



**TATA**

**TATA POWER**

**Invaluable Renewable  
Energy Solution offerings  
from TATA Power for our  
Esteemed Customers**



# Tata Power (112+ Years) Empowering lives through sustainable, affordable and innovative energy solutions




## THERMAL GENERATION

 **8860 MW**  
Thermal

## CLEAN & GREEN GENERATION

 **880 MW**  
Hydro

 **932 MW**  
Wind

 **2,995 MW**  
Solar

 **443 MW**  
Waste Heat / BFG


## TRANSMISSION & DISTRIBUTION

 **4,194 ckt km**  
Transmission


 **13 mn**  
Customers

 **Mumbai, Delhi, Ajmer, Odisha**  
Distribution Areas

## NEW-AGE ENERGY SOLUTIONS

 **4,800+**  
EV Charging Points

 **2+ GW**  
Solar Rooftop

 **97,000 +**  
Solar Pumps

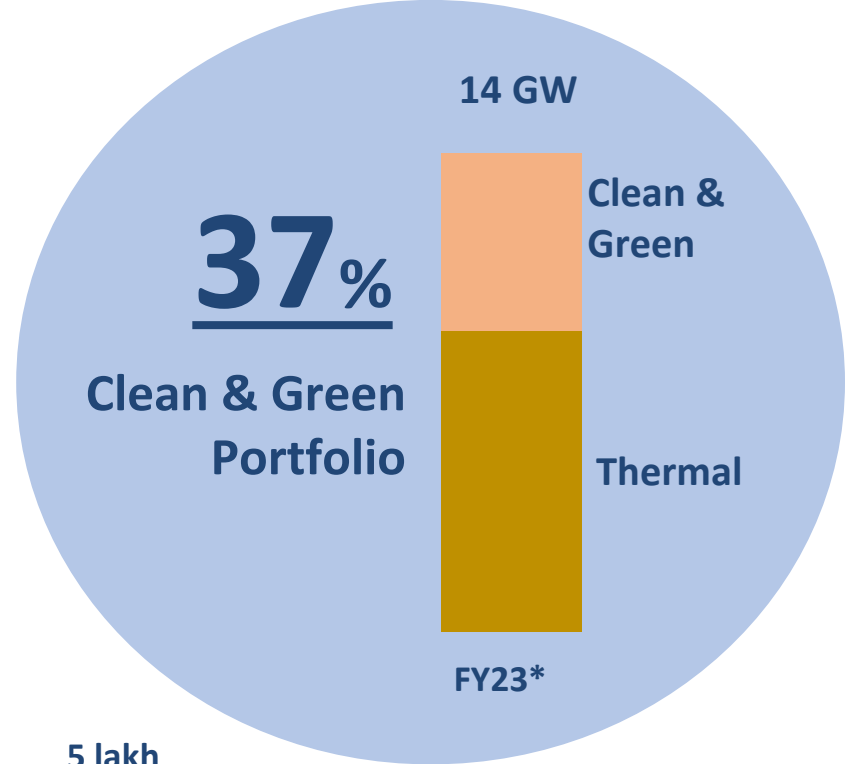
 **196**  
Microgrid Sites

 **5 lakh**  
Smart Meters Installed

## MANUFACTURING

 **4.6# GW**  
Solar Cell & Module

*# Greenfield Expansion by 4 GW Solar Cell and Modules to secure SOLAR SUPPLY CHAIN*





