

# California Public Power Solar Energy Program Status Report June 2010



# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

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## **BACKGROUND:**

California Senate Bill 1 (SB 1) was passed by the State Legislature and signed into law by the Governor on August 21, 2006.

The legislation requires the governing body of a local Publicly Owned Utilities (POU) to adopt, implement and finance a solar initiative program for the purpose of investing in and encouraging the increased installation of, residential and commercial solar energy systems beginning January 1, 2008.

The statewide expenditure requirement for programs adopted and implemented by POUs is seven hundred eighty-four million dollars (\$784,000,000). Expenditure levels for each local publicly owned electric utility are based on the utility's percentage of the total statewide load served by all local publicly owned electric utilities.

POUs are required to report on an annual basis beginning June 1, 2008, information relating to the City's solar initiative program(s), including the number of photovoltaic solar watts installed, the total number of photovoltaic systems installed, the total number of applicants, the amount of incentives awarded, and the contribution toward the program goals. This report is a compilation of a majority of the State's POUs submitted for the period January through December 2009.

## **PROGRAM ACTIVITY AND CHALLENGES:**

POUs are actively promoting the State's objectives under SB1. However solar installations, even with an incentive contribution by the local utility, are expensive and require customers to pay a portion of the installations. To complicate matters, POUs typically have low electricity rates which make the "payback" to customers too unrealistic for recovering the required investment. With the recent economic downturn within the state, many customers are now unable or unwilling to make investments in their properties. This has, and continues to be a challenge for the utilities of all sizes and in all locations in the State.

Some POUs are maintaining rebates at higher levels above the obligations of SB1 (which allows for a reduction in the rebate amount every year) in an attempt to improve participation. Even with this, a majority of the POUs do not receive enough applications to consume their available funding.

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This report contains information for POUs as summarized in the following table:

	Applicants	Installations	Expenditures
Alameda	17	13	\$73,317
Anaheim	59	59	\$2,397,662
Azusa	8	4	\$321,474
Banning	109	58	\$461,398
Biggs	-	-	\$-
Burbank	29		\$907,902
Colton	18	15	\$360,046
Corona	**	**	**
Glendale	78	76	\$1,509,560
Gridley	-	-	\$-
Healdsburg	16	11	\$101,905
Hercules	2	2	\$20,000
IID	98	98	\$4,055,633
Industry	**	**	**
Island Energy (Pittsburgh Power)	-	-	\$-
Lassen	6	6	\$92,624
Lodi	22	21	\$278,617
Lompoc	9	8	\$108,313
Los Angeles LADWP	1,733	4,895	\$20,679,000
Merced	2	2	\$37,520
Modesto	**	**	**
Moreno Valley	1	1	\$22,152
Needles	**	**	**
Palo Alto	49	54	\$1,257,743
Pasadena	65	65	\$836,839
Plumas Sierra	15	15	\$199,803
Port of Oakland	-	-	\$-
Rancho Cucamonga	**	**	**
Redding	**	**	\$147,744
Riverside	49	49	\$1,723,885
Roseville	272	197	\$1,538,978
Shasta Lake	1	1	\$13,857
Silicon Valley Power	52	33	\$475,173
SMUD	**	**	**
Trinity	**	**	**
Truckee Donner	15	9	\$90,000
Turlock TID	162	99	\$5,536,417
Ukiah	7	4	\$22,553
Vernon	-	-	\$-
<b>Totals:</b>	<b>2,894</b>	<b>5,795</b>	<b>\$43,270,115</b>

**Note:** \*\* means that information was not available at time of publication.

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## Utility: Alameda Municipal Power

### 1. Program Activities

a) Summary of Program Activities:

- Introduced Performance-Based Incentive (PBI), to be paid quarterly over 5 years, for systems with installed capacity greater than or equal to 50 kW.
- Increased annual set-aside for residential installations to 50 kW in all subsequent years.

b) Future Opportunities and Challenges:

- Two commercial systems with a combined capacity of over 300 kW are expected to come on line during 2010, which will quadruple the total installed capacity in Alameda's service territory.

### 2. Program Performance

Number of Applicants	Total Systems Installed	Installed Capacity (kW)*	Total Generation (kWh/yr)*	Total Expenditures
EPBB – 17 PBI – 0	Residential Market-Rate – 13 Affordable/Low income –	47.3	76,700	\$73,317

Incentives Paid	Incentives Reserved	SB1 Funding (Life of Program)	Funds Remaining	kW/MW Goal (Life of Program)
\$73,317	\$57,590	\$4,200,000	\$3,128,170	2,127 kW

### 3. Additional Information (as available)

- a) Known customer application issues/applications not approved: None  
 b) Non PV solar systems installed: None  
 c) Facility end use information -

- All 13 systems installed in 2009 were retrofits.

d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.) -

- 50 kW set aside annually for residential installations.
- \$14,500 of the \$73,317 in incentives paid in 2009 were for solar systems installed on two newly constructed affordable housing units. However, these two systems were installed in 2008.

- e) Any training or builder/installer assistance: None  
 f) Any auditing of installed systems: None

### 4. Appendix

All program information available on website at:

[http://alamedamp.com/index.php?option=com\\_content&view=article&id=385&Itemid=89](http://alamedamp.com/index.php?option=com_content&view=article&id=385&Itemid=89)  
[6](#)

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

## Utility: Anaheim Public Utilities

### 1. Program Activities

#### a) Summary of Program Activities:

- Implemented Anaheim Solar Advantage program changes to be in compliance with SB-1 guidelines and standards
- Continued management of four solar energy incentive programs: Resident, Income Qualified Residential, Commercial, Sun Power for the Schools
- Conducted one Solar Energy Basics workshop for Residents on April 18, 2009
- Implemented PowerClerk as web-based incentive management and program database

#### b) Future Opportunities and Challenges:

- Expand education/outreach to include energy/water efficiency and vendor fair, and training for vendor-applicants
- Update website
- Expand Anaheim Solar Map to include solar potential for all City of Anaheim territory

### 2. Program Performance

Number of Applicants	Total Systems Installed	Installed Capacity (kW)*	Total Generation (kWh/yr)*	Total Expenditures
EPBI - 58	Res (Market) – 39	172.01	288,818	\$2,397,662.32
PBI - 1	Res (Income Qualified)	44.54	73,103	
	- 16	383.45	633,162	
	Commercial - 2	2.06	3,756	
	Schools - 2			

Incentives Paid	Incentives Reserved	SB1 Funding (Life of Program)	Funds Remaining	kW/MW Goal (Life of Program)
\$2,266,352.78	\$3,554,430.34	\$35,055,800	\$32,316,596	12 MW

### 3. Additional Information (as available)

- a) Known customer application issues/applications not approved: None
- b) Non PV solar systems installed: None
- c) Facility end use information -

1 Church  
 1 Metal Recycling plant  
 55 Residential Homes (single family)  
 2 Schools

# California Public Power Solar Energy Program Status Report

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d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.) –

	<b>Residential (Market)</b>	<b>Residential (Income Qualified)</b>	<b>Commercial</b>	<b>Schools</b>
<b>Incentives Paid</b>	\$718,636.30	\$274,607.00	\$1,233,109.48	\$40,000
<b>Incentive Type</b>	EPBI	EPBI	EPBI and PBI	Education Grant

Permit Fee Waivers: \$67,032.72  
 Events: \$7,111.57  
 Anaheim Solar Map (Education/Outreach): \$46,200.00  
 Meters: \$6,215.25  
 Membership (SEPA/CalSEIA/California Solar Center):\$4,750

e) Any training or builder/installer assistance -

Solar Energy Basics Workshop for Residents – April 2009
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f) Any auditing of installed systems: systems are inspected by both the City of Anaheim and the Anaheim Public Utilities Department Metering Division; systems are not audited.

## 4. Appendix

All program information available on website at:

<http://www.anaheim.solarmap.org/>

<http://www.anaheim.net/article.asp?id=1644>

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

## Utility: Azusa Light and Water

### 1. Program Activities

#### a. Summary of Program Activities

Azusa Light and Water has provided rebates for two residential installations this year adding 6.837 kW bringing the total residential PV customers to 3 with a combined 9.305 kW in PV capacity. An 84.15 kW commercial project was also completed. This is the only commercial PV system within the service territory at this time. This year we have spent \$314,564 on incentives for \$652,805 worth of PV projects. Overall, our incentives of \$321,474 have facilitated the investment of \$673,131 worth of PV projects. Promotion is on our website and through various printed media within the City of Azusa. High levels of interest were generated by the Solar Partnership Program's incentive level of \$4 per Watt.

#### b. Future Opportunities and Challenges

We have a waiting list with many more applications for next year because of rebates and tax incentives. We have three commercial installations and one residential installation on the drawing board with an additional planned PV load of approximately 83 kW.

### 2. Program Performance

Number of Applicants <sup>1</sup>	Total Systems Installed <sup>2</sup>	Total kW Installed <sup>3</sup>	Estimated Generation (kWh/yr)
8	4	96	175,200

Available Funding <sup>4</sup>	Total Expenditures <sup>5</sup>	Incentives Awarded	Incentives Paid
\$3,200,000	\$321,474	\$321,474	\$321,474

### 3. Additional Information

a. Known customer application issues and/or applications not approved:  
None

b. Non PV solar systems installed:  
None

c. Facility end use information

Residential: 3 participants were residential and 2 participants are commercial.

d. Incentive and funding for Program Year 2009:

Rebates: \$2.80 per Watt installed, plus \$1.20 premium for REC's

4. Appendix: <http://www.azusalw.com/index.aspx?nid=565>;  
<http://www.azusalw.com/documents/Light%20%20Water/Custom%20Service/Rebate%20Agreement%20and%20Interconnection%20and%20Net%20Metering%20Agreement%20022410.PDF>

## Utility: Banning Public Utilities

<sup>1</sup> Total applications since program inception, including those on the wait list.

<sup>2</sup> Unique locations (typically associated with a single meter location or customer account.)

<sup>3</sup> Nameplate rating of systems at the time of installation

<sup>4</sup> Total program funding available for the life of the program as approved by the local governing authority.

