



Gujarat
Toolroom Ltd.

CIN: L45208GJ1983PLC006056

404 , Silicon Tower, Law
Garden, Elishbridge,
Ahmedabad, Gujarat-380006

GST: 24AAACG5585F120

13th May, 2024

To,
The General Manager,
BSE Limited,
Corporate Relationship Department,
Phiroze Jeejeebhoy Towers, Dalal Street,
Mumbai - 400001.

BSE Scrip Code: **513337**

ISIN: **INE145J01032**

Sub: Publication of Investor Presentation and Project Report: Gujarat Toolroom Ltd.'s Hybrid-Green Energy Power Plant project worth Rs. 5.72 Billion. Disclosure under Regulation 30 LODR (Listing Obligations & Disclosure Requirements) Regulation, 2015.

Dear Shareholders,

We are pleased to announce the publication of the Investor Presentation and Project Report for Gujarat Toolroom Ltd.'s latest venture, the Hybrid-Green Energy Power Plant. This innovative project marks a significant step towards advancing sustainable energy solutions and underscores our commitment to environmental stewardship and technological innovation.

The Hybrid-Green Energy Power Plant is a state-of-the-art facility spanning **65 acres** in Gujarat. With an estimated investment of **INR 5.72 billion (Rs. 572.5 Crores)**, the plant is poised to generate **97.5 Megawatts of power per hour**. The project comprises **60 acres of solar panel** coverage, capable of producing 1 Megawatt of energy per hour per acre, alongside **15 on-shore wind turbines**, each generating 2.5 Megawatts of power per hour. Upon completion, the power plant is expected to provide electricity to approximately **70,000 to 73,000 households**, driving positive environmental and social impact. For further details, please refer to the attached Investor Presentation and Project Report.

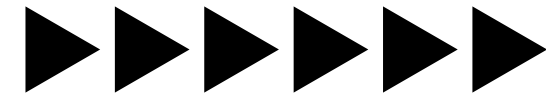
For any inquiries or additional information, please contact us at **cs@gujarattoolroom.com**.

For, Gujarat Toolroom Limited

NARENDRA SHARMA
A SHARMA

Digitally signed by NARENDRA SHARMA
DN: c=IN, o=Personal,
postalCode=395004, st=Gujarat,
serialNumber=4880460C7238C6782ECC8
0BC8AC294B6BBB5FDDDB524C33428D
99D1A3372C0, cn=NARENDRA SHARMA
Date: 2024.05.13 10:23:50 +05'30'

