

A FORTUNE 500
COMPANY **INDIA**

WAAREE[®]
One with the Sun

C O R P O R A T E P R O F I L E

LEADER IN NEW ENERGY SOLUTIONS

NEW ENERGY SOLUTIONS ICON



34 Years of Industry Experience



12 GW* Module Manufacturing Facility



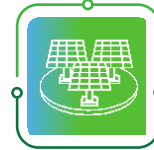
Largest Indian exporter; 10 GW + modules supplied to 20+ countries



Bloomberg TIER 1 Solar Module Manufacturer (35 Quarters)



Fully Integrated EPC Services



1 GW + Solar EPC Portfolio
*Commissioned + Pipeline



300,000 + Rooftop, Water pump, Telecom towers projects



8500 + Employees

PRODUCT PORTFOLIO



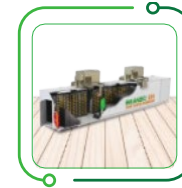
**Solar
Modules**



**Flexible
Modules**



**Lithium Ion
Batteries**



**Battery Energy
Storage System**



**On/Off Grid
Inverters**

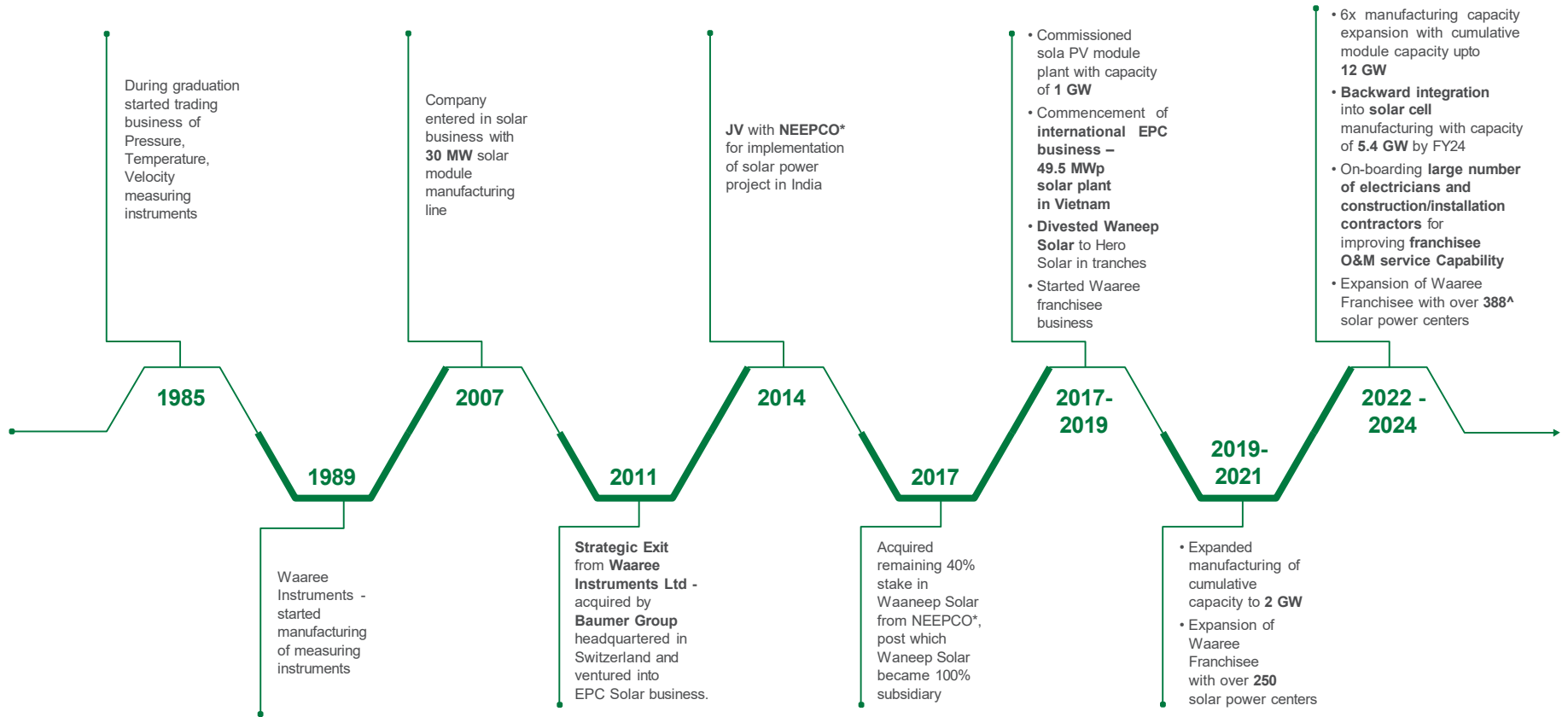


**Water
Pumps**



**Green
Hydrogen**

CORPORATE JOURNEY



12GW SOLAR MODULE MANUFACTURING

A FORTUNE 500
COMPANY **INDIA**



8GW UNDER EXPANSION

MARKET LEADER IN SOLAR PV MODULE INDUSTRY IN INDIA

- Integrated manufacturing facilities with automated production lines
- Wide array of technologically advanced & high quality product portfolio for niche segments
- **Robust collaborative ecosystem:** Government partnerships, JVs, marquee clients, suppliers and technology partners
