

## APPENDIX A: System Data

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## A1 Existing Generation

Table A1-1: Existing generation plants in PG&amp;E planning area

Planning Area	Generating Plant	Maximum Capacity
<b>PG&amp;E - Humboldt</b>	Humboldt Bay	166
	Kekawaka	4.9
	LP Samoa	25
	Fairhaven	17.3
	Blue Lake	12
	<b>Humboldt Area Total</b>	<b>225</b>
<b>PG&amp;E - North Coast and North Bay</b>	Santa Fe	160
	Bear Canyon	20
	Westford Flat	30
	Western Geo	38
	Geysers 5	53
	Geysers 6	53
	Geysers 7	53
	Geysers 8	53
	Geysers 11	106
	Geysers 12	106
	Geysers 13	133
	Geysers 14	109
	Geysers 16	118
	Geysers 17	118
Geysers 18	118	

Planning Area	Generating Plant	Maximum Capacity
	Geysers 20	118
	SMUD Geo	72
	Potter Valley	11
	Geo Energy	20
	Indian Valley	3
	Sonoma Landfill	6
	Exxon	54
	Monticello	12
	<b>North Coast and North Bay Area Total</b>	<b>1564</b>
<b>PG&amp;E - North Valley</b>	Pit River	752
	Battle Creek	17
	Cow Creek	5
	North Feather River	736
	South Feather River	123
	West Feather River	26
	Black Butte	11
	CPV	717
	Hatchet Ridge Wind	103
	QFs	353
	<b>North Valley Area Total</b>	<b>2,843</b>
<b>PG&amp;E - Central Valley</b>	Wadham	27
	Woodland Biomass	25
	UC Davis Co-Gen	4

<b>Planning Area</b>	<b>Generating Plant</b>	<b>Maximum Capacity</b>
	Cal-Peak Vaca Dixon	49
	Wolfskill Energy Center	60
	Lambie, Creed and Goosehaven	143
	EnXco	60
	Solano	100
	High Winds	200
	Shiloh	300
	Bowman Power House	4
	Camp Far West (SMUD)	7
	Chicago Park Power House	40
	Chili Bar Power House	7
	Colgate Power House	294
	Deer Creek Power House	6
	Drum Power House	104
	Dutch Plat Power House	49
	El Dorado Power House	20
	Feather River Energy Center	50
	French Meadow Power House	17
	Green Leaf No. 1	73
	Green Leaf No. 2	50
	Halsey Power House	11
	Haypress Power House	15
	Hellhole Power House	1

<b>Planning Area</b>	<b>Generating Plant</b>	<b>Maximum Capacity</b>
	Middle Fork Power House	130
	Narrows Power House	66
	Newcastle Power House	14
	Oxbow Power House	6
	Ralston Power House	83
	Rollins Power House	12
	Spaulding Power House	17
	SPI-Lincoln	18
	Ultra Rock (Rio Bravo-Rocklin)	25
	Wise Power House	20
	Yuba City Co-Generation	49
	Yuba City Energy Center	61
	Altamont Co-Generation	7
	Camanche Power House	11
	Co-generation National POSDEF	44
	Electra Power House	101
	Flowind Wind Farms	76
	GWF Tracy Peaking Plant	192
	Ione Energy	18
	Lodi CT	25
	Lodi Stigg	57
	Pardee Power House	29
	Salt Springs Power House	42

Planning Area	Generating Plant	Maximum Capacity
	San Joaquin Co-Generation	55
	Simpson Paper Co-Generation	50
	Stockton Co-Generation (Air Products)	50
	Stockton Waste Water Facility	2
	Thermal Energy	21
	Tiger Creek Power House	55
	US Wind Power Farms	158
	West Point Power House	14
	Lodi Energy Center	280
	GWF Tracy Expansion	145
	Beardsley Power House	11
	Donnells Power House	68
	Fiberboard (Sierra Pacific)	6
	Melones Power Plant	119
	Pacific Ultra Power Chinese Station	22
	Sand Bar Power House	15
	Spring Gap Power House	7
	Stanislaus Power House	83
	Stanislaus Waste Co-gen	24
	Tulloch Power House	17
	<b>Central Valley Area Total</b>	<b>3,970</b>
<b>PG&amp;E - Greater Bay Area</b>	Alameda Gas Turbines	51
	Calpine Gilroy I	182

