
 t.wrk
 Rating = 1

SMUD/Roseville Load

1548 MW

266 MVAR

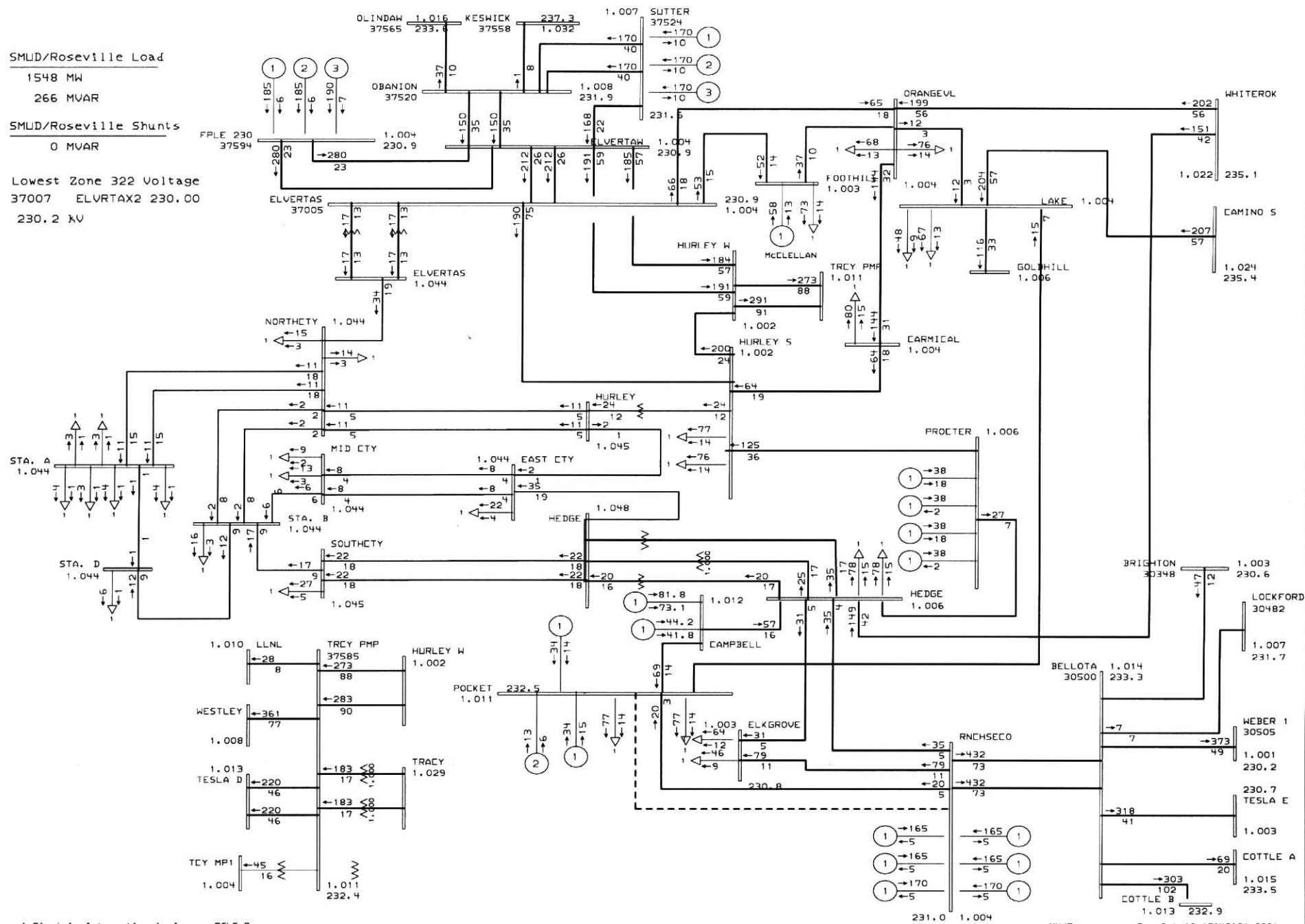
SMUD/Roseville Shunts

0 MVAR

Lowest Zone 322 Voltage

37007 ELVRTAX2 230.00

230.2 kV



General Electric International, Inc. PSLE Program

SMUD

rs04sp11, 2004 Spring Rancho Seco Generation Base Case
 1000 MW Rancho Seco Generation, FPLE Generation at 560 MW
 From Western FPLE Study Case 04sp-fplesrev