- Quality assurance bolstered by **first and only NABL accredited laboratory in India for PV module testing**
- Previously had a JV with NEEPCO - first public private partnership in the sector

INTEGRATED SOLUTIONS PROVIDER WITH END-TO-END SOLAR SOLUTIONS



FLOATING SOLAR



PV MODULES



ROOFTOP



EPC



GROUND MOUNT



O&M / SERVICES



PROJECT DEVELOPMENT

MARKET LEADER IN SOLAR PV MODULE INDUSTRY IN INDIA

SCALE AND
LEADERSHIP

#1*

MANUFACTURER OF
PV MODULES IN INDIA

24%*

MARKET SHARE
IN DOMESTIC
MANUFACTURERS
OF SOLAR PV MODULES

TIER
1

PV MODULE
MANUFACTURER RATING
FROM BLOOMBERG
FOR FY2018-23

MANUFACTURING
FACILITIES

12 GW
CAPACITY

AWARDED PLI
OF **6GW**
(INGOT TO MODULE)
ON 28TH MARCH 2023.

5

MANUFACTURING
FACILITIES AT SURAT,
TUMB, NANDIGRAM,
CHIKHLI, NOIDA#

OMNICHANNEL
GEOGRAPHICAL
PRESENCE

PAN-INDIA
PRESENCE

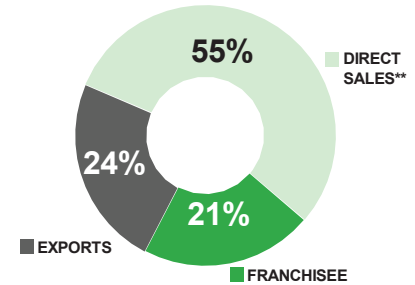
SUPPLYING
PRODUCTS TO
19 COUNTRIES

388

FRANCHISEES
IN INDIA

DIVERSE REVENUE
STREAMS & MARQUEE
CLIENTS

REVENUE MIX
(FY22)[^]



ReNew
POWER

CIM

susten
by mahindra

Central 40

* Based on Approved ALMM enlisted capacity as of 31st August 2021; ^ - segment split rounded off to nearest whole number; ** - Includes direct sales of modules as well as EPC, O&M to utilities and enterprise clients; Source - Financial of FY '22

