## **System Advisor Model Report**

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

## **Performance Model**

## Financial Model

\$55,220 \$0

Modules		Project Costs
Trina Solar TSM-305	DD05A.05(II)	Total installed cost
Cell material	Mono-c-Si	Salvage value
Module area	1.62 m <sup>2</sup>	
1 1110 0110 011 011		Analysis Parameters
Module capacity	305.31 DC Watts	Project life
Quantity	176	
1	50 70 DO 11M	Inflation rate
Total capacity	53.73 DC kW	Real discount rate
Total area	285 m²	Treat discount late
		Financial Targets and Constr
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	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
i		

Two subarrays:	1	2
Strings	4	4
Modules per string	22	22
String Voc (DC V)	880.00	880.00
Tilt (deg from horizontal)	0.00	0.00
Azimuth (deg E of N)	180	180
Tracking	1 axis	1 axis
Backtracking	yes	yes
Self shading	yes	yes
Rotation limit (deg)	60	45
Shading	no	no
Snow	no	no
Soiling	yes	yes
DC losses (%)	4.44	4.44
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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	90.00	89.00	
Net to inverter	65,660 DC	kWh	
Net to grid	60,840 AC	kWh	
Capacity factor	12.9		
Performance ratio	0.79		

7 mary old 1 arameters		
Project life	25 years	
Inflation rate	2.5%	
Real discount rate	6.4%	
Financial Targets and Constraints		

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	65.7 cents/kWh
PPA price (year one)	66.2 cents/kWh
Project IRR	11% in Year 20
Project NPV	\$33,400