POCKET 230.00 -RNCHSECO 230.00 #2

MW/Pct

Tue Oct 16 13:43:21 2001

sac-gb2.drw
 t.wrk
 Rating = 2

SMUD/Roseville Load

1548 MW

266 MVAR

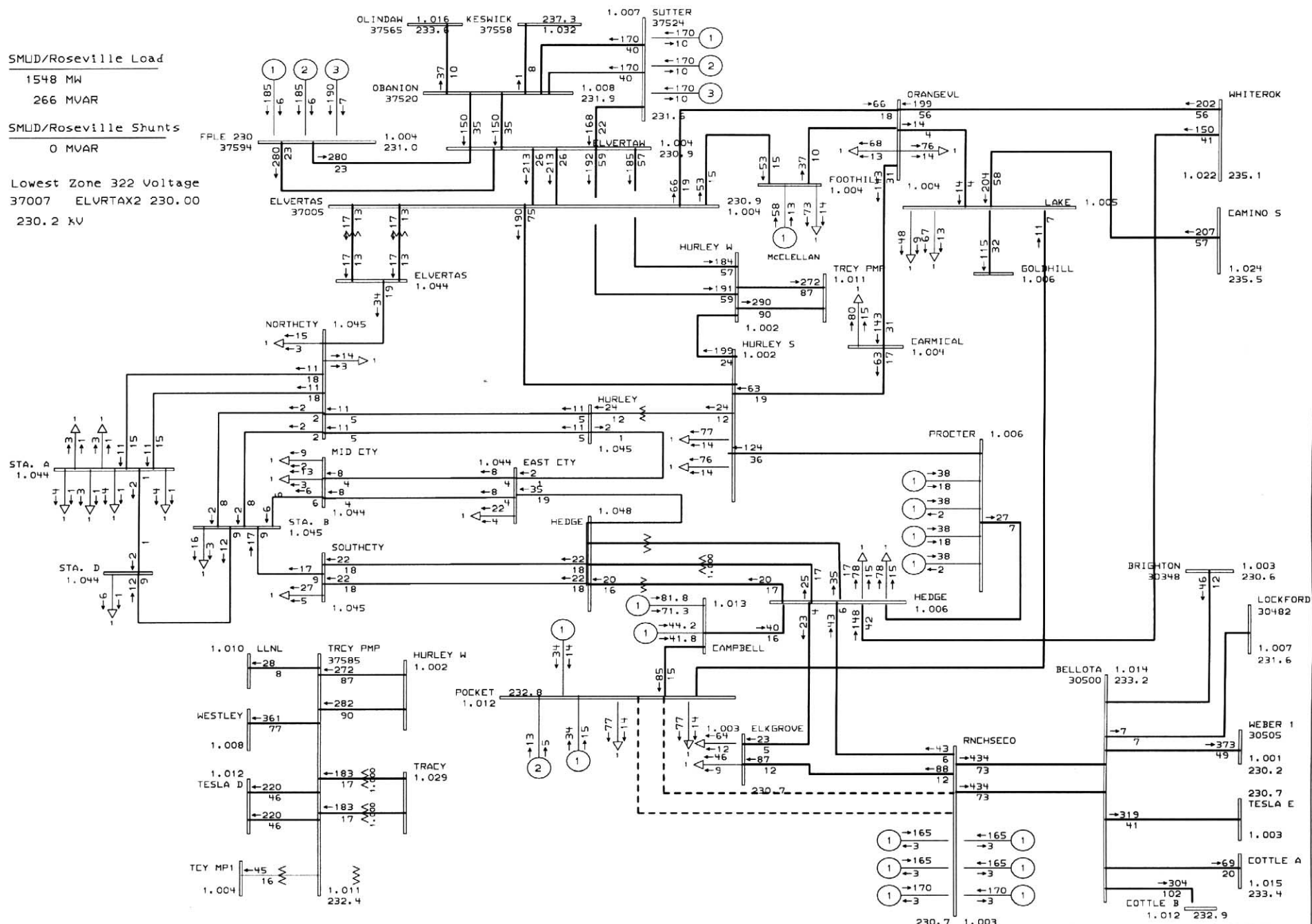
SMUD/Roseville Shunts

0 MVAR

Lowest Zone 322 Voltage

37007 ELVRTAX2 230.00

230.2 kV



General Electric International, Inc. PSLF Program

SMUD

rs04sp11, 2004 Spring Rancho Seco Generation Base Case
 1000 MW Rancho Seco Generation, FPLE Generation at 560 MW
 From Western FPLE Study Case 04sp-fplesrev