<sup>5</sup> Includes all expenditures including marketing and administration.

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

## 1 Program Activities

### a. Summary of Program Activities

Continued administering both Commercial and Residential programs  
Marketed program with ads at various locations and in a number of local publications throughout the City.

### b. Future Opportunities and Challenges

High installation costs and long payback for Residential customers

## 2 Program Performance

Number of Applicants <sup>6</sup>	Total Systems Installed <sup>7</sup>	Total kW Installed <sup>8</sup>	Estimated Generation (kWh/yr)
109	Market rate: 18 Low income: 0 Residential: 34 Commercial: 2 Non-profit: 3 Government: 1 Industrial: 0 Agricultural: 0 Mixed Use: 0	126	172,323

Available Funding <sup>9</sup>	Total Expenditures <sup>10</sup>	Incentives Awarded	Incentives Paid
\$2,000,000	\$461,398	\$398,804	\$398,804

## 3 Additional Information

### a. Known customer application issues and/or applications not approved:

None

### b. Non PV solar systems installed - none

### c. Incentive and funding disaggregation (by incentive type, end use, or other)

Thresholds: \$3.72 per installed watt

## 4 Appendix : <http://ca-banning.civicplus.com/index.aspx?NID=300>

<sup>6</sup> Total applications since the inception of the program.

<sup>7</sup> Unique locations (typically associated with a single meter location or customer account.)

<sup>8</sup> Nameplate rating of systems at the time of installation in kWAC.

<sup>9</sup> Total program funding available for the life of the program as approved by the local governing authority.

<sup>10</sup> Includes all expenditures including marketing and administration.

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

Utility: CITY OF BIGGS

## 1. Program Activities

a) Summary of Program Activities:

- Updated Solar Program literature & forms.
- Advertised program availability on customer utility bills.
- Continued to meet with solar project developers and encouraged them to submit project proposals for city facilities; unfortunately, current city costs and rates make a favorable cost-benefit ratio of solar projects difficult to demonstrate at this time. Continued to work with biomass/co-gen developers who are assembling project proposals for Biggs, which are expected to include some solar PV components. Applied for grants to rehabilitate a city building for use as City Hall, with solar PV as a component of the project. Plan to replace our wastewater treatment plant and are considering solar PV in the new design.
- Installed its first solar in town last year by utilizing Prop 1B funds to purchase solar PV powered flashing speed limit signs at the approaches to our elementary and middle schools.

b) Future Opportunities and Challenges:

The poor economy has negatively impacted all facets of our energy efficiency and solar PV programs. Customers are not able, or not willing to make investments in their properties. Due to this, the only projects being considered are projects for city facilities.

## 2. Program Performance

Number of Applicants	Total Systems Installed	Installed Capacity (kW)*	Total Generation (kWh/yr)*	Total Expenditures
EPBI - 0 PBI - 0	Residential Market-Rate - Affordable/Low income - Commercial - Non-Profit - Government - Industrial - Agricultural - Mixed-Use -			

Incentives Paid	Incentives Reserved	SB1 Funding (Life of Program)	Funds Remaining	kW/MW Goal (Life of Program)
0	0	\$181,153	\$167,413	161 Kw

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

## Utility: Burbank Water and Power (BWP)

### 1. Program Activities

- a) Summary of Program Activities:
- Manage the Solar Support Program with separate requirements and rebate levels for Residential, Commercial, and Non-Profits/Schools.
  - Revised PowerClerk and Clean Energy Estimator to better fit Burbank's program.
  - Revised the rebate structure for Commercial projects to reflect market trends.
  - Conducted a three hour solar workshop for Burbank residents.
  - Staffed a separate solar booth at BWP's annual Energy Expo and included tours of the 4 kW solar demonstration project.
  - Using a third party verification company, conducted comprehensive surveys on 100% of rebated installations.
  - Participated in SEPA's annual solar survey in which BWP ranked second in the kW/capita category among California POU's.
  - Marketed the program with various handouts, bill inserts, and a frequently broadcast three minute video presentation on the local cable channel with the program manager explaining the virtues of his own solar powered home.
  - Modified BWP's billing system to calculate PBI incentives on a monthly basis and apply the credit on the utility bill.
- b) Future Opportunities and Challenges:
- Planning to have a contractor training class covering how to pull a city permit and apply for BWP rebates on PowerClerk, among other topics.
  - Revising program procedures to require a utility provided performance meter be installed, read and the information reported monthly to the customer for each solar PV installation.

### 2. Program Performance

Number of Applicants (2009)	Total Systems Installed (2009)	Installed <sup>1</sup> Capacity in 2009 (kW)	Total <sup>1&amp;2</sup> 2009 Generation (kWh/yr)	Total <sup>3</sup> 2009 Expenditures
EPBI - 26	Residential- EPBI	99	158,400	\$356,755
	Market-Rate -	0	0	0
	Affordable/Low income -	0	0	0
EPBI - 1	Commercial - EPBI	22	35,200	\$70,134
PBI - 2	Commercial - PBI	149	238,400	\$481,013
	Non-Profit -	0	0	0
	Government -	0	0	0
	Industrial -	0	0	0
	Agricultural -	0	0	0
	Mixed-Use -	0	0	0
<b>Total = 29</b>	<b>Totals:</b>	<b>270 KW</b>	<b>432,000 KWh</b>	<b>\$907,902</b>
Incentives Paid <sup>4</sup> (To Date)	Incentives <sup>5</sup> Reserved	SB1 Funding <sup>6</sup> (Life of Program)	Funds <sup>7</sup> Remaining	kW/MW Goal (Life of Program)
\$1,077,194	\$2,177,611	Up to \$15,000,000	Up to \$11,693,452	15,000 kW

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

## 3. Additional Information (as available)

a) Known customer application issues/applications not approved-

Two oversized systems were required to right-size per SB1 guidelines.

b) Non PV solar systems installed -

All systems installed and rebated were solar photovoltaic systems.

c) Facility end use information -

Of the three commercial installations, one was an Import/Export company, one was a restaurant, and one was a sound stage at a major motion picture studio. All others were residential installations.

d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.) -

During this period BWP was on Step 1 and offered three levels of EPBI Solar Support Program incentives:

- \$3.00/watt, no limit, on residential and business systems where the owner keeps the renewable energy credits.
- \$3.50/watt, no limit, on residential and business systems where the owner assigns the renewable energy credits to BWP.
- \$4.00/watt, no limit, on not-for-profit systems where the owner assigns the renewable energy credits to BWP.

All the PBI incentives were paid at Step 1 or \$0.483 per metered kWh for five years. 100% of rebated installations selected the rebate level that assigns the RECs to BWP.

e) Any training or builder/installer assistance -

1 Customer training session in Nov. 2009. Installer training planned in 2010.

e) Any auditing of installed systems – All 29 solar PV systems installed in 2009 were audited by an independent third party.

## 4. Appendix

All program information is available on BWP's website at:

<http://www.burbankwaterandpower.com/index.php/incentives-for-all-customers/solar-photovoltaic-power>

1. The kW and kWh amounts are based on the CEC AC Watt formula.
2. Annual kWh is estimated at 1,600 kWh per CEC AC Watt.
3. Includes costs for incentives and contractors, but not staff costs.
4. Reflects only SB1 customer incentives paid in the period of January 1, 2008 through December 31, 2009. Does not reflect \$51,743 paid for non-incentive solar program costs incurred during this period (\$24,000 for 2008 Power Clerk and Clean Power Estimator set-up costs, plus 2009 consulting costs of \$27,743).
5. Estimated remaining balance for PBI energy payments.
6. Total solar program funding available for the life of the program as approved by the local governing authority.
7. Includes total incentive and contractor costs paid plus incentives reserved.

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

## Utility: Colton Electric Utility

### 1 Program Activities

#### a. Summary of Program Activities

Colton Electric Utility has provided rebates for two residential installations this year adding 6.642 kW bringing the total residential PV customers to 13 with a combined 54 kW in PV capacity. A 24 kW commercial project was also completed bringing our commercial PV capacity to 124 kW. This year we have spent \$121,731 on incentives for \$263,145 worth of PV projects. Our incentives of \$356,546.89 have facilitated the investment of \$1,722,762.00 worth of PV projects. Promotion is on our website, and the California Go Solar and Find Solar Websites. Solar contractors and customers are aware of our program's high incentive level of \$4 per Watt and that CEU's rates are around 20 cents per kWh make solar a good investment.

#### b. Future Opportunities and Challenges

We have many more applications for next year because of rates and tax incentives. Several churches are planning projects through PV leases where the system owner can take advantage of the rebate program and tax credits. We have one large commercial customer that is planning a 600 kW system. We expect these projects will bring us to the third step in the incentive reduction.

### 2 Program Performance

Number of Applicants <sup>11</sup>	Total Systems Installed <sup>12</sup>	Total kW Installed <sup>13</sup>	Estimated Generation (kWh/yr)
18	15	178	324850

Available Funding <sup>14</sup>	Total Expenditures <sup>15</sup>	Incentives Awarded	Incentives Paid
\$4,000,000	\$360,046.89	\$356,546.89	\$356,546.89

### 3 Additional Information

- a. Known customer application issues and/or applications not approved:  
Four customers that had applied have put off installing solar for an unspecified period of time.
- b. Non PV solar systems installed:  
None
- c. Facility end use information  
Residential: 13 participants were market rate residential properties.  
2 participants are commercial.
- d. Incentive and funding disaggregation

<sup>11</sup> Total applications since the inception of the program.

<sup>12</sup> Unique locations (typically associated with a single meter location or customer account.)

<sup>13</sup> Nameplate rating of systems at the time of installation

<sup>14</sup> Total program funding available for the life of the program as approved by the local governing authority.

<sup>15</sup> Includes all expenditures including marketing and administration.

# California Public Power Solar Energy Program Status Report

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Rebates: \$100,000

Auditing of installed systems: \$1,000 worth of staff time.

Administration: \$2,500 of staff time.

