



BEFORE THE PUBLIC UTILITIES COMMISSION OF THE **FILED**

STATE OF CALIFORNIA

07-01-11  
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Application of Southern California Edison )  
Company (U 338-E) for Authority to Implement )  
and Recover in Rates the Cost of its Proposed )  
Solar Photovoltaic (PV) Program. )  
\_\_\_\_\_ )

A.08-03-015  
(Filed March 27, 2008)

(NOT CONSOLIDATED)

Order Instituting Rulemaking to Continue )  
Implementation and Administration of California )  
Renewables Portfolio Standard Program. )  
\_\_\_\_\_ )

R.11-05-005  
(Filed May 5, 2011)

**SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E) SECOND ANNUAL  
COMPLIANCE REPORT ON THE SOLAR PHOTOVOLTAIC PROGRAM**

**(PUBLIC VERSION)**  
ATTACHMENT A REDACTED

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Dated: July 1, 2011

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**SOUTHERN CALIFORNIA EDISON COMPANY’S (U 338-E) SECOND ANNUAL  
COMPLIANCE REPORT ON THE SOLAR PHOTOVOLTAIC PROGRAM**

Pursuant to Decision (“D.”) 09-06-049<sup>1</sup> and Resolution E-4299,<sup>2</sup> Southern California Edison Company (“SCE”) respectfully submits its Second Annual Compliance Report on the Solar Photovoltaic Program (“SPVP Report”). In accordance with Resolution E-4299, SCE is filing this SPVP Report consistent with the California Public Utilities Commission’s (“CPUC” or “Commission”) confidentiality rules.<sup>3</sup>

**I.**

**INTRODUCTION**

The Solar Photovoltaic Program (“SPVP”) is a five-year program adopted by the Commission in D.09-06-049 to spur the development of distributed solar photovoltaic (“PV”) projects in SCE’s service territory. Under the SPVP, SCE is installing 500 megawatts direct

<sup>1</sup> D.09-06-049 at 59 (Ordering Paragraph 4).

<sup>2</sup> Resolution E-4299 at 24.

<sup>3</sup> *Id.*

current (“MW”)<sup>4</sup> of solar PV projects, primarily commercial rooftop projects in the one to two MW range.<sup>5</sup> Half of the SPVP is to be developed by SCE as utility-owned generation (“UOG”), while the other half is to be administered by SCE and developed by independent power producers (“IPPs”) through a competitive procurement process for power purchase agreements (“PPAs”).<sup>6</sup>

In D.09-06-049 and Resolution E-4299, the Commission instructed SCE to file an annual compliance report on the status of the program.<sup>7</sup> The purpose of the report is to allow Energy Division to summarize the results of the SPVP in its reports to the legislature on the Renewables Portfolio Standard (“RPS”) program.<sup>8</sup> SCE filed its first annual compliance report on July 1, 2010, as required by D.09-06-049. Because the IPP solicitation had not yet concluded by July 1, SCE filed an amendment to its first annual compliance report on September 28, 2010, supplementing the report with updated information.

On December 2, 2010, SCE held its first SPVP Forum in Pomona, California, to discuss the first SPVP solicitation, including subjects such as the bid process, participant survey results, and interconnection issues. In addition, the Independent Evaluator for the SPVP gave a presentation on his role and lessons learned from SCE’s 2010 SPVP solicitation. The SPVP Forum attracted nearly 100 individuals who participated in person, via webex, or through a call-in number.

In this SPVP Report, SCE responds to each category of requested information about the SPVP as set forth by the Commission in Resolution E-4299.

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<sup>4</sup> All MW numbers in this SPVP Report are in direct current.

<sup>5</sup> Resolution E-4299 at 1.

<sup>6</sup> *Id.*

<sup>7</sup> D.09-06-049 at 59 (Ordering Paragraph 4); Resolution E-4299 at 24.

<sup>8</sup> Resolution E-4299 at 24.

## II.

### **INFORMATION REGARDING THE IPP PORTION OF THE SPVP**

#### **A. Documentation of All Solicitations Issued for Power Purchase Agreements.**

SCE filed an amendment to its first annual SPVP compliance report in September 2010, summarizing the results of the 2010 SPVP Request for Offers (“RFO”). SCE filed Advice Letter 2571-E on April 5, 2011, requesting authorization to launch its 2011 SPVP solicitation. The advice letter is pending Commission approval.

#### **B. A Description of All Offers Received from the Power Purchase Agreements Solicitations, Including: (a) the Name of Offeror, (b) Location of Offer, (c) Offer Price, (d) Description of Proposed Facility (Generating Capacity, Type of Technology, Host Customer, Host Tenant, and On-Site Load), and (e) Identification of Winning Offers.**

In an amendment to its first annual SPVP compliance report, SCE provided a description of the offers received from the 2010 SPVP RFO. Because SCE is waiting for Commission approval to launch its 2011 SPVP solicitation, no offers have been submitted since the 2010 SPVP solicitation and no winning offers have been identified.