POLKET 230.00 -RNCHSECO 230.00 #1
 POCKET 230.00 -RNCHSECO 230.00 #2

MW/Pct

Tue Oct 16 13:43:25 2001

sac-gb2.drw
 t.wrk
 Rating = 2

SMUD/Roseville Load

1548 MW

266 MVAR

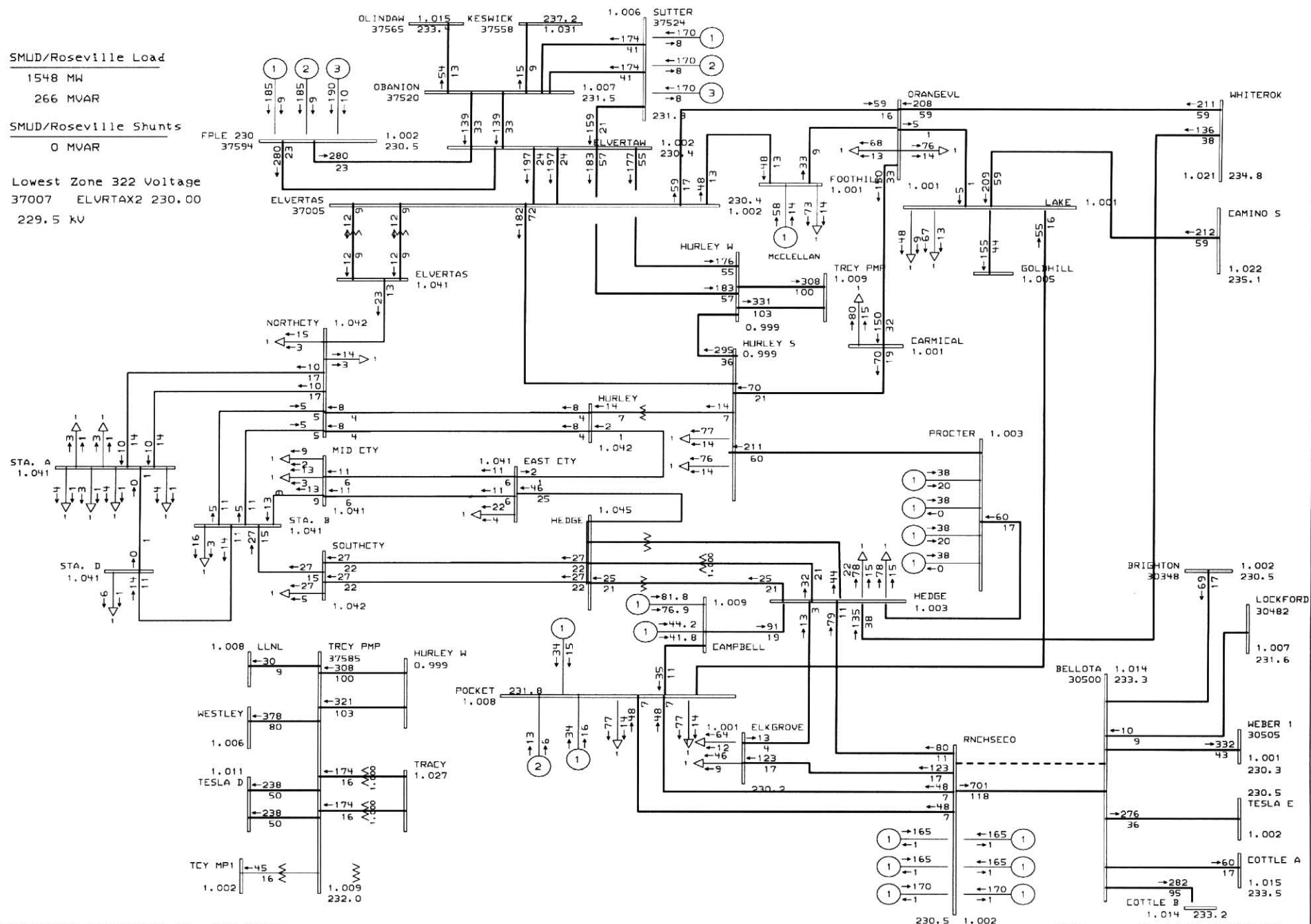
SMUD/Roseville Shunts

0 MVAR

Lowest Zone 322 Voltage

37007 ELVRTAX2 230.00

229.5 kV



General Electric International, Inc. PSLF Program

SMUD

rs04sp11, 2004 Spring Rancho Seco Generation Base Case
 1000 MW Rancho Seco Generation, FPLE Generation at 560 MW
 From Western FPLE Study Case 04sp-fplesrev