STATE OF THE ART MANUFACTURING

SUPERIOR QUALITY PRODUCTS

- ✓ Fully Automatic Production Line
- ✓ Track record of manufacturing high quality and technologically advanced PV modules
- ✓ New line capable of manufacturing modules based on latest Mono PERC technology using **highly efficient large sized silicon wafers**
- ✓ Line capable of producing bifacial as well as integrated PV (BIPV) modules
- ✓ Lines are expendable with flexibility for multiple products
- ✓ Existing manufacturing lines being upgraded
- ✓ Sustenance of **superior product quality** reinforced through product audits by **reputed 3rd party agencies** and **insured by well-known external parties**
- ✓ **First and only PV module manufacturer with NABL accredited lab**

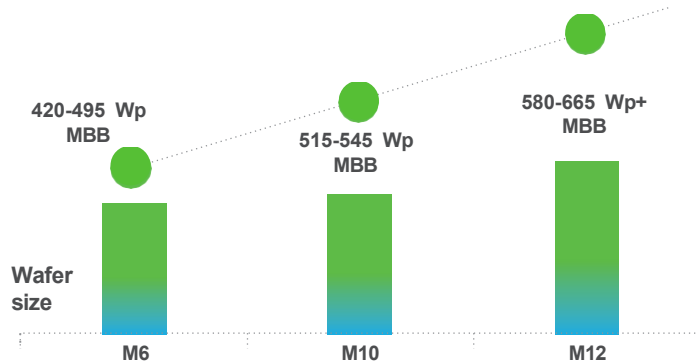


Source - DRHP, Company data

STATE OF THE ART MANUFACTURING

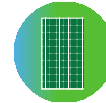
LEADING THE TECHNOLOGY ROADMAP IN INDIA FOR HIGHER EFFICIENCY

Waaree amongst the earliest domestic player to
achieve 545Wp + and 600Wp + module power



.....DEPLOYED IN MOST CHALLENGING & AGGRESSIVE CONDITIONS

KEY FEATURES



Superior Module
Efficiency as per
International
Benchmarks



PID
Resistant



Glass with Anti
Reflective Coating
(Improves light
Transmission)



Salt mist, Ammonia
and Hail Resistant



Sustain Heavy
Wind & Ultraviolet
Radiation



Modules binned
by current

...COUPLED WITH INDUSTRY-LEADING RECOGNITIONS, CERTIFICATION AND 3RD PARTY AUDITS

Multiple recognitions and certifications from global institutes driving customer confidence in product portfolio

Key Awards & Recognition



Best performing
Modules & Solar PV
EPC Company of
Year, 2023



Solar EPC
Company of the
Year,
2022



Most Preferred
Work Place -
Manufacturing,
2023



Leading Renewable
Energy Manufacturer -
Solar Modules,
2022



Atmanirbhar India
State Business
Leader - Modules,
2022

40+ Global Certifications



Products tested 3
times for extended
reliability at world
renowned institutes



- IEC 61215:2016
- IEC 61730-1&2: 2016
- IEC 60068-2-68
- IEC 62804
- IEC 61701
- IEC 62716
- IEC 61215 Ed2
- IEC 61853
- IEC 62782
- IEC 62759-1
- IS/IEC 61730-1
- IS 14286 : 2010



3rd Party Audits



BLACK & VEATCH



3rd Party Insurance

Munich RE



- Waaree modules are insured by ICICI and Reinsured by Munich-Re.
- Our Modules are also Reinsured by Ariel Re.