Thresholds: \$/watt, and maximums: \$4 dollar per Watt up to 30 kW. Then PBI of 43¢ per kWh for 5 years. Max system 1 MW.

- 4 Appendix (Program descriptions, marketing materials, guidelines, incentive tables, rules and other program information)
  - a. <http://www.coltononline.com/bpro.html>
  - b. [http://www.coltononline.com/Documents/NEW%20Solar%20Rebate%20Form%20SmallerKW\\_2008.pdf](http://www.coltononline.com/Documents/NEW%20Solar%20Rebate%20Form%20SmallerKW_2008.pdf)
  - c. <http://www.coltononline.com/Documents/30%20kw%20+PV%20SYSTEM%20application,Excel97%20.pdf>

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

## Utility: Glendale Water & Power (GWP)

### 1. Program Activities

#### a.) Summary Program Activities:

During the period between January 2009 and December 2009, Glendale Water & Power provided rebates totaling \$1,509,560. The rebates were paid to 76 applicants representing 428.1 kW of installed capacity and approximately 620,745 kWh in generation. These applications represent 74 residential, one small commercial and one affordable housing performance based application (PBI). Our incentives have facilitated our customers to invest approximately \$3,571,144 in PV projects.

In addition, GWP also received 23 applications which are in the process of completing the installations for an additional 100.6 kW installed capacity and approximately 145,870 kWh generation.

GWP continues to advertize the "Solar Solutions" program through various methods such as City's newsletters ("The Source" and "Business Power Connections"), GWP website and pamphlets at community events and in the new customer "welcome packets". Currently this program is well known by our customers, and the various solar companies working in Glendale. These sources have generated plenty of interest within our community.

#### b.) Future Opportunities and Challenges:

During this reporting period we had great response with an average of 7-8 applications per month. In addition, 2 commercial PBI projects have made funding reservations for 50+ kW systems.

Our biggest challenge will be maintaining program participation in light of the current state of the economy as well as the lower rebate amount which was reduced from \$4.00/watt to \$3.72/watt for residential customers, from \$0.49/kWh to \$0.456/kWh for commercial customers and from \$5.00/watt to \$4.65/watt for affordable housing customers.

### 2. Program Performance

Number of Applicants	Total Systems Installed	Installed Capacity (kW)*	Total Generation (kWh/yr)*	Total Expenditures
EPBI - 76 PBI - 1	Residential - 74 Market-Rate - 0 Affordable/Low income - 1 Commercial - 1	428.1	620,745	\$ 1,509,560

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Incentives Paid	Incentives Reserved	SB1 Funding (Life of Program)	Funds Remaining	kW/MW Goal (Life of Program)
\$ 1,509,560	\$ 727,480	\$ 15.2 million	\$11,335,702	1700 kW

### 3. Additional Information

- a. Known customer application issues and/or applications not approved.  
Three customers canceled their applications. They decided not to go forward with the PV installation at this time.
- b. Non PV solar systems installed. - None
- c. Facility end use information:  
Residential: 76  
Commercial: 1  
Affordable Housing: 1
- d. Incentive and funding disaggregation (by incentive type, end use, or other).  
Rebates: \$1,509,560 (includes permit fees)  
Marketing/Events: None  
Administration: 1.5 GWP staff  
Thresholds: \$/watt, and maximums: \$3.72/watt and \$0.456/kWh (PBI)

### 4. Appendix

- a. Residential:  
[http://www.glendalewaterandpower.com/save\\_money/solar/program.aspx?section=Residential\\_Resources&type=residential](http://www.glendalewaterandpower.com/save_money/solar/program.aspx?section=Residential_Resources&type=residential)
- b. Business:  
[http://www.glendalewaterandpower.com/save\\_money/solar/program.aspx?section=Business\\_Resources](http://www.glendalewaterandpower.com/save_money/solar/program.aspx?section=Business_Resources)

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

**Utility: City of Gridley**

## 1. Program Activities

a) Summary of Program Activities:

Zero (0) Solar PV systems were submitted to the City of Gridley for incentives under the City's solar program in CY2009. In comparison, one (1) system was submitted in CY2008.

b) Future Opportunities and Challenges:

The recession has hit the citizens of Gridley hard. Many are unemployed/underemployed and cannot afford to make an investment in a solar system for their home or business. An improved economy provides the best hope for an uptick in customer interest.

## 2. Program Performance

Number of Applicants	Total Systems Installed	Installed Capacity (kW)*	Total Generation (kWh/yr)*	Total Expenditures
EPBI - 0 PBI -	None			

Incentives Paid	Incentives Reserved	SB1 Funding (Life of Program)	Funds Remaining	kW/MW Goal (Life of Program)
\$0	\$0	\$450,000	\$444,400	0.35 MW

## 3. Additional Information (as available)

- a) Known customer application issues/applications not approved: None
- b) Non PV solar systems installed: None
- c) Facility end use information: N/A
- d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.):

NA

e) Any training or builder/installer assistance -

The employees of the City of Gridley have recently received training and will be installing a system (approximately 2.4 kW) on a city facility in CY2010 to gain better understanding of how a PV system works and gain confidence in their safety as it interacts with the whole City system.

e) Any auditing of installed systems: None

## 4. Appendix

All program information available on website at:

<http://www.gridley.ca.us/departments/electric.php>

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

Utility: City of Healdsburg

## 1. Program Activities

a) Summary of Program Activities:

Eleven (11) Solar PV systems were installed in the City of Healdsburg's service territory during CY2009, compared to six (6) in CY2008, representing a net 83% increase in activity. Overall customer interest in Healdsburg's Solar PV program has been steadily increasing.

b) Future Opportunities and Challenges:

The greatest challenge Healdsburg faces is trying to accommodate all of the Solar PV interests and requests with a limited SB1 budget. Customer interest in the program, including some very large commercial projects, exceeds Healdsburg's current SB1 funding.

## 2. Program Performance

Number of Applicants	Total Systems Installed	Installed Capacity (kW)*	Total Generation (kWh/yr)*	Total Expenditures
EPBI - 16	Residential			
PBI -	Market-Rate – 10	43.03	51,634	\$76,166
	Affordable/Low income –			
	Commercial - 1	10.27	12,318	\$25,739

Incentives Paid	Incentives Reserved	SB1 Funding (Life of Program)	Funds Remaining	kW/MW Goal (Life of Program)
\$101,905	\$39,291	\$946,846	\$702,565	530 kW

## 3. Additional Information (as available)

a) Known customer application issues/applications not approved-

Five customers submitted applications; however, their projects were not completed and they did not receive incentives under the City's solar program.

b) Non PV solar systems installed –

c) Facility end use information –

d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.) -

e) Any training or builder/installer assistance -

f) Any auditing of installed systems –

None during CY2009; As of January 1, 2010, all new solar PV systems will receive a system performance post-inspection to verify the EPBB calculator inputs and actual system output per SB1 requirements.

## 4. Appendix

All program information available on website at:

<http://www.ci.healdsburg.ca.us/index.aspx?page=452>

Utility: HERCULES MUNICIPAL UTILITY

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

## 1. Program Activities

a) Summary of Program Activities:

EPBI incentives for residential and PBI incentives for commercial

b) Future Opportunities and Challenges:

## 2. Program Performance

Number of Applicants	Total Systems Installed	Installed Capacity (kW)*	Total Generation (kWh/yr)*	Total Expenditures
EPBI - 2 PBI	Residential – 2 Market-Rate Affordable/Low income – Commercial – in progress Non-Profit - Government - Industrial - Agricultural - Mixed-Use -	6.5KW	Residential 12,667	\$20,000

Incentives Paid	Incentives Reserved	SB1 Funding (Life of Program)	Funds Remaining	kW/MW Goal (Life of Program)
\$20,000	\$300,000	As needed	As needed	As needed to meet regulations

## 3. Additional Information (as available)

a) Known customer application issues/applications not approved-

b) Non PV solar systems installed -

c) Facility end use information -

d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.) -

Residential \$2.80/watt - \$20,000 issued. Commercial PBI at 21cents/kwh \$300,000 reserved.

e) Any training or builder/installer assistance -

f) Any auditing of installed systems -

## 4. Appendix

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

## Utility: Imperial Irrigation District (IID)

### 1. Program Activities

a) Summary of Program Activities: Imperial Irrigation District offers rebates to residential and commercial customers that install qualifying photovoltaic generation systems. IID promotes the PV program through a variety of channels including bill inserts, program materials, web site and community events.

b) Future Opportunities and Challenges:  
 Challenges - Large projects have tied up program funding while not continuing on to completion.  
 Opportunities - Imperial Irrigation District continues to make changes in order to ensure program success. These changes include program requirements, rebate cap and verification of installed equipment.

### 2. Program Performance

Number of Applicants	Total Systems Installed	Installed Capacity (kW)*	Total Generation (kWh/yr)*	Total Expenditures
EPBI - 98 PBI -	Residential Market-Rate - 88 Affordable/Low income - N/A Commercial - 10 Non-Profit - N/A Government - N/A Industrial - N/A Agricultural - N/A Mixed-Use - N/A	Residential: 306.76 Commercial: 243.85  Subtotal: 550.61  *Commercial: 999.9  Total: 1,550.51	Residential: 73,320 Commercial: 79,250  Subtotal: 152,570  *Commercial: 71,250  Total: 223,820	\$4,055,633

\*kW/kWh included in 2008 report, incentive paid in 2009

Incentives Paid	Incentives Reserved	SB1 Funding (Life of Program)	Funds Remaining	kW/MW Goal (Life of Program)
\$1,383,497 (2008) \$3,969,856 (2009) Total: \$5,353,353	\$5,150,721	\$40,200,809	\$33,196,173	44 MW

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

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Note: Incentives paid since IID's program inception in 2005 is as follows:

2006 – \$678,915

2007 – \$506,825

2008 – \$1,473,118 (includes incentives not reported in 2008 program status due to tracking mechanism and SAP financial system)

2009 – \$3,602,351 (excludes incentives paid out in 2009, applied in 2010 due to tracking mechanism and SAP financial system)

**Total - \$6,261,209**

### 3. Additional Information *(as available)*

- a) Known customer application issues/applications not approved- A total of eight applications not approved in 2009: five failed to meet due dates/deadlines, two cancelled by applicant and one installation contractor did not meet license qualifications.
- b) Non PV solar systems installed - None
- c) Facility end use information –  
Residential (market rate) – 88  
Commercial - 10
- d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.) –  
Rebates: \$3,969,856  
Marketing: \$24,935.86  
Materials/Equipment: \$3,852  
Administration: \$56,989.47
- e) Any training or builder/installer assistance - None
- f) Any auditing of installed systems – Inspections of installed systems performed at the time system is energized.