Narendra Sharma
Managing Director
DIN: 10295571



GREEN ENERGY POWER PLANT

INVESTOR PRESENTATION

Prepared By:
Gujarat Toolroom

WWW.GUJARATTOOLROOM.COM



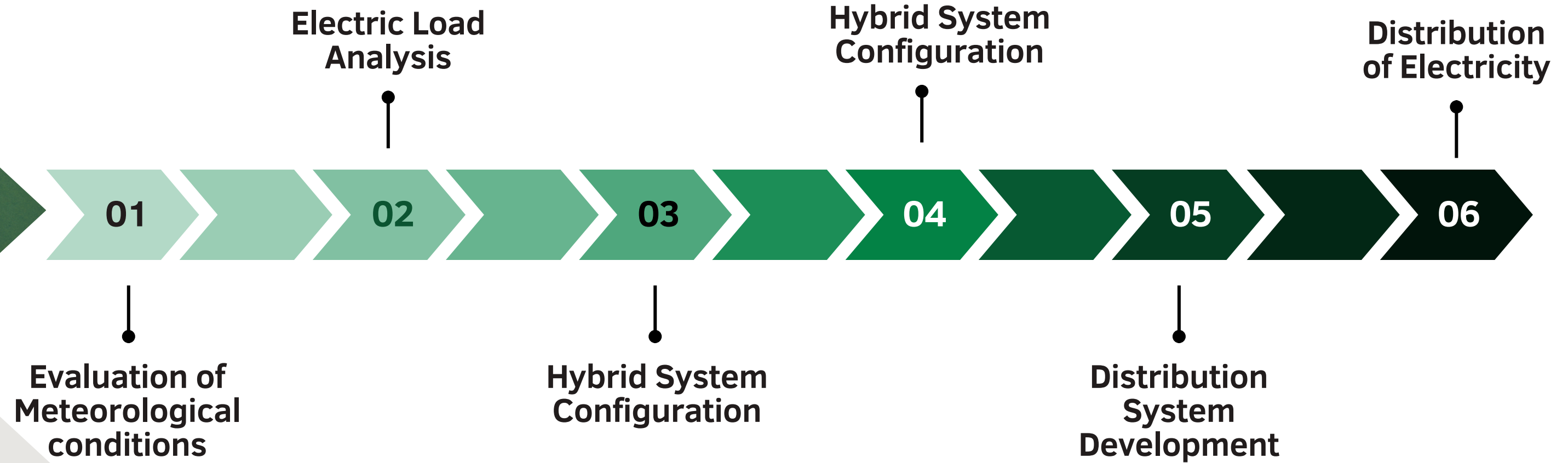


Strategy Overviews

Gujarat Toolroom Limited's strategy for the Hybrid Power Plant focuses on harnessing renewable energy sources, specifically solar and wind, to ensure sustainable electricity generation. By strategically allocating land for solar panels and on-shore wind turbines, GTL aims to maximize energy output while minimizing environmental impact. The integration of innovative technologies and efficient power management systems underscores GTL's commitment to delivering clean, reliable, and cost-effective energy solutions.



Timeline





Mission Statement

Our mission at Gujarat Toolroom Limited's Hybrid Power Plant is to harness the abundant potential of renewable energy sources to provide clean, reliable, and affordable electricity to communities. By leveraging solar and wind energy technologies, we are committed to reducing carbon emissions, mitigating environmental impact, and enhancing energy accessibility for all. Through innovation, efficiency, and responsible stewardship, we strive to empower communities with sustainable energy solutions that drive positive change and foster a greener, brighter future for generations to come.





Proposed Objectives

Our objectives for the Hybrid Power Plant are threefold: firstly, to maximize renewable energy generation by leveraging solar and wind resources efficiently; secondly, to ensure operational efficiency through meticulous planning and robust infrastructure, aiming to deliver consistent and reliable power supply; and thirdly, to promote environmental sustainability by minimizing our carbon footprint and adhering to stringent environmental standards, contributing positively to the health of our planet.

**Maximize Renewable
Energy Generation**

**Ensure Operational
Efficiency**

**Promote
Environmental
Sustainability**

Technology Used



Solar Power Modules:

- TOPCon, N-type, Bifacial modules
- Horizontal Single-Axis Tracking system

Wind Power Module:

- GE General Electric GE 2.5 - 100



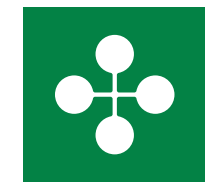
High Efficiency

maintaining peak performance over an extended lifespan.



