

Custom Analysis prepared for  
*Rehan Raza*

# S O L A R PROPOSAL

Generated on 29-Aug-2025 | Indian Institute of Technology  
Kharagpur



Address  
Kotthur Janda, , Telangana 506001



# Executive Summary

## System Capacity

Solar PV System Capacity	278.74 kW(DC)
Annual Solar PV Generation	4,04,773 kWh
Annual Energy Offset Percent	108.00%
First Year Utility Costs Avoided	33,54,949

## Financial Details

Total Project Cost	Rs 92,76,468
Incentives and Rebates	Rs 0
Net Investment	Rs 92,76,468
Simple Payback	2.82 years
25 Year Net Savings	Rs 14,90,06,633

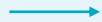


Kotthur Janda , Telangana 506001

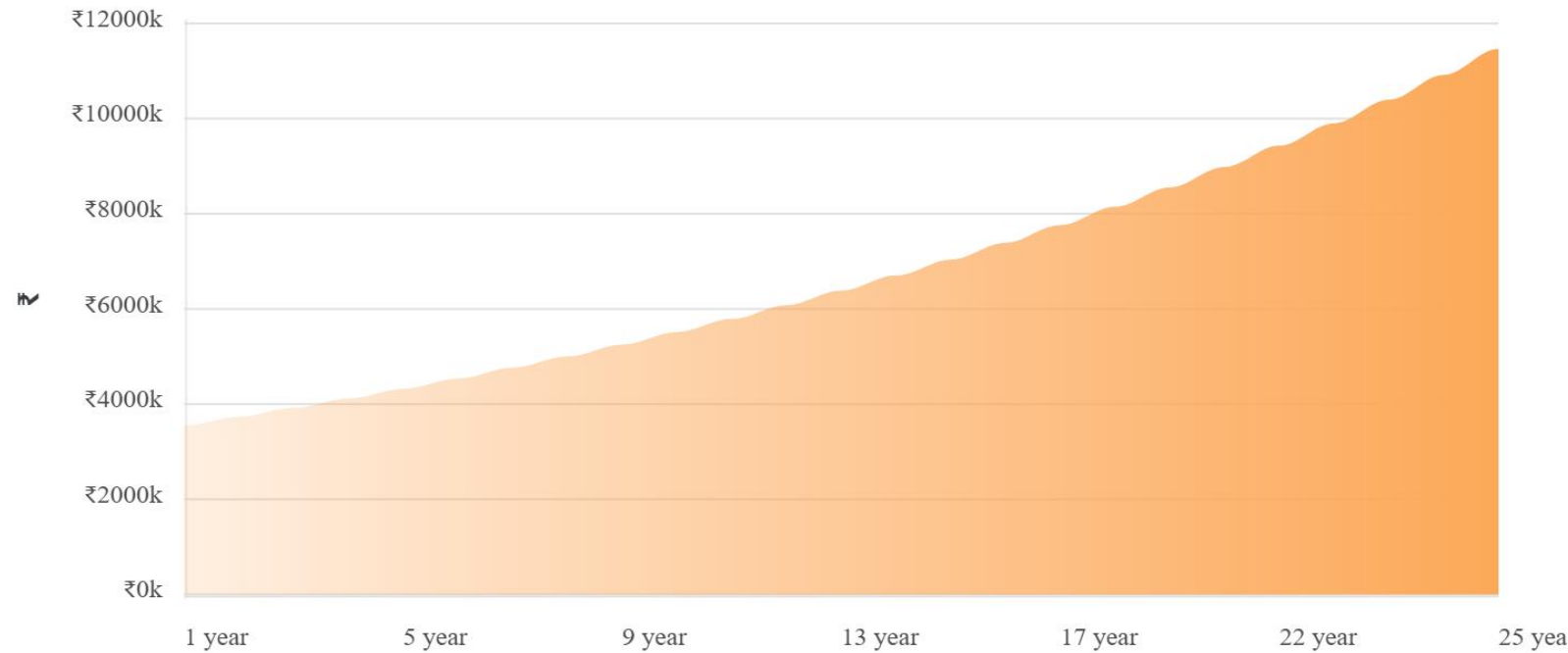
# Cost of Doing Nothing For 25 Years



*This graph shows the cost of  