### 4. Appendix

All program information available on website at:

<http://www.iid.com/Energy/SolarPVSolutions>

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

## Island Energy

Utility Name: Pittsburg power company/d.B.A Island Energy

**Program Reporting Period:**

From: January 1, 2009  
 Through: December 31, 2009

**1. Program Activities**

a) Summary of Program Activities:

Solar Rebate Program has been in place. No activities during the Reporting Period.

b) Future Opportunities and Challenges:

One solar program funded by CDBG Grants is in discussion. This project will be a 7.2kW Roof-top solar project.

**2. Program Performance**

Number of Applicants	Total Systems Installed	Installed Capacity (kW)*	Total Generation (kWh/yr)*	Total Expenditures
EPBI - PBI -	Residential Market-Rate - Affordable/Low income - Commercial - Non-Profit - Government - Industrial - Agricultural - Mixed-Use -	<u>No Application during the reporting period.</u>		

Incentives Paid	Incentives Reserved	SB1 Funding (Life of Program)	Funds Remaining	kW/MW Goal (Life of Program)
<u>No incentives paid during the reporting period.</u>				

**3. Additional Information (as available)**

a) Known customer application issues/applications not approved-

Retrofit on Historical Building - Permits & Approval from City's planning Dept.

b) Non PV solar systems installed -

c) Facility end use information -

d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.) -

Incentive drops 10% per year. For year 2009, it is \$2.5/watt

e) Any training or builder/installer assistance - N/A

f) Any auditing of installed systems -

**4. Appendix**

Additional program information, including program guidelines, incentive tables, program rules, etc.

All program information available on website at: www.IslandEnergy.com

\*List the kW and kWh/yr for each sector, i.e. residential, commercial, non-profit, etc.

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

Utility: Lassen Municipal Utility District

## 1. Program Activities

a) Summary of Program Activities:

Six (6) solar PV systems were installed in LMUD service territory and approved for incentive payments during CY2009, in comparison to 0 systems during CY2008.

b) Future Opportunities and Challenges:

As photovoltaic systems become more affordable more households and businesses may find solar within their budget. However, Lassen customers realized a 7% decrease in rates in 2010 and may see further rate reductions in 2011. With declining rates, the payback on a solar system is not as attractive. Lower rates allow Lassen to focus more on the renewable energy and energy efficiency aspect of solar without tying solar to decreased energy costs.

## 2. Program Performance

Number of Applicants	Total Systems Installed	Installed Capacity (kW)*	Total Generation (kWh/yr)*	Total Expenditures
EPBI - 6 PBI -	Residential Market-Rate – 6 Affordable/Low income –	25.21	30,246	\$92,624

Incentives Paid	Incentives Reserved	SB1 Funding (Life of Program)	Funds Remaining	kW/MW Goal (Life of Program)
\$92,624	\$0	\$1,670,000	1,500,000	1.49 MW

## 3. Additional Information (as available)

- a) Known customer application issues/applications not approved: None
- b) Non PV solar systems installed: None
- c) Facility end use information: N/A
- d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.)
- e) Any training or builder/installer assistance -

LMUD conducts contractor training.

- e) Any auditing of installed systems –

All systems are inspected and audited for performance.

## 4. Appendix

All program information available on website at:

<http://www.lmud.org/photovoltaicBuyDown.aspx>

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

## Utility: Lodi Electric Utility

### 1. Program Activities

- a) Summary of Program Activities: In 2009, the utility received twenty-two (22) rebate applications – all were from the residential sector. Of the 22 applications submitted, a total of 21 photovoltaic systems were installed. To promote the solar program, the utility conducted one “solar fair,” and advertised the rebate program via newspaper (ads), press releases, the utility web site, and utility bill stuffers/informational pieces.
- b) Future Opportunities and Challenges: The sluggish economy continues to hamper widespread interest in solar system installations, particularly larger systems that might be/would be installed by commercial and industrial customers.

### 2. Program Performance

Number of Applicants	Total Systems Installed	Installed Capacity (kW)*	Total Generation (kWh/yr)*	Total Expenditures
EPBI - 0 PBI - 22	Residential Market-Rate - 21 Affordable/Low income – 0 Commercial - 0 Non-Profit - 0 Government - 0 Industrial - 0 Agricultural - 0 Mixed-Use - 0	95.447	143,171	\$278,617
<b>Incentives Paid</b>	<b>Incentives Reserved</b>	<b>SB1 Funding (Life of Program)</b>	<b>Funds Remaining</b>	<b>kW/MW Goal (Life of Program)</b>
\$278,617	\$303,197	\$6.1 million	\$295,000	?

### 3. Additional Information (as available)

- a) Known customer application issues/applications not approved: None
- b) Non PV solar systems installed: None
- c) Facility end use information: None
- d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.) -  
75% of funding reserved for non-residential; 25% of funding reserved for residential
- e) Any training or builder/installer assistance: None
- f) Any auditing of installed systems – Utility Engineering division provides post-installation inspections; in 2010, the Utility will utilize a third-party contractor to randomly assess and audit installations.

### 4. Appendix

All program information available on website at: [www.lodielectric.com](http://www.lodielectric.com)

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

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## Utility: City of Lompoc

### 1. Program Activities

a) The City of Lompoc is offering an average of \$174,626 a year for ten years in photovoltaic rebates. During the calendar year 2009, Lompoc issued a total of \$108,313 in rebates to seven residential customers and one commercial customer. The remaining \$66,314 will be made available during the 2010 calendar year.

Lompoc offers a \$3.00 per watt rebate on the estimated AC production of the system. This rebate was decreased from \$3.50 per AC watt which was offered since the inception of the PV rebate program in 2004.

Lompoc continues to encourage the installation of PV systems through community events, customer contact, offering an attractive rebate amount and demonstrating the importance of PV by installing 141 Kw of PV on three city facilities.

b) Future opportunities and challenges:

Lompoc will participate with Santa Barbara County offering an AB811 funding program. This financing program should encourage homeowners to install PV who otherwise do not have the economic means to install a system.

Since approximately one half of Lompoc's housing stock is multi-family residence and our unemployment rate is over 17% the customers with the ability and means to install a system is limited to a small percentage of the customers.

### 2. Program Performance

<b>Number applicants:</b>	<b>9</b>
<b>Total systems installed:</b>	<b>8</b>
<b>Total kW installed:</b>	<b>37.55</b>
<b>Generation (kWh/yr):</b>	<b>58,430</b>
<b>Total expenditures:</b>	<b>\$108,313</b>
<b>Incentives reserved:</b>	<b>1</b>
<b>Incentives paid:</b>	<b>\$108,313</b>

### 3. Additional Information *(as available)*

a) Known customer issues:

b) Non PV solar systems installed. none

c) Facility end use information

#### **Number of installations per building type**

New Construction - none

Retrofit

#### **Number of installations per customer type**

Residential **7**

- affordable housing -

Commercial - **1**

Non-Profit -

Government -

Industrial -

Mixed Use -

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

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## **Total installations 8**

d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.)

Incentive \$3.00 per watt for all customer types except non profit which is \$3.50 per watt

1 Includes all program expenditures, including administration and marketing.

## **4. Appendix**

Link to program information: <http://www.cityoflompoc.com/utilities/conservation.htm>

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

## Utility: City of Los Angeles Department of Water and Power (LADWP)

### 1. Program Activities

#### a) Summary of Program Activities:

Since the inception of the Los Angeles Department of Water and Power (LADWP) Solar Incentive Program, LADWP has provided the City of Los Angeles with affordable solar energy. Under the current program, all payments are based on estimated performance for 20 years of solar production. The current solar incentive program provides an upfront payment to our commercial and residential customers once their solar installations have been inspected and approved by the Los Angeles City Department of Building & Safety and LADWP. Last year, LADWP awarded our customers with more than \$19 million dollars in incentive payments, supporting the installation of 533 photovoltaic systems. 2009 proved to be a good year for the Solar Incentive Program as 13 megawatts in incentives were reserved and 4.89 megawatts was added to Los Angeles' energy network. Yearly statistics indicate a promising future with continued growth and success for the LADWP Solar Incentive Program.

#### b) Future Opportunities and Challenges:

LADWP plans to continue and expand its Solar Incentive Program through the year 2016 to meet the State of California goal of 280 megawatts. We are continuously exploring new ways to manage and enhance the program in order to offer more options for customers who want to participate in the Solar Incentive Program. We will be automating our application process in the coming months to streamline the process for our customers and contractors. This will allow further transparency of the process and continue our commitment to maintain excellent customer service.

LADWP has communicated with various solar contractors and customers to obtain information on the efficiency of our solar incentive application process and what can be done to make the whole experience more pleasurable. Suggestions are being considered on a case by case basis to determine feasibility of implementing such changes.

### 2. Program Performance

Number of Applicants	Total Systems Installed	Installed Capacity (kW)*	Total Generation (kWh/yr)*	Total Expenditures
EPBI: 1,200	Residential – 2,318	Residential – 3,824,700	Residential: 73,320	\$20,679,000
Residential – 498	Commercial – 1,338	Commercial – 2,207,700	Commercial: 79,250	
Commercial – 26	Non-Profit – 219	Non-Profit – 361,350	Subtotal: 152,570	
Non-Profit – 7	Government – 1,020	Government – 1,683,000	*Commercial: 71,250	
Government – 2			Total: 223,820	

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

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Incentives Paid	Incentives Reserved	SB1 Funding (Life of Program)	Funds Remaining	kW/MW Goal (Life of Program)
\$19,079,000	\$47,641,000	\$313M	\$282,630,000	280 MW

### 3. Additional Information (as available)

#### a) Known customer application issues/applications not approved-

The common reason for applications not being approved is due to lack of required documentation

#### b) Non PV solar systems installed - N/A

#### c) Facility end use information - N/A

#### d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.) -

In September 2007, the Los Angeles Board of Water and Power Commissioners approved the expenditure of up to an additional \$313 million from January 2008 through December 2016 to support the LADWP Solar Incentive Program. Over \$282 million remains allocated to the program through 2016. LADWP spent over \$60 million on its Solar Incentive Program prior to the start of the SB1 program. Approximately 8% of LADWP's funding for the program is allocated towards administration and marketing.