Long Lasting

Equipments capable of withstanding harsh environmental condition



Minimal Maintainance

consistent power generation with minimal downtime

TOPCon, N-type, Bifacial modules

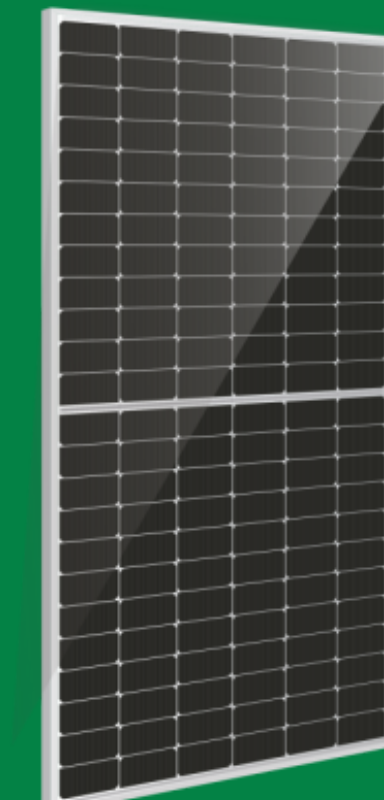
FRONT SIDE ELECTRICAL DATA (STC)		
Model No.	G2G1740N-UHAD	G2G1755N-UHAD
Peak Power Output -Pmax(Wp)	580	585
Power Output Tolerance (Wp)	0 ~ +5	0 ~ +5
Open Circuit Voltage-Voc(V)	51.04	51.19
Maximum Power Voltage-Vmpp(V)	42.37	42.52
Short circuit current-Isc(A)	14.45	14.52
Maximum Power Current-Impp(A)	13.69	13.76
Module Efficiency (%)	22.45	22.65
Fill Factor (%)	78.64	78.71

*(STC) = 1000 W/m² Irradiance, Air Mass 1.5 and 25°C Cell Temperature

ELECTRICAL DATA (NOCT)		
Model No.	G2G1740N-UHAD	G2G1755N-UHAD
Peak Power Output -Pmax(Wp)	430.94	434.66
Open Circuit Current-Voc(V)	47.47	47.61
Maximum Power Voltage-Vmpp(V)	38.68	38.91
Short circuit current-Isc(A)	11.73	11.79
Maximum Power Current-Impp(A)	11.12	11.17

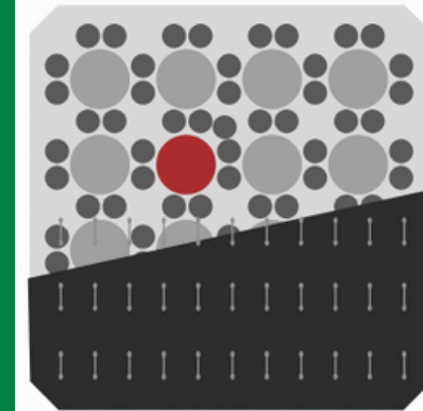
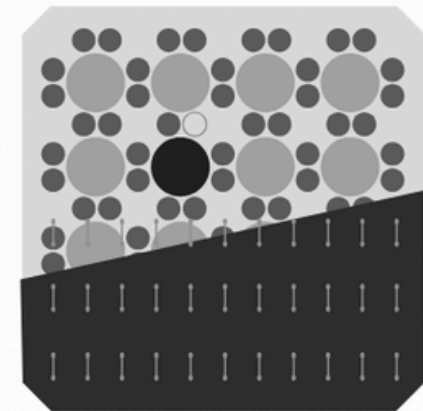
*(NOCT) = 800 W/ m² Irradiance, Air Mass 1.5, Ambient Temperature 20°C and Wind Speed 1 m/s

TOTAL POWER (FRONT+BACK)			
Gain		Peak Power (Wp)	
		Efficiency η_m (%)	
With 10% Gain	Peak Power (Wp)	638	644
	Efficiency η_m (%)	24.70	24.93
With 15% Gain	Peak Power (Wp)	667	673
	Efficiency η_m (%)	25.82	26.05
With 20% Gain	Peak Power (Wp)	696	702
	Efficiency η_m (%)	26.94	27.18
With 25% Gain	Peak Power (Wp)	725	731
	Efficiency η_m (%)	28.07	28.30
With 30% Gain	Peak Power (Wp)	754	761
	Efficiency η_m (%)	29.19	29.46

