



Solarize Forest Heights - 2010 Pricing and Calcs for Solar Electric

2kW PV System, Roof Mounted						
# Of Enrolled Residences	1	10	20	30	40	50
Cost per Watt	\$9.00	\$7.50	\$ 7.00	\$ 6.85	\$ 6.75	\$ 6.70
Total System Price	\$18,000.00	\$15,000.00	\$14,000.00	\$13,700.00	\$13,500.00	\$13,400.00
Energy Trust Incentive (paid to the contractor directly)	\$ 3,500.00	\$ 3,500.00	\$ 3,500.00	\$ 3,500.00	\$ 3,500.00	\$ 3,500.00
Upfront amount paid by resident to contractor	\$ 14,500.00	\$ 11,500.00	\$ 10,500.00	\$ 10,200.00	\$ 10,000.00	\$ 9,900.00
State Tax Credit (\$1500 every year for 4 years)	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00
Federal Tax Credit (taken first year)	\$ 4,350.00	\$ 3,450.00	\$ 3,150.00	\$ 3,060.00	\$ 3,000.00	\$ 2,970.00
Total Tax Credits	\$ 10,350.00	\$ 9,450.00	\$ 9,150.00	\$ 9,060.00	\$ 9,000.00	\$ 8,970.00
Net Cost (Cost to resident after all incentives and tax credits)	\$ 4,150.00	\$ 2,050.00	\$ 1,350.00	\$ 1,140.00	\$ 1,000.00	\$ 930.00
Savings over market prices due to bulk pricing cost reductions		\$ 2,100.00	\$ 2,800.00	\$ 3,010.00	\$ 3,150.00	\$ 3,220.00
Costs if upfront amount is financed						
5 year green loan at 7%, Amount financed = Upfront costs, Tax credits paid back to lender as the credits come in, no prepayment penalties, no loan fees, \$0 down						
Loan Amount	\$ 14,500.00	\$ 11,500.00	\$ 10,500.00	\$ 10,200.00	\$ 10,000.00	\$ 9,900.00
APR	7%	7%	7%	7%	7%	7%
Term (# months)	60	60	60	60	60	60
Monthly Payment	\$ 300.00	\$ 227.71	\$ 207.91	\$ 201.97	\$ 198.01	\$ 196.03
Total Interest Paid	\$ 1,200.00	\$ 947.72	\$ 850.71	\$ 822.25	\$ 803.29	\$ 793.81
Actual Term of loan (# months)	26	26	26	25	24	24
Total Cost (Net Cost + Interest Paid)	\$ 5,350.00	\$ 2,997.72	\$ 2,200.71	\$ 1,962.25	\$ 1,803.29	\$ 1,723.81
Financial Return On Investment						
Financed Total Cost, Inverter replacement of \$2500 in year 15, 10% discount rate, Electricity rates go up by 6% a year, Equipment degrades in performance by 1/2 a percent every year						
Cost of energy in first year	\$0.10	\$0.10	\$0.10	\$0.10	\$0.10	\$0.10
Lifetime of the equipment (in years)	30	30	30	30	30	30
Energy produced in first year (kWH)	2920	2920	2920	2920	2920	2920
Money saved in electric bill in first year	\$ 292.00	\$ 292.00	\$ 292.00	\$ 292.00	\$ 292.00	\$ 292.00
Total energy produced over lifetime (kWH)	81,535.63	81,535.63	81,535.63	81,535.63	81,535.63	81,535.63
Total money saved in electric bill over lifetime	\$ 18,541.13	\$ 18,541.13	\$ 18,541.13	\$ 18,541.13	\$ 18,541.13	\$ 18,541.13
Equity added to home	\$4,021.98	\$4,021.98	\$4,021.98	\$4,021.98	\$4,021.98	\$4,021.98
Return On investment (\$)	\$ 17,213.11	\$ 19,565.39	\$ 20,362.40	\$ 20,600.86	\$ 20,759.82	\$ 20,839.30
# Years to recover Total Cost (taking into account equity added to home)	17	0	0	0	0	0