#### e) Any training or builder/installer assistance - N/A

f) Any auditing of installed systems – Every installed solar system undergoes a Building and Safety and LADWP Solar Inspection.

### 4. Appendix: All program information available on website at:

[www.ladwp.com/solar](http://www.ladwp.com/solar)

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

Utility Name: Merced Irrigation District

Program Reporting Period:

From: January 1, 2009

Through: December 31, 2009

## 1. Program Activities

### a) Summary of Program Activities:

The Merced Irrigation District offers a Solar Photovoltaic (PV) Buydown Program. The program offers monetary incentives for systems up to the first 3 kW residential or 25 kW commercial of alternating current generated by an eligible solar energy system. Our incentives were kept at \$2.80/watt for 2009. Between January 1, 2009 and December 31, 2009 we had 1 residential customer installation and 1 commercial installation.

### b) Future Opportunities and Challenges:

We continue to focus our marketing and advertising efforts toward promoting our program. We are currently working on a brochure to help educate our customers on the benefits of solar power.

The current economic situation has limited the number of installations. We have a total of \$450,000 available for solar rebates. This amount has limited the number of customers wanting to participate. Due to the cap of 3kW for residential and 25kW for commercial it limits the rebate for those wanting to implement much larger systems. Calculations have shown that the payback period is still pretty high.

We are now considering allowing rebates for larger systems. We are evaluating larger commercial systems on a case by case basis.

## 2. Program Performance

Number of Applicants	Total Systems Installed	Installed Capacity (kW)*	Total Generation (kWh/yr)*	Total Expenditures
EPBI - 2	Residential			
PBI -	Market-Rate - 1	3.4kW	5,736 kWh/yr	\$9,520
	Affordable/Low income -			
	Commercial - 1	10kW	691 kWh/yr*	\$28,000
	Non-Profit -			
	Government -			
	Industrial -			
	Agricultural -			
	Mixed-Use -			

\*system was installed at the end of 2009

Incentives Paid	Incentives Reserved	SBI Funding (Life of Program)	Funds Remaining	kW/MW Goal (Life of Program)
\$37,520	\$450,000/yr	9 years	\$412,480	

## 3. Additional Information (as available)

a) Known customer application issues/applications not approved-

None

b) Non PV solar systems installed -

None

c) Facility end use information -

Residential and Commercial energy consumption

d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.) -

Solar PV Buydown program - \$450,000 per year

e) Any training or builder/installer assistance -

We plan to host a builder/installer information session to help us establish our relationships with our local builders and installers. This will also allow us the opportunity to explain our rebate program.

f) Any auditing of installed systems - No official auditing. However all systems are monitored to track generation.

## 4. Appendix

Additional program information, including program guidelines, incentive tables, program rules, etc.

All program information available on website at: [www.mercedid.org](http://www.mercedid.org)

\*List the kW and kWh/yr for each sector, i.e. residential, commercial, non-profit, etc.

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

**Utility: City of Moreno Valley – Electric Utility**

## 1. Program Activities

a) Summary of Program Activities:

One residential installation  
Ongoing Incentive program of \$2.80/watt

b) Future Opportunities and Challenges:

## 2. Program Performance

Number of Applicants	Total Systems Installed	Installed Capacity (kW)*	Total Generation (kWh/yr)*	Total Expenditures
EPBI - 1 PBI -	Residential Market-Rate - \$4/watt Affordable/Low income – Commercial - Non-Profit - Government - Industrial - Agricultural - Mixed-Use -	5.54	11,190	\$22,152

Incentives Paid	Incentives Reserved	SB1 Funding (Life of Program)	Funds Remaining	kW/MW Goal (Life of Program)
\$22,152	0	ongoing	ongoing	In line with state goal

## 3. Additional Information (as available)

- a) Known customer application issues/applications not approved-
- b) Non PV solar systems installed -
- c) Facility end use information -
- d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.) -
- e) Any training or builder/installer assistance -
- f) Any auditing of installed systems –

## 4. Appendix

All program information available on website at: [www.moval.org](http://www.moval.org)

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

Utility: City of Palo Alto

## 1. Program Activities

- a) Summary of Program Activities:
- Hosted one consumer workshop
  - Performed two field verification inspections at the end of 2009
  - Residential rebates dropped to step 7 on 4/15/09, and Small Commercial rebates dropped to step 3 on 2/10/09. Large Commercial rebates remained at step 6 and Non-Profit/Public sector rebates remained at step 1
- b) Future Opportunities and Challenges:
- Modified the program starting January 1, 2010 to meet the new CEC SB1 requirements for field inspections and energy efficiency requirements.
  - Developing online application process using PowerClerk
  - Prices for residential systems are not dropping in proportion to the decline in rebate level.
  - The issues with the Palo Alto Building Inspection Division continue to be a challenge in attracting solar companies to Palo Alto.
  - CPAU is working with the school district to identify potential PV projects

## 2. Program Performance

Number of Applicants	Total Systems Installed	Installed Capacity (kW_AC) <sup>16</sup>	Total Generation (kWh/yr)	Total Expenditures <sup>17</sup>
TOTAL - 49	TOTAL - 54	TOTAL - 330	TOTAL - 527,870	<b>\$1,257,743</b>
EPBI - 48 PBI - 1	Residential Market-Rate - 50 Affordable/Low income - 0 Commercial - 4 Non-Profit - 0 Government - 0 Industrial - 0 Agricultural - 0 Mixed-Use - 0	Residential- 185 Commercial- 145	Residential- 282,693 Commercial- 245,177	

Incentives Paid	Incentives Reserved <sup>18</sup>	SB1 Funding (Life of Program)	Funds Remaining	kW/MW Goal (Life of Program)
\$1,205,167	\$2,511,688	\$13,000,000	\$6,958,416	6.5 MW

<sup>16</sup> CPAU used CEC\_AC kilowatts for this reporting period

<sup>17</sup> Total Expenditures includes PBI payments made in 2009 for systems installed before 2009

<sup>18</sup> Incentives reserved includes pending PBI payments

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

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## 3. Additional Information *(as available)*

- a) Known customer application issues/applications not approved-
  - a. CPAU saw a drop in new applications in 2009. This was likely due to the economy and the rigorous building permit requirements of Palo Alto Building Inspection Division. A few solar companies have refused to do business in Palo Alto because of the cumbersome permitting process.
- b) Non PV solar systems installed - None
- c) Facility end use information
  - a. 14 New Construction installations, 40 Retrofit installations
- d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.)
  - a. \$349,448 in Residential rebates, \$855,719 in Commercial rebates
- e) Any training or builder/installer assistance
  - a. Assisted Palo Alto Building Division in hosting two installer meetings to review Palo Alto PV permitting process.
- f) Any auditing of installed systems - 2 commercial systems were inspected

## 4. Appendix

SB1 Total Program Installations from 1/1/07 through 12/31/09:  
215 installations received \$3,529,896 in rebates for a total capacity of 1,890 kW.

All program information available on website at: [www.cityofpaloalto.org/pvpartners](http://www.cityofpaloalto.org/pvpartners)

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

## Utility: Pasadena Water and Power

### 1. Program Activities

#### a) Summary of Program Activities:

On September 24, 2007 the Pasadena City Council authorized the Pasadena Solar Initiative (PSI) program. Authorization included initial funding of at least \$16,000,000 with the understanding that additional expenditures would likely be needed in future years. Established a goal of 14,000 kW AC customer installed photovoltaic by 2017. The PSI program officially started on January 1, 2008.

Pasadena Solar Initiative (PSI) program is modeled after the state solar program. The PSI program is managed by 2.5 positions from Pasadena Water and Power and assisted by outside contractors.

Due to the increasing amount of applications in December 2008, solar incentives were reduced from \$3.50/watt to \$3.15/watt for residential customers and \$2.00/watt for commercial customers; and from \$4.00/watt to \$2.60/watt for non-profit and government customers.

A total of 65 solar installations were completed in 2009 for an aggregate total of 357 kW AC-CEC. In addition, Pasadena had 57 applications under review for an aggregate capacity of 3 MW.

Pasadena Water and Power reimbursed customers a total of \$13, 869.00 for permit fees associated with the installation of solar systems.

#### Marketing

Solar program was heavily publicized through three promotional print ads in various media (newsprint, lifestyle magazines, online banners, and movie theater slides) and through flyer distribution at events, community centers, libraries and community meetings:

- a. "Go Solar in 2009 and Save Big" – focus on continued savings with combined incentives despite decline of rebate rate
- b. "The Sun Shines on 2009" – focus on 30% credit Federal incentive
- c. "Solar Savings Heat Up – Seize the Day" – focus on reduced retail cost of panels due to economy downturn and surplus

Additional news articles and program information were delivered directly to customers: 1) bi-monthly news articles in City's residential newsletter, "Pasadena In Focus" (62,000 households) and in utility's commercial customer newsletter, "The Conduit" (6500 businesses); 2) feature articles in "Pasadena Weekly" and "Pasadena Star News" regarding solar program incentives.