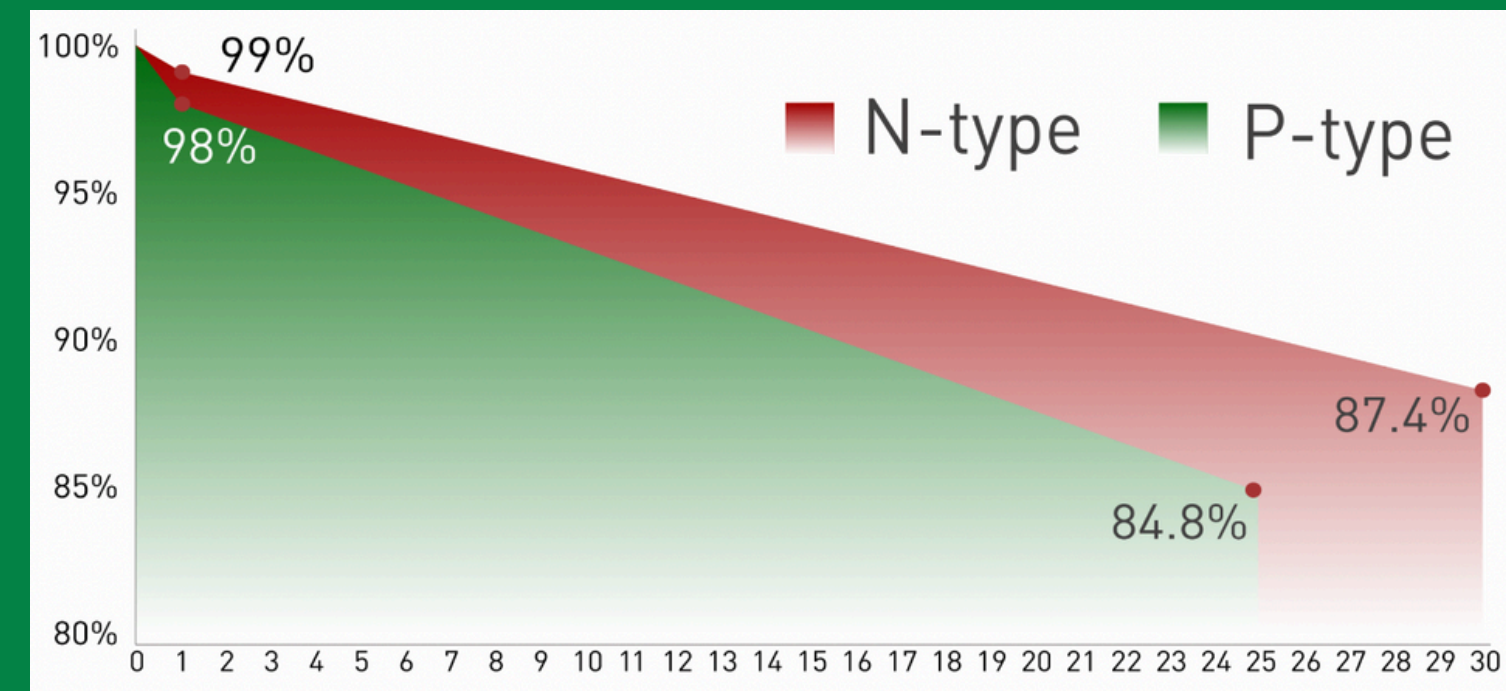


30% More Power than P-Type Module

● Silicon ● Electron ● Phosphorus ● Boron

N type solar cells P type solar cells



TOPCon, N-type, Bifacial modules

Benefits:

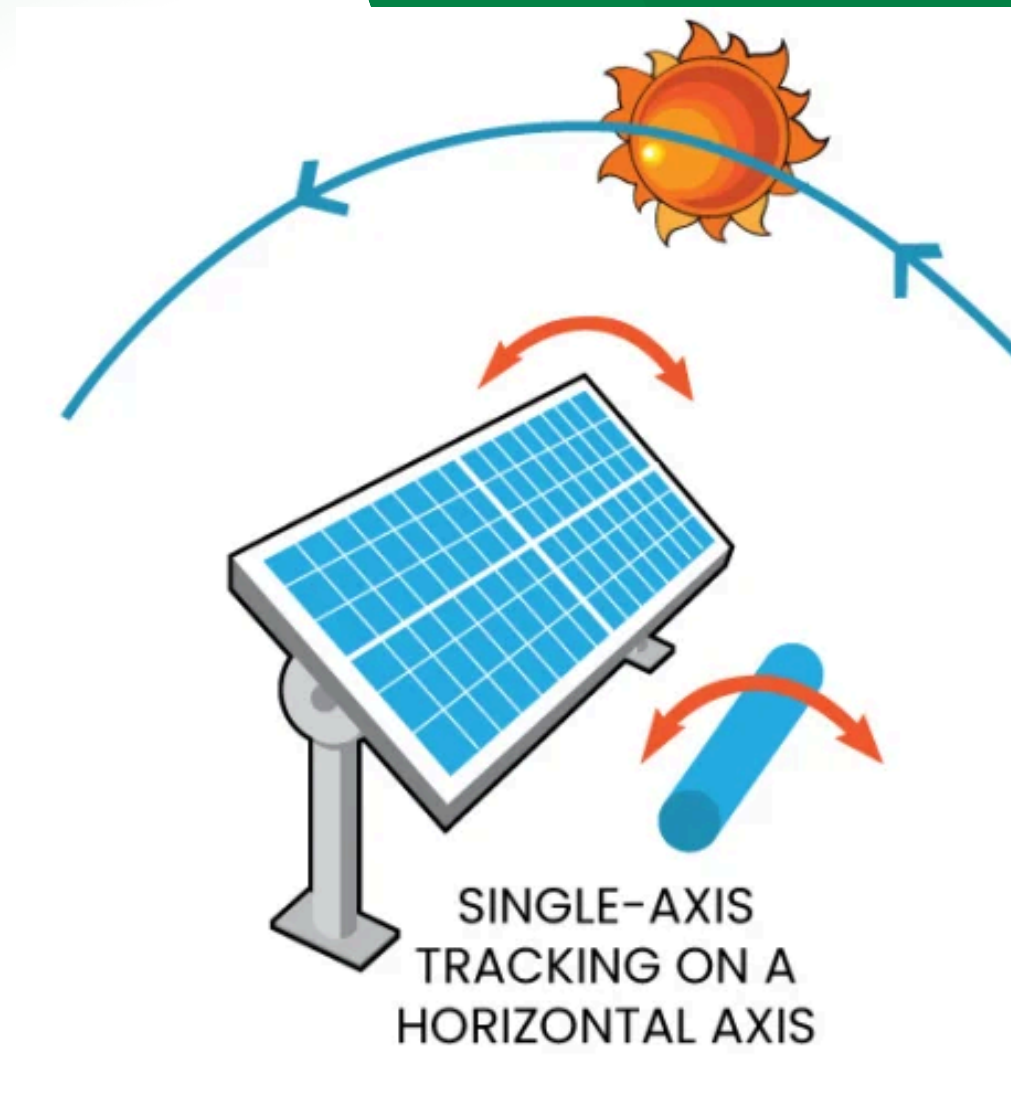
- 580+ Watt peak modules
 - Higher overall efficiency
 - Better low light performance
 - Lower degradation
 - Longer life expectancy
 - Bifacial - Solar power generation from both sides of the panel
 - Multi-Busbar Structure for Lower Electrical Losses
 - 1% Degradation in first year and 0.4% Degradation in subsequent years
 - Bigger M10 N-type TOPCon Solar Cells for higher wattage
-



Horizontal Single-Axis Tracking system

Benefits:

- ✓ Tracks the sun throughout the day
- ✓ Modules are fixed on the mounted Structure & will be rotated around a horizontal axis



Gamesa SG 2.1-114 Turbines

📏 Rotor diameter

114 m

⚡ Nominal power

2.1 MW

⚙️ Technology

Geared

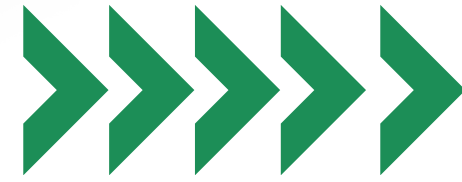
🌬️ Wind class

IEC IIA/IIIA/S

Key Facts

- 114-meter rotor and nominal power of 2.1 MW
- Aerodynamic blade profile for maximum energy production and low noise emission
- Various tower options: from 68 to 153 meters, and site-specific
- Optimized solutions for Class S sites and adaptable to markets like India, China and Brazil





