

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	95.46 kW(DC)
Annual Solar PV Generation	1,38,851 kWh
Annual Energy Offset Percent	37.00%
First Year Utility Costs Avoided	13,18,302

Financial Details

Total Project Cost	Rs 31,76,910
Incentives and Rebates	Rs 0
Net Investment	Rs 31,76,910
Simple Payback	2.46 years
25 Year Net Savings	Rs 5,50,07,357

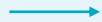


Kotthur Janda , Telangana 506001

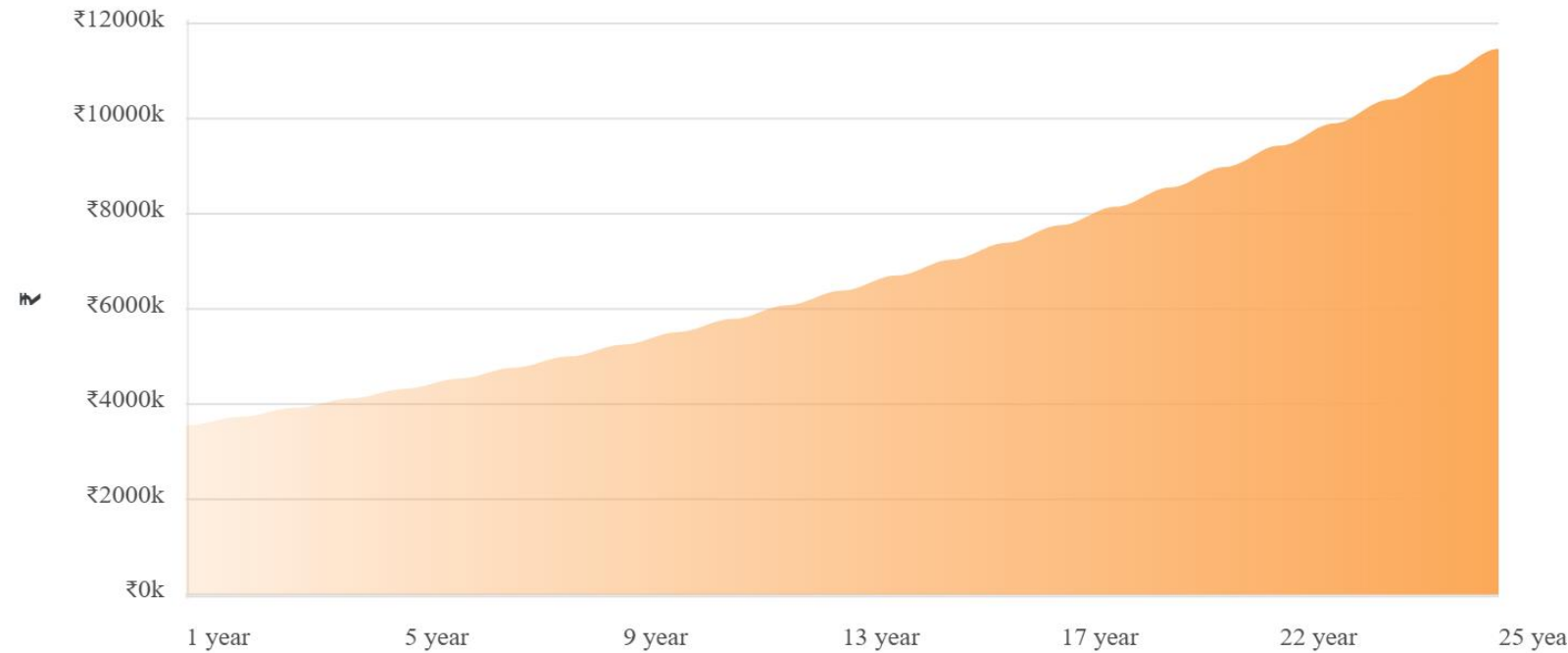
Cost of Doing Nothing For 25 Years



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