**Carbon  
Net Zero**  
BEFORE **2045**



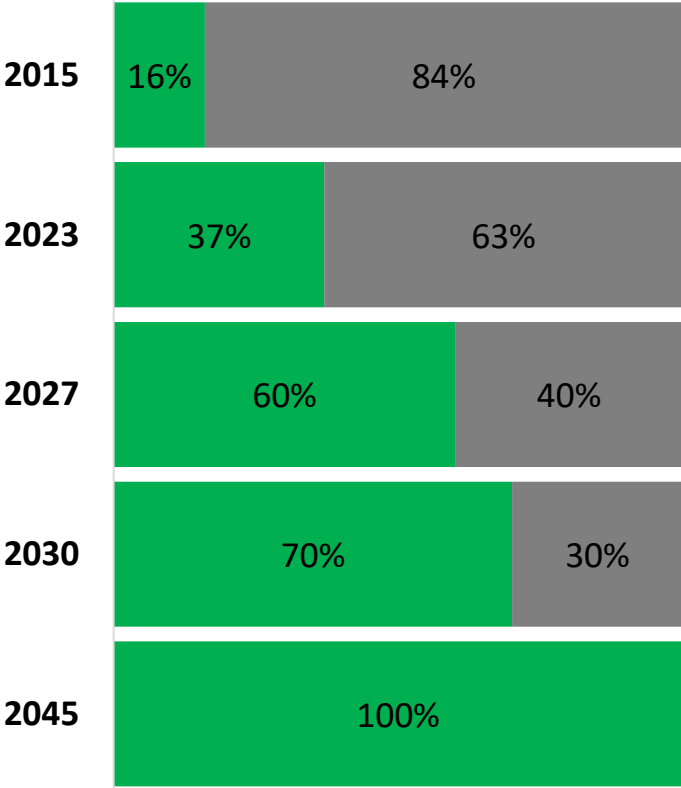
**Water  
Neutral**  
BEFORE **2030**



**Zero Waste  
to Landfill**  
BEFORE **2030**

## Clean & Green Capacity Share

(IN %)



■ Clean Green ■ Thermal



## ROOFTOP SOLAR



**2+GW rooftop projects** executed under residential and C&I segments

### Widest market reach

Presence in 275+ districts, 450+ Channel Partners, and 70,000+ happy customers

**Financing solutions** to suit customer requirements

### Wide range of offerings

Grid-tied, micro-inverters, off-grid, hybrid and solar tree

## MANUFACTURING



Only Indian company having **three decades** of manufacturing experience

**4.6GW** module manufacturing capacity

All designs and BOM items are tested for **3x IEC testing** before using in mass scale

## UTILITY SCALE



**10GW+** capacity developed/under WIP

Wealth of experience in managing utility scale projects

Strong in-house engineering team with experience of working on global projects

## EV CHARGING



**4800+** Public & Semi-public Energized Charging Points

**410+** Cities & Towns energized

**400+** Bus charging points

**57,000+** Home charging Installations



# Setting up 4 GW Solar Cell & Module Manufacturing Capacity in Tamil Nadu



# Market Presence: International



*Over 2.5 GW of modules shipped globally from our world class manufacturing facility*

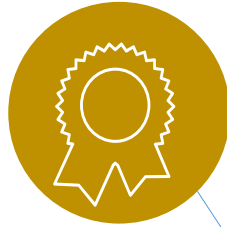






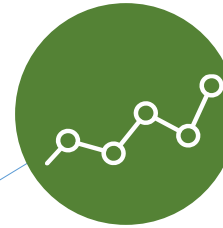
## Large satisfied customer base

Partner of choice for **80,000+** total & **50,000+** residential customers



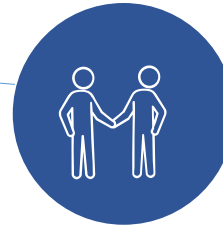
## Large installed base

**2+ GW** of rooftop & **14+ GW** of total Green Energy portfolio



## 30+ Years Experience

Only Indian solar EPC company to **complete entire lifetime** of a solar project

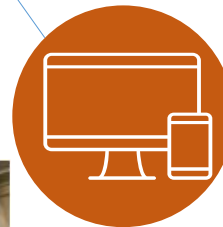


## Pan India Network

**450+** Channel Partners

## Insurance for the assets

Peace of mind to customers

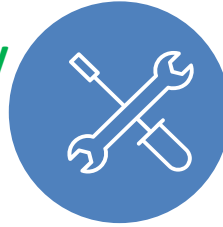


*Network Operations Center*  
*Performance monitoring of system*



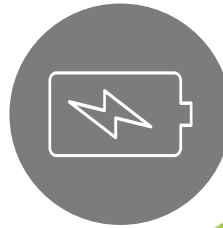
## No 1 Solar Rooftop Company

For **9 years<sup>1</sup>** in a row, from 2014-2023



## Lifecycle Service & Support

Dedicated call-center, Authorised service partner network (ASPs), **2-24-48** service support