doing nothing over 25 Years.*



You will spend Rs 16,96,48,605 if you don't act today



Utility bill today

**₹ 2,96,213 / mo**

Utility bill in 25th Year

**₹ 9,55,316 / mo**

Total utility bill over 25 Years

**₹ 16,96,48,593**

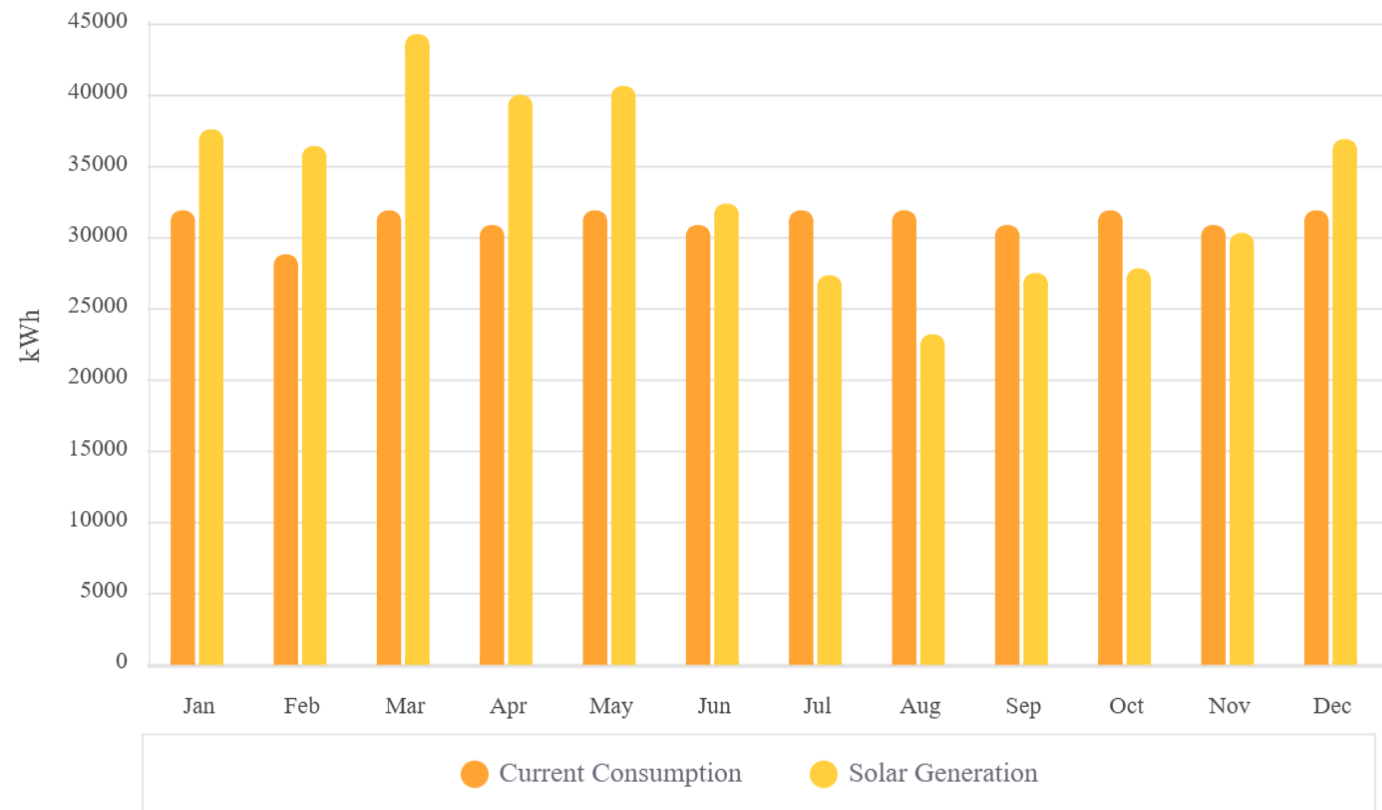
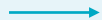
Utility Escalator : 5%

# Energy Offset

Your Annual Energy Offset  
**108.00%**



*This graph compares your current monthly consumption to the monthly solar generation of first year.*

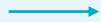




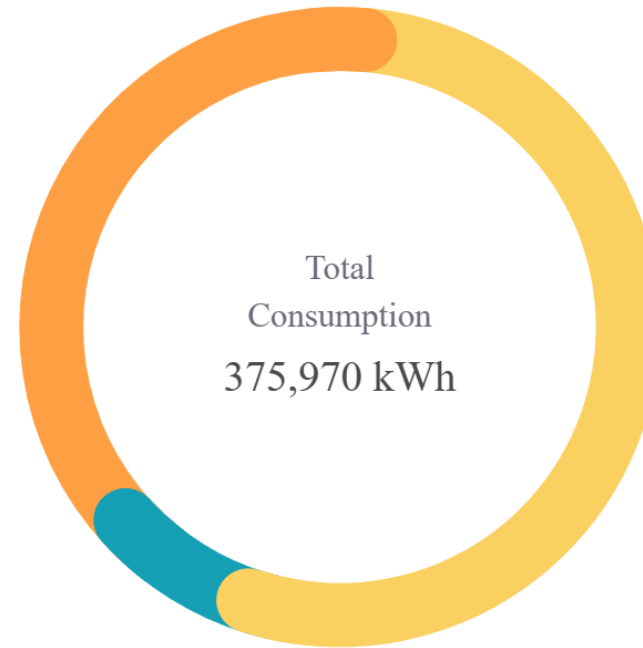
# Consumption Mix – Proposed for Year 1



*This graph illustrates the energy sources you will need to meet your first-year requirement.*



