

Loom Solar

23.40 kWp

Sector 27B, Mewala Maharajpur,...

(28.44495, 77.30641)

[Click here for 3D Model](#)





About Us

Solar Labs was founded by IIT alumni in 2017 to accelerate solar adoption in the world. Our products empower the solar industry to help it succeed. We're building a platform that helps solar installers and developers design more optimised solar PV systems, increase energy yield per panel installed, reduce cost of installations and create quotations and reports for clients with just a few clicks in less than 20 minutes. Our platform has been used to estimate 1200 MW+ of solar capacity globally and serves some of the largest companies in the world including Tata Power, Adani Solar, Renew Power and thousands of small & medium solar companies spread across 50+ countries. When we succeed, the solar industry wins, and the world wins.

Get in touch



team@thesolarlabs.com



+918628868995



<https://thesolarlabs.com/>

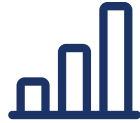
System Metrics



Annual Production

30.43

x 1000 kWh (Units)



Performance Ratio

72.92%



Specific Generation

1300.6

kWh/kWp/year

Module DC Nameplate

23.40 kWp

AC Nameplate

20.00 kW

Load Ratio

1.17

Weather Dataset

Meteonorm

Estimated Savings

The estimated savings using solar for the next 25 years along with Total Savings, Payback Period and IRR

