

# TECHNO-COMMERCIAL PROPOSAL

100kWp Rooftop Grid-connected SPV System



**Engineering, Procurement & Construction (EPC)**



**Waaree Energies Limited**

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## Company Brief

WAAREE, is India's largest "vertically-integrated solar energy solutions company", Channel Partners with MNRE, headquartered at MUMBAI. We are pleased to introduce ourselves as one of India's largest manufacturers of Solar PV Modules and EPC solution providers.

Founded in 1989, WAAREE successfully developed cutting edge technologies to become one of the most preferred brands in the field of Instrumentation. The company has transformed itself from a single business into a multi-technology organization, diversifying into exciting areas of Solar Energy, Industrial Valves, Petroleum Equipment's and Process control Instrumentation. **Waaree** began its foray in renewable energy with the establishment of WAAREE Energies Limited (WEL) in 2007 and since then WEL has offered comprehensive solar solutions all under one banner.

With an annual production capacity of 2.5 GW, WAAREE is the largest solar manufacturer in India providing a complete range (3wp to 400wp) Polycrystalline PV Modules, with off-grid as well as on - grid applications, at our state-of-the-art manufacturing facility which is located in the **Special Economic Zone** (Sur SEZ) in **Surat, Gujarat**.

WAAREE PV Modules are certified by all major global accreditation bodies around the world in conformance with IEC like: **INTERCERT, ETL, CRISIL, CEC (California Energy Commission), Clean Energy Council (Australia), ISO 9001, ISO 14001, OHSAS 18001** etc.

We provide complete EPC services to developers and promoters of Solar Power Generation Systems, Solar Power Plants & Solar off Grid Power Plants.

We have installed several Grid connected and Off-Grid Solar Power Plants of Utility Scale. We have also supplied various Solar Products in bulk, such as Lanterns, Street Lights, Home Lighting Systems and Stand-Alone Power Packs to large & small consumer (in bulk and retail).

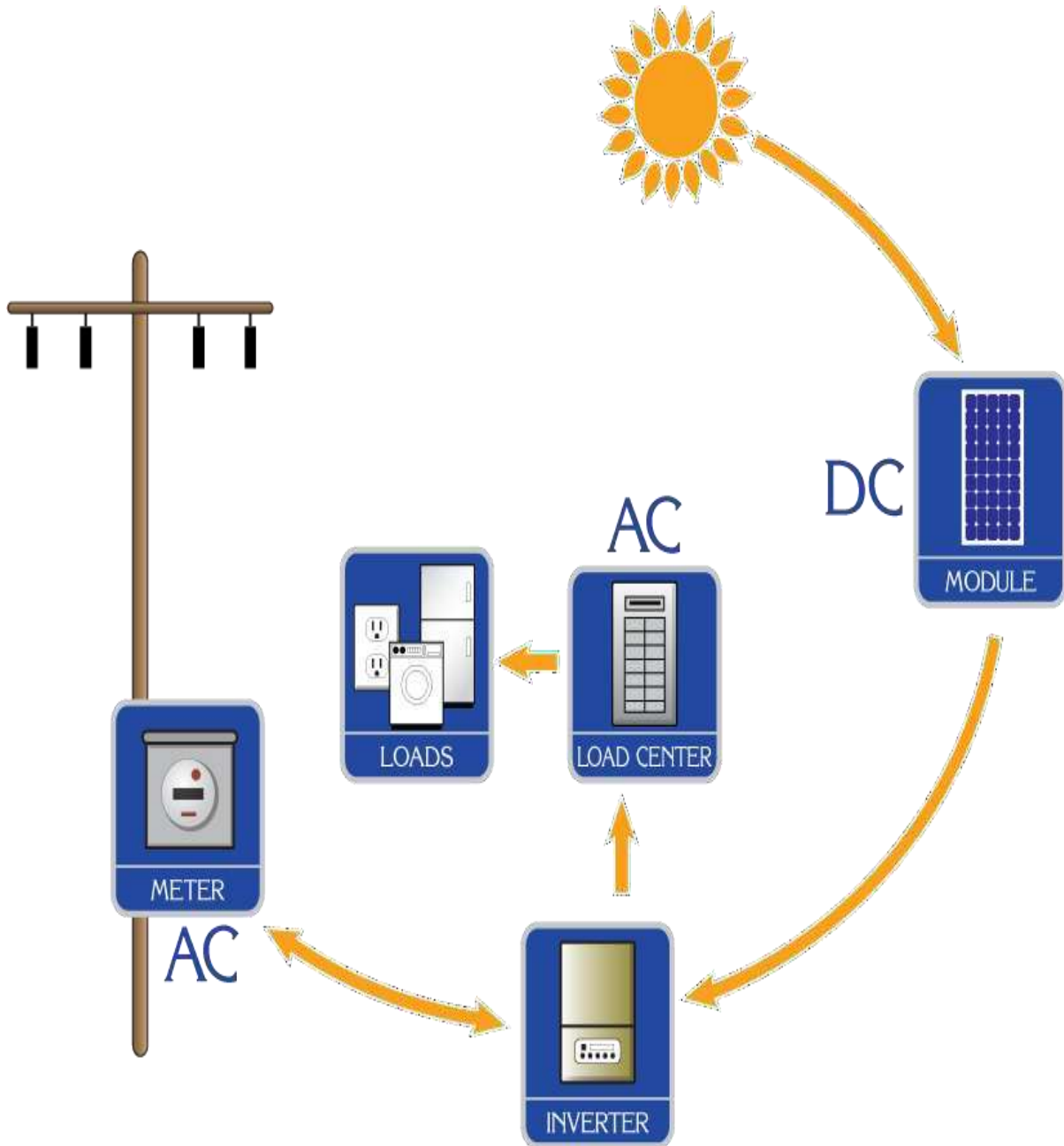
We provide complete turnkey LSTK solutions for "CONCEPT TO COMMISSIONING" for SOLAR PV POWER PLANTS of all capacity for export to the grid. These solutions will include Design, supply, engineering, procurement, construction and commissioning. We also specialise in Customized OEM and have various strategic contract manufacturing partnerships for the manufacture of PV modules. At present our modules are installed in a number of projects in Germany, Italy, Africa, Turkey and other countries.