Planning Area	Generating Plant	Maximum Capacity
	Crockett Co-Generation	240
	Delta Energy Center	965
	Marsh Landing	774
	Russell City – East Shore EC	640
	High Winds, LLC	162
	Los Esteros Critical Energy Facility	362
	Los Medanos Energy Center	678
	Mariposa Peaker	200
	Metcalf Energy Center	575
	Oakland C Gas Turbines	165
	Donald Von Raesfeld Power Plant	164
	Pittsburg Power Plant	1,360
	Riverview Energy Center	61
	Ox Mountain	13
	Gateway Generating Station	599
	<b>Greater Bay Area Total</b>	<b>7191</b>
<b>PG&amp;E - Greater Fresno Area</b>	Fresno Cogen-Agrico	79.9
	Adams_E	19
	Adera Solar	20
	Alpaughn_20S	20
	Alpaughn_50S	50
	Atwell	20
	Avenal	6



Planning Area	Generating Plant	Maximum Capacity
	Balch 1 PH	31
	Balch 2 PH	107
	Bulld 12	2.8
	Blackwell Solar	3
	Mendota Biomass Power	25
	Cantua	20
	Chow 2 Peaker Plant	52.5
	Chevron USA (Coalinga)	25
	Chow II Biomass to Energy	12.5
	CID Solar	20
	Citizen Solar B	5
	Coalinga Cogeneration Company	46
	CalPeak Power – Panoche LLC	49
	Crane Valley	0.9
	Corcoran PB	20
	Corcoran City	11
	Dinuba Generation Project	13.5
	El Nido Biomass to Energy	12.5
	EE Kettleman Land	20
	Exchequer Hydro	94.5
	Fresno Waste Water	9
	Friant Dam	27.3
	Fresno Solar West & South	3

<b>Planning Area</b>	<b>Generating Plant</b>	<b>Maximum Capacity</b>
	GWF Henrietta Peaker Plant	109.6
	Gates_Dist	30
	Giffen_Dist	10
	Guernsey_Dist	20
	HEP Peaker Plant Aggregate	102
	Hanford L.P.	23
	Hass PH Unit 1 &2 Aggregate	146.2
	Helms Pump-Gen	1,212
	J.R. Wood	10.8
	Jgbswt	2.9
	Kansas	40
	Kent	20
	Kerkhoff PH1	32.8
	Kerkhoff PH2	142
	Kingsburg Cogen	34.5
	Kings River Hydro	51.5
	Kings River Conservation District	112
	Liberty V Lost Hills	20
	Madera	28.7
	McCall	2.5
	McSwain Hydro	10
	Merced Falls	4
	Merced Solar	1.5

Planning Area	Generating Plant	Maximum Capacity
	Mission Solar	1.5
	Morelos Del Sol	15
	North Star Solar 1	60
	O'Neill Pump-Gen	11
	Panoche Energy Center	410
	Pine Flat Hydro	189.9
	Quinto Solar PV	107.6
	Sanger Cogen	67.5
	Sandrag	19
	San Joaquin 2	3.2
	San Joaquin 3	4.2
	Schindler	30
	Starwood Panoche	121.8
	Stroud	20
	Stratford	20
	Suncity	20
	SUN Harvest Solar	1.5
	Rio Bravo Fresno (AKA Ultrapower)	26.5
	Vega Solar	20
	Wellhead Power Gates, LLC	49
	Wellhead Power Panoche, LLC	49
	Westlands	38
	Westlands Solar Farm	18

Planning Area	Generating Plant	Maximum Capacity
	Wishon/San Joaquin #1-A Aggregate	20.4
	2097 Helton	1.5
	<b>Greater Fresno Area Total</b>	<b>4,316</b>
<b>PG&amp;E - Kern Area</b>	Badger Creek (PSE)	49
	Chalk Cliff	48
	Cymric Cogen (Chevron)	21
	Cadet (Chev USA)	12
	Dexzel	33
	Discovery	44
	Double C (PSE)	45
	Elk Hills	623
	Frito Lay	8
	Hi Sierra Cogen	49
	Kern	177
	Kern Canyon Power House	11
	Kernfront	49
	Kern Ridge (South Belridge)	76
	La Paloma Generation	926
	Midsun	25
	Mt. Poso	56
Navy 35R	65	
Oildale Cogen	40	
Bear Mountain Cogen (PSE)	69	