#### **C. The Total Electrical Output for All Systems Under Power Purchase Agreements That Are Currently Selling Electricity to SCE, for Each Month of the Previous Year.**

There is currently no electrical output for systems under PPAs selling electricity to SCE, as none of the generating facilities under contract from the first SPVP RFO have begun operating.

**D. A Description of the Distribution and Network Transmission Upgrades Generally Needed to Facilitate the Program, Including: (a) a Listing of Those IPP Projects Identified as Triggering the Need for Network Upgrades, and (b) Those IPP Projects Rejected from the Solicitation or with a Power Purchase Agreement Terminated Because of the Need for Network Upgrades.**

Thus far, there are no transmission system upgrades needed to facilitate the SPVP. In the 2010 SPVP RFO, the need for transmission system upgrades was used as a screening criterion. Projects that triggered system upgrades were not eligible to submit binding offers.

**III.**

**INFORMATION REGARDING THE UOG PORTION OF THE SPVP**

**A. A Description of All UOG Facilities for Which Work Has Been Initiated or Completed in the Previous Year, Including: (a) Capital Costs, (b) Operations and Maintenance Expenses, (c) Generating Capacity, (d) Description of the Site (Host Customer, Host Tenant, Lease Cost, and On-Site Load), and (e) Progress Toward Completion.**

In Attachment A (portions of which are confidential), SCE provides a description of each of the UOG facilities for which work was initiated or completed in the previous year, including: (1) capital costs, (2) operations and maintenance expenses, (3) generating capacity, (4) a description of the site (host customer, host tenant, lease cost, and on-site load), and (5) progress toward completion as of June 2011.

During the calendar year 2010, two SPVP projects reached California Independent System Operator (“CAISO”) Commercial Operation. SCE installed 11 projects for 21.75 MW which were providing test power, at minimum, by the end of 2010. In Table 1 below, SCE offers a brief description of each of the UOG facilities that had work initiated or completed during 2010:

**Table 1**

<b>SPVP Number</b>	<b>Address</b>	<b>Date Supplying Power to Grid</b>
SPVP 001	13230 San Bernardino Ave, Fontana, CA 92335	11/26/2008 <sup>1</sup>
SPVP 002	14701 Yorba Ave, Chino CA 91710	10/29/2009 <sup>1</sup>
SPVP 003	1464 Merrill Ave, Rialto CA 92335	7/29/2010 <sup>1</sup>
SPVP 005	1901 California St., Redlands, 92374	12/27/2010
SPVP 006	3510 E. Francis St., Bldg 2, Ontario, CA 91761	1/10/2011
SPVP 007	2250 Palmetto Ave., Redlands, 92374	12/29/2010
SPVP 008	4060 E. Francis St., Bldg 4, Ontario 91761	12/30/2010
SPVP 009	3550 E. Francis St., Bldg 3, Ontario 91761	1/10/2011
SPVP 010	13277 San Bernardino Ave., Fontana, CA 92335	5/18/2011
SPVP 012	4091 E. Francis St., Bldg 5, Ontario, CA 91761	12/29/2010
SPVP 016	2290 Palmetto Ave., Redlands, 92374	5/18/2011
SPVP 018	9415 Kaiser Way, Fontana, CA 92335	5/23/2011
SPVP 022	27223 Pioneer Ave., Redlands, 92374	11/15/2010
SPVP 023	9687 Transportation Way, Fontana CA 92335	5/12/2011
SPVP 042	2782 W Edison Ct Porterville CA 93257	12/28/2010
SPVP 026	2580 W Walnut Ave, Rialto, CA 92376	TBD <sup>2</sup>

<sup>1</sup> These dates represent the date where the project reached CAISO Operation.

<sup>2</sup> SPVP 026 has not completed construction.

**B. A Calculation of the Levelized Cost of Energy (“LCOE”) for Each UOG Facility That Is Completed and Interconnected to the Grid. This Calculation Shall Include Workpapers Showing Actual Amounts for All Cost and Electrical Output Entries Used to Calculate the LCOE.**

In Attachment B, SCE provides the LCOE for the UOG facilities that are completed and interconnected to the grid. SCE notes that the LCOE for those facilities does not provide a meaningful guide by which to compare UOG projects with IPP projects. As SCE previously reported to the Commission,<sup>9</sup> such comparisons are not appropriate for numerous reasons. Most importantly, customers do not pay an LCOE for UOG, yet they may do so under typical IPP PPAs. The revenue requirements for UOG are based on cost of service and those requirements

<sup>9</sup> See SCE’s SPVP Rebuttal Testimony at 4-9; Reply of SCE to Responses or Protests of DRA, TURN, IEP, CAL SEIA, CCENERGY, Joint Solar Parties, Recurrent Energy, and A-1 Sun, Inc. at 4-5.

decline as the asset is depreciated. Therefore, any calculation of LCOE is a theoretical exercise made up of the actual costs to date and forecasted costs through the remainder of the life of the asset, and do not represent actual revenues paid by customers.

**C. Electrical Output by Month for the Previous Year for Each UOG Facility That Is Completed and Interconnected to the Grid.**

In Attachment C, SCE provides the electrical output by month for the previous year from each of the two UOG facilities that were completed and interconnected to the grid, and had achieved CAISO Commercial Operation as of year end 2010.