## Project Summary

<b>Proposed Site Specification</b>	
<b>Name &amp; Location:</b>	Krishideepn Agr. Product Company Gat No. 202, Borgaon To Malegaon Dist Washim
<b>State:</b>	MAHARASHTRA 20.7059N 77.0219 E
<b>Type of Roof/Ground:</b>	Roof-top
<b>Solar PV System Specification</b>	
<b>Solar PV System DC Capacity</b>	100kWp
<b>Module Technology:</b>	Poly - Crystalline Silicon Technology
<b>Inverter Type</b>	String Inverter
<b>Mounting Structure type:</b>	Fixed Tilt
<b>Safety</b>	As per the final structure
<b>Power Evacuation:</b>	415 VAC
<b>Project Scheme:</b>	Turnkey EPC Project
<b>Developer Details</b>	
<b>Developer Name:</b>	GREEN SUN SOLAR AKOLA GST NO 27ADJPW8274C1Z2
<b>Offer Date:</b>	13 Jan 2023
<b>Offer Validity:</b>	07 Days from date of Offer

**Key Highlights of Our Proposal:**

- Our proposal comprises of compact & standard design resulting in to an efficient installation with high quality & life of 25 Years.
- The plant design and selection of reliable & proven equipment & component are based on wide experience of **WAAREE**.
- Strict adherence to the inspection & Quality assurance plan at the manufacturing & execution levels.



## Scope of Work:

- Solar Power plant Design & Engineering.
- Supply of all equipment of solar PV power plant (including Packaging, Forwarding, freight & transit insurance)
- Project Management for smooth execution of the project within scheduled time line.
- On-site Installation & Commissioning of the system.
- Comprehensive Insurance for supplied items and Waaree's equipment during project erection and until commissioning of the project.
- Performance Testing of the Complete System after Installation & Commissioning.
- Providing Classroom (1 day) and field (1 day) Training to client personnel (6 personnel) for the Operation & Maintenance of the plant. Above 100 Kw Plant.

## Assumptions & Considerations:

- The Module Mounting Structures (MMS) to suit the Customer's requirements. MMS shall be penetrative type, suitable for RCC Terrace
- Power Evacuation from solar plant will be at 415V. The Tapping point with Suitable Feeder - in Existing Panel will be in customer's scope.
- Indoor Space provision for all control panels (if applicable) and Inverters supplied by Waaree will be in Customer's scope.
- Liaison, Procurement and obtaining approvals from DISCOM for Net-metering shall be in Company scope. All Technical and Documentation Support will be provided by Waaree Energies.
- The distance between ACDB and Existing Evacuation point is assumed at max. 50 Meters.
- The construction Power and Water shall be provided by client at Free of Cost.
- The client shall make necessary provision of Internet connection with static IP Address (if needed) for the Remote monitoring system.

## Products & System Descriptions

A Solar PV power plant is a system that converts sunrays to electrical energy. This system comprises of several components, major of which are listed below:

- Solar PV Modules
- Module Mounting structures
- Inverter
- Earthing & Lighting arrester
- Solar Grade DC Cables
- AC Cables
- Required control panel

Each of these components is carefully selected for a trouble free intended life of the power plant.