Planning Area	Generating Plant	Maximum Capacity
	Live Oak (PSE)	48
	McKittrick (PSE)	45
	Rio Bravo Hydro	11
	Shell S.E. Kern River	27
	Solar Tannenhill	18
	Sunset	225
	North Midway (Texaco)	24
	Sunrise (Texaco)	338
	Sunset (Texaco)	239
	Midset (Texaco)	42
	Lost Hills (Texaco)	9
	University Cogen	36
	New RPS Units	55
	<b>Kern Area Total</b>	<b>3,543</b>
<b>PG&amp;E - Central Coast and Los Padres</b>	Moss Landing Power Plant	2,600
	Soledad Energy	10
	Basic Energy Cogen (King City)	133
	King City Peaker	70
	Sargent Canyon Cogen (Oilfields)	45
	Salinas River Cogen (Oilfields)	45
	Diablo Canyon Power Plant	2,400
	Union Oil (Tosco)	6
	Santa Maria	8

<b>Planning Area</b>	<b>Generating Plant</b>	<b>Maximum Capacity</b>
	Vandenberg Air Force Base	15
	Topaz	550
	California Valley Solar	250
	<b>Central Coast and Los Padres Area Total</b>	<b>6,132</b>

Table A1-2: Existing generation plants in SCE planning area

Planning Area	Generating Plant	Maximum Capacity
<b>SCE - Tehachapi and Big Creek Corridor</b>	Big Creek 1-1 Gen 1	19.9
	Big Creek 1-1 Gen 2	21.6
	Big Creek 1-2 Gen 3	21.6
	Big Creek 1-2 Gen 4	31.2
	Big Creek 2-1 Gen 1	50.8
	Big Creek 2-1 Gen 2	52.0
	Big Creek 2-2 Gen 3	18.7
	Big Creek 2-2 Gen 4	19.7
	Big Creek 2-3 Gen 5	17.0
	Big Creek 2-3 Gen 6	18.5
	Big Creek 3-1 Gen 1	35.0
	Big Creek 3-1 Gen 2	35.0
	Big Creek 3-2 Gen 3	35.0
	Big Creek 3-2 Gen 4	41.0
	Big Creek 3-3 Gen 5	39.0
	Big Creek 4 Gen 41	50.4
	Big Creek 4 Gen 41	50.6
	Big Creek 8 Gen 81	24.4
	Big Creek 8 Gen 81	44.0
	Eastwood	207.0
Mammoth 1G	93.5	
Mammoth 2G	93.5	

Planning Area	Generating Plant	Maximum Capacity
	Portal	9.6
	Warne 1	38.0
	Warne 2	38.0
	Pandol 1	56.0
	Pandol 2	56.0
	Ultragen	41.0
	Omar 1G	90.8
	Omar 2G	90.8
	Omar 3G	90.8
	Omar 4G	90.8
	SYCCYN 1G	75.0
	SYCCYN 2G	75.0
	SYCCYN 3G	75.0
	SYCCYN 4G	75.0
	Pastoria Energy Facility	770.0
	Manzana Wind Project	189.0
	Pacific Wind Project	140.0
	Coram Brodie Wind Project Expansion	51.0
	Coram Brodie Wind Project Phase 2	51.0
	Alta 2012	720.0
	CPC Alta Wind 4-5 (fka CPC East)	420.0
	CPC Alta Wind 1-3 (fka CPC West)	600.0
	Windstar I Alternate	120.0



Planning Area	Generating Plant	Maximum Capacity
	Eastwind	60.0
	Westwind	21.0
	Tehachap	114.4
	WNDT167	120.0
	North Sky River Wind	170.0
	Sky River	76.9
	Catalina Solar	150.0
	KR 3-1	22.8
	KR 3-2	21.5
	LakeGen	18.0
	Wellhead Power Delano	49.9
	Kawgen	18.0
	Avenue	310.0
	Kingsbird	270.0
	AV Solar 1	249.0
	Arbwind	21.8
	Canwind	65.0
	Enwind	47.1
	Encawind	112.9
	Flowind	40.8
	Dutchwind	14.0
	Northwind	19.4
	Oakwind	21.1