RNCHSECO 230.00 -BELLOTA 230.00 #1

MW/Pct

Tue Oct 16 13:43:29 2001

sac-gb2.drw
 t.wrk
 Rating = 2

SMUD/Roseville Load

1548 MW

266 MVAR

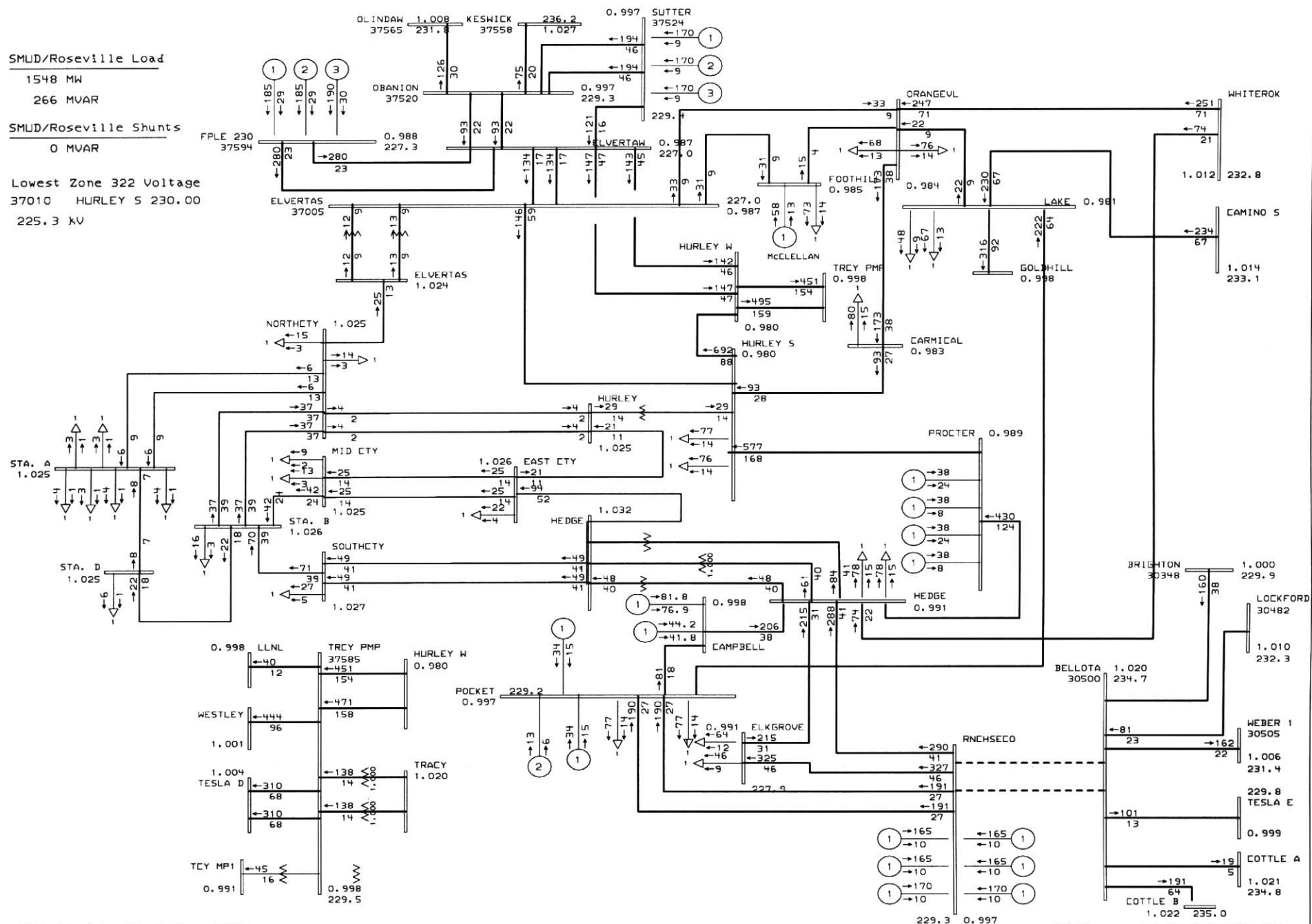
SMUD/Roseville Shunts

0 MVAR

Lowest Zone 322 Voltage

37010 HURLEY S 230.00

225.3 kV



General Electric International, Inc. PSLF Program

rs04sp11, 2004 Spring Rancho Seco Generation Base Case
 1000 MW Rancho Seco Generation, FPLE Generation at 560 MW
 From Western FPLE Study Case 04sp-fplesrev