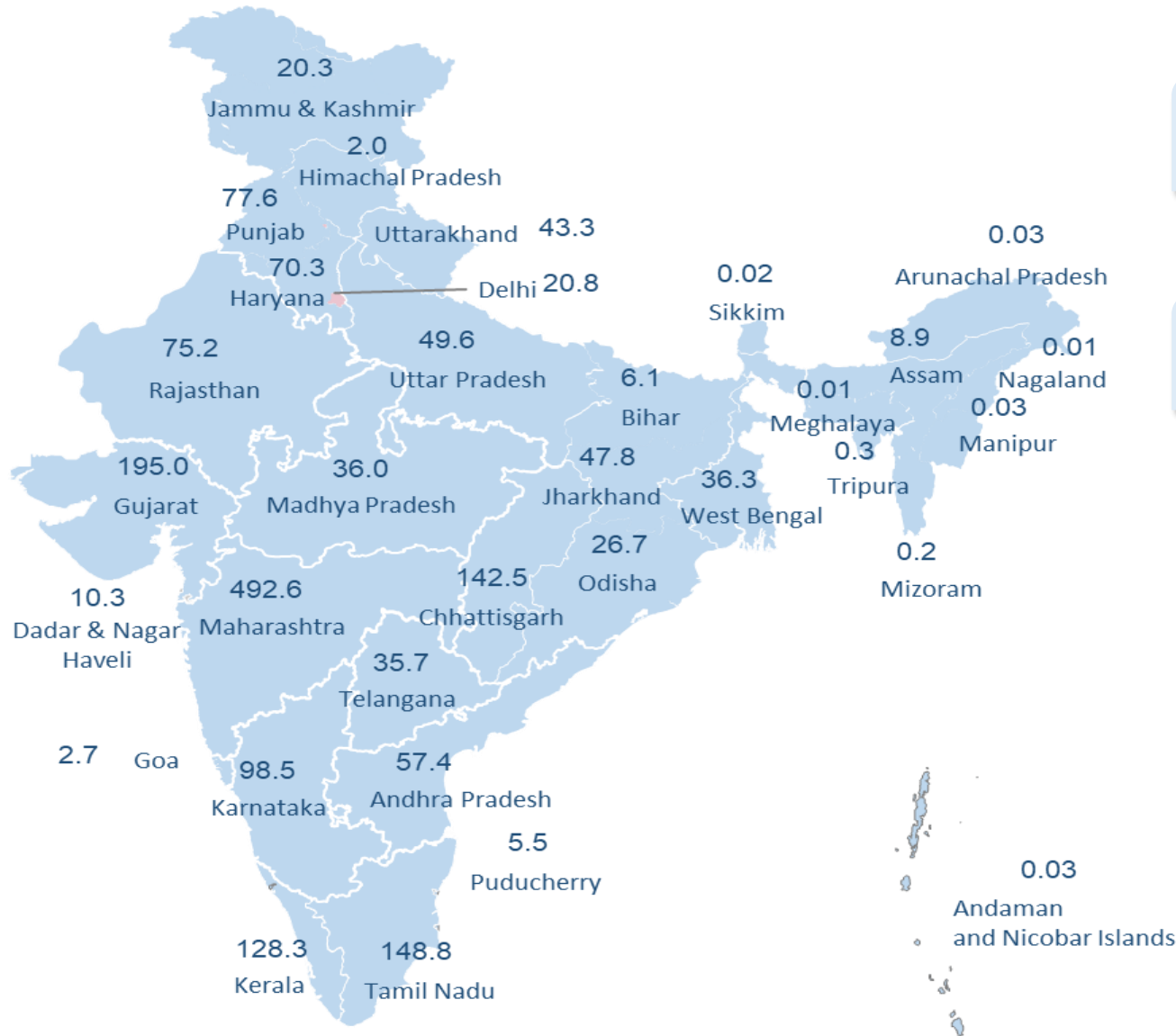
## Customer Financing

Tie-up with **17+** financial partners including SBI, SIDBI, offer competitive interest rate