SWOT Analysis



Strengths

- Abundant Renewable Resources
- Advanced Technology
- Long-Term Sustainability
- Diversified Energy Generation

Weakness

- Initial Capital Investment
- Land Acquisition
- Operational Dependency on weather conditions

(Land Acquisition & Initial Capital Investment is already moving as planned)

Opportunities

- Government Incentives
- Market Expansion
- Technological Advancements

Threats

- Rising Equipment & Manpower Cost
- Environmental Factors

Expected Cost

Equipment	Cost per Unit (in Rs.)	Total Units	Total Cost (in Rs.)
Land (Lease)	10L / Acre	65 Acres	6.5 Crores
Solar Pannels	15K per pannel	1 Lac Units <i>(including spare Units)</i>	150 Crores
Wind Turbines	15 Crores / Unit	15 Units	225 Crores
Cables (All Types)	*	*	45 Crores
Transformers	1.5 Crore / Unit	4	6
Other Infra & Costs Involved	N.A	N.A	140 Crores
Grand Total	INR 572.5 Crores		





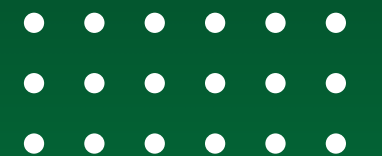
Setup Cost

One Time Infra Cost : **INR 572.5 Crores**

Total Power Generated per Hour: **100 MW**

Cost Per MW: **INR 5.72 Crores**

Recurring Cost: **INR 17 Crores to INR 24 Crores per Year**



Power Output

Source of Power	Power produced / Per Unit	Total Units	Power Produced in 1 Hour
Solar Pannels	1 MW per Acre	60 Acre	60 MW / Hour
Wind Turbines	2.5 MW per Unit	15 Units	37.5 Mw Per Hour
Grand Total	97.5 MW per Hour		

Key Points:

- One megawatt/1,000 KW, enough electricity for the instantaneous demand of **750** homes at once.
- Keeping in mind that we consider **12 Hours operational time** the plant will produce Minimum **1170 Mega Watt** of power in a Day.



Revenue Estimation

Cost of Electricity in Gujarat:

For domestic connection ranging from Rs 4.0 to RS 5.0 per kwh and Rs 5.0 to 6.50 for commercial consumer depending upon kwh consumed per month in Slabs like 100 kwh to 200 kwh, and above 200 kwh per month. We Consider an average cost of **Rs. 4 per KWh** for our estimation.

Calculation (Simplified):

Gross Produce in 1 Hour: **97.5 MW i.e 97500 KW**

Produce in 12 Hour Cycle: **97500 KW x 12 = 1170000 KW**

Cost per unit Supplied: **Rs. 3.5**

Total Daily Revenue: **Rs. 4 x 1170000 = Rs. 46,80,000 per Day**

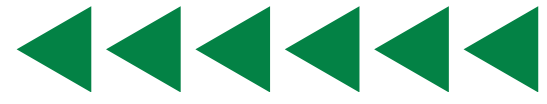
Total Yearly Revenue : **Rs. 46,80,000 x 365= Rs.170,82,00,000**

Total Yearly Operational Cost : **Rs. 25,00,00,000**

Yearly Profit Rs. 145.82 Crores

**These Estimations are made considering the worst case scenario, we expect much better numbers in ideal conditions.*





Thank You

For Your Attention

Prepared By:



FOR QUERIES:

CS@GUJARATTOOLROOM.COM



"The project is currently in the planning phase and awaits finalization; however, potential setbacks may arise due to government approvals and meteorological challenges. It is imperative to note that the figures provided are estimations, and actual numbers may vary."