Collaborations



IEST Shibpur



NCPRE, IIT Mumbai



Encapsulant Borealis



Solar cell HEVEL Solar



TRUSTED & BANKABLE GLOBALLY

Customers In India



...International Customers



...5000+
customers
globally

...and Enjoys High Bankability



and many more... MunichRe Warranty Reinsurance for enhanced bankability

ROBUST COLLABORATION ECOSYSTEM

Marquee client base reinforcing low counterparty credit risk & high bankability



* - % rounded off to nearest whole number; Source - Company info, DRHP

ROBUST COLLABORATION ECOSYSTEM

Widespread global network testimony to high quality of our products



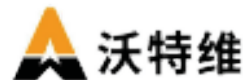
ROBUST COLLABORATION ECOSYSTEM

Key Technology Partners and Equipment Manufacturers

Technology Partners & Suppliers



OEMs



WIDE ARRAY OF TECHNOLOGICALLY ADVANCED PRODUCTS & SOLUTIONS

Globally acclaimed for niche applications

Merlin Modules Automotive & EV



Flexible Modules

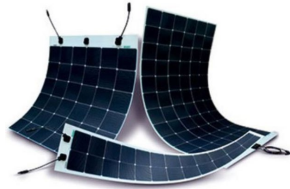


BIPV Modules Buildings



WIDE ARRAY OF TECHNOLOGICALLY ADVANCED PRODUCTS & SOLUTIONS

Waaree manufactures technologically advanced modules incl. Merlin...



**Flexible
modules**

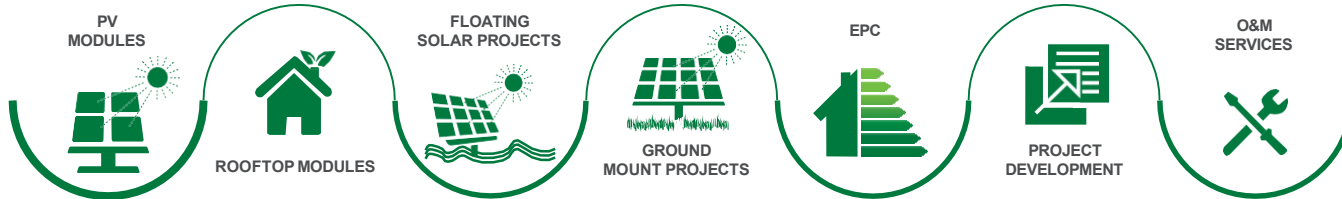


**Glass Flexible
modules**

- ✓ 5-8% YIELD > STANDARD CELLS
- ✓ PORTABLE + ULTRALIGHT WEIGHT
- ✓ HIGHLY ROBUST & DURABLE

- ✓ LOW SYSTEM INSTALLATION
+ MAINTENANCE COSTS
- ✓ MONO PERC TECHNOLOGY

End-to-end offering across the entire solar value chain with wide product range encompassing 200+ SKUs





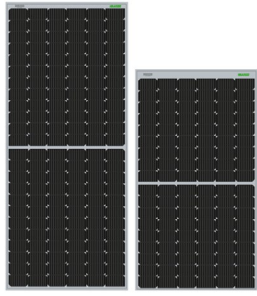
SOLAR MODULE

OUR PRODUCT OFFERINGS



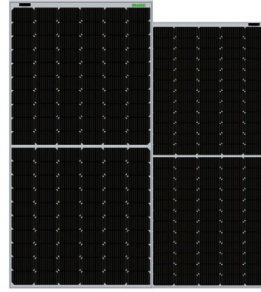
ELITE SERIES

N-type TOPCon –
610 Wp to 700 Wp (M12)
510 Wp to 580 Wp (M10)



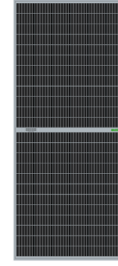
PLEXUS SERIES

N-type HJT – 630-715 Wp (M12)
N-type HJT – 450-470 Wp (M6)