**D. A Complete Description of the Interconnection Upgrades Associated with Interconnecting Each UOG Facility, Including: (a) all Distribution and Network Transmission Upgrades Performed in the Prior Year or Anticipated to Be Performed in the Coming Years, (b) the Known or Projected Costs of Those Upgrades, (c) a Listing of the UOG Projects Identified as Triggering the Need for Network Upgrades, (d) the UOG Projects Implemented Notwithstanding the Need for Network Upgrades, and (e) the Cost of Those Network Upgrades.**

In Attachment D, SCE provides a complete description of interconnection upgrades associated with interconnecting each UOG facility, including all distribution upgrades performed during the prior year, or anticipated to be performed in the coming years, and the known or projected costs of those upgrades.

To date, no SCE projects have triggered the need for network transmission upgrades; nor have any projects been implemented notwithstanding the need for network transmission upgrades.

Respectfully submitted,

MICHAEL D. MONTOYA  
CATHY A. KARLSTAD  
NANCY CHUNG ALLRED

/s/Nancy Chung Allred

By: Nancy Chung Allred

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Dated: July 1, 2011

**VERIFICATION**

I am a Manager in the Renewable and Alternative Power Department of Southern California Edison Company and am authorized to make this verification on its behalf. I am informed and believe that the matters stated in the foregoing pleading are true.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this **1st day of July, 2011**, at Rosemead, California.

/s/Laura Genao

By: Laura Genao

SOUTHERN CALIFORNIA EDISON COMPANY

2244 Walnut Grove Avenue  
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Attachment A

(CONFIDENTIAL - REDACTED)

Description of UOG Facilities

SPVP 2011 Annual Report  
Site Descriptions  
Attachment E



**CONFIDENTIAL**

**SPVP Site Descriptions**

SPVP Number	Internal Name	Status	Direct Capital Costs	Generating capacity (MW/ dc)	Operations and Maintenance Expenses <sup>[2]</sup>	Host Customer	Host Tenant	Annual Lease Costs <sup>[3]</sup>	Progress toward completion <sup>[4]</sup>
SPVP 001	Fontana	Operational	\$12,100,743	2.44	\$104,612	Palmtree Acquisition Corp.	Specialty Merchandise Corp	\$63,423	100%
SPVP 002	Chino	Operational	\$6,195,212	1.22	\$29,630	Kennedy-Centerpointe Distribution Center, LLC	Procter & Gamble	\$30,000	100%
SPVP 003	Rialto	Operational	\$6,968,075	1.22	\$7,548	AMB Property, LP	Vacant		100%
SPVP 005	RDC1	Operational	\$12,668,443	3.40	\$1,481	Prologis	Mars Pet Care		100%
SPVP 006	PPOA2	Operational	\$9,393,185	2.55	\$1,481	Prologis	Vacant		100%
SPVP 007	RDC3	Operational	\$12,261,810	3.20	\$1,481	Prologis	Renault - Thomas		100%
SPVP 008	PPOA4	Operational	\$10,800,480	2.85	\$1,481	PACAB LLC	Crocs- Safelite		100%
SPVP 009	PPOA3	Operational	\$5,596,746	1.41	\$1,481	Palmtree Acquisition Corp.	Victory Packaging		100%
SPVP 012	PPOA5	Operational	\$3,062,005	0.77	\$1,481	Prologis	Commerce		100%
SPVP 022	RDC6	Operational	\$11,229,561	3.09	\$2,057	Prologis	Continental Tire		100%
SPVP 042	Porterville	Operational	\$20,357,916	6.77	\$5,619	City of Porterville	N/A - Ground Project		100%
SPVP 010	KDC2	Operational	\$7,852,068	2.25	N/A <sup>[2]</sup>	PACAB LLC	Ozburn Hessey Logistics		98%
SPVP 016	RDC2	Operational	\$6,384,601	1.75	N/A <sup>[2]</sup>	Prologis	Vacant		100%
SPVP 018	KDC6	Operational	\$6,943,106	1.94	N/A <sup>[2]</sup>	PACAB LLC	LG Electronics		98%
SPVP 023	TIE1	Operational	\$13,201,621	3.86	N/A <sup>[2]</sup>	Prologis	Mohawk Carpet Dist.		98%
SPVP 026	I2102	In Construction	16231293.34 <sup>[1]</sup>	8.60	N/A <sup>[2]</sup>	Prologis	Kuehne + Nagel/ Broyhill Furniture		93%

<sup>[1]</sup> Capital costs for in construction projects - I2102 have not yet been realized

<sup>[2]</sup> SPVP has not yet incurred any maintenance expenses for SPVP sites In Construction nor those projects that recently came online. Operations and maintenance expenses on a project-specific basis include those costs incurred for Project O&M (array cleaning and maintenance, inverter monitoring, and data acquisition system monitoring) and are exclusive of lease costs. For SPVP 042 the only ground mounted project, Project O&M includes security costs.

<sup>[3]</sup> Lease costs are Confidential. Annual lease cost is calculated by the monthly rate, at 12 payments a year. Lease payments are adjusted on an annual basis according to the terms of the lease (typically by CPI).

