System Advisor Model Report

Detailed Photovoltaic	54 DC kW Nameplate	55.7, 12.1
Single Owner	$1.03/W Installed Cost	UTC +1

Performance Model

Modules	
Trina Solar TSM-305DD05A.05(II)	
Cell material	Mono-c-Si
Module area	1.62 m²
Module capacity	305.31 DC Watts
Quantity	176
Total capacity	53.73 DC kW
Total area	285 m²

Inverters	
Custom (Inverter Datasheet Model)	
Unit capacity	55 AC kW
Input voltage	250 DC V
Quantity	1
Total capacity	55 AC kW
DC to AC Capacity Ratio	0.98
AC losses (%)	1.00

Two subarrays:	1	2
Strings	4	4
Modules per string	22	22
String Voc (DC V)	880.00	880.00
Tilt (deg from horizontal)	25.00	25.00
Azimuth (deg E of N)	180	180
Tracking	no	no
Backtracking	-	-
Self shading	yes	yes
Rotation limit (deg)	-	-
Shading	no	no
Snow	no	no
Soiling	yes	yes
DC losses (%)	4.44	4.44

Performance Adjustments	
Availability/Curtailment	none
Degradation	none
Hourly or custom losses	none

Annual Results (in Year 1)		
GHI kWh/m²/day	2.96	2.96
POA kWh/m²/day	77.00	77.00
Net to inverter	56,800 DC kWh	
Net to grid	52,140 AC kWh	
Capacity factor	11.1	
Performance ratio	0.77	

Financial Model

Project Costs	
Total installed cost	$55,220
Salvage value	$0

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

Financial Targets and Constraints	
Solution mode	Calculate PPA Price
Target IRR	11% in Year 20
PPA escalation rate	1%/year

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.)	0 %/year

Incentives	
Federal ITC	26%
Depreciation	Depreciation allocations defined with no bounus depreciation

Results	
Nominal LCOE	76.7 cents/kWh
PPA price (year one)	77.3 cents/kWh
Project IRR	11% in Year 20
Project NPV	$33,400

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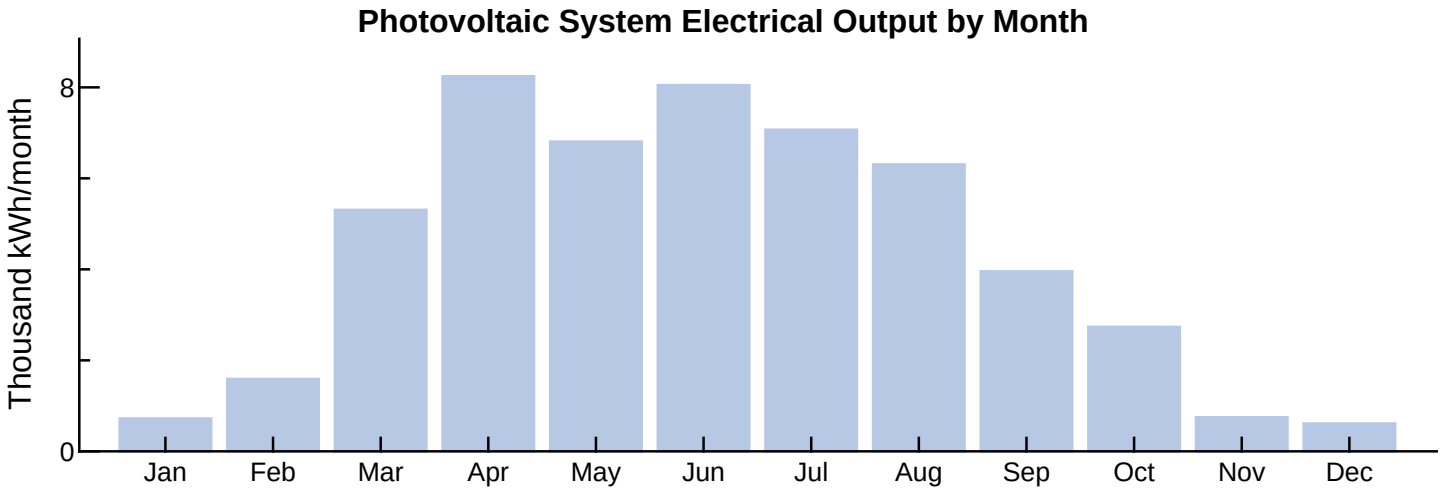

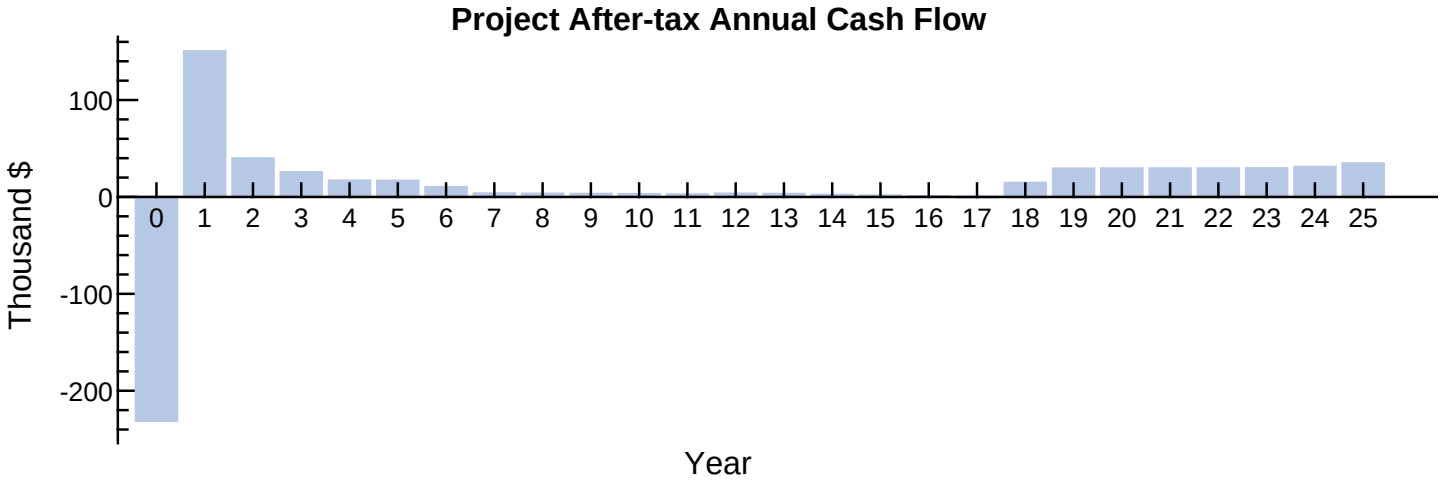

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