Total Savings

1,754,638.0 INR

Payback Period

14yr 1mo

Internal Rate of Return

4.6%

Price

58000.0 INR/kW

Tax

13.8%

LCOE

6.01 INR

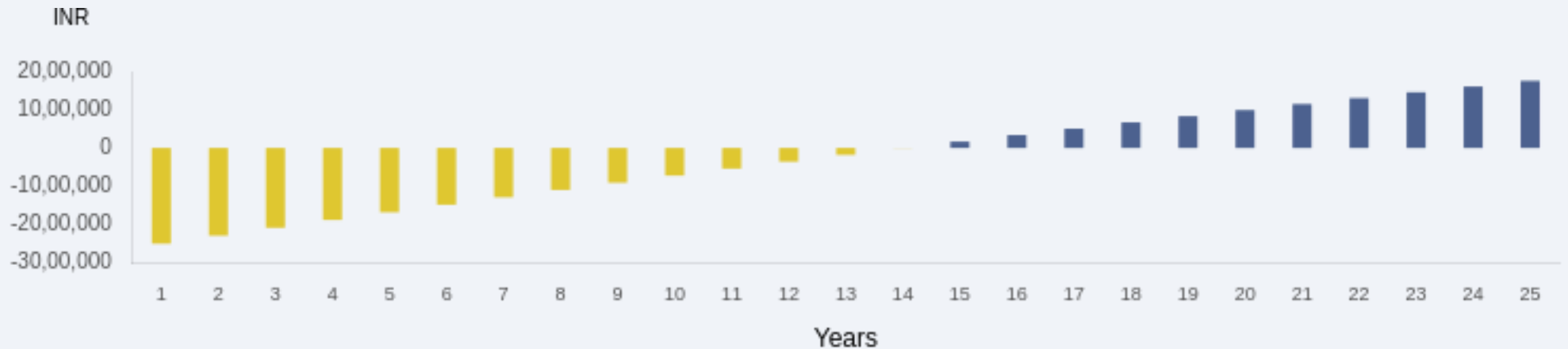
Expected Life Years

25 Years

Incentives

0.0%

Estimated Savings



Components

Your installation uses latest technology in solar



Modules

Trina Solar TALLMAX TSM-450 DE17M(II) - **52 No.**



Structure

Premium Structure -



Inverters

20000TL3-S Growatt - **1 No.**



BOS

DC Distribution Box - **0 No.**

AC Distribution Box -

Earthing -

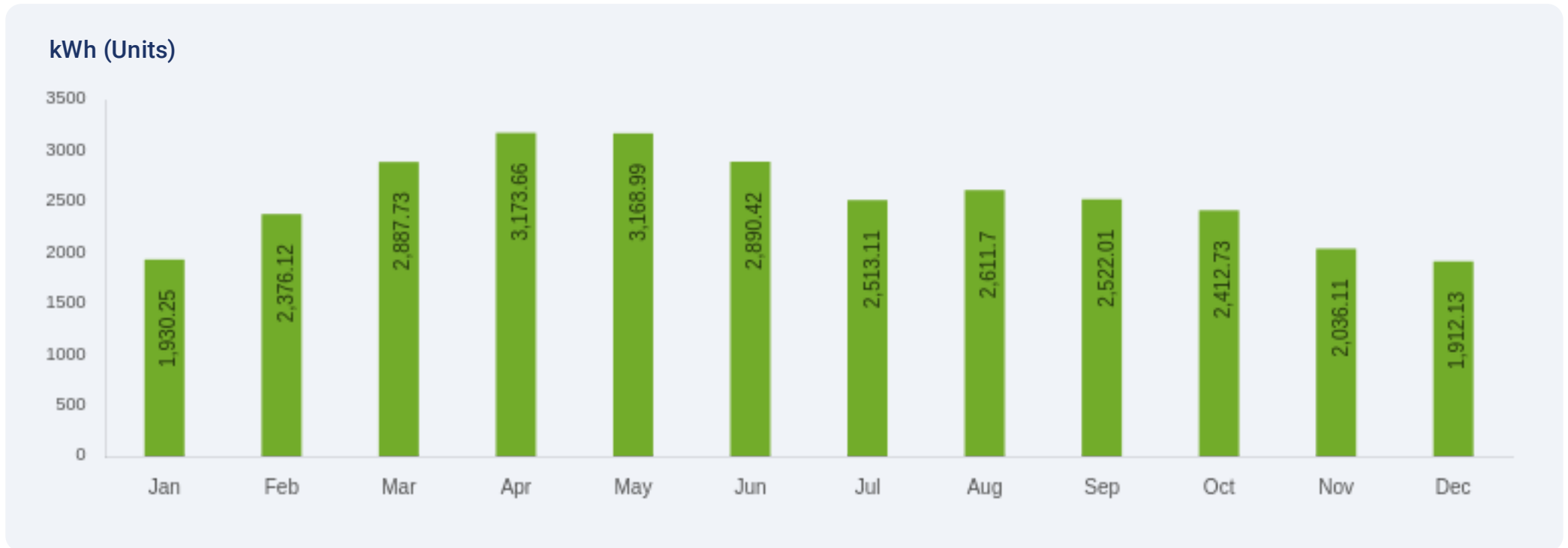
Lightning Arrestor -

Expected Annual Production

During the first year of operations, your system is expected to produce 30.43 x 1000 kWh over the year

Expected average generation of the system
2,536.25 kWh/month

Yearly degradation rate
1.5%/year



Monthly Savings

Estimated savings for each month during the first year.



Monthly Table

Months	Direct Irradiance (kWh/m2)	Diffused Irradiance (kWh/m2)	Effective Irradiance (kWh/m2)	DC Energy (kWh)	AC Energy (kWh)	Specific Generation	Performance Ratio
January	89.09	46.2	114.24	2,030.99	1,930.25	82.49	72.21
February	111.41	53.86	141.28	2,500.12	2,376.12	101.54	71.87
March	158.4	73.61	176.66	3,038.44	2,887.73	123.41	69.86
April	174.68	82.77	185.32	3,339.29	3,173.66	135.63	73.19
May	183.92	100.57	183.09	3,334.38	3,168.99	135.43	73.97
June	170.99	103.54	164.07	3,041.27	2,890.42	123.52	75.28
July	147.88	98.91	142.35	2,644.27	2,513.11	107.4	75.45
August	144.33	96.8	148.76	2,748.0	2,611.7	111.61	75.03
September	140.98	77.12	153.12	2,653.63	2,522.01	107.78	70.39
October	124.42	68.21	145.97	2,538.65	2,412.73	103.11	70.64
November	94.06	55.37	116.3	2,142.38	2,036.11	87.01	74.82
December	86.42	47.0	113.0	2,011.92	1,912.13	81.71	72.31
Annual	1626.58	903.96	1784.16	32023.33	30434.96	1300.64	72.92