RNCHSECO 230.00 -BELLOTA 230.00 #1
 RNCHSECO 230.00 -BELLOTA 230.00 #2

MW/Pct

Tue Oct 16 13:43:34 2001

SMUD

sac-gb2.drw
 t.wrk
 Rating = 2



3460 MW

626 MVAR

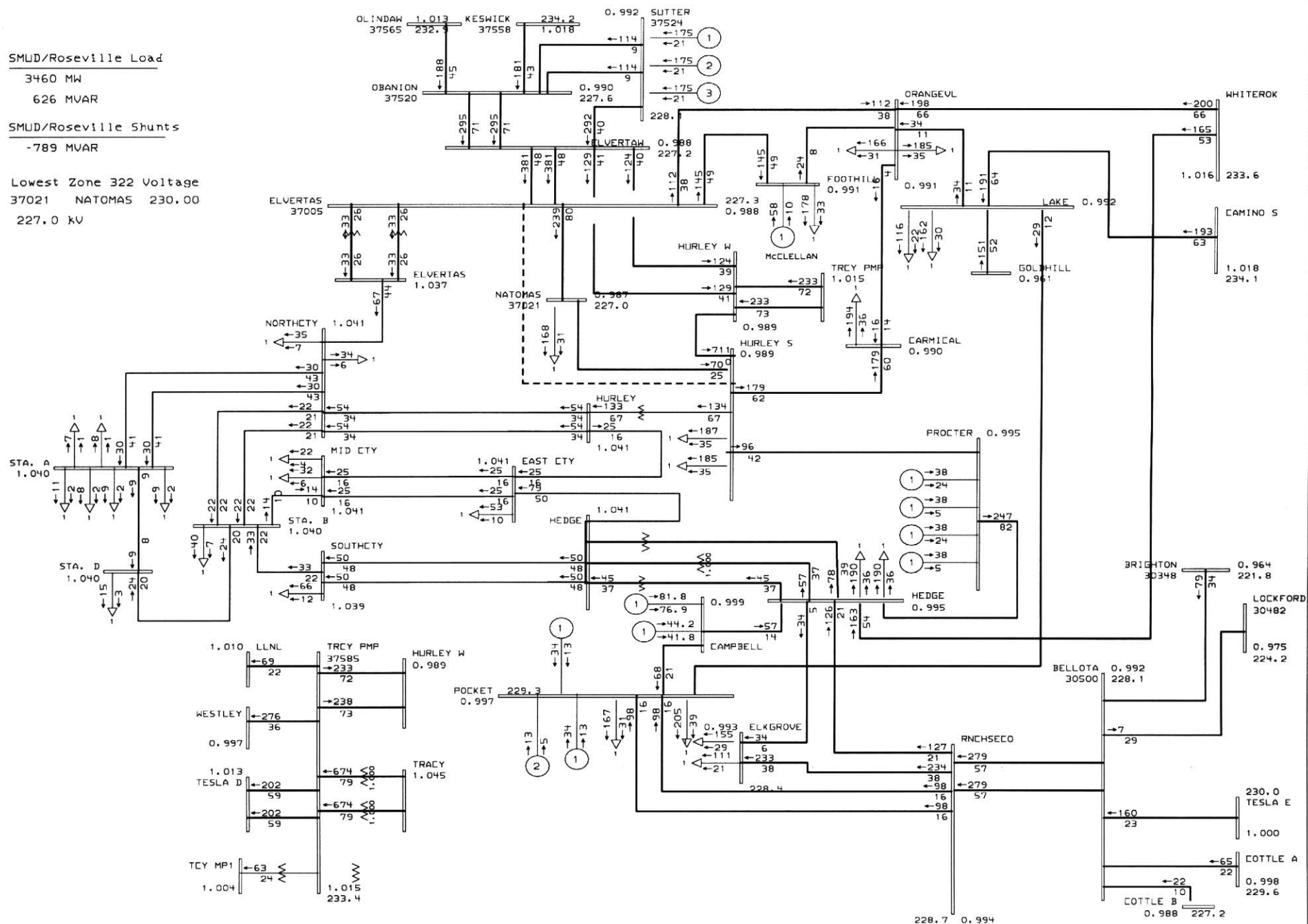
SMUD/Roseville Shunts

-789 MVAR

Lowest Zone 322 Voltage

37021	NATOMAS	230.00
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227.0 kV



General Electric International, Inc. PSLF Program

rs05hs00, 2005 Heavy Summer Rancho Seco Generation Study Case
No Rancho Seco Generation Plant, No FPLE Generation Plant
From Western FPLE Study Case 05hs-no-fple

