

PV Project Economic Performance Forecasting via a Multi-Variable Model

Depicted are a few cells from PVN's PV project economic model. The model allows the economic sensitivity of a solar project to be tested via changes in up to 20 variables; some of which are depicted in the left-hand column of this screen shot.

Project Name:	XYZ					
Location:	XYZ	5.3604%	Pre-Tax IRR	10.49%	11.25%	
Utility Provider:	XYZ		After-Tax IRR	12.93%	16.14%	
Estimated COD Date:	12/31/2026		After-Tax NPV	\$16,211,798	\$21,081,473	
Acreage:	77		TN Dev Fee \$	\$10,055,164		
			TN Dev Fee \$/WDC	\$0.186		
NOTE: ALL PROJECT INFORMATION AND ASSUMPTIONS TO BE ADJUSTED PER EACH INDIVIDUAL PROJECT						
System Cost and Size		AC	DC			
System Size (MW)		40.00	54.000			
Design, Development, Permits (\$/Wp)		\$0.10	\$5,400,000			
Interconnection (\$/Wp)		\$0.14	\$9,072,000			
Project Legal (\$/Wp)		\$0.03	\$1,620,000			
EPC Estimate (\$/Wp)		\$1.00	\$54,000,000			
Removal Surety + PPA		\$0.05	\$2,838,888			
System Cost (\$/MWdc)		\$1.32	\$71,418,888			
O&M Assumptions		CY Escalator				
O&M Costs (\$/kW-year)		\$6.50	1.50%			
G&A Costs (\$/kW-year)		\$2.00	1.50%			
Insurance Expense (\$/kW-year)		\$2.81	0.00%			
Property Tax (\$/kW-Year)		\$5.50	2.00%			
Placeholder (\$/kW-Year)		\$0.00	2.00%			
Ground Lease		\$2.50	0.00%			
Placeholder Royalty (%)			0.00%			
Inverter Replacement Reserve						
Inverter replacement cost (\$/Wdc)			\$0.04			
15yr inverter replacement cost		\$1,890,000				
Annual inverter amount to reserve		\$126,000				
Inverter replacement time (in Years)			15			
Reserve Each Year (1=Yes, 0=No)			1			
Returns				Annual	Quarterly	
5.3604%				Pre-Tax IRR	10.49%	11.25%
				After-Tax IRR	12.93%	16.14%
				After-Tax NPV	\$16,211,798	\$21,081,473
				TN Dev Fee \$	\$10,055,164	
				TN Dev Fee \$/WDC	\$0.186	
Drawdown Schedule				Construction	Lease Payments	
				100.00%	100.00%	
Month		Check	Date			
Month -20		4/30/2025	0.10%	0%		
Month -19		5/31/2025	0.10%	0%		
Month -18		6/30/2025	0.03%	14%		
Month -17		7/31/2025	0.03%	0%		
Month -16		8/31/2025	0.03%	0%		
Month -15		9/30/2025	0.03%	14%		
Month -14		10/31/2025	0.03%	0%		
Month -13		11/30/2025	0.03%	0%		
Month -12		12/31/2025	0.10%	14%		
Month -11		1/31/2026	0.50%	0%		
Month -10		2/28/2026	0.05%	0%		
Month -9		3/31/2026	0.05%	14%		
Month -8		4/30/2026	0.05%	0%		
Month -7		5/31/2026	0.05%	0%		
Month -6		6/30/2026	0.05%	14%		
Month -5		7/31/2026	0.60%	0%		
Month -4		8/31/2026	1.20%	0%		
Month -3		9/30/2026	26.50%	14%		
Month -2		10/31/2026	27.50%	0%		
Month -1		11/30/2026	22.00%	0%		
COD		12/31/2026	21.00%	14%		
Valuation Inputs						
Discount Rate During Operation				7.50%		
Discount Rate During Construction				7.50%		
Valuation Date				12/31/2026		
Performance Inputs				Quarter		
KWh/KWp				1,375		
Availability				99%		
Year 1 Generation				73,508		
Degradation Factor				0.50%		
Contract Inputs				Quarter		
PPA Term				1		
PPA Price				\$ 35.00		
REC Term				15		
REC Price				\$ 81.66		
Terminal Value						
Last Year of PPA				\$35.00		
% of Last year PPA				100%		
Post PPA Merchant Price				\$35.00		
Residual Value						
Lease Term				35		
Asset Life				35		
Residual Value				No		
% of Value Retained				20%		

Model worksheet expands beyond what is shown.

Model worksheet expands beyond what is shown.