Field Segments

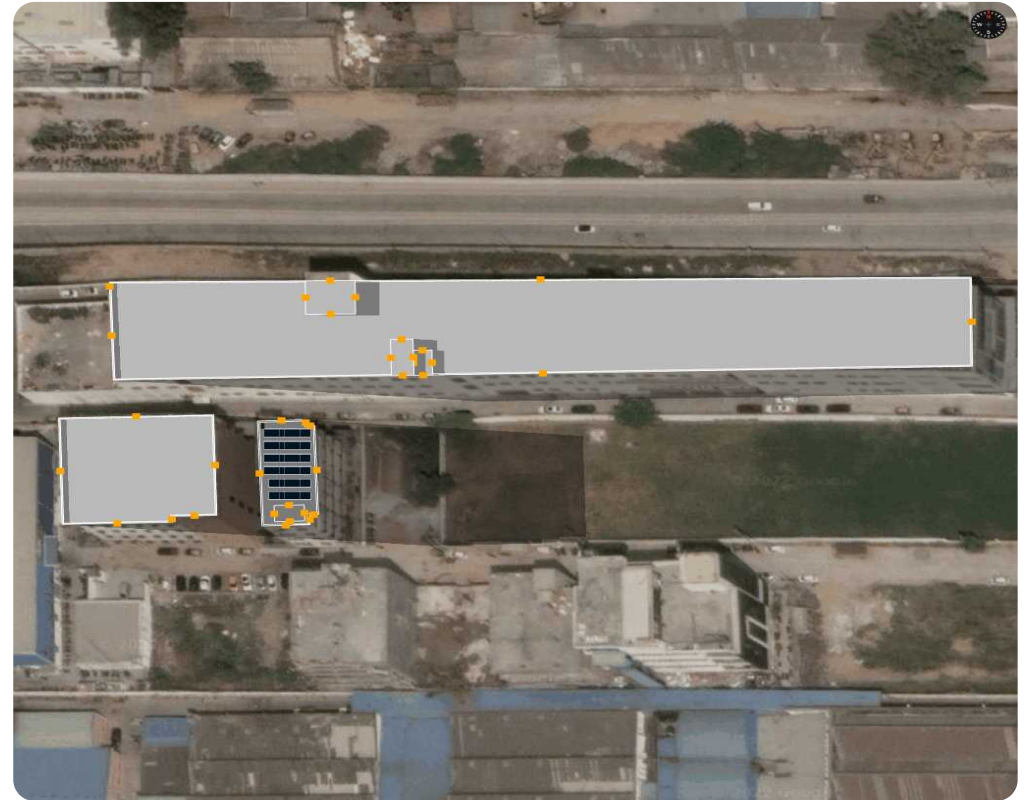
Orientation	Tilt	Azimuth	Row Spacing	Frame Size	Modules	Power
Portrait	20 °	180 °	1.247 m	1x1	52	23.40 KW

Shading Analysis

June 21 | 9:00 AM



June 21 | 04:00 PM



Shadow Analysis

December 21 | 9:00 AM



December 21 | 04:00 PM



Summary: Panels are shadow free for 90.25% of solar time throughout the year.