## Rooftop Cumulative Installed Base of 2+ GW



**Presence in 275+ districts**

**450+ Channel Partners**

**70,000+ happy customers**

**100+ Sales Resources on-ground**



# Few Landmark Installations



**2.8MW Rooftop Solar Plant at Akshara Textiles, Tamil Nadu**



**820.8 kWp at Brabourne Stadium: One of the World's Largest Solar Powered Cricket Stadiums**



**One of the first Floating Solar System built on twin ponds with a capacity of 1.4MWp at Tata Chemicals, Nellore**



**Solar EV Charging Station at Gujarat Sachivalaya, Gandhinagar**



**One of the Largest carport installations at an airport: 2.67 MW at Kochi Airport**



**198 kW installation at Taj, Havelock Island, Andamans**



**1 million kWh of solar power per year at GE's six key manufacturing and maintenance sites in India**



**India's largest solar rooftop power plant: 16MWp at RSSB - EES, Amritsar**



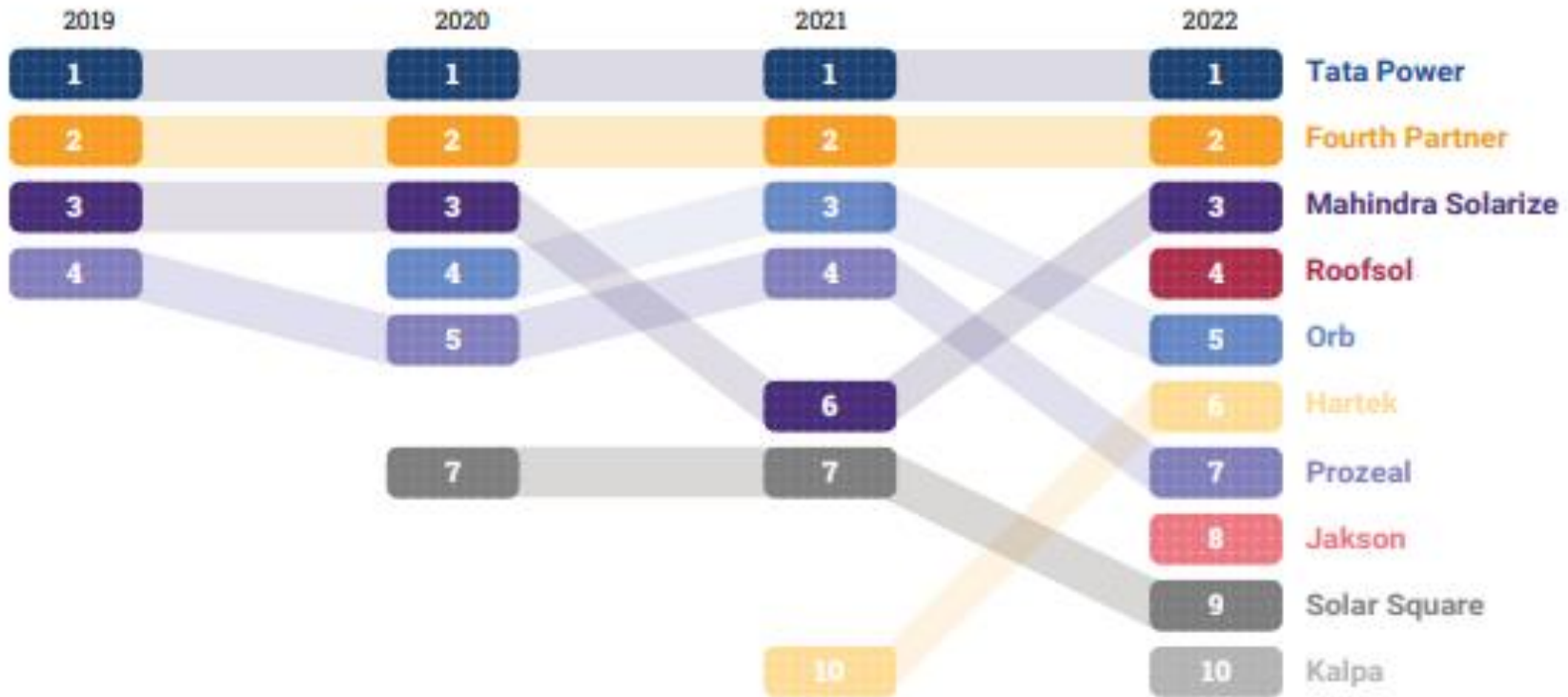
**Integrated state-of-the-art rooftop solar systems for 32 row houses / villas**