ANHAY SERIES

Bifacial P-type PERC -
400 Wp to 665 Wp



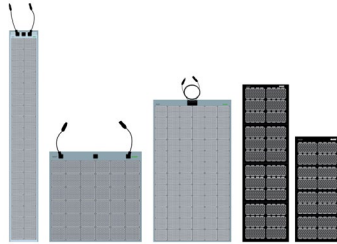
ARKA SERIES

P-type Mono PERC –
400 Wp to 665 Wp



SHINGLED MODULES

410 Wp to 430 Wp



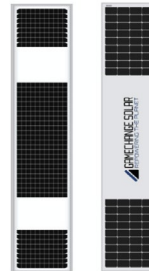
FLEXIBLE PV MODULES

110 Wp to 450 Wp



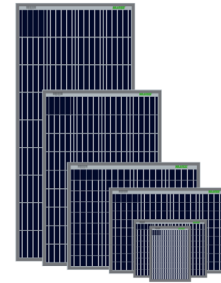
AC MODULES

Customizable Wp



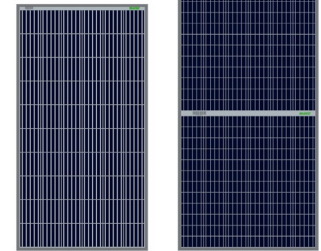
TRACKER MODULES

WS-40; WS-60



ARUN SERIES

WS-40 to WS-90



ADITYA SERIES

POLY- 325 Wp to 350 Wp (144 Cells)
POLY- 250 Wp to 295Wp (60 Cells)
POLY- 320 Wp to 350Wp (72 Cells)

The content of this presentation is proprietary and confidential information of WAAREE. It is not intended to be distributed to any third party without the written consent of WAAREE. Any unauthorized review, use, disclosure, dissemination, forwarding, modification, distribution, publication, printing or copying of this document or any action taken in reliance on this document is strictly prohibited and may be unlawful.



EPC SERVICES

END TO END SOLUTION



**STRONG CUSTOMER
CONNECT**



**EXPERIENCED
IN-HOUSE TEAM**



**MARKET
ACCEPTANCE**



**QUALITY
CERTIFICATION**



**STRONG
NETWORK**



**ON-GROUND
TRACK RECORD**



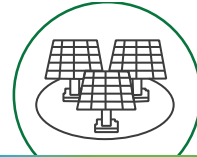
INNOVATION



**TRANSPARENCY &
TRUST FACTOR**



**ONE STOP SOLUTION
PROVIDER**



**1 GW + PROJECTS
COMMISSIONED**

1000 MW+

PROJECTS COMMISSIONED



210 MW

Masaya Solar



140 MW

Continuum
Green Energy



100 MW

Waaneep Solar
Pvt. Ltd.



49.5MW

Vietnam



44 MW

Hero Future Energy
Telangana



27MW

Roha Dyechem Pvt. Ltd.,
Rajasthan

270+ MW

PROJECT DEVELOPED IPP/RESCO

184 MW

(MAHAGENCO)
PROJECT UNDER
EXECUTION
(45 SITES)

50 MW

(MADHYA PRADESH -
ICHHAWAR)
STATE PPA
COMMISSIONED
IN JUN'15

25 MW

(ANDHRA PRADESH -
GURRAMKONDA)
STATE PPA
COMMISSIONED
IN SEP'16

25 MW

(ANDHRA PRADESH -
NAGERI)
STATE PPA
COMMISSIONED
IN SEP'16

10 MW

(GUJARAT)
STATE PPA
COMMISSIONED
IN 2011

5.5 MW

(RAJASTHAN)
NTPC (PSU) PPA
COMMISSIONED
IN 2012

1.1 MW

(RAJASTHAN)
NTPC (PSU) PPA
COMMISSIONED
IN 2013

INDEPENDENT POWER PRODUCER : IPP

- Waaree RTL has complete capabilities to execute IPP projects
- Total 136 MWp IPP projects commissioned



Company : **ARVIND MILLS**
Capacity : **800 kWp**



Company : **JSS GROUP OF INSTITUTIONS**
Capacity : **1357 kWp 15 Campus within 55kms.**



Company : **SONIC BIOCHEM EXTRACTION LTD.**
Capacity : **999 kWp**



ROOFTOP SOLUTIONS

12000+ ROOFTOP SOLAR PV PROJECTS COMMISSIONED



2700KW

Reliance Mumbai Metro,
Maharashtra



2000KW

Mondelez India Pvt. Ltd.,
(Cadbury), AP



1860KW

Maharashtra Seamless Ltd.,
Maharashtra



1700KW

Piramal Glass Ltd.,
Gujarat



1000KW

SRG Apparels,
Tamilnadu



700KW

MSL Driveline Systems Ltd.,
Maharashtra

FLOATING SOLAR SOLUTIONS



1 MW NTPC, KAWAS, SURAT

TECHNOLOGY VALIDATED BY NIOT (NATIONAL INSTITUTE OF OCEAN TECHNOLOGY)