Irradiance Map/ Solar Access

Irradiance Map

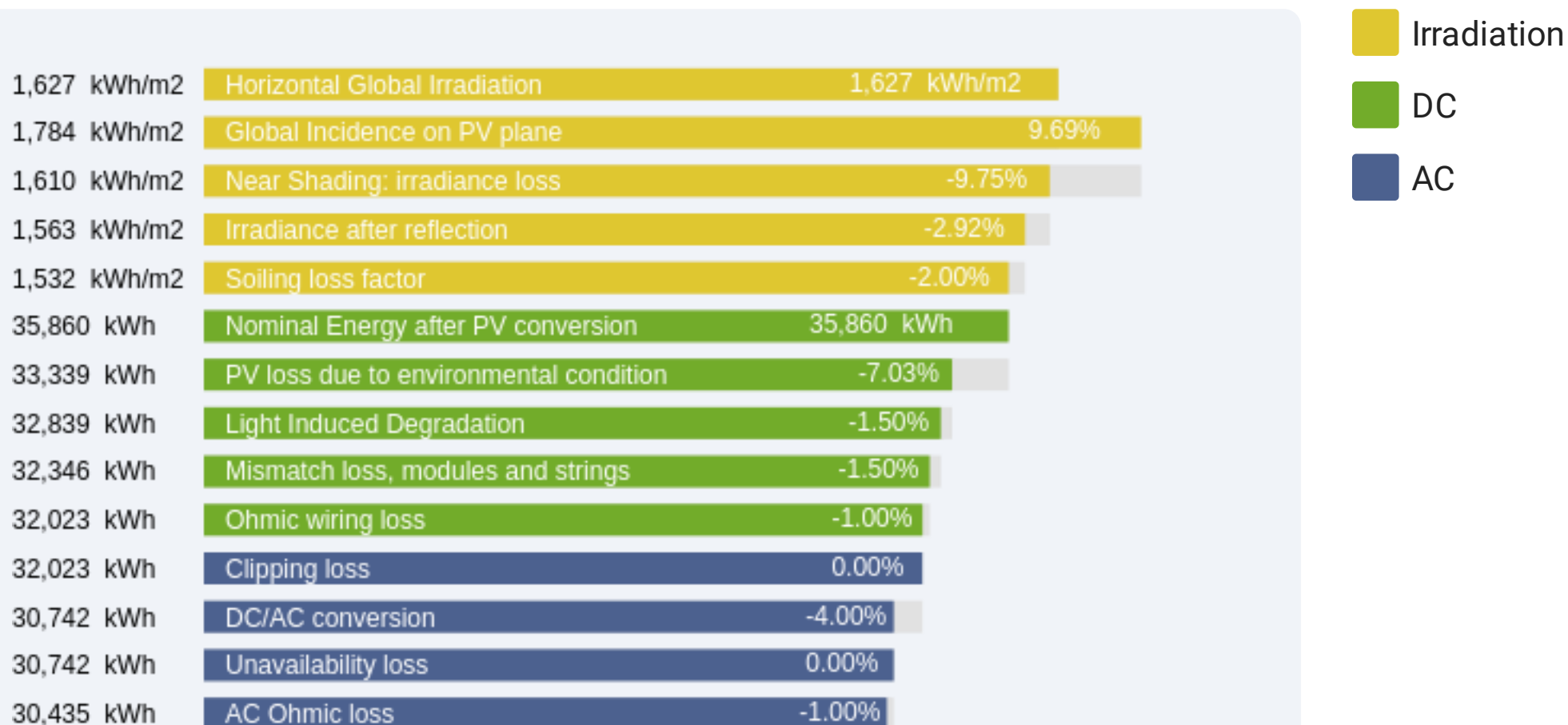


Solar Access



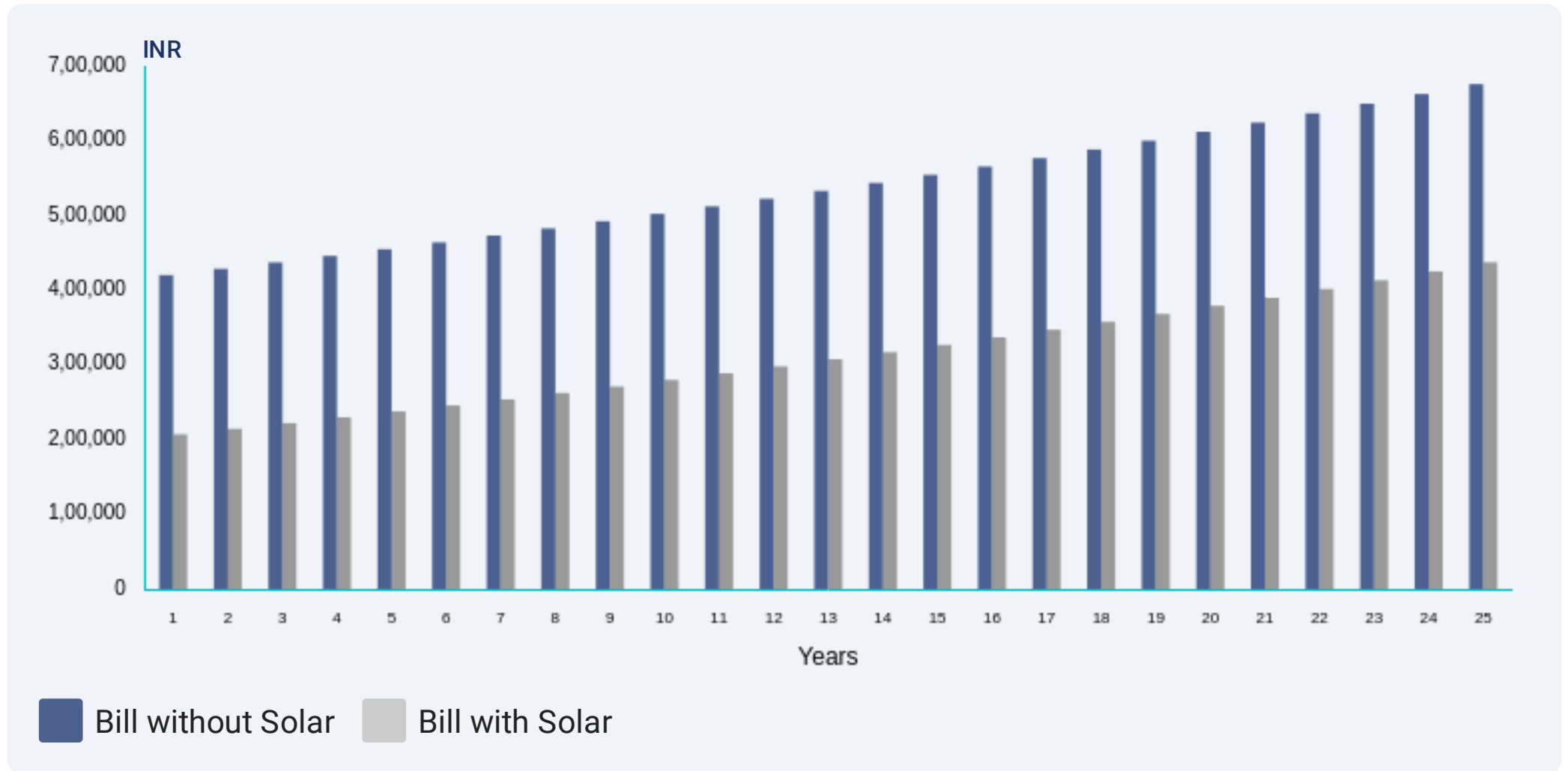
System Production Losses

Loss in generation predicted due to environmental and electrical factors



Cost of Not Going Solar

Your estimated annual electricity bill with and without solar for the next 25 years



Environmental Impact



You are contributing to solve Earth's biggest problem - Climate Change.

Carbon Dioxide Offset

451.38

metric tons

Equivalent Acres of Forest

529.91

acres/ year

Coal Burn Avoided

223.86

metric tons

Equivalent Number of Trees Planted

7,470 trees

Petrol Consumption Avoided

192,520.63 litres

Equivalent Kilometers Driven


1,774,877.99 Kms



Thank You



 team@thesolarlabs.com

 +918628868995

 <https://thesolarlabs.com/>