## Consistent market leader with 16.9% market share as of 2023

### Top 10 EPC contractors

Rankings on the basis of capacity installed in the year

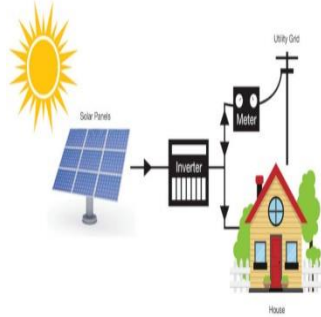


- Significant gap between Tata Power & No. 2 competitor – 8 times bigger in terms of market share compared to No.2 player
- Significant amount of business through our references and repeat orders from our existing customers, endorses the committed performance delivery of us
- Three level technical training to our Channel Partners for providing prompt pre/post sales service to our valued customers





## For residential and Micro / Small Industries



*Off Grid (Battery based)*

*Grid-Tied*

*Micro-inverters based system*

*Hybrid system with Batteries*

*Solar Tree for Lawn*

## Additionally for Commercial, Small & Medium Enterprises



*Rooftop – RCC / GI Shed*

*Solar Car Port*

*Floating solar on water reservoir*

*On & Off campus ground mount solar system*





**Integrated cell & module manufacturing** facility of **4GW+**

**30+** years experience in field performance

### Reliable

- PVDF Back sheet for long term field reliability
- 100% BOM items certified for BIS and IEC
- 15mic anodization coating on frames for modules to operate in corrosive and saline climate
- Capable of holding higher snow and wind loads (5400/2400 Pa)
- High encapsulation thickness

**IEC/UL Certified** - Design qualification, performance and safety testing

Extended reliability tests - **IEC\*3times** thermal cycling, damp heat testing

**25+yrs** minimum performance warranty

### Testing & Certifications

- Module certification done only at NABL/ILAC labs
- Regular sample testing at in-house reliability test lab
- Proven performance under extreme weather conditions - high snow, desert and coastal

### Manufacturing excellence

- 50+ quality check points
- Stringent safety standards
- Fully automated manufacturing line





## Benefits of TATA Power:

- Inverters are TATA Co-branded – Design technically vetted for Indian Power condition
- More reliable & Robust design and Quality
- Hot dip galvanized, corrosion free, inverter mounting structures used with Canopy, even though the inverters are of outdoor duty for additional protection from rain & heat
- Industry first organization to enter into Service Level agreement (SLA) with each of the inverter manufacturers for providing prompt post sales support to our customers



## TATA Power's



### Benefits of TATA Power

- Considering 30 Years of experience and based on the risk factor TATA Power running dedicated conduits for POSITIVE and NEGATIVE polarities.
- Provided 40 – 50% Vacuum space to reduce the heat which significantly improves OUTPUT.