Extra Generation

- Module operates 10-15 °C cooler for extra generation
- Designed for quick installation and easy O&M
- Can be modified for tracking

Differentiation

- Made in India*
- Complies with environmental, structural standards
- High quality components for long-life
- Heavy, high buoyancy floats with redundant features
- Flexible monolithic platform tolerates wind, waves

No Environment Impact

- Certified for use with drinking-water
- Freshwater or seawater compatible
- Lead-free solar module available
- Minimum contact with water surface
- Abundant light and air passage for life
- Underwater
- Resistant to biofouling (algae)

Durable & Reliable

- Stable against high winds, waves
- Tolerates variation in water draft
- Freshwater or seawater compatible
- Corrosion resistant metal structures
- PV module engineered for marine use (10 years)
- UV resistant floats for long-life
- Floats have redundant leak-tolerant features
- Smart tethering & anchoring solution

OPERATION & MAINTENANCE



1 MW NTPC, KAWAS, SURAT

Over 125 MW O&M Portfolio of solar power plants assets

- Achieved 99%+ of plant available time and 80%+ of PR for the asset under management.
 - Leveraging tech based data analytics, technical audits, consulting and R&D to improve overall plant efficiency.
 - Dedicated team of 75 technical personnel constantly working for improving the customer experience.
-

Why Waaree O&M

- Providing end to end solutions for all kinds of solar plants to reduce breakdown and maximize generation.
- Adopting advance technologies to increase plant reliability.
- Plant remote monitoring to observe plant real time data and immediate response if any breakdown results to achieve maximum up time.
- Waaree uses galvanized steel structure for solar module mounting which offers long term durability and lower the operation and maintenance cost.



SOLAR INVERTER

150+ MW INVERTERS SUPPLIED



SOLAR ON GRID INVERTER (1KW-250KW)

- Peak Efficiency up to 98.8%
- Multi MPPT / DC Strings
- IP65 dust-proof and water proof
- Multiple monitoring & communication support
- Ideal design for Rooftop Services / Utility
- Low Self - Power Consumption, Low Maintenance
- String - level monitoring, Large LCD Display
- Built - in DC Switch and Wi-Fi
- Multiple layer safety protection

150+ MW INVERTERS SUPPLIED



SOLAR OFF GRID INVERTER (325VA-10KW)

Solar Off Grid Inverter (325VA-10KVA)

- PWM/MPPT built-in solar charge controllers
- Smart Solar Selection Logic
- Optimum solar power usage
- Hybrid battery charging
- Maintaining the battery gravity
- Use as a conventional inverter in absence of solar power
- Instant changeover for computers, servers & sensitive loads
- Ability to provide 100% rated power directly from Solar Module



ENERGY STORAGE SERVICES

PRODUCT APPLICATION

We have Li-Ion batteries for various applications which can be broadly classified into two groups:

Mobility



E-Bike



E-Rickshaw



Forklifts



Wheelchair



Golf Carts

Stationary



Solar Street Light



Off-Grid Solar



UPS Back Up



Power Backup System



BESS



WAAREE ESS is an international level high tech energy storage division of the world renowned Waaree Group.



2020

Waaree ESS was founded in 2020. It is an integral part of Waaree Group which was founded in 1989



30,000+

Batteries supplied within 12 months of operations



BMS

Indigenously developed Battery Management System & R&D



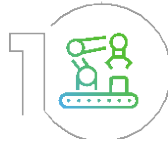
450 MWh+

Battery production capacity of 450 MWh per annum

STATE OF THE ART MANUFACTURING

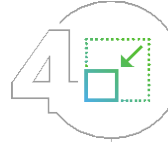


350MWh PER
ANNUN CAPACITY



AUTOMATIC
PRODUCTION LINE

STATE-OF-THE-ART RELIABILITY
AND SAFETY TESTING



PROPRIETARY
BMS

CUSTOMIZED
BATTERY SIZES



WORLD CLASS RAW
MATERIAL SOURCING

Waaree ESS facility has a battery production capacity of 350MWh per annum capacity, hailing with an automatic production line, state-of-the-art reliability and safety testing, proprietary BMS, customized battery sizes, and world class raw material sourcing.



