

System Advisor Model Report

Photovoltaic System
Commercial

200 DC kW Nameplate
\$1.82/W Installed Cost

City and state unknown
33.45 N, -111.98 E GMT -7

Performance Model

PV System Specifications	
System nameplate size	199.75 kW
Module type	0
DC to AC ratio	1.2
Rated inverter size	166.46 kW
Inverter efficiency	96 %
Array type	fixed open rack
Array tilt	20 degrees
Array azimuth	180 degrees
Ground coverage ratio	N/A
Total system losses	14.08 %
Shading	no

Performance Adjustments	
Availability/Curtailment	none
Degradation	0.500000 %/yr
Hourly or custom losses	none

Results	Solar Radiation (kWh/m2/day)	AC Energy (kWh)
Jan	4.81	22,832
Feb	5.58	23,961
Mar	6.71	30,694
Apr	7.53	32,689
May	7.95	34,284
Jun	8.07	32,671
Jul	7.3	31,251
Aug	7.07	30,410
Sep	6.91	28,611
Oct	6.2	27,200
Nov	5.26	23,792
Dec	4.44	21,352
Year	6.49	339,753

Financial Model

Project Costs	
Total installed cost	\$363,348
Salvage value	\$0

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

Project Debt Parameters	
Debt fraction	100%
Amount	\$363,348
Term	25 years
Rate	5%

Tax and Insurance Rates	
Federal income tax	21 %/year
State income tax	7 %/year
Sales tax (% of indirect cost basis)	5%
Insurance (% of installed cost)	0.5 %/year
Property tax (% of assessed val.)	2 %/year

Incentives	
Federal ITC	30%

Electricity Demand and Rate Summary	
Annual peak demand 274.2 kW	
Annual total demand 809,089 kWh	
Arizona Public Service Co	
Medium General Service TOU (E-32 M) Secondary	
Fixed charge: \$35.279999/month	
Monthly excess with kWh rollover	
Tiered TOU energy rates: 4 periods, 1 tier	
Monthly TOU demand rates with tiers	

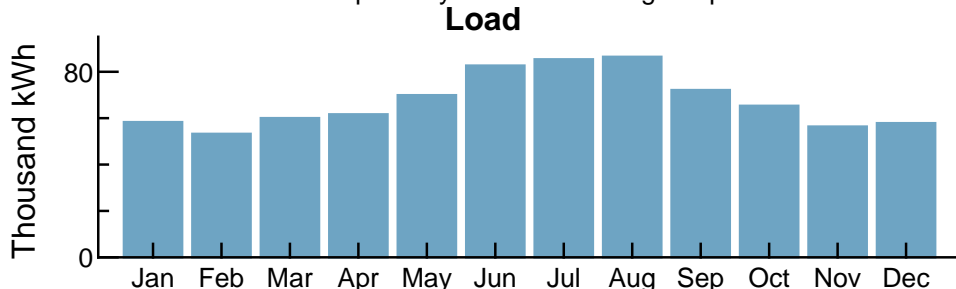
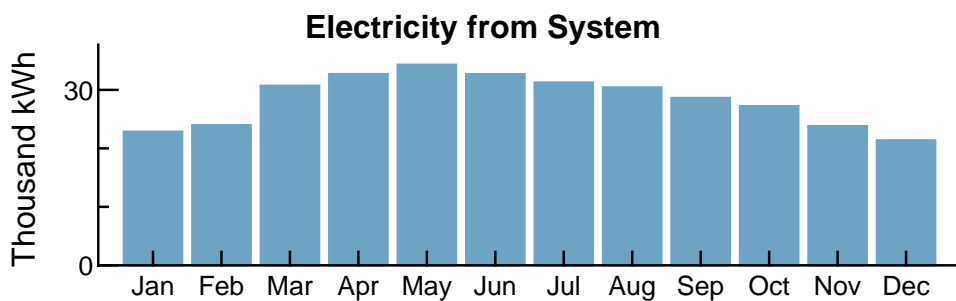
Results	
Nominal LCOE	4.4 cents/kWh
Net present value	\$116,700
Payback period	10.9 years

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Year 1 Monthly Generation and Load Summary



Year 1 Monthly Electric Bill and Savings (\$)

Month	Without System	With System	Savings
Jan	7,232	5,692	1,540
Feb	7,394	5,695	1,698
Mar	7,691	5,513	2,177
Apr	8,449	5,948	2,500
May	10,285	7,055	3,229
Jun	11,884	7,612	4,271
Jul	11,904	8,851	3,052
Aug	12,008	8,316	3,692
Sep	10,674	7,452	3,221
Oct	9,737	7,664	2,073
Nov	7,233	5,579	1,654
Dec	7,413	6,063	1,349
Annual	111,909	81,446	30,462

NPV Approximation using Annuities

Annuities, Capital Recovery Factor (CRF) = 0.1023		
Investment	\$0	Sum:
Expenses	\$-38,400	\$11,900
Savings	\$23,900	NPV = Sum / CRF:
Energy value	\$26,400	\$116,000

Investment = Installed Cost - Debt Principal - IBI - CBI

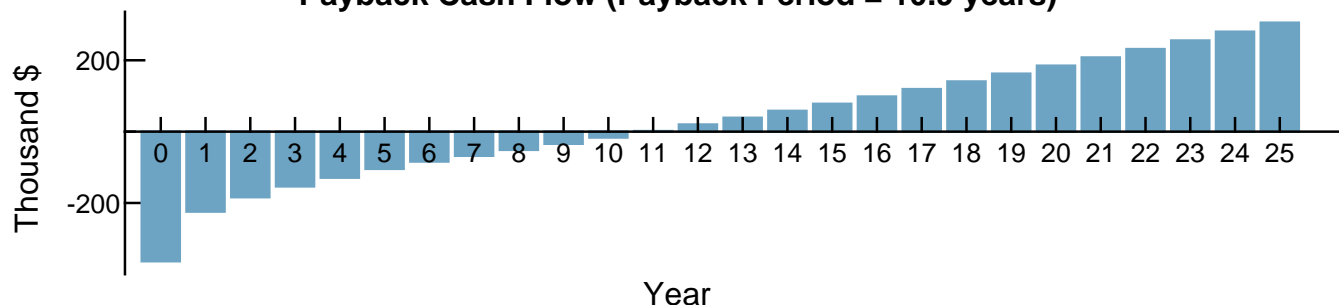
Expenses = Operating Costs + Debt Payments

Savings = Tax Deductions + PBI

Energy value = Tax Adjusted Net Savings

Nominal discount rate = 9.06%

Payback Cash Flow (Payback Period = 10.9 years)



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This performance model does not specify any loss diagram items.
Current case name is Stermole Track and Field