## **System Advisor Model Report**

PVWatts 0.86 kW Nameplate 33.45, -111.98

Residential \$1.26/W Installed Cost UTC -7

#### **Performance Model**

#### **Financial Model**

PV System Specification	s
System nameplate size	0.86 kW
Module type	0
DC to AC ratio	1.22
Rated inverter size	0.7 kW
Inverter efficiency	96 %
Array type	fixed roof mount
Array tilt	20 degrees
Array azimuth	180 degrees
Ground coverage ratio	N/A
Total system losses	14.08 %
Shading	no

Performance	Adjustments
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Availability/Curtailment none
Degradation 0.5 %/yr
Hourly or custom losses none

Results	Solar Radiation	AC Energy
	(kWh/m2/day)	(kWh)
Jan	4.85	101
Feb	5.64	105
Mar	6.75	135
Apr	7.59	143
May	8	151
Jun	8.11	144
Jul	7.3	137
Aug	7.07	133
Sep	6.96	126
Oct	6.24	121
Nov	5.35	107
Dec	4.49	95
Year	6.53	1,502

Project Costs	
Total installed cost	\$1,082
Salvage value	\$0

Analysis Parameters	
Project life	25 years
Inflation rate	2.5%
Real discount rate	6.4%

Project Debt Parameters (Mortgage)		
Debt fraction	100%	
Amount	\$1,082	
Term	25 years	
Rate	4%	

Tax	x and	Insurance	Rates

Federal income tax

State income tax

7 %/year

Sales tax (% of indirect cost basis) 5%

Insurance (% of installed cost)

Property tax (% of assessed val.)

0 %/year

Incentives		
Federal ITC	26%	

#### **Electricity Demand and Rate Summary**

Annual total demand 10,829 kWh Generic Residential

Annual peak demand 4.3 kW

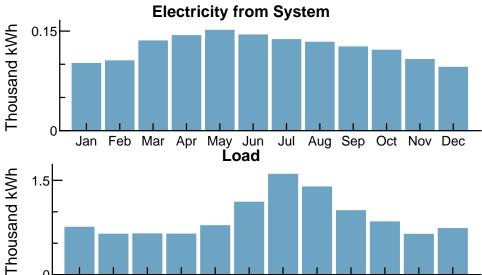
Fixed charge: \$10/month
Monthly excess with kWh rollover

Tiered TOU energy rates: 4 periods, 1 tier

Results	
Nominal LCOE	4.6 cents/kWh
Net present value	\$2,800
Payback period	2.8 years

UTC -7

# **Year 1 Monthly Generation and Load Summary**



Year 1 Monthly Electric Bill and Savings (\$)

Apr May Jun

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Month	Without System	With System	Savings
Jan	160	140	20
Feb	138	117	21
Mar	139	112	27
Apr	138	109	28
May	175	143	31
Jun	254	224	29
Jul	348	320	28
Aug	306	278	27
Sep	224	198	26
Oct	188	163	24
Nov	138	116	21
Dec	156	137	19
Annual	2,369	2,063	306

### **NPV Approximation using Annuities**

Annuities, Capital Recovery Factor (CRF) = 0.1023			
Investment	\$0	Sum:	
Expenses	\$-0	\$200	
Savings	\$0	NPV = Sum / CRF:	
Energy value	\$300	\$2,000	

Feb

Mar

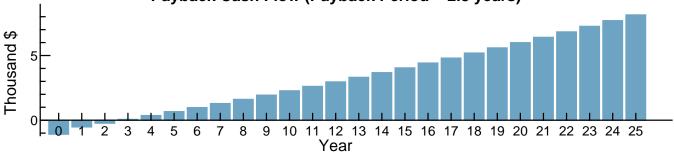
Investment = Installed Cost - Debt Principal - IBI - CBI Expenses = Operating Costs + Debt Payments Savings = Tax Deductions + PBI

Energy value = Tax Adjusted Net Savings

Nominal discount rate = 9.06%

Jul Aug Sep Oct Nov Dec

#### Payback Cash Flow (Payback Period = 2.8 years)



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This performance model does not specify any loss diagram items. Current case name is untitled