SOLAR PARTNERS

(FRANCHISEE)

LEADERSHIP POSITION IN RETAIL SEGMENT



PAN-INDIA COVERAGE WITH LAST MILE REACH

- Present in 388* locations across India
- Cater to **MSME's, local governments, rural and residential customers**
- **O&M capabilities** being strengthened by onboarding **certified technicians**



UNIQUE PLATFORM

- **On demand service** to retail customers that connects & fulfills their needs through **Franchisee+ certified electricians network**
- **On-demand learning & gig employment** for bolstering technicians' income
- **Dedicated technical support & multi-language support for localization**
- **Digital solutions** - mobile first platform & device agnostic



UNIQUE PLATFORM

- **Robust platform offering** deeper understanding of local customer insights
- **Cross-selling of integrated service offerings supported by Waaree expertise**
- Franchisees leverage "Waaree" brand & wide array of products & SKUs in RE
- Waaree provides **c.700 leads/day to franchisees in order to boost revenues**



BARRIERS TO ENTRY

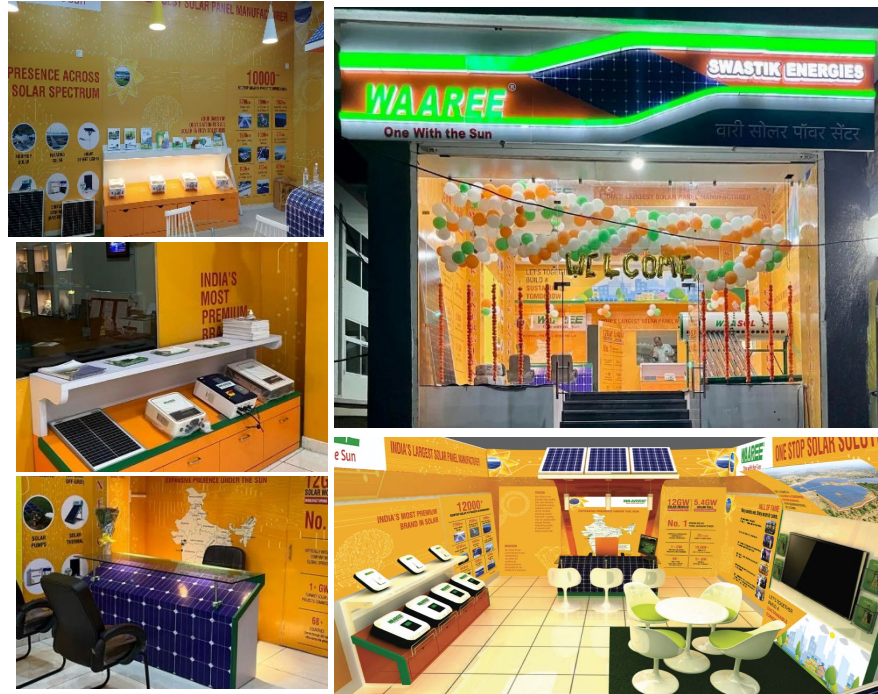
- Difficult to create a strong pan-India network
- Deep penetration required at the **ground level** across rural & urban markets
- **Time consuming for competitors** to establish product portfolio

LEADERSHIP POSITION IN RETAIL SEGMENT



The map shown here is just for representation purpose and not to the scale. The map updated as on May-20