<sup>[4]</sup> Progress toward completion on In Construction sites represents the progress achieved toward construction finish, General Contractor demobilization, and interconnection complete as of June 2011. CAISO Commercial Operation will occur after 100% complete in each instance. SPVP 010, 018, and 023 recently began providing test power, however contractor demobilization is not yet complete.

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SPVP 2011 Annual Report  
Site Descriptions  
Attachment E



**CONFIDENTIAL**

SPVP Monthly Generation from January 1, 2010 to December 31, 2010

Site Specific On-Site Load kWh

2010	SPVP 001	SPVP 002	SPVP 003	SPVP 005	SPVP 006	SPVP 007	SPVP 008	SPVP 009	SPVP 010	SPVP 012	SPVP 016	SPVP 018	SPVP 022	SPVP 023	SPVP 026
January															
February															
March															
April															
May															
June															
July															
August															
September															
October															
November															
December															

SHADED CELL IS CONFIDENTIAL INFORMATION

<sup>[4]</sup> Progress toward completion on In Construction sites represents the progress achieved toward construction finish, General Contractor demobilization, and interconnection complete as of June 2011. CAISO Commercial Operation will occur after 100% complete in each instance. SPVP 010, 018, and 023 recently began providing test power, however contractor demobilization is not yet complete.

## Attachment B

### Levelized Costs of Electricity

### Summary

Site	Loaded Capital (000)'s	O&M (000)'s	Capacity (MW's)	LCOE (Cents/KWh)
001	12,427	3,597	2.44	0.39
002	6,362	1,826	1.22	0.39
003	7,156	1,826	1.22	0.43
005	13,734	5,148	3.40	0.31
006	9,856	3,861	2.55	0.30
007	13,214	4,845	3.20	0.32
008	11,317	4,315	2.85	0.31
009	5,859	2,135	1.41	0.32
012	3,237	1,166	0.77	0.32
022	11,552	4,626	3.09	0.29
042	22,575	10,250	6.77	0.26
010	8,634	3,407	2.25	0.30
016	7,139	2,650	1.75	0.31
018	8,079	2,983	1.97	0.31
023	14,596	5,844	3.86	0.29

- 006 ▲
- 007
- 008
- 009
- 012
- 022
- 042
- 010
- 016
- 018
- 023 ▼

Site: 023	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Nominal Capital	-	-	13,479	1,118										
Revenue Requirement	0	0	0	2,387	2,050	1,926	1,826	1,687	1,616	1,584	1,521	1,459	1,397	1,335
Operating Costs														
Total Operating	0.0	0.0	0.0	224.5	226.6	227.4	228.3	195.3	199.1	203.0	206.8	210.7	214.6	218.3
Total Program Costs				2,611.4	2,276.6	2,153.0	2,054.4	1,882.5	1,815.3	1,786.5	1,728.1	1,669.8	1,611.4	1,553.0

MWh				6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086
Cost of Service (\$/kWh)				\$ 0.43	\$ 0.37	\$ 0.35	\$ 0.34	\$ 0.31	\$ 0.30	\$ 0.29	\$ 0.28	\$ 0.27	\$ 0.26	\$ 0.26

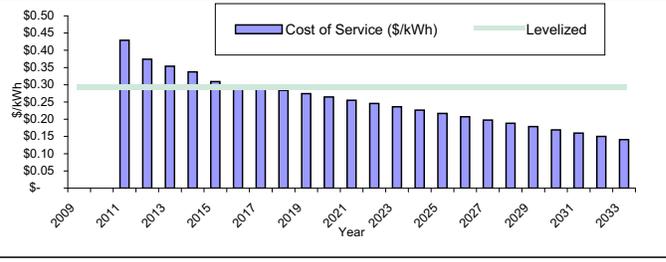
**Site 001**

NPV	\$16,174
Levelized	\$1,782
Avg MWhs	6,086

Average \$/kWh **\$0.29**

TOD Factor 1.39  
\$/kWh with TOD **\$0.21**

Assumptions	
Size (MW dc)	3.86
Forecast Capacity Factor (dc)	20%
Program Labor After Launch	25%
Conversion DC/AC	90%
Program Labor Allocated per Site	1.5%
Global Insight Forecast	
Capital A&G Loader	0.0%
Labor Loader	40%
Escalation	
Discount Rate	10%
Project Life (Years)	25
ITC	30%



- 009
- 012
- 022
- 042
- 010
- 016
- 018
- 023**

2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
1,272	1,210	1,148	1,086	1,024	961	899	837	775	712	650	588	526	435
222.2	226.1	230.0	233.9	238.0	242.1	246.3	250.6	255.1	259.6	264.2	269.0	273.8	278.7
1,494.6	1,436.3	1,378.0	1,319.7	1,261.5	1,203.4	1,145.4	1,087.5	1,029.7	972.0	914.4	857.0	799.6	713.5
6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086
\$ 0.25	\$ 0.24	\$ 0.23	\$ 0.22	\$ 0.21	\$ 0.20	\$ 0.19	\$ 0.18	\$ 0.17	\$ 0.16	\$ 0.15	\$ 0.14	\$ 0.13	\$ 0.12