Planning Area	Generating Plant	Maximum Capacity
	Southwind	13.4
	Zondwind	26.0
	Breeze	12.5
	Midwind	18.0
	Morwind	56.0
	Kern River	24.0
	Borel	10.0
	Alta Vista Suntower Generating Station	66.0
	Antelope Power Plant	20.0
	Down	20.0
	Twilight	20.0
	Antelope Valley PV1	318.5
	Antelope Valley PV2	285.0
	Rising Tree	198.8
	Western Antelope Blue Sky Ranch A	20.0
	First Solar North Rosamond	100.8
	AV Solar Ranch 2-A	20.4
	AV Solar Ranch 2-B	20.4
	RE Astoria	181.1
	RE Camelot	45.0
	RE Columbia	15.0
	TA Acacia	20.0
	SGS Antelope Valley	300.0

Planning Area	Generating Plant	Maximum Capacity
	North Rosamond	156.2
	<b>Tehachapi and Big Creek Corridor Total</b>	<b>8,410.9</b>
<b>SCE - East of Lugo Area</b>	Desert Star Energy Star	506
	Mountain Pass - Ivanpah Solar	392
	Copper Mountain Solar I	58
	Copper Mountain Solar II	155
	<b>East of Lugo Area Total</b>	<b>1,111</b>
<b>SCE - North of Lugo</b>	ALBAG1	140
	BLM E7G	24
	BLM E8G	24
	BLM W9G	19.5
	BORAX I	22
	BSPHYD26	14.18
	BSPHYD34	15.9
	BLM E7G	24
	CALGEN	92.2
	CSA DIABLO 1	15
	CSA DIABLO 2	10
	High Desert Power Plant	854.9
	KERRMGEE	15
	LUNDY	3
	LUZ (8 & 9)	160

Planning Area	Generating Plant	Maximum Capacity
	NAVYII4G	22.5
	NAVYII5G	22.5
	NAVYII6G	22.5
	OCASOG2	140
	OXBOW G1	49.8
	POOLE	10.9
	RUSH	11.5
	SEGS 1G	14.2
	SEGS 2G	43.8
	SUNGEN	150
	<b>North of Lugo Area Total</b>	<b>1,897</b>
	<b>SCE - Eastern Area</b>	Blythe Energy Center
Indigo Peaker		136
Cabazon Wind		42.6
Mountainview IV Wind		42
Wintec 5 Wind		3.7
Wintec 6 Wind		45
Pacificorp Wind		2.1
FPLE Green 1 Wind		8.7
FPLE Green 2 Wind		3.0
FPLE Green 3 Wind		6.8
Wintec 2 Wind		16.5
Wintec 3 Wind		11.6

Planning Area	Generating Plant	Maximum Capacity
	Wintec 4 Wind	16.5
	Seawest 1 Wind	44.4
	Seawest 2 Wind	22.2
	Seawest 3 Wind	22.4
	Renwind Wind	9.0
	Whitewater Wind	66
	Altamesa 4 Wind	40
	Painted Hills Wind	16.9
	Altwind QF 1	32.9
	Altwind QF 2	15.1
	Buchwind QF	17
	Capwind QF	20
	Garnet QF Wind	101.4
	Panaero Wind	30
	Renwind QF 1	6.3
	Renwind QF 2	6.6
	Sanwind QF 1	3.0
	Sanwind QF 2	28.0
	Seawind QF	27
	Terawind QF	22.5
	Transwind QF	40.0
	Venwind QF 1	25.5
	Venwind QF 2	19.3

Planning Area	Generating Plant	Maximum Capacity
	CPV Sentinel Peaker	850
	Genesis Solar Energy Project	250
	Desert Sunlight PV Project	550
	McCoy Photovoltaic Project <sup>1</sup>	126.16
	Windustries	9.8
	Edom Hills Wind Farm	20
	Karen Avenue Wind Farm	11.7
	<b>Eastern Area Total</b>	<b>3,287.66</b>
<b>SCE Metro Area</b>	Agua Mansa Generating Facility	43
	Alamitos	2,010
	Anaheim CT	41
	AP North Lake Solar	20
	Barre Peaker	45
	Berry Petroleum Placerita	37
	BP West Coast Products	21
	Broadway 3	65
	Calabasas Gas-to-Energy Facility	7
	Canyon Power Plant	195
	Carson Cogeneration Company	47
	Center Area Lumped Units	18
	Center Peaker	45

<sup>1</sup> This project is partially operational at 126.16 MW, with a total capacity of 250 MW