Total Consumption  
3,75,970 kWh



- Solar  
201,945.305 kWh (54%)
- Discharge  
30,781.599 kWh (8%)
- Grid Import  
143,243.086 kWh (38%)

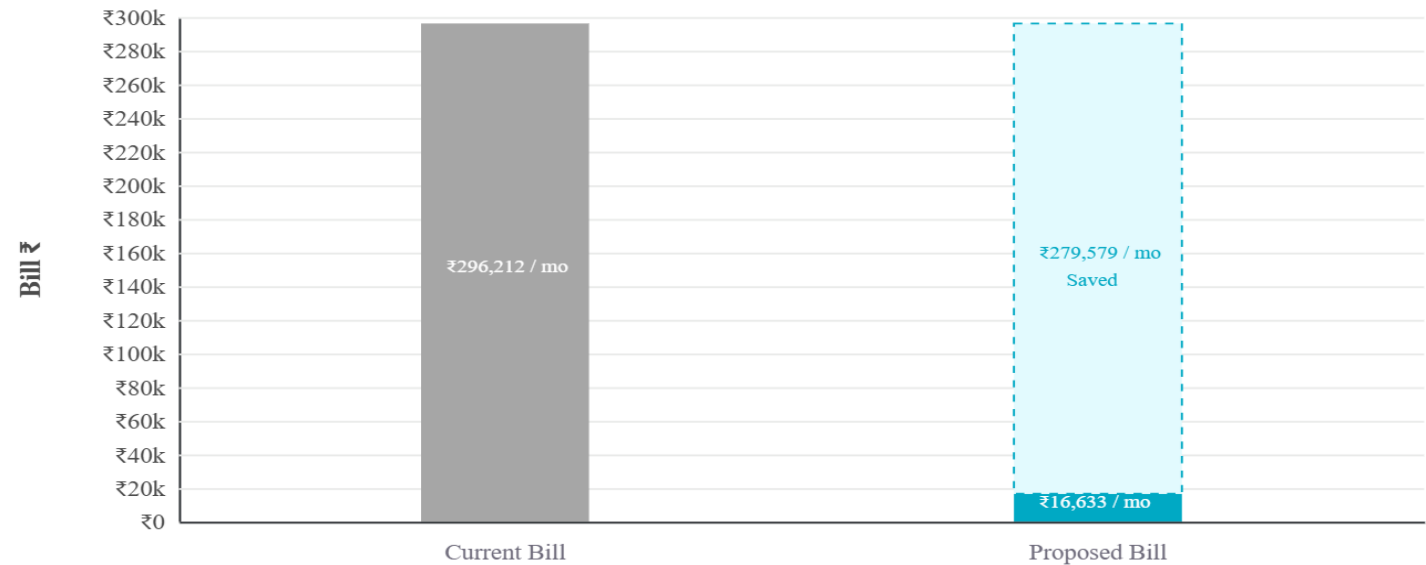
# Average Monthly Bill for Year 1



*This graph compares your current average monthly bill to the proposed bill after going solar or solar + storage.*