### Nearest Competitors

Positive and Negative Cables carried in Single conduits





Tata Power	Nearest Competitors
Release Spring Charging is Motorized and Automatic	Manual Spring Charging after every trip
Switches are motorized electrically operated	Mechanically operated switches
MCCBs are 36kA rating and ACBs are 50kA rating. High fault tolerance	MCCBs are 25kA fault rating
Mounting Stand provided for ACDBs	No Mounting Stand provided
IP 55 with double lipped gaskets , Suitable for Outdoor Application, Form 2B and Form 3B	IP 54 protection without U lipped gaskets. Risk of IP failure is high.
Input and Output switches are 4P MCCB, NOT Isolators or 3 Poles. Requirements of IEC 61439	Providing 3 Pole isolators in Input and 3 Pole MCCB in Output
MFM is Schneider or Secure 0.5 S Class with RS 485 Port MCCBs are ABB, Schneider, L&T / Siemens Brand Providing 4" Exhaust Fan with filter and Thermostat	MFM with very limited information display is supplied

ACDB's installation with proper steps for ease of O&M



# ACDB's Installation with Proper Steps for ease of O&M





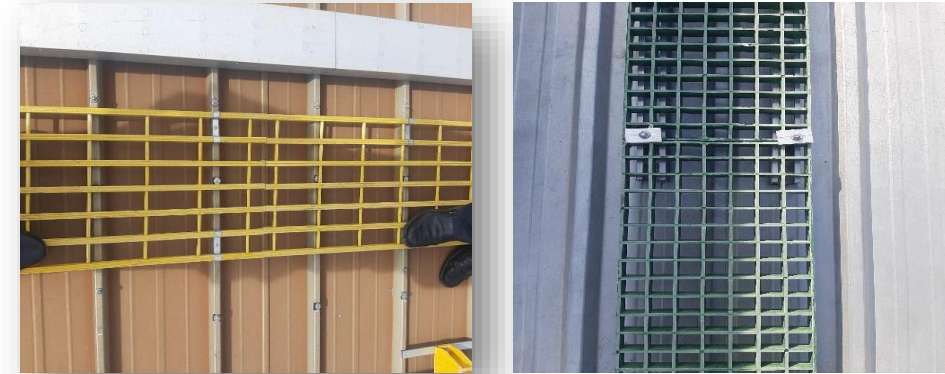


### TATA Power in-house designed Walkway



- Walkway steel from JSW / TATA Steel of repute
- Cold Rolled 550 GSM Walkway Plank, 350 Mpa Yield Strength, IS 277:2003. Can withstand 250kg.
- Antiskid & maintain zero deg angle for easy & safe walk, corrosion free
- Walkway connecting materials are galvanized - 80 Microns. IS - 4729, with SS-304 fasteners
- Load is transferred to Purlin, not to sheet – prevents leakage & ensures better load handling
- Easy to walk even in 10-25 deg slope, without any slippage

### Competitor's Walkway



- Walkway used is of flimsy FRP design, Might not last for more than few cyclic conditions of winter & summer, lead to brittleness, affecting the reliability.
- The grid structure of the walkway is not user-friendly for walking
- Multiple riveting for a given meter of length, leading to weakening of the sheet
- Fixed on the sheet, transferring the human being load on to the sheet, which will not last long
- Difficult to walk with FRP walkway on the higher slope roof





### TATA Power Safety Line & Walkway



- Safety line is provided as standard along the walkway, which is man for safe work condition at site.
- Materials are made by SS 316, corrosion free; comes with rope tensioner and shock absorbers, ensures fall protection
- Providing Rope Tensioner and Shock Absorbers
- Fall protection

### Competitor's Safety line & Walkway



- Safety line is not deployed, along the walkway, unless insisted by customers. It is risky for safety of the manpower, if safety line is not installed.