Planning Area	Generating Plant	Maximum Capacity
	Century	36
	Chevron CIC	170.7
	Chiquita Canyon Landfill Generating Facility	7
	City Of Long Beach	28
	Clearwater Power Plant	28
	Corona Energy Partners, Ltd.	30
	County Of Los Angeles (Pitchess Honor Ranch)	19
	Coyote Canyon	6
	Devil Canyon	235
	Drews	36
	E. F. Oxnard, Incorporated	34
	El Segundo 4	335
	El Segundo Energy Center	570
	Ellwood Generating Station	54
	Etiwanda 3 & 4	640
	Etiwanda Hydro Recovery Plant	10
	Foothill Hydro Recovery Plant	8
	Glen Arm Power Plant	132
	Grapeland Peaker	43
	H. Gonzales Gas Turbine	12
	Harbor Cogen Combined Cycle	100
	Houweling Nurseries Oxnard CHP	13.2

Planning Area	Generating Plant	Maximum Capacity
	Huntington Beach 1 & 2	452
	Inland Empire Energy Center	670
	L.A. County Sanitation District #2 (Puente Hills B)	47
	Long Beach 1 – 4	260
	Malburg Generating Facility	134
	Mandalay 1 & 2	430
	Mandalay 3 GT	130
	Mira Loma Peaker	43
	MM West Coast Covina, LLC	6
	Mojave Siphon PH	18
	Mountainview Power Plant	969
	MWD Perris Hydroelectric Recovery Plant	8
	O.L.S. Energy Company- Chino-Mens Inst.	25
	Ormond Beach	1,516
	Procter & Gamble Paper Prod. (Oxnard II)	46
	Redondo	1,356
	Ripon Cogeneration	27
	Riverside Energy Resource Center (RERC)	194
	San Dimas Hydro Recovery Plant	8
	Springs Generation Plant	36
	SPVP044	8
	Sunshine Gas Producers, L.L.C.	20



Planning Area	Generating Plant	Maximum Capacity
	Tequesquite Landfill Solar Project	7.5
	Walnut Creek Energy Park	500
	Watson Cogeneration	406
	Weyerhaeuser Company (Formerly Williamette Industries)	13
	Multiple smaller facilities	85.5
	<b>Metro Area Total</b>	<b>12,556</b>

Table A1-3: Existing generation plants in SDG&amp;E planning area

Planning Area	Generating Plant	Maximum Capacity
SDG&E	Otay Mesa GT1	185.1
	Otay Mesa GT2	185.1
	Otay Mesa ST1	233.5
	Larkspur Border 1	46.0
	Larkspur Border 2	46.0
	Cabrillo	3.1
	Capistrano	5.3
	Carlton Hills	1.6
	Carlton Hills	0.3
	Chicarita	3.7
	Border/Calpeak	48.0
	El Cajon/Calpeak	45.4
	Escondido/Calpeak	48.0
	DIVSON_6_NSQF	41.7
	East Gate	0.3
	Encina 1	106.0
	Encina 2	104.0
	Encina 3	110.0
	Encina 5	300.0
	Encina 4	330.0
Encina GT	14.5	

<b>Planning Area</b>	<b>Generating Plant</b>	<b>Maximum Capacity</b>
	MMC-Electrovest (Escondido)	49.5
	Palomar_CT1	162.4
	Palomar_CT2	162.4
	Palomar_ST	240.8
	Goalline	38.4
	Mesa Heights	3.6
	Miramar 1	48.0
	Miramar 2	47.9
	Mission	0.7
	North Island	36.4
	Otay Landfill I	2.8
	Otay Landfill II	2.6
	Covanta Otay 3	3.5
	MMC-Electrovest (Otay)	35.5
	Orange Grove 1	50.0
	Orange Grove 2	50.0
	NTC Point Loma Steam turbine	2.0
	NTC Point Loma	19.4
	Sampson	1.0
	San Marcos Landfill	0.7
	El Cajon Energy Center	48.1

Planning Area	Generating Plant	Maximum Capacity
	Lake Hodges Pumped Storage 1	20.0
	Lake Hodges Pumped Storage 2	20.0
	BREGGO SOLAR (NQC)	26.0
	Kumeyaay	50.0
	East County	155.0
	Ocotillo Express	265.0
	KEARNGT1	16.0
	KEARN2AB	15.0
	KEARN2AB	15.0
	KEARN2CD	15.0
	KEARN2CD	14.0
	KEARN3AB	15.0
	KEARN3AB	16.1
	KEARN3CD	15.0
	KEARN3CD	15.0
	Miramar GT 1	17.0
	Miramar GT 2	16.0
	Naval Station	47.0
	El Cajon GT	13.0
	Ash	0.9
	Rancho Santa Fe 1	0.4
	Rancho Santa Fe 2	0.3
	Murray	0.2

