


**Summary of Analysis for Solar Electric System**

	Total	per watt (AC/DC)
Size of solar electric system, in DC (STC) rated kW (kilowatts):	5.4	
Size of solar electric system, in AC (PTC/CEC) rated kW (kilowatts):	4.8	
Square Footage of roof area required (approx)	396	
Modules to be used in PV solar system:	 Sunpower 225	24
Estimated production of AC kWh by the solar electric system per year:	8,198	
<b>Total Lifetime Electric Bill Savings:</b>		<b>\$180,000</b>

Cost of solar electric system before any government incentives (rebates, tax credits, etc.):	\$40,707	\$8.52 / \$7.54
CSI rebate (this will go to Sky Power Systems directly as partial payment):	[Minus] \$8,718	\$1.82 / \$1.61
Remaining cost of solar electric system before any tax credits:	[Equals] \$31,989	\$6.69 / \$5.92
Fed Tax Credit refund (30% currently capped at \$2000):	[Minus] \$2,000	
Net "out of pocket" cost for solar electric system:	[Equals] \$29,989	
Estimated equity increase in home:	[Minus] \$45,699	
Final "after-equity increase" cost to Client for solar electric system:	[Equals] <b>-\$15,710</b>	

Value of the electricity savings per year from solar electric system:	\$2,285
Estimated new monthly PG&E bill	\$65
<i>(Based on today's electric rates)</i>	

Estimated amount of CO2 production eliminated by this system per year, in pounds:	10,800
Estimated number of miles a 20 mpg car would need to be driven to emit that much CO2, per year:	33,750



Client Name: Sample SPS Client  
 Client Address:

## Financial Analysis of PV Solar System

### Size of proposed PV solar system in Watts DC, Watts AC, and kWh production per year:

PV solar system size in Watts DC:	5,400
PV solar system size in Watts AC (used by CEC in calculating the rebate amount):	4,780
Projected (shade adjusted) PV solar kWh production per year:	8,198

### Details of cost of the PV solar system before any rebates or tax credits:

Cost for equipment (from prior spreadsheet) -- incl tax:	Alameda	\$	34,807
Cost for installation (Non-taxable):		\$	5,900
Total cost before rebates/buydowns/tax credits/tax deductions:		\$	40,707

### Details of rebates and tax credits that will lower the cost of your PV solar system:

California Solar Initiative (CSI) rebate -- will be sent to Sky Power Systems:	\$	1.90	
Net Amount billed by Sky Power Systems to you:	0.96	\$	8,718
Fed Tax Credit refund (30% or \$2000 as of 1/1/06):		\$	2,000
*Assumes that you will owe at least that much in Federal income taxes.			
Cost remaining to finance or pay in cash:		\$	29,989

### The solar electric system's impact on your home's equity value:

Savings per year from the use of your solar electric system:	\$	2,285
Increase in home equity (\$20 per \$ annual electricity savings)	\$	45,699
Current Net Economic Impact (Cost less Equity Increase):	\$	(15,710)

### If paid in cash:

Annual savings in PG&E electricity charges first year:	\$	2,285
Maximum payback period (until the Net Economic Impact is recaptured and you generate "free electricity"):		< 1 yr
Maximum payback period (until the net out-of-pocket amount is paid off and you generate "free electricity"):		< 10 yrs
Total value of the electricity the system will generate over its 30 year lifespan adjusted for inflation:	\$	180,000
Total ROI from investing in a solar electric system (value of electricity generated divided by final non-equity cost):		600%
IRR from investing in a solar electric system:		12%

### If financed through a home equity loan or add-on to the first mortgage:

Financed payment of solar electric system (after tax credit) at 7% fixed interest; 30 years; per month:	\$199.52
Tax benefit back (per month) from interest deduction (@ 39% Fed, 9% state tax rate):	\$75.22

**New monthly expense for "solar electricity" (net after-tax monthly payment for the solar electric system):** **\$124.29**

**Equivalent monthly expense for the "PG&E-produced electricity" that solar is replacing:** **\$190.41**

Approximate cost of solar electric system produced power per kWh:	\$	0.18194
Current average per kWh charge for electricity by PG&E for the power replaced by solar electricity:	\$	0.27872
Approximate reduction in electricity costs before any rate hikes by PG&E (you will be immune to such rate hikes):		35%

Client Name: Sample SPS Client  
 Client Address:

**Estimated PG&E Bill (E-1XB) w/o solar**

<b>Without PV Solar:</b>	<b>12.6 daily</b>				<b>11.9 daily</b>				<b>12.6 daily</b>					
Month and Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Total	
100% of Baseline (BL)	391	391	391	391	369	369	369	369	369	369	391	391	4,836	
130% of BL	508	508	508	508	480	480	480	480	480	480	508	508	6,287	
200% of BL	781	781	781	781	738	738	738	738	738	738	781	781	9,672	
300% of BL	1,172	1,172	1,172	1,172	1,107	1,107	1,107	1,107	1,107	1,107	1,172	1,172	14,508	
<u>Client kWh Consumption by Month</u>	1,214	1,229	1,232	1,140	1,116	1,238	1,308	1,245	1,160	1,117	1,100	1,160	14,260	
kWh Charge for up to 100% of BL	\$0.11559	\$0.11430	\$0.11430	\$0.11430	\$0.11430	\$0.11430	\$0.11430	\$0.11430	\$0.11430	\$0.11430	\$0.11430	\$0.11430		
kWh Charge for 101-130% of BL	\$0.13142	\$0.12989	\$0.12989	\$0.12989	\$0.12989	\$0.12989	\$0.12989	\$0.12989	\$0.12989	\$0.12989	\$0.12989	\$0.12989		
kWh Charge for 131-200% of BL	\$0.22580	\$0.22580	\$0.22580	\$0.22580	\$0.22580	\$0.22580	\$0.22580	\$0.22580	\$0.22580	\$0.22580	\$0.22580	\$0.22580		
kWh Charge for 201-300% of BL	\$0.31304	\$0.31304	\$0.31304	\$0.31304	\$0.31304	\$0.31304	\$0.31304	\$0.31304	\$0.31304	\$0.31304	\$0.31304	\$0.31304		
kWh Charge for 301+% of BL	\$0.35876	\$0.35876	\$0.35876	\$0.35876	\$0.35876	\$0.35876	\$0.35876	\$0.35876	\$0.35876	\$0.35876	\$0.35876	\$0.35876		
<u>Client Consumption by BL Band</u>														
Up to 100% of Baseline	391	391	391	391	369	369	369	369	369	369	391	391	4,557	32%
101 - 130% of Baseline	117	117	117	117	111	111	111	111	111	111	117	117	1,367	10%
131 - 200% of Baseline	273	273	273	273	258	258	258	258	258	258	273	273	3,190	22%
201 - 300% of Baseline	391	391	391	359	369	369	369	369	369	369	319	379	4,442	31%
Over 300% of Baseline	42	58	60	-	10	131	201	139	53	10	-	-	704	5%
Total Client Consumption	1,214	1,229	1,232	1,140	1,116	1,238	1,308	1,245	1,160	1,117	1,100	1,160	14,260	100%
<u>Estimated Client Bill from PG&amp;E by BL Band</u>														
Up to 100% of Baseline	\$ 45.15	\$ 44.65	\$ 44.65	\$ 44.65	\$ 42.17	\$ 42.17	\$ 42.17	\$ 42.17	\$ 42.17	\$ 42.17	\$ 44.65	\$ 44.65	\$ 521.37	17%
101 - 130% of Baseline	\$ 15.40	\$ 15.22	\$ 15.22	\$ 15.22	\$ 14.37	\$ 14.37	\$ 14.37	\$ 14.37	\$ 14.37	\$ 14.37	\$ 15.22	\$ 15.22	\$ 177.75	6%
131 - 200% of Baseline	\$ 61.74	\$ 61.74	\$ 61.74	\$ 61.74	\$ 58.31	\$ 58.31	\$ 58.31	\$ 58.31	\$ 58.31	\$ 58.31	\$ 61.74	\$ 61.74	\$ 720.28	24%
201 - 300% of Baseline	\$ 122.27	\$ 122.27	\$ 122.27	\$ 112.38	\$ 115.48	\$ 115.48	\$ 115.48	\$ 115.48	\$ 115.48	\$ 115.48	\$ 99.80	\$ 118.64	\$ 1,390.52	45%
Over 300% of Baseline	\$ 15.00	\$ 20.66	\$ 21.60	\$ -	\$ 3.41	\$ 47.11	\$ 72.22	\$ 49.69	\$ 19.12	\$ 3.62	\$ -	\$ -	\$ 252.42	8%
Total Estimated Client Bill from PG&E	\$ 259.56	\$ 264.54	\$ 265.48	\$ 233.99	\$ 233.74	\$ 277.43	\$ 302.55	\$ 280.02	\$ 249.45	\$ 233.95	\$ 221.40	\$ 240.25	\$ 3,062.35	100%
Average Charge for kWh	\$0.21387	\$0.21518	\$0.21548	\$0.20521	\$0.20940	\$0.22410	\$0.23131	\$0.22488	\$0.21504	\$0.20948	\$0.20127	\$0.20707	\$0.21476	