**Loaded Capital**

In (000)'s

Inputs	Site	MW's	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1	001	2.44	11,472	955	-	-									
2	002	1.22	2	6,159	201	-									
3	003	1.22	2	3,274	3,880	-									
4	005	3.40	-	-	12,961	773									
5	006	2.55	-	-	9,585	270									
6	007	3.20	-	-	12,595	619									
7	008	2.85	-	-	10,765	552									
8	009	1.41	-	-	5,541	318									
9	012	0.77	-	-	3,029	208									
10	022	3.09	-	-	10,696	856									
11	042	6.77	-	-	20,302	2,274									
12	010	2.25	-	-	7,202	1,432									
13	016	1.75	-	-	3,898	3,241									
14	018	1.97	-	-	6,702	1,376									
15	023	3.86	-	-	13,479	1,118									
	Active		0	0	13,479	1,118									

**O&M**

In (000)'s

Inputs	Site	MW's	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	001	2.44		117	135	142	143	144	144	123	126	128	131	133	136
	002	1.22			67	71	72	72	72	62	63	64	65	67	68
	003	1.22			67	71	72	72	72	62	63	64	65	67	68
	005	3.40				198	200	200	201	172	175	179	182	186	189
	006	2.55				148	150	150	151	129	132	134	137	139	142
	007	3.20				186	188	188	189	162	165	168	171	175	178
	008	2.85				166	167	168	169	144	147	150	153	156	158
	009	1.41				82	83	83	83	71	73	74	76	77	78
	012	0.77				45	45	45	46	39	40	40	41	42	43
	022	3.09			171	180	181	182	183	156	159	162	166	169	172
	042	6.77				394	397	399	400	343	349	356	363	370	376
	010	2.25				131	132	133	133	114	116	118	121	123	125
	016	1.75				102	103	103	104	89	90	92	94	96	97
	018	1.97				115	116	116	117	100	102	104	106	108	110
	023	3.86				224	227	227	228	195	199	203	207	211	215
	Active		-	-	-	224	227	227	228	195	199	203	207	211	215

2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
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2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
138	140	143	145	148	150	153	156	158	161	164	167	170			
69	70	71	73	74	75	77	78	79	81	82	84	85	87		
69	70	71	73	74	75	77	78	79	81	82	84	85	87		
192	196	199	203	206	210	213	217	221	225	229	233	237	241	245	
144	147	149	152	155	157	160	163	166	168	171	175	178	181	184	
181	184	187	191	194	197	201	204	208	211	215	219	223	227	231	
161	164	167	170	173	176	179	182	185	188	192	195	199	202	206	
80	81	83	84	85	87	88	90	92	93	95	97	98	100	102	
44	44	45	46	47	47	48	49	50	51	52	53	54	55	56	
175	178	181	184	187	191	194	197	201	204	208	212	215	219		
383	390	396	403	410	417	425	432	440	447	455	463	472	480	489	
127	130	132	134	136	139	141	144	146	149	151	154	157	160	162	
99	101	102	104	106	108	110	112	114	116	118	120	122	124	126	
111	113	115	117	119	121	124	126	128	130	132	135	137	140	142	
218	222	226	230	234	238	242	246	251	255	260	264	269	274	279	
218	222	226	230	234	238	242	246	251	255	260	264	269	274	279	

**Energy**

		In (000)'s													
Inputs	Site	MW's	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	001	2.44		2,844	3,847	3,847	3,847	3,847	3,847	3,847	3,847	3,847	3,847	3,847	3,847
	002	1.22			1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924
	003	1.22			1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924
	005	3.40			5,361	5,361	5,361	5,361	5,361	5,361	5,361	5,361	5,361	5,361	5,361
	006	2.55			4,021	4,021	4,021	4,021	4,021	4,021	4,021	4,021	4,021	4,021	4,021
	007	3.20			5,046	5,046	5,046	5,046	5,046	5,046	5,046	5,046	5,046	5,046	5,046
	008	2.85			4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494
	009	1.41			2,223	2,223	2,223	2,223	2,223	2,223	2,223	2,223	2,223	2,223	2,223
	012	0.77			1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214
	022	3.09		4,872	4,872	4,872	4,872	4,872	4,872	4,872	4,872	4,872	4,872	4,872	4,872
	042	6.77			10,675	10,675	10,675	10,675	10,675	10,675	10,675	10,675	10,675	10,675	10,675
	010	2.25			3,548	3,548	3,548	3,548	3,548	3,548	3,548	3,548	3,548	3,548	3,548
	016	1.75			2,759	2,759	2,759	2,759	2,759	2,759	2,759	2,759	2,759	2,759	2,759
	018	1.97			3,106	3,106	3,106	3,106	3,106	3,106	3,106	3,106	3,106	3,106	3,106
	023	3.86			6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086
	Active		-	-	-	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086