Planning Area	Generating Plant	Maximum Capacity
	Kyocera	0.1
	<b>SDG&amp;E Area Total</b>	<b>3,630</b>

Table A1-4: Existing generation plants in VEA planning area

<b>Planning Area</b>	<b>Generating Plant</b>	<b>Maximum Capacity</b>
<b>VEA</b>	Not Applicable	0
	<b>Area Total</b>	<b>0</b>

## A2 Retired Generation

Table A2-1: Generation plants projected to be retired in planning horizon

PTO Area	Project	Capacity (MW)	First Year to be retired
<b>SCE</b>	El Segundo 3	335	2013*
	El Segundo 4	335	2015
	Coolwater 3 and 4	648	2015
	Huntington Beach 3	225	2013**
	Huntington Beach 4	225	2013**
	Kerrgen	17	2014
	McGen	108	2014
	Mogen	60	2014
	San Onofre Nuclear Generating Station (SONGS)	2246	2013
<b>SDG&amp;E</b>	Kearny Peakers	135	2017
	Miramar GT1 and GT2	36	2017
	El Cajon GT	16	2017

Notes: \* El Segundo unit 3 is scheduled to be retired when the El Segundo Power Redevelopment project is commercially available.

\*\* Huntington Beach units 3 and 4 were retired as generation but converted to synchronous condensers for voltage support.

## A3 Planned Generation

Table A3-1: Planned Generation

<b>PTO Area</b>	<b>Project</b>	<b>Capacity (MW)</b>	<b>First Year to be Modeled</b>
<b>SCE</b>	Abengoa Mojave Solar Project (Construction)	250	2014
	McCoy Photovoltaic Project**	123.84	2015
<b>SDG&amp;E</b>	Carlsbad (Pre-Construction)*	558	2016
	Pio Pico Energy Center (Pre-Construction)	300	2016

Notes: \* This project does not yet have Power Purchase Tolling Agreement (PPTA) as of January 2014.

\*\* This project is partially operational at 126.16 MW, with a total capacity of 250 MW



## A4 Special Protection Schemes

Table A4-1: Existing Special Protection Schemes in the PG&amp;E area

PTO	Area	SPS Name
PG&E	Central Coast / Los Padres	Mesa and Santa Maria Undervoltage SPS
	Central Coast / Los Padres	Divide Undervoltage SPS
	Central Coast / Los Padres	Temblor-San Luis Obispo 115 kV Overload Scheme
	Bulk	COI RAS
	Bulk	Colusa SPS
	Bulk	Diablo Canyon SPS
	Bulk	Gates 500/230 kV Bank #11 SPS
	Bulk	Midway 500/230 kV Transformer Overload SPS
	Bulk	Path 15 IRAS
	Bulk	Path 26 RAS North to South
	Bulk	Path 26 RAS South to North
	Bulk	Table Mt 500/230 kV Bank #1 SPS
	Central Valley	Drum (Sierra Pacific) Overload Scheme (Path 24)

PTO	Area	SPS Name
	Central Valley	Stanislaus – Manteca 115 kV Line Load Limit Scheme
	Central Valley	Vaca-Suisun 115 kV Lines Thermal Overload Scheme
	Central Valley	West Sacramento 115 kV Overload Scheme
	Central Valley	West Sacramento Double Line Outage Load Shedding SPS Scheme
	Greater Fresno Area	Ashlan SPS
	Greater Fresno Area	Atwater SPS
	Greater Fresno Area	Gates Bank 11 SPS
	Greater Fresno Area	Helms HTT RAS
	Greater Fresno Area	Helms RAS
	Greater Fresno Area	Henrietta RAS
	Greater Fresno Area	Herndon-Bullard SPS
	Greater Fresno Area	Kerckhoff 2 RAS
	Greater Fresno Area	Reedley SPS
	Greater Bay Area	Metcalf SPS
	Greater Bay Area	SF RAS
	Greater Bay Area	South of San Mateo SPS
	Greater Bay Area	Metcalf-Monta Vista 230kV OL SPS