Client Name: Sample SPS Client  
 Client Address:

### Estimated Proposed PG&E Bill (E-1XB)

**Without PV Solar:**

Month and Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Total
100% of Baseline (BL)	391	391	391	391	369	369	369	369	369	369	391	391	4,557
130% of BL	508	508	508	508	480	480	480	480	480	480	508	508	5,924
200% of BL	781	781	781	781	738	738	738	738	738	738	781	781	9,114
300% of BL	1,172	1,172	1,172	1,172	1,107	1,107	1,107	1,107	1,107	1,107	1,172	1,172	13,671
Client kWh Consumption (kWh)	1,214	1,229	1,232	1,140	1,116	1,238	1,308	1,245	1,160	1,117	1,100	1,160	14,260
PV Solar Production	(434)	(545)	(687)	(742)	(785)	(811)	(818)	(810)	(735)	(697)	(609)	(525)	(8,198)
Net Consumption by Month	780	684	545	398	331	427	490	436	425	420	491	635	6,062
kWh Charge for up to 100% of BL	\$0.11559	\$0.11430	\$0.11430	\$0.11430	\$0.11430	\$0.11430	\$0.11430	\$0.11430	\$0.11430	\$0.11430	\$0.11430	\$0.11430	
kWh Charge for 101-130% of BL	\$0.13142	\$0.12989	\$0.12989	\$0.12989	\$0.12989	\$0.12989	\$0.12989	\$0.12989	\$0.12989	\$0.12989	\$0.12989	\$0.12989	
kWh Charge for 131-200% of BL	\$0.22580	\$0.22580	\$0.22580	\$0.22580	\$0.22580	\$0.22580	\$0.22580	\$0.22580	\$0.22580	\$0.22580	\$0.22580	\$0.22580	
kWh Charge for 201-300% of BL	\$0.31304	\$0.31304	\$0.31304	\$0.31304	\$0.31304	\$0.31304	\$0.31304	\$0.31304	\$0.31304	\$0.31304	\$0.31304	\$0.31304	
kWh Charge for 301+% of BL	\$0.35876	\$0.35876	\$0.35876	\$0.35876	\$0.35876	\$0.35876	\$0.35876	\$0.35876	\$0.35876	\$0.35876	\$0.35876	\$0.35876	
Client Consumption by BL Band													
Up to 100% of Baseline	391	391	391	391	331	369	369	369	369	369	391	391	4,519
101 - 130% of Baseline	117	117	117	7	-	58	111	67	57	51	100	117	919
131 - 200% of Baseline	272	177	37	-	-	-	11	-	-	-	-	127	624
201 - 300% of Baseline	-	-	-	-	-	-	-	-	-	-	-	-	-
Over 300% of Baseline	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Client Consumption	780	684	545	398	331	427	490	436	425	420	491	635	6,062
Estimated Client Bill from PG&E by BL Band													
Up to 100% of Baseline	\$ 45.15	\$ 44.65	\$ 44.65	\$ 44.65	\$ 37.83	\$ 42.17	\$ 42.17	\$ 42.17	\$ 42.17	\$ 42.17	\$ 44.65	\$ 44.65	\$ 517.03
101 - 130% of Baseline	\$ 15.40	\$ 15.22	\$ 15.22	\$ 0.96	\$ -	\$ 7.53	\$ 14.37	\$ 8.66	\$ 7.35	\$ 6.59	\$ 12.99	\$ 15.22	\$ 119.51
131 - 200% of Baseline	\$ 61.41	\$ 39.87	\$ 8.44	\$ -	\$ -	\$ -	\$ 2.45	\$ -	\$ -	\$ -	\$ -	\$ 28.72	\$ 140.88
201 - 300% of Baseline	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Over 300% of Baseline	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Estimated Client Bill from PG&E	\$ 121.96	\$ 99.73	\$ 68.30	\$ 45.60	\$ 37.83	\$ 49.69	\$ 58.99	\$ 50.83	\$ 49.51	\$ 48.75	\$ 57.64	\$ 88.59	\$ 777.42
Average Charge for kWh	\$0.15641	\$0.14574	\$0.12529	\$0.11459	\$0.11430	\$0.11642	\$0.12028	\$0.11669	\$0.11637	\$0.11618	\$0.11748	\$0.13951	\$0.12825

	E-1
Projected Annual Standard Bill without PV Solar:	\$ 3,062
Projected Annual Standard Bill with PV Solar:	\$ 777
Projected Annual Savings/(Loss) with PV Solar:	\$ 2,285
30 yr Electric Bill Savings with Inflation (6% per Year)	\$181,000