**Rev Req**

		In (000)'s													
Inputs	Site	MW's	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	001	2.44		2,032	1,745	1,640	1,555	1,437	1,376	1,348	1,295	1,242	1,189	1,136	1,083
	002	1.22			1,040	894	839	796	735	704	690	663	636	609	582
	003	1.22			1,170	1,005	944	895	827	792	776	746	715	685	654
	005	3.40			2,246	1,929	1,812	1,718	1,588	1,521	1,490	1,431	1,373	1,314	1,265
	006	2.55			1,612	1,384	1,300	1,233	1,139	1,091	1,069	1,027	985	943	903
	007	3.20			2,161	1,856	1,743	1,653	1,527	1,463	1,434	1,377	1,321	1,265	1,210
	008	2.85			1,851	1,590	1,493	1,416	1,308	1,253	1,228	1,180	1,131	1,083	1,035
	009	1.41			958	823	773	733	677	649	636	611	586	561	536
	012	0.77			529	455	427	405	374	358	351	337	324	310	296
	022	3.09		1,889	1,622	1,524	1,445	1,335	1,279	1,253	1,204	1,155	1,106	1,056	1,006
	042	6.77			3,692	3,171	2,978	2,824	2,610	2,500	2,449	2,353	2,257	2,160	2,063
	010	2.25			1,412	1,213	1,139	1,080	998	956	937	900	863	826	789
	016	1.75			1,167	1,003	942	893	825	791	775	744	714	683	652
	018	1.97			1,321	1,135	1,066	1,011	934	895	876	842	808	773	738
	023	3.86			2,387	2,050	1,926	1,826	1,687	1,616	1,584	1,521	1,459	1,397	1,335
	Active		-	-	-	2,387	2,050	1,926	1,826	1,687	1,616	1,584	1,521	1,459	1,397

2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
3,847	3,847	3,847	3,847	3,847	3,847	3,847	3,847	3,847	3,847	3,847	3,847	3,847			
1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924		
1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924		
5,361	5,361	5,361	5,361	5,361	5,361	5,361	5,361	5,361	5,361	5,361	5,361	5,361	5,361	5,361	
4,021	4,021	4,021	4,021	4,021	4,021	4,021	4,021	4,021	4,021	4,021	4,021	4,021	4,021	4,021	
5,046	5,046	5,046	5,046	5,046	5,046	5,046	5,046	5,046	5,046	5,046	5,046	5,046	5,046	5,046	
4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	
2,223	2,223	2,223	2,223	2,223	2,223	2,223	2,223	2,223	2,223	2,223	2,223	2,223	2,223	2,223	
1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	
4,872	4,872	4,872	4,872	4,872	4,872	4,872	4,872	4,872	4,872	4,872	4,872	4,872	4,872	4,872	
10,675	10,675	10,675	10,675	10,675	10,675	10,675	10,675	10,675	10,675	10,675	10,675	10,675	10,675	10,675	
3,548	3,548	3,548	3,548	3,548	3,548	3,548	3,548	3,548	3,548	3,548	3,548	3,548	3,548	3,548	
2,759	2,759	2,759	2,759	2,759	2,759	2,759	2,759	2,759	2,759	2,759	2,759	2,759	2,759	2,759	
3,106	3,106	3,106	3,106	3,106	3,106	3,106	3,106	3,106	3,106	3,106	3,106	3,106	3,106	3,106	
6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	
6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	

2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
1,030	977	924	871	818	765	713	660	607	554	501	448	370	-	-	
555	528	500	473	446	419	392	365	338	311	283	256	229	190	-	
624	593	563	532	502	471	441	410	380	349	319	288	258	213	-	
1,256	1,197	1,139	1,080	1,022	963	905	846	787	729	670	612	553	495	409	
901	859	817	775	733	691	649	607	565	523	481	439	397	355	294	
1,208	1,152	1,096	1,039	983	927	870	814	758	701	645	589	532	476	394	
1,035	987	938	890	842	794	745	697	649	601	552	504	456	408	337	
536	511	486	461	436	411	386	361	336	311	286	261	236	211	175	
296	282	268	255	241	227	213	199	186	172	158	144	130	117	96	
1,007	958	909	859	810	761	712	662	613	564	515	465	416	344	-	
2,064	1,968	1,872	1,776	1,679	1,583	1,487	1,391	1,294	1,198	1,102	1,006	909	813	672	
790	753	716	679	642	605	569	532	495	458	421	385	348	311	257	
653	622	592	561	531	501	470	440	409	379	348	318	288	257	213	
739	704	670	635	601	566	532	498	463	429	394	360	325	291	241	
1,335	1,272	1,210	1,148	1,086	1,024	961	899	837	775	712	650	588	526	435	
1,335	1,272	1,210	1,148	1,086	1,024	961	899	837	775	712	650	588	526	435	

Assumptions		
Size (MW dc)		3.86
Forecast Capacity Factor (dc)		20%
Program Labor After Launch		25%
Conversion DC/AC		90%
Program Labor Allocated per Site		1.5%
Capital Loader		2.7%
Labor Loader		40%
Escalation	Global Insight Deflator	
Discount Rate		10%
Project Life (Years)		25
ITC		30%
Site O&M Expense (000)'s		14.3
Lease Costs (000)'s		30