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

b) Future Opportunities and Challenges:

- a) Reaching out and providing funding opportunities for the low-income sector,
- b) Dealing with the growing number of new solar companies and installer,
- c) Conducting annual system performance audits (manually read and record inverter performance metrics, note changes in site conditions, etc.);
- d) Training City department engineers, plan checkers, billing and supporting staff
- e) Utilize existing Billing system (ECIS) to accommodate billing for solar customers
- f) Implementation of AB920

## 2. Program Performance

Number of Applicants	Total Systems Installed	Installed Capacity (kW) <sup>1</sup>	Total Generation (kWh/yr)	Total Expenditures
EPBI - 64	Residential - Market-Rate - 60 Affordable/Low Income – 0	231 0	358,592 0	\$745,744 0
	Commercial - 3	13	194,012	\$ 35,270
	Non-Profit - 1	14	23,191	\$55,825
	Government - 0	0	0	0
	Industrial - 0	0	0	0
	Agricultural - 0	0	0	0
	Mixed-Use – 0	0	0	0
PBI – 1	Commercial - 1	98	166,403	0
<b>65</b>	<b>65</b>	<b>356</b>	<b>575,795</b>	<b>\$ 836,839</b>

<sup>1</sup> Installed capacity shown is kW AC CEC rating of system at the time of installation.

Incentives Paid	Incentives Reserved	SB1 Funding (Life of Program)	Funds Remaining	kW/MW Goal (Life of Program)
\$ 836,839	\$9, 231,299	\$16,000,000	\$6,000,000	14 MW

## 3. Additional Information (as available)

f) Known customer application issues/applications not approved-

Ten (10) applications were canceled by customers. Reasons given by customers for canceling their solar applications included changes in their personal plans and the current economic conditions.

g) Non PV solar systems installed - None

h) Facility end use information -

i) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.) -

Pasadena offered incentives categories for Residential, Commercial, and Non-profits customers in 2009.

e) Any training or builder/installer assistance –

Pasadena hosted four Residential Solar Workshops on the dates listed below and their

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

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respective attendance:

Saturday, October 10, 2009 (51 attendees)

Thursday, July 30, 2009 (72 attendees)

Saturday, May 9, 2009 (33 attendees)

Saturday, January 29, 2009 (39 attendees)

f) Any auditing of installed systems –

During 2009, Pasadena hired a solar contractor to audit the production of all solar installations. Data collected from this survey will be used in the future to evaluate program's goals and requirements.

## 4. Appendix

All program information available on website at: [www.PWPweb.com/solar](http://www.PWPweb.com/solar)

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

## Utility: Plumas-Sierra Rural Electric Cooperative

### 1. Program Activities

a) Summary of program activities:

- Revised Plumas-Sierra Solar Program (PSSP) guidebook, application, and agreements
- Provided free site visits to residential and small commercial members
- Provided reduced-cost system design and financial analyses for our members through our partnership with Cooperative Community Energy
- Outreach activities included presentations, newspaper and magazine articles/advertising and planning of our onsite demonstration project and resource center

b) Future opportunities and challenges:

- It is a challenge to protect our members from fraudulent or misleading solar vendors and we are considering ways to exclude those vendors from receiving rebates.
- PSREC is exploring the concept of providing low-interest loans to members to purchase a solar PV system through the cooperative.

### 2. Program Performance

Number of Applicants	Total Systems Installed	Installed Capacity (kW)	Total Generation (kWh/yr)	Total Expenditures <sup>1</sup>
EPBI – 15 PBI - 0	Residential- 15	62.211	109,692	\$199,803

Incentives Paid	Incentives Reserved	SB1 Funding <sup>2</sup> (Life of Program)	Funds Remaining <sup>2</sup>	kW/MW Goal <sup>2</sup> (Life of Program)
\$86,619	\$86,619	\$2,060,000	N/A	N/A

### 3. Additional Information (as available)

- a) Known customer issues  
 b) Non PV solar systems installed  
 c) Facility end use information

All installations were for residential members.

d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.)

PSREC made available and budgeted \$206,000 for the CY2009 program. A total of 15 residential systems were installed. The rebate rate for 2009 was \$2.60/watt, with rebate caps set by customer type. Most installations received the maximum residential rebate cap of \$6,000.

- e) Any training or builder/installer assistance  
 f) Any auditing of installed systems

PSREC conducted an Interconnection Inspection for a majority of the installations. This inspection was completed when the meter was swapped, prior to allowing the systems to be energized and connected to our electrical system. These inspections confirm the equipment that is installed matches the equipment proposed in the rebate applications.

### 4. Appendix

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

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*For additional program information, including program guidelines, incentive tables, program rules, etc., please visit the program website:*

[http://www.psrec.coop/energy\\_renewable\\_solar.php?sec=enersol&pag=enerrenew](http://www.psrec.coop/energy_renewable_solar.php?sec=enersol&pag=enerrenew)

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

Utility Name: PORT OF OAKLAND

**Program Reporting Period:**

From Program Inception: January 1, 2009

Through: December 31, 2009

**1. Program Activities**

a) Summary of Program Activities:

As of 12/31/2009 Port is aggressively marketing its SB 1 solar program to its tenants. Although some tenants have shown an interest in the program, no applications have been submitted at this time.

b) Future Opportunities and Challenges:

To keep the interest in the program as the rebate decreases each year.

**2. Program Performance**

# Applicants	Total Systems		Estimated Generation (kWh)
	Installed	Total kW Installed	
0	0	0	0
Available Funding	Total Expenditures	Incentives Awarded	Incentives Paid
\$206,000.00	0	0	0

**3. Additional Information (as available)**

a) Known customer application issues/applications not approved

N/A

b) Non PV solar systems installed

N/A

c) Facility end use information

N/A

d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.)

N/A

**4. Appendix**

*Additional program information, including program guidelines, incentive tables, program rules, etc.*

N/A

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

## Utility: Redding Electric Utility

### 1. Program Activities

- a) Summary of Program Activities: REU has conducted a junior high and high school education program, in which the Utility partnered with City of Redding Water and Waste Water Departments and Shasta College to teach local students about solar and renewable energy, energy efficiency, resource conservation and green job opportunities.
- b) REU offered a Super Solar Rebate of \$4.50 per watt during its annual Energy Fair June 2009 and signed six residential projects within eight business days.
- c) One of those Super Solar Rebates resulted in a donation of a 9.4 kW PV project at the Good News Rescue Mission, a local homeless shelter and soup kitchen. Halcyon Solar installed the system exclusively on the REU rebate, which was 30% below market value.
- d) REU, in conjunction with Halcyon Solar and Good News Rescue Mission hosted a press conference/ ribbon cutting/ media photo opportunity to recognize the new solar system at Good News Rescue Mission. News Reporters were invited to take aerial pictures from an REU bucket truck.
- e) REU sits on the board of a local group of Education Administrators and teachers that offers an Emerging Energy Technology Curriculum Pathway, dual enrollment credits (high school and junior college credits) and prepares high school students for entry into further eco-friendly educational programs and/ or green job career opportunities.
- f) REU commemorated two Earth Day 2010 celebrations by displaying photovoltaic solar and solar thermal exhibits. The Redding Whole Earth and Watershed Festival drew approximately 4,500 people to City Hall's Sculpture Park.
- g) Future Opportunities and Challenges: REU will host its 10<sup>th</sup> Annual Energy Fair June 19, 2010. The utility's solar tracker trailer will be prominently displayed along with Ice Energy (Thermal Energy Storage), a solar powered drip system/ drought resistant garden and dozens of vendors featuring energy efficiency measures.
- h) REU has recently experienced more robust solar interest from its large commercial customers. Thus far, flat, affordable rates and relatively lengthy paybacks have discouraged large projects from entering the service territory.

### 2. Program Performance

Number of Applicants	Total Systems Installed	Installed Capacity (kW)*	Total Generation (kWh/yr)*	Total Expenditures
EPBI - PBI -	Residential Market-Rate - Affordable/Low income – Commercial - Non-Profit - Government - Industrial - Agricultural - Mixed-Use -	48.86	38,635	\$147,744.83

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

Incentives Paid	Incentives Reserved	SB1 Funding (Life of Program)	Funds Remaining	kW/MW Goal (Life of Program)
\$147,744.83	1,480,274 (3/31/10)	\$869,032.35	6,480,274	3 MW

### 3. Additional Information *(as available)*

- a) Known customer application issues/applications not approved- none
- b) Non PV solar systems installed – n/a
- c) Facility end use information – n/a
- d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.) -

\$2.42 (Standard) - \$3.07 (Optimum peak offset Due West High Tilt) per watt on systems < 10 kW. \$.35 per kWh PBI paid out over 60 months on 10 kW+ systems. Please see attached Specification sheet for orientation tilt and azimuth requirements.

- e) Any training or builder/installer assistance –n/a
- f) Any auditing of installed systems –n/a

### 4. Appendix

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

## Utility: Riverside Public Utilities (RPU)

### 1. Program Activities

a) Summary of Program Activities:

In July of 2007 and in compliance with SB1, RPU made several changes to the residential photovoltaic (PV) program and implemented a commercial PV rebate.

Under these rebate programs, residential and commercial customers can receive \$3 per watt installed AC or up to 50% of the project cost, whichever is less. There are incentive caps for each level of customer ranging from \$25,000 for residents up to \$500,000 for large industrial users under the 2009 program guidelines.

As an Emerald City, RPU is continually marketing its PV programs to businesses and residents through direct customer contact, print ads, and electronic media. As a result, participation in our residential program has increased by more than 50% and our commercial participation level has tripled since the 2008 results.

b) Future Opportunities and Challenges:

RPU continues to evolve its photovoltaic programs to closer emulate the recommended SB1 guidelines. In 2010, RPU is planning to implement a reservation system. RPU also plans to maintain or increase the \$3/watt incentive but will be reducing the program caps for the residential and commercial programs to allow for greater customer participation.

Beginning in summer of 2010, through an AB811-style program RPU will soon offer a new financing mechanism for residential renewable energy installations.