BASE CASE

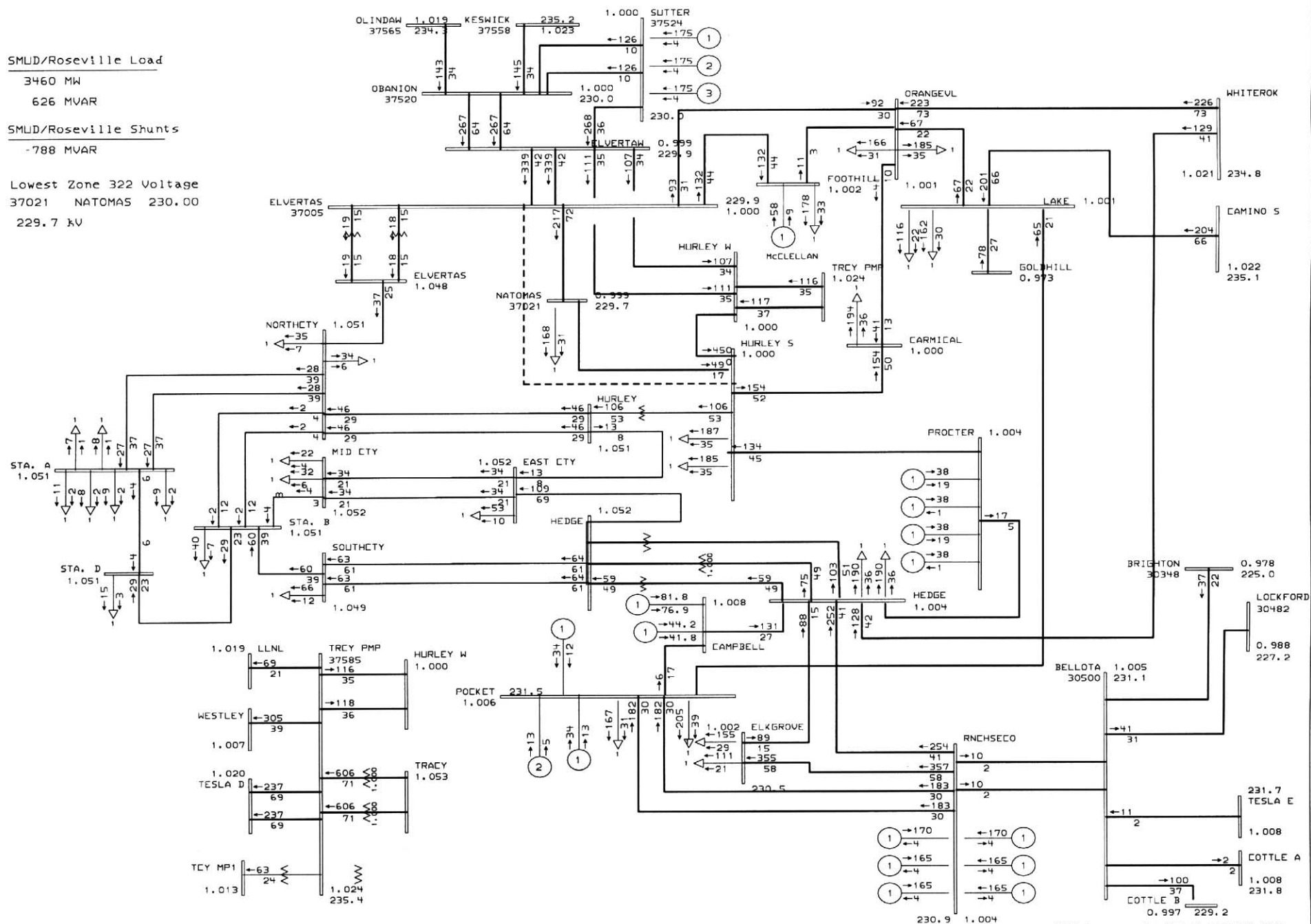
MW/Pct Tue Oct 16 14:42:27 2001

sac-gb4.drw
t.wrk
Rating = 1

626 MVAR

-788 MVAR

229.7 kV



General Electric International, Inc. PSLF Program

rs05hs10, 2005 Heavy Summer Rancho Seco Generation Study Case
Rancho Seco Generation = 1000 MW, No FPLE Generation Plant
From Western FPLE Study Case 05hs-no-fple