PTO	Area	SPS Name
	Greater Bay Area	San Mateo-Bay Meadows 115kV line OL
	Greater Bay Area	Moraga-Oakland J 115kV line OL RAS
	Greater Bay Area	Grant 115kV OL SPS
	Greater Bay Area	Oakland 115 kV C-X Cable OL RAS
	Greater Bay Area	Oakland 115kV D-L Cable OL RAS
	Greater Bay Area	Sobrante-Standard Oil #1 & #2-115kV line
	Greater Bay Area	Gilroy SPS
	Greater Bay Area	Transbay Cable Run Back Scheme
	Humboldt	Humboldt – Trinity 115kV Thermal Overload Scheme
	North Valley	Caribou Generation 230 kV SPS Scheme #1
	North Valley	Caribou Generation 230 kV SPS Scheme #2
	North Valley	Cascade Thermal Overload Scheme
	North Valley	Hatchet Ridge Thermal Overload Scheme
	North Valley	Coleman Thermal Overload Scheme

Table A4-2: Existing Special Protection Schemes in SCE area

PTO	Area	SPS Name
<b>SCE</b>	Antelope-Bailey	Antelope-RAS
	Big Creek Corridor	Big Creek / San Joaquin Valley RAS
	North of Lugo	Bishop RAS
	North of Lugo	High Desert Power Project RAS
	North of Lugo	Kramer RAS
	Antelope-Bailey	Midway-Vincent RAS
	Antelope-Bailey	Lancaster N-2 Line Loss Tripping Scheme
	Antelope-Bailey	Palmdale N-2 Line Loss Tripping Scheme
	Antelope-Bailey	Pastoria Energy Facility Existing RAS
	North of Lugo	Reliant Energy Cool Water Stability Tripping Scheme
	Eastern Area	West-of-Devers Remedial Action Scheme
	Eastern Area	Blythe Energy RAS
	Eastern Area	Eagle Mountain Thermal Overload Scheme
	Metro Area	El Nido N-2 Remedial Action Scheme
Metro Area	Mountain view Power Project Remedial Action Scheme	

PTO	Area	SPS Name
	Metro Area	South of Lugo N-2 Remedial Action Scheme
	Metro Area	Mira Loma Low Voltage Load Shedding
	Metro Area	Santiago N-2 Remedial Action Scheme
	Metro Area	Valley Direct Load Trip Remedial Action Scheme
	Metro Area	El Segundo N-2 Remedial Action Scheme

Table A4-3: Existing Special Protection Schemes in the SDG&E

PTO	Area	SPS Name
<b>SDG&amp;E</b>	SDG&E	TL695A at Talega SPS
	SDG&E	TL682/TL685 SPS
	SDG&E	TL633 At Rancho Carmel SPS
	SDG&E	TL687 at Borrego SPS
	SDG&E	TL13816 SPS
	SDG&E	TL13835 SPS
	SDG&E	Border TL649 Overload SPS
	SDG&E	Crestwood TL626 at DE SPS for Kumeyaay Wind Generation
	SDG&E	Crestwood TL629 at CN SPS for Kumeyaay Wind Generation
	SDG&E	Crestwood TL629 at DE SPS for Kumeyaay Wind Generation
	SDG&E	230kV TL 23040 Otay Mesa – Tijuana SPS (currently disabled and will not be enabled until its need is reevaluated with CFE)
	SDG&E	230kV Otay Mesa Energy Center Generation SPS
	SDG&E	ML (Miguel) Bank 80/81 Overload SPS

PTO	Area	SPS Name
<b>SDG&amp;E</b>	SDG&E	TL695A at Talega SPS
	SDG&E	TL682/TL685 SPS
	SDG&E	TL633 At Rancho Carmel SPS
	SDG&E	TL687 at Borrego SPS
	SDG&E	TL13816 SPS
	SDG&E	TL13835 SPS
	SDG&E	Border TL649 Overload SPS
	SDG&E	Crestwood TL626 at DE SPS for Kumeyaay Wind Generation
	SDG&E	Crestwood TL629 at CN SPS for Kumeyaay Wind Generation
	SDG&E	Crestwood TL629 at DE SPS for Kumeyaay Wind Generation
	SDG&E	230kV TL 23040 Otay Mesa – Tijuana SPS (currently disabled and will not be enabled until its need is reevaluated with CFE)
	SDG&E	CFE SPS to protect lines from La Rosita to Tijuana
	SDG&E	TL 50001 IV Generator SPS
SDG&E	Path 44 South of SONGS Safety Net	