### 2. Program Performance

Number of Applicants	Total Systems Installed	Installed Capacity (kW)*	Total Generation (kWh/yr)*	Total Expenditures
49	Residential - 44	217.0	481,053	
	Market-Rate - 0	0	0	
	Affordable/Low income – 0	0	0	
	Commercial - 3	108.3	240,181	
	Non-Profit - 1	57.5	127,408	
	Government - 1	45.3	100,359	
	Industrial - 0	0	0	
	Agricultural - 0	0	0	
	Mixed-Use – 0	0	0	
<b>Totals</b>	<b>49</b>	<b>428.10</b>	<b>949,001</b>	<b>\$1,723,885.33</b>

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

Incentives Paid (In 2009)	Incentives Reserved	SB1 Funding (Life of Program)	Funds Remaining	kW/MW Goal (Life of Program)
\$956,350.87	N/A	\$25,000,000	\$21,654,987.53	N/A

### 3. Additional Information (as available)

- a) Known customer application issues/applications not approved - None
- b) Non PV solar systems installed - None
- c) Facility end use information -  
Residential – 44 systems installed; 217.0 kW capacity; \$656,350.87 total cost.  
Commercial – 3 systems installed; 108.3 kW capacity; \$300,000.00 total cost.  
Non-Profit – 1 system installed; 57.5 kW capacity; \$252,525.00 total cost.  
Government – 1 system installed; 45.3 kW capacity; \$507,743.90 total cost.
- d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.) -  
Rebates: \$956,350.87  
Permit Fee Waivers: \$7,250.00  
City/Community Partnership Projects: \$760,268.90  
Misc. Marketing Costs: \$15.56
- e) Any training or builder/installer assistance – None
- f) Any auditing of installed systems –  
All systems are inspected at time of interconnection.

### 4. Appendix

RPU's 2009 program guidelines pertaining to this reporting year are shown in the attached Appendix A and B.

All current program information is available at:

[www.greenriverside.com](http://www.greenriverside.com)  
[www.greenriverside.com/residential](http://www.greenriverside.com/residential)  
[www.greenriverside.com/business](http://www.greenriverside.com/business)

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

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Utility: City of Roseville, Roseville Electric

## 1. Program Activities

a) Summary of program activities:

- Residential Retrofit
  - Has consistently performed to satisfaction, generally exceeding funds allocated within the utility's fiscal year.
- Residential New Construction
  - Roseville Electric has seen significant historical success with solar electric installed as part of residential new construction.
- Business Retrofit
  - PV retrofits for established businesses continues to be rare. Business owners focus primarily on financial payback. Low electric rates for businesses in Roseville result in a payback in excess of 15 years.
- Business New Construction
  - Despite program fund availability and many inquiries from potential customers, there were no PV applications for business new construction. See below: "Future Opportunities and Challenges".
- In 2009, SEPA ranked Roseville Electric as having the third highest cumulative solar watts-per-customer.

### Public Outreach:

- Roseville Electric promotes PV in a wide variety of public outreach programs: Newsletters, Earth Day, Technical Bulletins, Utility Web Site, Special Promotional Events and the Roseville Utility Exploration Center.
- Account Representative and Staff Outreach provide individualized account representation to all electric customers greater than 250kW in peak demand.

b) Future opportunities and challenges:

### Future Opportunities:

- Roseville existing residential electric customers will continue to provide demand for 15 to 20 retrofit solar electric installations per year. As previously stated, much of this demand occurs despite poor economic payback.
- Roseville's BEST Homes program, a residential new construction PV/high energy efficiency program, has been a significant factor in new homes sales in Roseville. Roseville will continue to see solar electric opportunities with home builders targeting more mature and up market buyers. When the economy improves, BEST Homes will be positioned to take advantage of increasing new home sales in these market segments.
- Roseville's City Council approved the goal that 20 percent of all new homes built, over the next ten years, will participate in the BEST Homes program.
- Roseville Electric continues to see excellent cooperation between Roseville Electric and the various departments within the City. BEST Home projects are identified and given priority over standard home

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

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projects. This has provided a benefit to the builder that has been characterized as “just as important as the rebate”.

- The American Recovery and Reinvestment Act of 2009 extended the 30% Investment Tax Credit for residential solar for eight years through December 31, 2016. It also removes the cap on qualified solar expenditures (currently \$2,000). This provides increased incentives for Roseville customers to pursue solar installation.
- In March 2010, Placer County launched their “mPower” assessment loan program. mPower allows the county to loan money to qualifying borrowers for, among other things, the installation of solar electric generation. Loans are repaid via the property tax mechanism. The loan remains with the home if a sale occurs. It is expected that this funding opportunity will impact solar electric installations in Roseville.
- City of Roseville has completed Sustainable Action Plans for the City and the community. Solar electric generation was an element of both plans.

## Future Challenges:

- The existing economic stagnation will continue to impact PV in Roseville. Roseville residential properties continue to see higher than historical foreclosure rates. Additionally, property values have not rebounded – leaving some property owners in a negative equity situation.
- The volume of business solar installations - both retrofit and new construction - has been, and will continue to be low in Roseville. Roseville Electric’s low business electric rates do not provide an adequate benefit to cost ratio for our business customers. Large national chains constructing PV as part of a corporate commitment, such as Wal-Mart, skip over Roseville and construct PV elsewhere.
- Third party PPA arrangements have not proved feasible within the structure of Roseville’s low electric rates.
- New home builders in Roseville have reacted to the economic downturn by downsizing and redesigning their home designs – especially in first time buyer categories. The result is that solar electric installations, once sold as a bundled feature, may someday be re-positioned as an “add-on” feature – or in some cases – eliminated entirely. Even with reduced solar electric costs from the suppliers, solar electric may add additional cost and move the home out of the builders target price range
- Roseville sees a high percentage of “spec” new commercial construction, where the builder sells the building to new owners. Thus, the builder is not as likely to participate in programs that would increase the construction costs and decrease operational costs.
- Due to the ongoing economic downturn, residential new construction has slowed. In 2009, the number of permits issued for single family homes was 67 percent that of 2008. Though this reduction decreased the number of homes being built, the BEST Homes program represented an extremely high percentage of the homes that were constructed, far exceeding the goal and expectations.

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

## 2. Program Performance

Number of Applicants Year	Systems Installed	kW Installed	kWh per Year
272	197	407	654,977
Available Funding Paid	Total Expenditures	Incentives Reserved	Incentives Paid
Annual Budget	\$1,538,978	\$1,514,525	\$1,514,525

- 1 Total solar program funding available approved annually by the local governing board.
2. Includes all program expenditures, including administration and marketing.

## 3. Additional Information (as available)

- a) Known customer issues
  - a. Warranty issues with PV equipment. The original manufacturer is no longer in business.
- b) Non PV solar systems installed
  - a. None
- c) Facility end use information
  - a. See Appendix 1
- d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.)
  - a. See Appendix 3

## 4. Appendix

### Appendix 1

PV Activity Jan 2009 to December 2009	AC			
	Number	Demand	kWh/yr	Rebate
Residential Retrofit	24	75	121,892	\$178,776
Residential New Construction	172	323	516,790	\$1,313,049
Business	1	8.93	16,295	\$22,700
<b>Totals =</b>	<b>197</b>	<b>407</b>	<b>654,977</b>	<b>\$1,514,525</b>

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

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## Appendix 2

Residential New Construction Program requirements:

- Equipment installed must be new and from the CEC approved list.
- The company installing the system must be from the CEC approved list.
- Customer must sign an interconnection agreement.
- The installation must be facing south between 90 degrees due east and 270 degrees due west unless the tilt is less than 5 degrees.
- BEST Homes:
  - Minimum 20% cooling savings better than California Title 24
  - A/C Unit = 15 SEER/12 EER with a thermal expansion valve
  - Electronically Commutated Motor (ECM) – variable speed fan on furnace
  - Minimum R38 Attic Insulation
  - Tested Tight Ducts – maximum 6%
  - Energy Star Appliances
  - Energy & Water Efficient Water Heater (0.62 AFUE and Hot Water to end source in 10 seconds)
  - Participate in Shade Tree Program (optional)
  - CEC approved solar electric generation system (rebate up to 2.5 kW system)

## Appendix 3

Sectors 12/29/09	Rebate Levels				
	Prior to 1/1/07	8/5/08	10/31/08	7/16/09	
Residential New Construction	≥\$4.00	\$3.25	\$3.25	\$3.25	2.00
Residential Retrofit	≥\$4.00	4.00	3.00	2.80	2.00
Business	≥\$4.00	4.00	3.00	3.00	2.00

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

Utility: City of Shasta Lake

## 1. Program Activities

a) Summary of Program Activities:

One (1) Solar PV system was installed in the City of Shasta Lake's service territory and submitted for incentives under the City's solar program during CY2009. Interest has been expressed by a few other customers, but none have proceeded with filing an application.

b) Future Opportunities and Challenges:

The recession has hit the citizens of Shasta Lake hard. Many are unemployed/underemployed and cannot afford to make an investment in a solar system for their home or business. An improved economy provides the best hope for an uptick in customer interest.

## 2. Program Performance

Number of Applicants	Total Systems Installed	Installed Capacity (kW)*	Total Generation (kWh/yr)*	Total Expenditures
EPBI - 1 PBI -	Residential Market-Rate - 1 Affordable/Low income -	4.95	5939	\$13,857
Incentives Paid	Incentives Reserved	SB1 Funding (Life of Program)	Funds Remaining	kW/MW Goal (Life of Program)
\$13,857	\$0	\$2,510,000	\$2,496,143	2.24 MW

## 3. Additional Information (as available)

- a) Known customer application issues/applications not approved-
- b) Non PV solar systems installed -
- c) Facility end use information -
- d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.) -
- e) Any training or builder/installer assistance -
- e) Any auditing of installed systems -

None. As of January 1, 2010, all new solar PV systems will receive a system performance post-inspection to verify the EPBB calculator inputs and actual system output per SB1 requirements.