Utility bills you will save each month  
**Rs 2,79,579**



# Your Utility Information

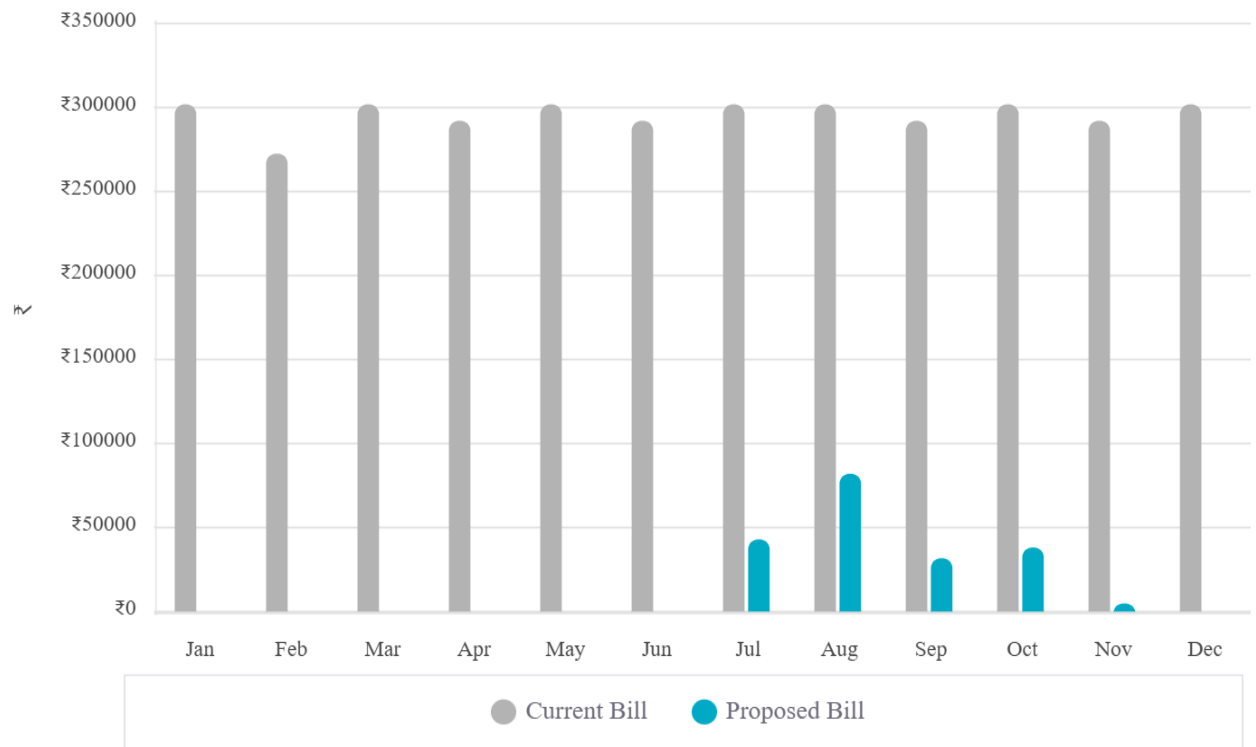
## Financials

Current Annual Bill	Rs 35,54,555
Current Monthly Bill	Rs 2,96,213
Current Cost per kWh	Rs 9.454

## Utility

Electricity Provider	TSSPDCL
Rate Schedule	Domestic LT-1(B)(ii)
Annual kWh Usage	Rs 92,76,468

Over a year your Utility bills will be reduced by  
**94%**



# Financial Analysis



Your Savings over 25 years is Rs 14,90,06,633

Your First Year Utility Costs Avoided Rs 33,54,949

Payback 2.82 years

Your Estimated 25 Year Net Utility Savings Rs 14,90,06,633

Total System Price Rs 92,76,468





# Proposed System with PV System size of 278.74 kW(DC)

## Design Overview

PV System Size	278.74 kW(DC)
DC to AC Power	278.74 kW(DC)/250 kW(AC)
Installation Type	Fixed Tilt
Production Ratio	1453 kWh/KWp/year
Monitoring System	Solar-Log Monitoring



## PV Modules

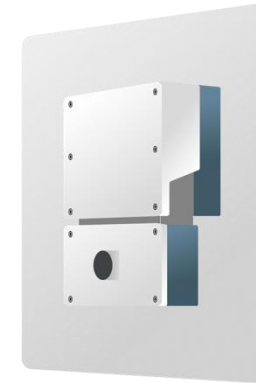
Quantity	181 (nos)
Manufacturer	Waaree Energies
Model	WSMD-540
Description	540W Monocrystalline Module
Warranty	25 Years Performance Warranty



# Proposed System with PV System size of 278.74 kW(DC) ■ ■

## Inverters

Quantity	2 (nos)
Manufacturer	HAVELLS
Model	ENVIRO GTi 125 KT-NG
Description	125 kW
Warranty	5 Year Warranty



# Next Steps



Week 1	<b>Technical Site Visit</b> We'll work with your schedule to find a time to have a qualified site Technician come out and confirm the size and solar access of your proposed installation site.
Week 2	<b>Engineering &amp; Design</b> We will assemble the final designs and purchase agreement at this stage. We will work with you to finalise all the details of the project and answer any questions you may have.
Week 3-6	<b>Permits &amp; Approvals</b> Our Project Operations Team will work to obtain all the necessary local permits and approvals to install and interconnect your new solar system.
Week 6	<b>Installation</b> A trained Installation Team will complete all civil and electrical works necessary to install your new solar system in a timely manner.
Week 7-10	<b>Testing &amp; Approval</b> We will coordinate all system inspections requested by the utility company and/or local electrical inspector.
Week 10	<b>Handover</b> Once the utility company grants final approval, we'll walk you through turning on your new solar system and monitoring your electricity production. We'll be here should you have any questions over the next 25 years!

# Connect With Us ■■



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INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

## Tree Saved



7,153

## Cars Removed



59

## CO2 Offset (KGS)



2,79,000 KG

## Waste Avoided



94.3