001 ▲  
002  
003  
005  
006  
007  
008  
009 ▼

**Direct Capital Recorded - Balancing Account Numbers**

Estimated 2011 Spend

SPVP Number	Site Description	2008	2009	2010	2011	Status	MW	Rev
001	13203 San Bernardino Ave, Fontana	11,170,688.07	930,055.29	0.00	0.00	In-Operation	2.44	2009
002	14701 Yorba Ave, Chino CA 91710	1,823.73	5,997,291.51	196,096.76	0.00	In-Operation	1.22	2010
003	AMB 1464 Merrill Rialto	1,823.73	3,188,311.27	3,777,940.46	0.00	In-Operation	1.22	2010
005	PLRedlands DC1 1901 California			12,620,431.55	752,515.45	In-Operation	3.40	2011
006	PL 3510 E. Francis St Bldg (PPOA 2)			9,333,445.26	263,134.74	In-Operation	2.55	2011
007	PLRedlands DC3 2200-2250 Palmetto			12,263,612.48	602,795.52	In-Operation	3.20	2011
008	PL4060 E Francis Bldg 4 (PPOA 4)			10,482,319.08	537,575.92	In-Operation	2.85	2011
009	PL3550 E Francis Bldg (PPOA 3)			5,395,730.91	309,565.09	In-Operation	1.41	2011
012	PL4091 E Francis Bldg 5 (PPOA 5)			2,949,634.00	202,278.00	In-Operation	0.77	2011
022	PL 27223 Pioneer DC6 Redlands			10,415,047.77	833,457.23	In-Operation	3.09	2010
042	Porterville Airport			19,767,980.99	2,213,761.01	In-Operation	6.77	2011
010	PLKaiser DC2 13277 San Bernardino			7,012,651.87	1,394,728.13	Under Construction	2.25	2011
016	PLRedlands 2 2290 Palmetto			3,795,493.03	3,156,037.97	Under Construction	1.75	2011
018	PLKaiser DC6 9415 Kaiser Fontana			6,526,241.77	1,339,981.23	Under Construction	1.97	2011
023	PL9687 Trans Way TIE1 Fontana			13,124,280.06	1,088,228.94	Under Construction	3.86	2011
Grand Total		11,174,335.53	10,115,658.07	117,874,453.57	12,696,070.23	151,860,517.40		

\* SPVP 010, 016, 018, and 023 recently began providing test power, however contractor demobilization has not yet been completed

**Expense**

SPVP - Revised O&M x\$1000	Recorded			Forecast					Total	Note
	2008	2009	2010	2011	2012	2013	2014			
MW Installed Assurr	2.44	3.66	28.92	70.83	108.84	124.06		124.06		
Misc. Expenses	146.4	296.2	(9.0)	306.4	310.7	315.8	321.7	1,688.2	Allocate to each site per total MW	
Program Labor	303.3	1,061.2	1,727.2	1,480.3	1,501.0	1,525.7	1,554.3	9,152.9	Allocate to each site per total MW	
Site O&M Expense	-	61.3	76.2	1,044.2	1,627.1	1,885.2	1,920.5	6,614.5	Allocate to each site per MW(14.3k Per MW)	
Lease Costs	1.0	160.5	146.0	1,542.6	2,817.4	3,712.3	4,028.9	12,408.7	Allocate to each site per MW(30k Per MW)	
O&M Expense	<b>450.7</b>	<b>1,579.2</b>	<b>1,940.5</b>	<b>4,373.5</b>	<b>6,256.1</b>	<b>7,439.1</b>	<b>7,825.4</b>	<b>29,864.3</b>		

Recorded Expense from Profit Center P9099

SAP Report\_KOC4

Run 03.07.2011

1/2 year convention on forecast of new MW leases

Escalation Percentages 2008 Base Year	2010	2011	2012	2013	2014
	JPGDP - Annual Nov 2010		1.03096	1.04538	1.06263

<b>2009 Base Year for Misc. Exp</b>	<b>1.00000</b>	1.00887	1.02136	1.03565	1.05274	1.07244
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	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
20 Year	16.5%	14.1%	13.2%	12.4%	11.3%	10.8%	10.5%	9.9%	9.4%	8.9%	8.4%	7.9%	7.4%	6.9%	6.3%
25 Year	16.4%	14.0%	13.2%	12.5%	11.6%	11.1%	10.8%	10.4%	10.0%	9.6%	9.1%	8.7%	8.3%	7.9%	7.4%
GDP-IDP*	1.1%	1.5%	1.8%	2.0%	2.0%	2.0%	1.9%	1.9%	2.0%	1.9%	1.9%	1.8%	1.8%	1.8%	1.7%