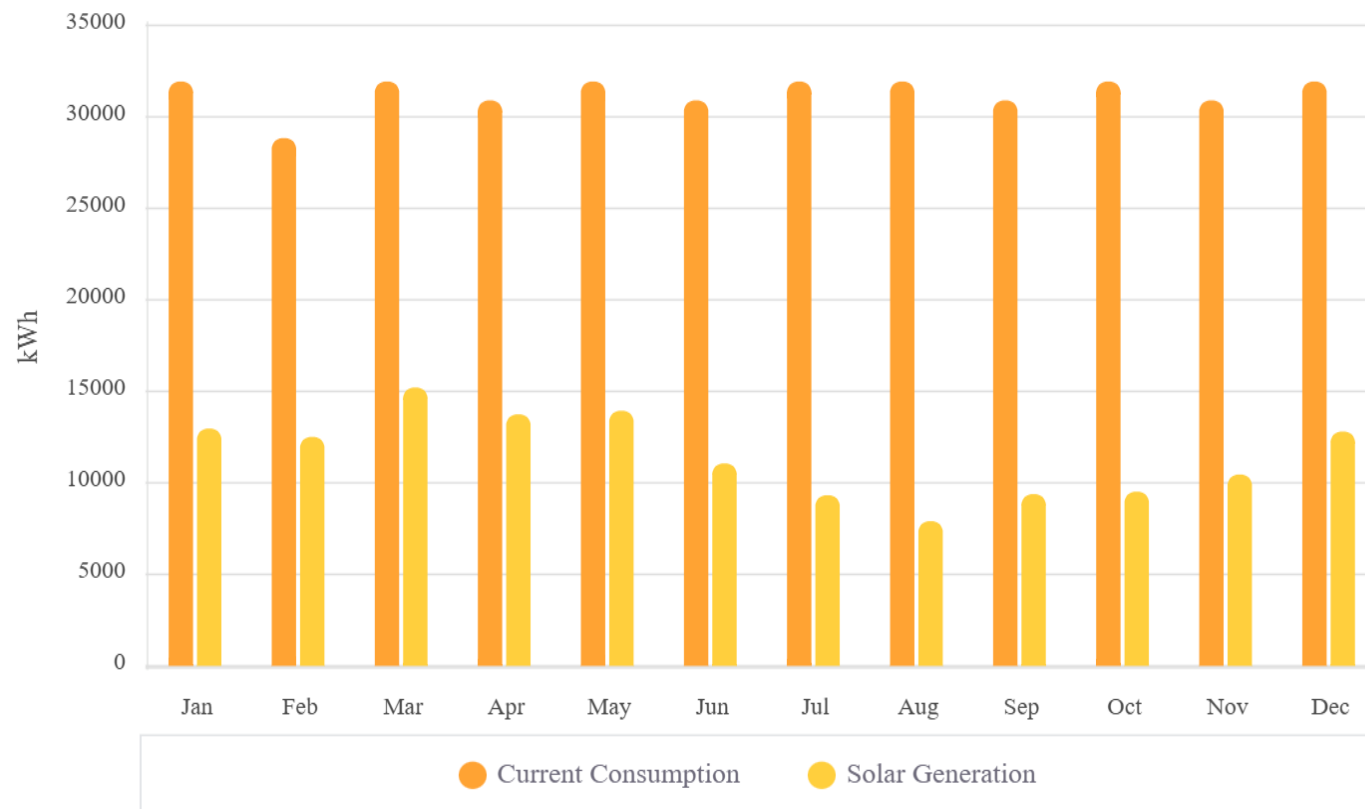
Utility Escalator : 5%

Energy Offset

Your Annual Energy Offset
37.00%



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

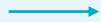




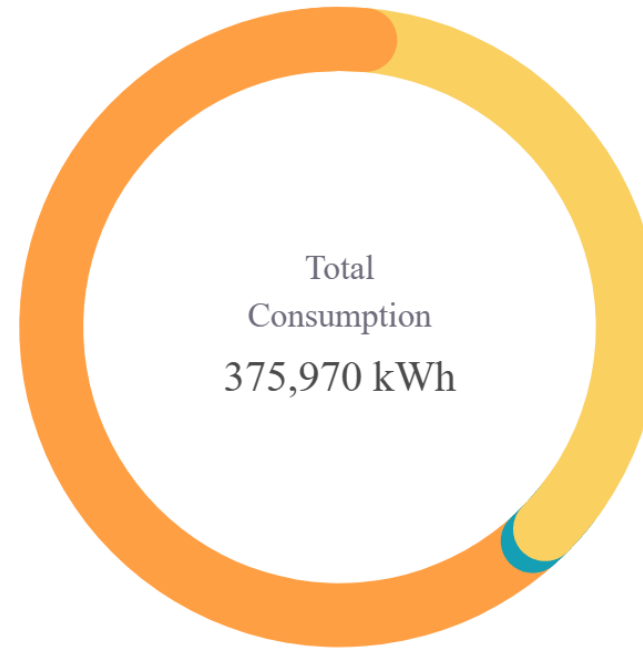
Consumption Mix – Proposed for Year 1



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



Total Consumption
3,75,970 kWh

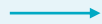


- Solar
135,212.08 kWh (36%)
- Discharge
3,556.532 kWh (1%)
- Grid Import
237,201.378 kWh (63%)