## 4. Appendix

- Shasta Lake Solar Program Manual (2009)
- Shasta Lake Solar Program Overview/Customer Handout (2009)
- Shasta Lake Solar Program Application (2009)

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

Utility: Silicon Valley Power/City of Santa Clara

## 1. Program Activities

### a) Summary of Program Activities:

- a. Paid for six 2.5 kW solar electric systems on new Habitat for Humanity homes in Santa Clara in September 2009. Discussions underway to fund 6 to 8 more homes in a future development in Santa Clara.
- b. First 1 MW system by a customer (Agilent Technologies) was completed in November 2009.
- c. Received rebate reservations for two more 1MW solar electric systems to be completed in 2010.
- d. As a result of this demand, overall rebate incentive levels were reduced for Commercial/Industrial customers in October 2009. The current rebate schedule is posted on the SVP website
- e. Experienced significant increase in residential rebate reservations in the second half of the year. Incentive levels finally moved from Step 1 \$4.50/watt (available since July 1, 2007) to Step 2 \$3.75/watt in November 2009

### b) Future Opportunities and Challenges:

- Residential applications expected to continue to grow in 2010 as more installers look to capitalize on SVP's higher rebates (vs. PG&E). SolarCity specifically launched an aggressive campaign to install 100 new residential solar systems in Santa Clara.
- SVP will be implementing PowerClerk and CleanPower Estimator during 2010 to assist with rebate application management and customer education respectively.
- Ensuring that customers are receiving quality installations at a reasonable cost continues to be an ongoing challenge. Most installers working today are highly qualified and are performing good work at a reasonable price but there are a few unscrupulous players that continue to be targeting unsuspecting and less informed consumers. One installer in particular, Sungate Energy Solutions, has shown up recently in our territory selling 1-2 kW PV systems priced at \$17-\$19/Watt AC. I will be looking to implement a "soft cap" on system pricing similar to the one proposed in the CSI program to try and combat this type of fraud and abuse.

## 2. Program Performance

Number applicants	Total systems installed	Total kW installed	Generation (kWh/yr)
52	33	1,100	1,567,064

Application Count	Total	EPBB	PBI
Number Received	52	49	3
Number Approved	52	49	3
Number Cancelled	1	1	

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

## Number of installations per building type

New Construction	6
Retrofit	27

## Number of installations per customer type

Residential	30
- affordable housing	6
Commercial	3
<b>Total installations</b>	<b>33</b>

Incentives Paid	Incentives Reserved	SB1 Funding (Life of Program)	Funds Remaining	kW/MW Goal (Life of Program)
\$475,173	\$9.96M	\$31.5M	\$20.77M	30 MW

### 3. Additional Information (as available)

a) Known customer application issues/applications not approved-

- We have experienced some application inconsistencies with a newer installer in our territory. The applications and proposed system designs do not seem to be feasibly possible (i.e too many panels proposed for a single rooftop). We have met with this installer and are working with them to improve consistency

b) Non PV solar systems installed -

c) Facility end use information -

- See Table in Sec 2 for more info.

d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.) -

- See Table in Section 2 for breakdown

e) Any training or builder/installer assistance -

- Held an installer workshop on permitting and rebate application processes in April 2009

f) Any auditing of installed systems -

- Auditing protocol is being revised for 2010 and a more thorough field evaluation will be performed on selected systems by staff members who have received the HERS PV Inspection training. For 2009 Inspections were basic spot checks validating the correct # of panels installed and basic orientation.

### 4. Appendix

All program information available on website at:

Residential Rebates:

<http://svpower.com/res/?sub=rebatesolar>

Commercial Rebates:

<http://www.siliconvalleypower.com/bus/?sub=rebatesolarbus>

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

## Utility: Turlock Irrigation District (TID)

### 1. Program Activities

- a) Summary of Program Activities: To meet the CEC SB1 requirements, TID made significant changes to the Solar Rebate Program in 2009. Those changes included moving from a capacity based rebate to an EPBI rebate for systems <30 kW and a PBI for systems 30 kW and larger.
- b) Future Opportunities and Challenges: Significant time will be spent implementing the tracking and payment process for performance based incentives. The implementation of AB920 and the NET metering billing changes required as a result will also be significant.

### 2. Program Performance

<b>Number of Applicants</b>	<b>Total Systems Installed</b>	<b>Total kW Installed</b>	<b>Generation (kWh/yr)</b>
162	99	1820	1,998,074
<b>Total Expenditures</b>	<b>Incentives Reserved</b>	<b>Incentives Paid</b>	
\$ 5,536,417	\$ 3,265,909	\$ 5,460,882	
<b>SB1 Funding (Life of Program)</b>	<b>Funds Remaining</b>	<b>MW Goal (Life of Program)</b>	
\$ 23,597,416	\$ 14,795,090	23	

### 3. Additional Information (as available)

- a) Known customer application issues/applications not approved- N/A
- b) Non PV solar systems installed – N/A
- c) Facility end use information –

#### Number of installations per building type

New Construction	33
Retrofit	66

#### Number of installations per customer type

Residential	85
Affordable Housing	4
Commercial	2
Non-Profit	0
Government	0
Industrial	3
Mixed Use	5

- d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.) – N/A

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

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- e) Any training or builder/installer assistance -
- f) Any auditing of installed systems – All systems are inspected prior to issuance of rebate.

## 4. Appendix

All program information available on website at:

<http://www.tid.com/MyBusiness/Rebates/SolarElectricRebateProgram/index.htm>

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

**Utility: Truckee Donner PUD**

## 1. Program Activities

a) Summary of Program Activities:

The District's program continues to be well received within the community. The program is fully reserved through 2010 and with a few reservations for 2011. Customers continue to show interest in the program.

b) Future Opportunities and Challenges:

The biggest issue is today's economy – over half of the District's customer base is made up of second homes. With the poor economy the local residents don't have the extra money to spend on alternate energy sources.

## 2. Program Performance

Number of Applicants	Total Systems Installed	Installed Capacity (kW)*	Total Generation (kWh/yr)*	Total Expenditures
EPBI - 15 PBI - 0	Residential Market-Rate - 8 Affordable/Low income – 0 Commercial - 1 Non-Profit - 0 Government - 0 Industrial - 0 Agricultural - 0 Mixed-Use -0	128	218,125	\$90,000

Incentives Paid	Incentives Reserved	SB1 Funding (Life of Program)	Funds Remaining	kW/MW Goal (Life of Program)
8		\$1,773,408	\$1,517,691	596/.596

## 3. Additional Information (as available)

- a) Known customer application issues/applications not approved-
- b) Non PV solar systems installed -
- c) Facility end use information -
- d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.) -
- e) Any training or builder/installer assistance -
- f) Any auditing of installed systems – physical visit all systems, check inverter, # of panels, solar disconnect.

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

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## 4. Appendix

All program information available on website at:

[www.tdpud.org](http://www.tdpud.org)

FORMS, Photovoltaic Information

### Solar Rebate Schedule

Year	Rebate/watt
2010	\$4.05
2011	\$3.65
2012	\$3.28
2013	\$2.95
2014	\$2.66
2015	\$2.36
2016	\$2.15
2017	\$1.94

\*List the kW and kWh/yr for each sector, i.e. residential, commercial, non-profit, etc.

Residential – 47.8 kW / 82.8 kWh

Commercial – 120.4kW / 205.1 kWh  
(Commercial includes all sectors except Residential)

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

Utility: City of Ukiah

## 1. Program Activities

a) Summary of Program Activities:

Four (4) PV Systems were installed in the City of Ukiah's service territory during CY2009, which is the same number of installations for CY2008.

b) Future Opportunities and Challenges:

Solar PV interest and sales have been slow in Ukiah. This is likely due to the depressed economy, and customer reluctance to invest sizable amounts of capital into solar PV systems. There is one factor that may improve sales in the future. As the availability of funds are exhausted in neighboring utility service areas, contractors are beginning to pay more attention to Ukiah and are considering stepping up their marketing in the City of Ukiah.

## 2. Program Performance

Number of Applicants	Total Systems Installed	Installed Capacity (kW)*	Total Generation (kWh/yr)*	Total Expenditures
EPBI - 7 PBI -	Residential Market-Rate – 4 Affordable/Low income – Commercial - Non-Profit - Government - Industrial - Agricultural - Mixed-Use -	10.37	12,439	\$22,553

Incentives Paid	Incentives Reserved	SB1 Funding (Life of Program)	Funds Remaining	kW/MW Goal (Life of Program)
\$22,553	\$10,085	\$2,000,000	\$1,943,979	0.8625 MW

## 3. Additional Information (as available)

a) Known customer application issues/applications not approved-

None

b) Non PV solar systems installed -

Information not available

c) Facility end use information -

Information not available

d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.) -

Information not available

e) Any training or builder/installer assistance -

None

e) Any auditing of installed systems -

None during CY2009; As of January 1, 2010, all new solar PV systems will receive a system performance post-inspection to verify the EPBB calculator inputs and actual system output per SB1 requirements.

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

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## 4. Appendix

All program information available on website at:

[http://www.cityofukiah.com/pageserver/?page=forms\\_archive&department=Utilities\\_Department&maincateg=Departments&subcateg1=Utilities](http://www.cityofukiah.com/pageserver/?page=forms_archive&department=Utilities_Department&maincateg=Departments&subcateg1=Utilities)

# California Public Power Solar Energy Program Status Report

Reporting Period: January through December 2009

Utility: City of Vernon

## 1. Program Activities

a) Summary of Program Activities: City of Vernon offers an incentive for installation of PV system with a maximum of 1 MW. The incentive began at \$2.80 per watt, decreasing by 7% until 2016. We are currently offering \$2.42 per watt installed

b) Future Opportunities and Challenges: Due to the down economy and the City's small and exclusive industrial customer base, it's been difficult for companies justifying solar/PV investment.

## 2. Program Performance

Number of Applicants	Total Systems Installed	Installed Capacity (kW)*	Total Generation (kWh/yr)*	Total Expenditures
EPBI - PBI -	None			

Incentives Paid	Incentives Reserved	SB1 Funding (Life of Program)	Funds Remaining	kW/MW Goal (Life of Program)
0	0	16,352,634	16,352,634	10 MW

## 3. Additional Information (as available)

- a) Known customer application issues/applications not approved- None
- b) Non PV solar systems installed - None
- c) Facility end use information -
- d) Incentive and funding disaggregation (e.g., by incentive type, by end use, etc.) -
- e) Any training or builder/installer assistance -
- f) Any auditing of installed systems -

## 4. Appendix