BASE CASE

MW/Pct

Tue Oct 16 14:41:40 2001

sac-gb4.drw	
t.wrk	
Rating =	1

SMUD/Roseville Load

3460 MW

626 MVAR

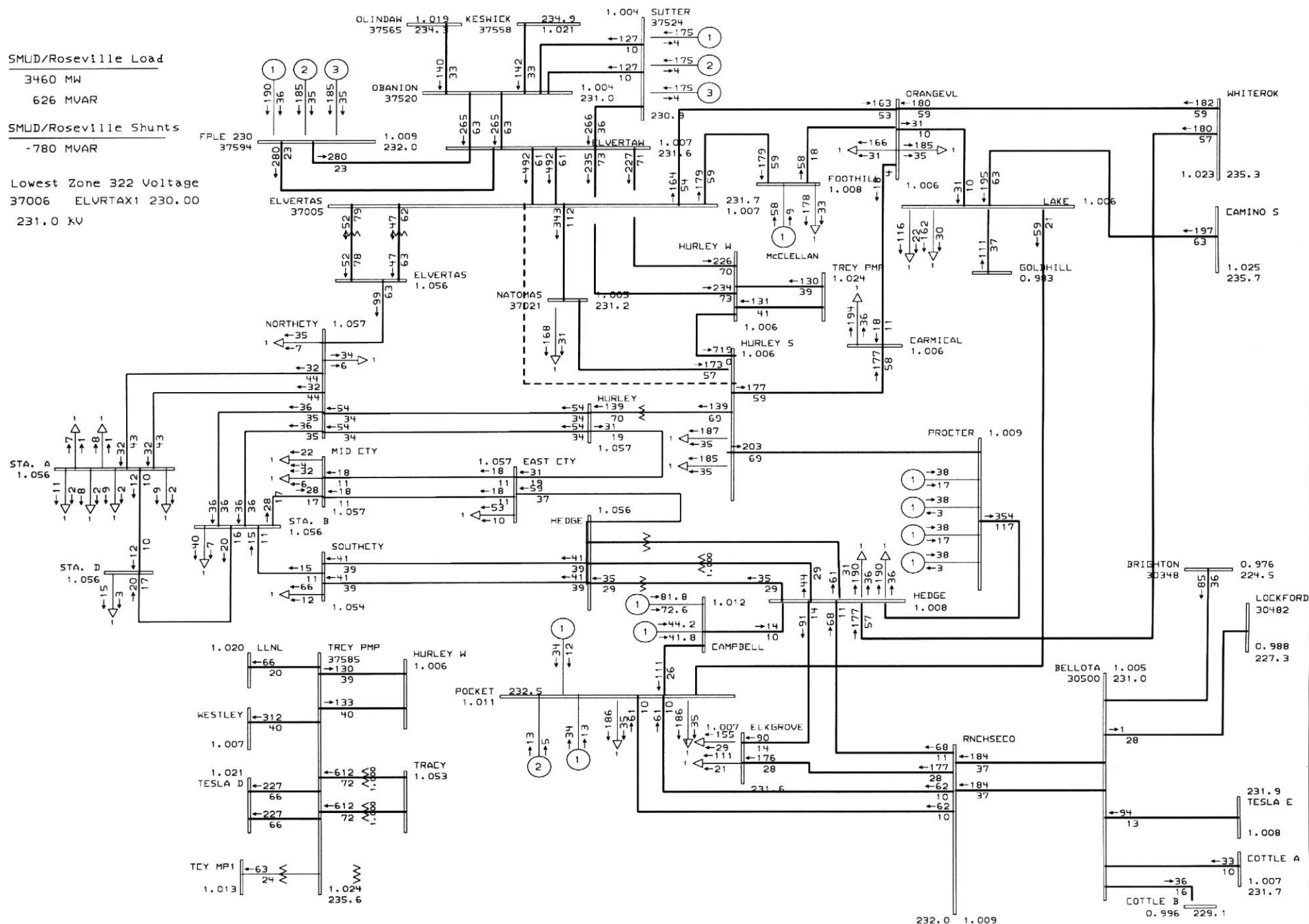
SMUD/Roseville Shunts

-780 MVAR

Lowest Zone 322 Voltage

37006 ELVRTAX1 230.00

231.0 kV



General Electric International, Inc. PSLE Program

SMUD

rs05hs01, 2005 Heavy Summer Rancho Seco Generation Study Case
 No Rancho Seco Generation Plant, FPLE Generation = 560 MW
 From Western FPLE Study Case 05s-pgepeak-fplesrev1