Highest no of Tie ups (20+) & Financing schemes (22+) catering to all type of customers with some exclusive benefits



Multiple Industry-first & Innovative Schemes launched to provide benefits like



**Lowest Interest Rates** for Tata Power Customers



**Collateral-free options** for all segments of customer



**Lowest Down Payment** options



**Fastest Sanction time** thru assisted, Centralized/ digital & streamlined processes



**Seamless process with no/ minimal Bank Visits**



**Solar Insurance with best coverage and most competitive rate** provided added as a VAS

**Rs. 3000+ crs of Financing facilitated for our customers**

**Acknowledged as the most Prominent Player in Rooftop Financing by IEEFA & JMK in 2022**





## Call center



- Dedicated 9-Seater Call centre (1800-419-877)
- Working Hours -8 am to 8 pm -365 X 7 Days
- Languages Covered- Malayalam,Tamil,Telugu,Kannada, Marathi, Hindi & English

## Field Force



- 181+ Service providers with 360+ trained field team Equipped with enhanced tool & tackles to address site challenges covering across India.

## Network Operating Centre



- User get real-time access to their plant performance
- Enables remote monitoring and management of solar rooftop systems
- Giving Realtime business insights as a value addition to customers

## Warranty Support



### Warranty support to Customers

- 5 Years Standard Warranty for BOS – Structures, ACDB, Cables etc..
- 10 Years Extended warranty from OEM’s for 3Ph inverters
- Collaborate with OEM’s & conduct trainings to field team to enable faster resolution to customers

## Capability Building



## Nurture Business Relationship



- For continuous improvement, Channel partners & service providers are trained to cover the short falls to improve customer experience

## Good 2 Great



- Moving towards delivering best in Industry Consumer Experience



- Response to customers within 2 Hrs



- Visit within 24 Hrs



- Customer Call closure with in 48 Hrs



## Customised O&M Service Offerings

Activity	Service Offering	Suraksha Plus*	Suraksha	Bhandan	Raksha
Response & Turnaround Time	2 hrs Response & 48 Hrs Resolution	●	●	●	●
Repair/Replacement	Repair/replacement of defective parts as & when required subject to warranty in force	●	●	●	●
Remote monitoring vide cloud mobile	Monitor solar performance	●	●	●	●
Service advice/expert visit	Once every quarter for assessment of plant performance	●	●	●	●
Consumable like SPD,fuses etc.	Free consumable replacement	●	●	●	●
* Money back Generation Gurantee	Money back guaranteed if generation is <90% of P-90 with radiation link @ Rs 3.5/Kwhr for shortfall calculated on annual basis	●	●	●	●
Preventive maintenance visits	Number of visits to site	24	24	12	6



## Pro active Customer visits



- Visit to customer sites to collect feedback on the O&M services & continuously improve on the service delivery

## 3<sup>rd</sup> Party Survey



- Annual survey from 3<sup>rd</sup> party on the services delivered to customers & implement corrective actions on the findings.

## Post warranty Support



- Extend support to customer with retrofit solutions to upgrade existing solar plants post warranty



# Recognition of our efforts



**Leading EPC Solar Company**



**Excellence in Cost Management**



**#1 EPC Solar Rooftop Player FY 14 - 22**



**Rooftop Solar Power Projects EPC/Channel Partner Category**



**Rooftop Solar EPC Company FY22**



**INFRA AWARD World's Largest Solar Rooftop**



**Healthy workplace in India – Gold standard**

# Recent Awards 2022



National Safety Council



PEDA – Azadi ka Amrit Mahotsava



Greentech Safety Culture Award



9th FICCI Safety Systems Excellence Awards



Project Developer of the Year for The State of Maharashtra by EQ



Asset Management Turnkey



RE Asset Management Awards



India Rooftop Solar Congress



# Few Key Customers





With extensive experience of >33 years in Indian market, TATA Power and Our Channel Partners Family across India shall continue to strive hard to provide “**Peace of Mind**” to our valuable customers on a long term basis. We would like to have your esteemed organization in our list of **1000s** of satisfied customers. We are always at your service..





**Thank You**

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