\*Global Insight, June 2010

20 Years, 25 Years,  
with 30% ITC with 30% ITC

2009	16.5%	16.4%
2010	14.1%	14.0%
2011	13.2%	13.2%
2012	12.4%	12.5%
2013	11.3%	11.6%
2014	10.8%	11.1%
2015	10.5%	10.8%
2016	9.9%	10.4%
2017	9.4%	10.0%
2018	8.9%	9.6%
2019	8.4%	9.1%
2020	7.9%	8.7%
2021	7.4%	8.3%
2022	6.9%	7.9%
2023	6.3%	7.4%
2024	5.8%	7.0%
2025	5.3%	6.6%
2026	4.8%	6.2%
2027	4.3%	5.7%
2028	3.6%	5.3%
2029	0.0%	4.9%
2030	0.0%	4.5%
2031	0.0%	4.0%
2032	0.0%	3.6%
2033	0.0%	3.0%

	TOU Period	Hours	TOD Factor	Weight	Weighted Average
20	Summer - on	512	3.13	0.15	0.46
26	Summer - mid	768	1.35	0.22	0.30
	Winter - mid	2189	1	0.63	0.63
	Weighted Average				1.39



## Attachment C

### Electrical Output by Month



**SPVP001 Fontana - Actual Monthly Generation**

<b>Month</b>	<b>Actual MWh (ac)</b>
Jan 10	143.20
Feb 10	176.80
Mar 10	288.75
Apr 10	338.67
May 10	377.86
Jun 10	364.71
Jul 10	347.07
Aug 10	299.64
Sep 10	211.06
Oct 10	140.53
Nov 10	148.32
Dec 10	119.65

**SPVP 001**  
**2010 Generation (MWh)                      2,956.25**



**SPVP002 Chino - Actual Monthly Generation**

<b>Month</b>	<b>Actual MWh (ac)</b>
Jan 10	70.76
Feb 10	91.57
Mar 10	141.44
Apr 10	165.41
May 10	186.26
Jun 10	173.49
Jul 10	168.74
Aug 10	153.92
Sep 10	115.33
Oct 10	75.75
Nov 10	86.06
Dec 10	62.30

**SPVP 002**  
**2010 Generation (MWh)                      1491.02**

## Attachment D

### Description of Interconnection Upgrades



An EDISON INTERNATIONAL Company

Description of the Interconnection Facilities

	Distribution Upgrade?	Known or Projected Upgrade Cost	Brief description of distribution upgrades required
SPVP 005	Yes	\$ 54,050.00	Distribution Upgrades will be required to interconnect this project. These upgrades include conversion of an existing customer owned structure to Edison's Distribution and a 12kV line re-conductor of approximately 750 feet.
SPVP 006	Yes	\$ 12,000.00	Upgrade the existing Bacardi 12kV distribution circuit by adding an underground extension.
SPVP 008	Yes	\$ 12,000.00	Upgrade the existing Seagrams 12kV distribution circuit by adding an underground extension.
SPVP 013	Yes	\$ 382,000.00	Distribution line upgrades include: • Approximately 4150 feet of 1000 JCN • Underground 4-way gas switch
SPVP 014	Yes	\$ 119,400.00	Distribution Upgrades will be required. These facilities include the installation of a PME switch with an Automated Position.
SPVP 017	Yes	\$ 392,000.00	Distribution Upgrades to rectify thermal overloads and system overvoltage conditions will be required.
SPVP 018	Yes	\$ 69,000.00	Install a PME-10 Switch
SPVP 019	Yes	\$ 19,300.00	Existing SCE PME switch P5509059 will be utilized, but automation will be required
SPVP 023	Yes	\$ 24,300.00	The distribution upgrades include the installation of an automated PME switch.
SPVP 024	Yes	\$ 107,300.00	Distribution upgrades include replacement of an existing Padmounted Enclosure (PME) switch and reconductor of a 12 kV primary line as required to interconnect this generation project.
SPVP 025	Yes	\$ 414,000.00	Distribution upgrades include the installation of approximately 2500 ft. of underground cable, two vaults, a 4-Way Gas Switch, and a PME-10 Switch.
SPVP 026	Yes	\$ 43,800.00	Upgrade the existing Casmalia 12kV circuit by installing 250 ft of UG 350 CLP 12kV cable, a 5" riser, potheads, and lightning arresters. Remove service at 2510/ 2580 W. Walnut Ave., Rialto, CA 92376 from the Dorsey 12kV and re-connect to the Casmalia 12kV
SPVP 028	Yes	\$ 41,000.00	Distribution upgrades include replacement of primary conductor as required to interconnect the project
SPVP 042	Yes	\$ 152,000.00	Upgrade the Cloer 12kV distribution line as follows: 1) Reconductor approximately 0.7 miles of overhead distribution line section from 4A1 to 336A1 conductor, 2) Reconductor approximately 0.15 miles of underground distributin line section from 1/0 to 350 MCM conductor
SPVP 016	Yes	\$ 32,000.00	Distribution Upgrades include installing a Padmounted Enclosure (PME) switch with one automated position as required to interconnect this generation project.
SPVP 021	Yes	\$ 57,200.00	Distribution Upgrades will be required. These upgrades include the installation of a PME switch with one automated position.
SPVP 033	Yes	\$ 62,000.00	Distribution upgrades will include the installation of a new 3-way pad-mounted gas switch, 12kV primary cable from PME5400 to the new 3-Way Pad-Mounted Gas Switch and distribution cable components