BASE CASE

MW/Pct

SAC-9b4.drw
 t.wrk
 Rating = 1

Tue Oct 16 14:42:15 2001

SMUD/Roseville Load

3460 MW

626 MVAR

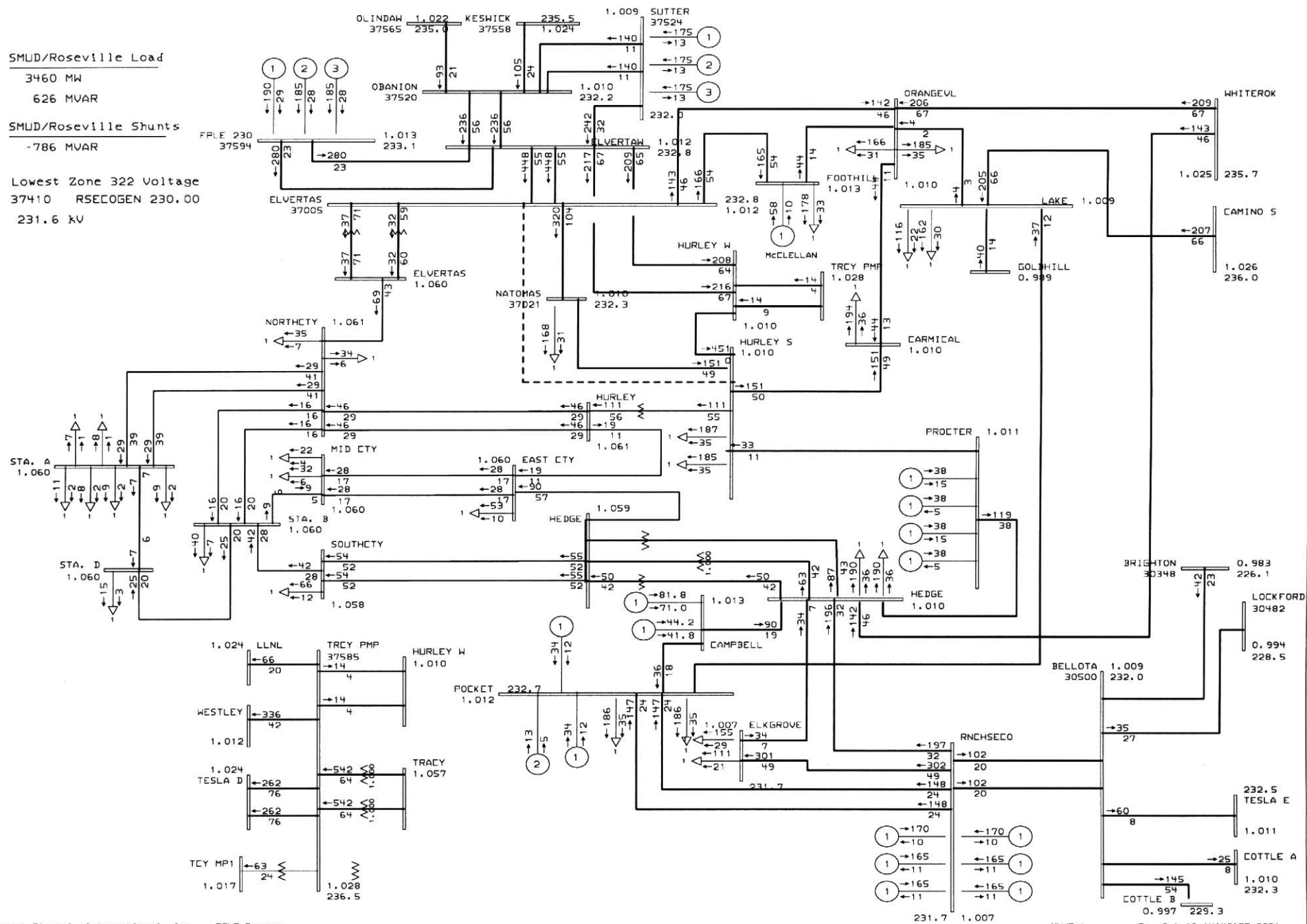
SMUD/Roseville Shunts

-786 MVAR

Lowest Zone 322 Voltage

37410 RSECOGEN 230.00

231.6 kV



General Electric International, Inc. PSLF Program

SMUD

rs05hs11, 2005 Heavy Summer Rancho Seco Generation Study Case
 Rancho Seco Generation = 1000 MW, FPLE Generation = 560 MW
 From Western FPLE Study Case 05s-pgepeak.fplesrev1

BASE CASE

MW/Pct

sac-gb4.drw
 t.wrk
 Rating = 1

Tue Oct 16 14:40:57 2001