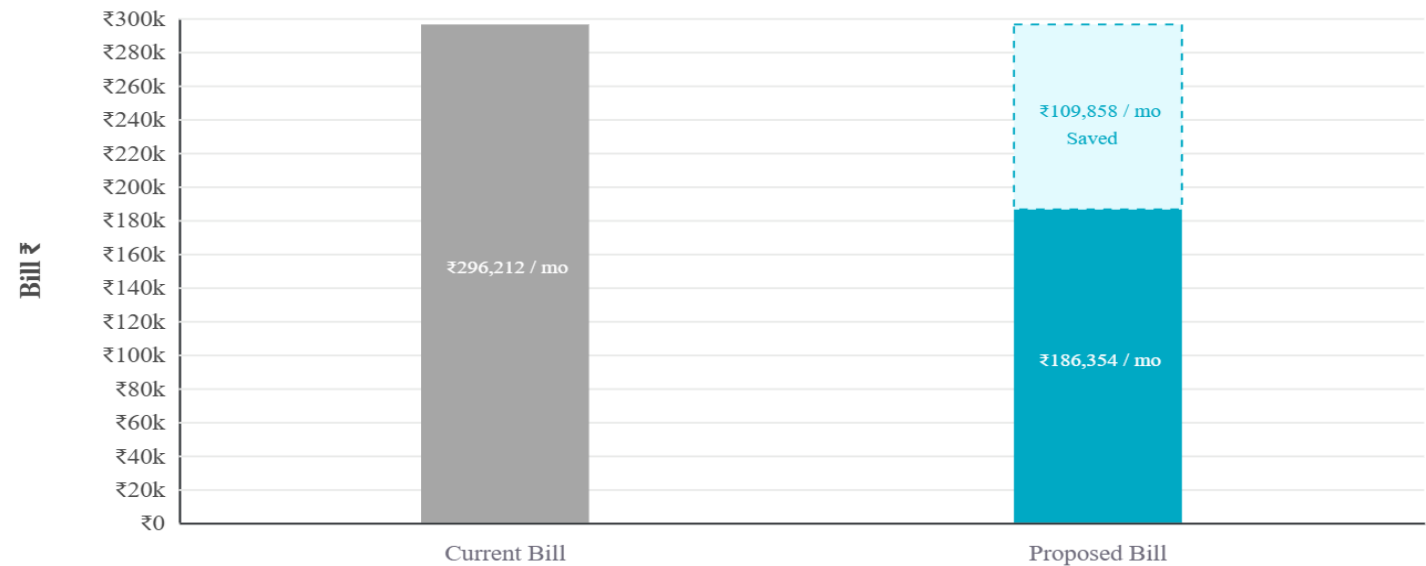
Average Monthly Bill for Year 1



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 1,09,859



Your Utility Information

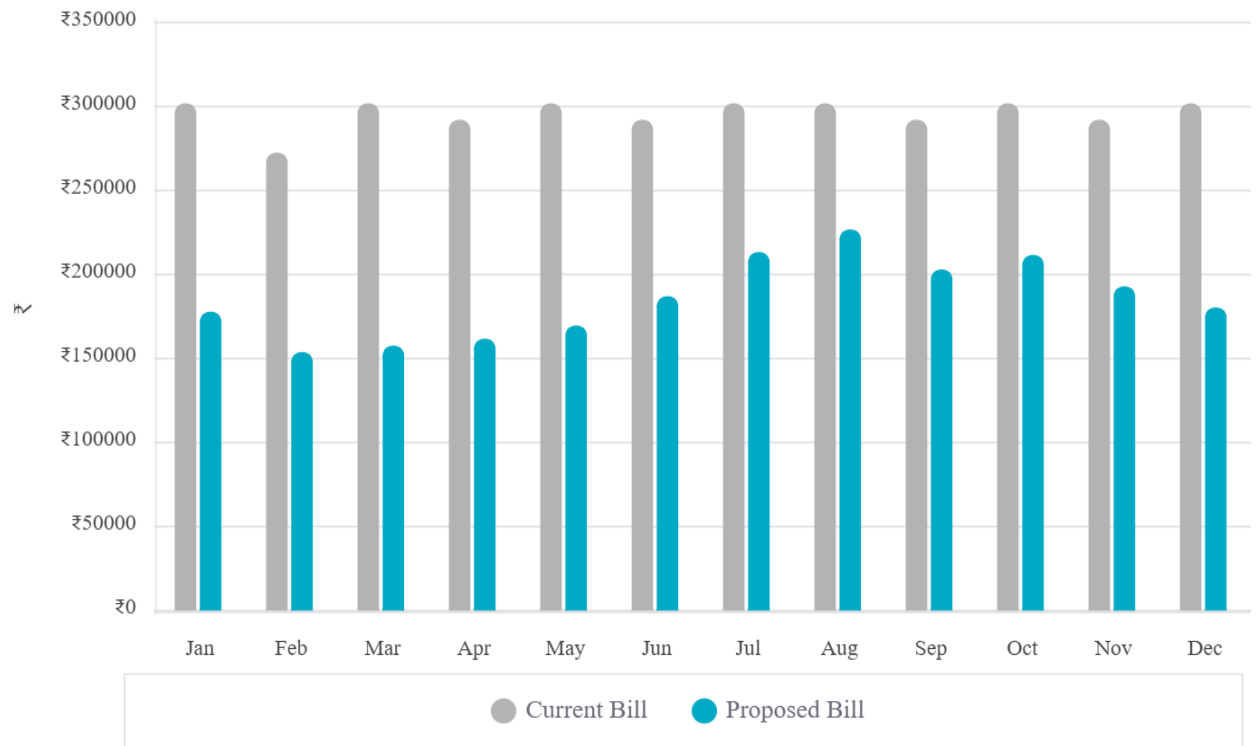
Financials

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 31,76,910

Over a year your Utility bills will be reduced by
37%



Financial Analysis



Your Savings over 25 years is Rs 5,50,07,357

Your First Year Utility Costs Avoided Rs 13,18,302

Payback 2.46 years

Your Estimated 25 Year Net Utility Savings Rs 5,50,07,357

Total System Price Rs 31,76,910



Proposed System with PV System size of 95.46 kW(DC) ■ ■

Design Overview

PV System Size	95.46 kW(DC)
DC to AC Power	95.46 kW(DC)/80 kW(AC)
Installation Type	Fixed Tilt
Production Ratio	1455 kWh/KWp/year
Monitoring System	Solar-Log Monitoring



PV Modules

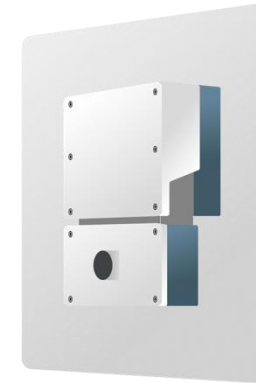
Quantity	172 (nos)
Manufacturer	Adani solar
Model	ASB-M10-144-555
Description	ELAN SHINE TOPCON Series
Warranty	25 Years Performance Warranty



Proposed System with PV System size of 95.46 kW(DC) ■ ■

Inverters

Quantity	1 (nos)
Manufacturer	ABB
Model	TRIO-20.0-TL-OUTD-S-480-A
Description	20 kW (480Vac) Inverter w/ arc detector
Warranty	5 Year Warranty



Next Steps



Week 1	Technical Site Visit 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	Engineering & Design 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	Permits & Approvals 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	Installation 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	Testing & Approval We will coordinate all system inspections requested by the utility company and/or local electrical inspector.
Week 10	Handover 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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Tree Saved



2,461

Cars Removed



20

CO2 Offset (KGS)



96,000 KG

Waste Avoided



32.5