SOLAR EXPERIENCE CENTER



BUSINESS OPPORTUNITIES FOR PARTNERS



Product Sales



Pipelines of New & Innovative Products



Participation in Tenders



RESCO – Reduced Cost of Energy for Clients



Turnkey EPC Projects Execution



Operation & Maintenance Services

SUPPORT & COLLABORATION

SUPPORT & COLLABORATION



Continuous Training & Certification



Business Consultation



Execution & Commissioning Support



Solution Engineering & Design



Branding & Marketing

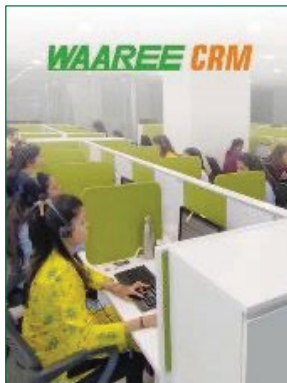


Customer Engagements



Sales Promotion

CONTINUOUS ENGAGEMENT FOR ENHANCED CUSTOMER SERVICE



WAAREE CUSTOMER RELATIONSHIP MANAGEMENT (CRM)

- 700+ Leads Generated per Day For Franchisees
- Targeted Leads & Campaigns for higher revenue



WAAREE INTERNAL SALES TEAM

- Additional Sales closure support to partners for higher revenue generation
- Dedicated Team of 20+ Sales Agents



WAAREE EXPERTS

- Trained to cater to highest quality & certified installation
- 10,000+ partners being on boarded exclusive service network and extended sales arm of franchisee
- Unique Digital platform that connects Channel Partners, Customers, Waaree O&M and Electrician's



WAAREE PRIME

- App based reward program for our EPC Partners
- 10,000+ Registered Partners
- 500+ Redemption Options

STRATEGY FOR SUSTAINED VALUE CREATION, CONTINUED

DIFFERENTIATION & ACCELERATED GROWTH

LEVERAGE SIZE & SCALE

- Capacity to meet growing unprecedented demand
- Operating efficiency

TECHNOLOGY BACKBONE + R&D

- Technology backbone + R&D
- Stay ahead of the curve

LEVERAGE SIZE & SCALE

- Capacity to meet growing unprecedented demand
- Operating efficiency



DIFFERENTIATED SOLUTION & CUSTOMER OFFERINGS

- Strengthen EPC
- New products and solutions
- Horizontal expansion in RE Space

DIGITAL PLATFORM TO DELIVER USER-CENTERED-EXPERIENCES

- Unify “on-line” & “off-line” opportunities
- Customer journey map & fulfilment
- Gig economy & leveraging the ecosystem of electricians

CONTINUOUS TRANSITION TO LUCRATIVE REVENUE MIX

- Niche products
- Retail markets
- Franchisee & distribution network expansion
- Export markets

Waaree is at the cusp of “exponential” growth by leveraging the strong foundation & investing at opportune moment in the fastest growing Renewable Energy space globally

BUSINESS OPPORTUNITIES FOR PARTNERS

Over 100 awards reinforce trust of stakeholders in WAAREE's Quality and Technological Innovations



Awarded by President of India
for "Best Company"



Only Solar company to be
recognized by The Economic Times



Awarded by Renewable and Power Minister
for National Excellence in Solar PV
Module Manufacturing



2012: ETNOW - IndiaMART Leader of
Tomorrow Award,
India's Biggest SME Awards



2013: Awarded prestigious India SME
Excellence Award for "Excellence in
Technology & Innovation"



2017: CBIP Award for Best Solar PV
Module Manufacturer &
Solar Power Developer

Skill & Community Development activities in rural areas have impacted over 1000 families



CSR

EDUCATION & HEALTH

1000+ STUDENTS BENEFITTED



60000+ PATIENTS BENEFITTED



THANK YOU

WAAREE ENERGIES LTD.

602, Western Edge-I, Off. Western Express Highway, Borivali (E), Mumbai 400066, Maharashtra, India

☎ **+91-22-6644 4444 • 1800 2121 321** | ✉ **WAAREE@WAAREE.COM**

🌐 **WWW.WAAREE.COM**