### **System Advisor Model Report**

PVWatts 0.50 kW Nameplate 33.45, -111.98

Residential \$1.02/W Installed Cost UTC -7

#### **Performance Model**

#### Financial Model

PV System Specification	s
System nameplate size	0.5 kW
Module type	0
DC to AC ratio	1.15
Rated inverter size	0.43 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	<b>Adjustments</b>
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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	59
Feb	5.64	61
Mar	6.75	78
Apr	7.59	83
May	8	87
Jun	8.11	83
Jul	7.3	79
Aug	7.07	77
Sep	6.96	73
Oct	6.24	70
Nov	5.35	62
Dec	4.49	55
Year	6.53	873

Project Costs	
Total installed cost	\$509
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	\$509	
Term	25 years	
Rate	4%	

15 %/year

Tax and Insurance Rates		
Federal income tax		

State income tax 7 %/year
Sales tax (% of indirect cost basis) 5%
Insurance (% of installed cost) 0 %/year
Property tax (% of assessed val.) 0 %/year

# Incentives Federal ITC 26%

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

Annual peak demand 4.3 kW Annual total demand 10,829 kWh

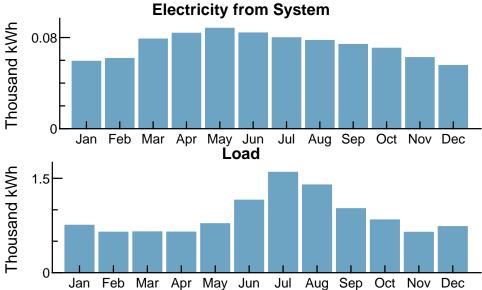
Generic Residential Fixed charge: \$10/month

Monthly excess with kWh rollover Tiered TOU energy rates: 4 periods, 1 tier

# Results Nominal LCOE Net present value Payback period 4.1 cents/kWh \$2,100 1.8 years

UTC -7

## Year 1 Monthly Generation and Load Summary



Year 1 Monthly Electric Bill and Savings (\$)

	real rivioliting Liectife bill and Savings (ψ)		
Month	Without System	With System	Savings
Jan	198	183	14
Feb	170	155	15
Mar	171	152	19
Apr	170	150	20
May	204	182	21
Jun	297	276	20
Jul	408	388	19
Aug	358	339	19
Sep	264	245	18
Oct	219	201	17
Nov	170	154	15
Dec	192	179	13
Annual	2,827	2,608	218

#### **NPV Approximation using Annuities**

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

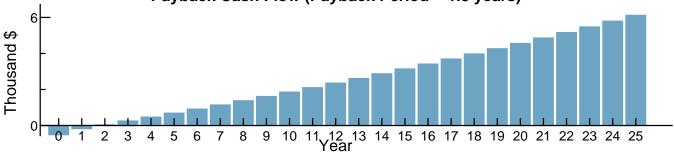
Investment = Installed Cost - Debt Principal - IBI - CBI Expenses = Operating Costs + Debt Payments

Savings = Tax Deductions + PBI

Energy value = Tax Adjusted Net Savings

Nominal discount rate = 9.06%

#### Payback Cash Flow (Payback Period = 1.8 years)



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