## Bill of Material & proposed vendors

Technical Details			
Component	Specification	Quantity	MAKE
<b>PV MODULES</b>	Poly-Crystalline, 72Cells (335wp)	<b>100kWp</b>	Waaree Energies
<b>INVERTER</b>	On grid String Inverter Output: 3-phase, Efficiency: >98%	<b>50kw+50kw</b>	Growatt
<b>MOUNTING STRUCTURE</b>	GI	As Per Design	Waaree Design, Reputed make
<b>EARTHING KIT</b>	Chemo maintenance type	As per design	Reputed make.
<b>LIGHTNING ARRESTOR</b>	Reputed make	As per Design	Reputed make.
<b>AC &amp; DC CABLES</b>	U.V. Resistant	As per Design	DC: Polycab AC: Polycab
<b>NET METER</b>	Three Phase	1+1	L&T/HPL
<b>GEN METER CT</b>		1+1	-----

**Note:**

- Waaree design and engineering is based on standard codes and practices applicable and is subject to scrutiny by owner at their own cost. Quality practices and plans will be shared for owner's/lender's study.
- All drawing and documents shall be prepared during detailed engineering only after receiving the confirm order and advance payment.
- Kindly note if during site visit we found any changes in location or any changes in our standard design consideration for customer / site requirement & if this affecting cost will ultimately lead to proportionally change in final Value of proposal and need to consider for finalization of any order related to this proposal.

## **Project Execution:**

The project execution shall be done by highly experienced Waaree engineers and Qualified contractors selected by Waaree.

The following aspects shall be taken care during the project execution:

- Preparation of installation and detailed construction documentation
- Specialist site management and monitoring
- Logistics coordination, Safety coordination & Interface co-ordination
- End to end quality management on service and product during construction of a project with quality check reports
- Reliable & sustainable quality check reports
- Commissioning and performance test
- Documentation (As built & vendor drawings)

Total execution plan shall be finalized in consultation with client and resource mobilization shall be done accordingly.

## **Delivery Period for Dispatch of Materials:**

- ❖ 1 Week on receipt of Purchase Order (PO) & Advance Payment, To be decided mutually at the time of finalization of project.

## **Completion Period:**

- ❖ 3 Weeks subject to release of payments as per payment Terms. To be decided mutually at the time of finalization of project.

## Commercial Offer:

Price for Rooftop Solar PV plant as per mentioned scope of work on turnkey basis as below:-

Sr. No	Parameter	WAAREE Offering
1.	Solar PV Plant Capacity	100kWp, On grid SPV System
2.	Price Basis	Turnkey EPC
3.	Validity of Offer	07 Days from date of Offer
<b>Project Price:</b>		
	Price of Solar Unit	INR 45,00,000/-

**Note : GST will be charged extra @ 13.8%**

### **Schedule of Payments:**

- 50% of offered price for supply as an advance along with LOA.
- 40% of offered price against Pro Forma Invoice on confirmation of readiness of material for dispatch on pro-data basis
- 10% of offered after commissioning against completion certificate.

### **Note:**

\*Owner/client shall release all due payments to the Contractor within 3 days from date of receipt of relevant documents

## **Taxes & Duties Structure:**

<b>Sr. No.</b>	<b>Applicable Heads</b>	<b>Terms</b>
1.	GST	Excluding Offered Price.
2.	MSEDCL CHARGES	As per Demand Issued by MSEDCL(load extension if required)

## **General Terms & Conditions**

### **1. Assumptions for Rate Exchange:**

The Prices are quoted in USD taking into consideration the current US dollar value at **INR 79.00**,The Revised exchange rate shall be applicable at the time of finalization of Contract.

### **2. Approvals:**

MNRE and CEIG approvals included in proposal, any other type of approval by Government/third party is in client scope. Any delay in projects due to any kind of approval will not be responsibility of Waaree.

### **3. Inspections:**

Any type of inspection by Government/third party/client is excluded from this offer, if it is opted by client then all the terms and conditions will be decided after mutual understanding. All cost for the inspections will be borne by client.

### **4. Confidentiality / Do Not Disclose (DND):**

All the information exchanged between the Parties, either oral or written, in connection with this Offer/ Contract, shall be maintained strictly confidential, except to the extent necessary to carry out obligations under it or to comply with applicable Laws.

## Product Warranty / Manufacturing Defect Warranty

Sr. No.	Component	Warranty (In Years)
1	Solar modules	10 year manufacturing defect, Power: 90% end of 10 <sup>th</sup> year, 80% end of 25 <sup>th</sup> year
2	Inverter	7
3	Other Balance of System	1

## Annexure-I: Detailed Scope of Work

Sl. No.	Component / Equipment / System	Supply	Works	E&C	Remarks
1.	Solar PV panels	✓	✓	✓	Waaree 335wp
2.	Inverter	✓	✓	✓	Growatt
3.	Module mounting structure (MMS)	✓	✓	✓	
4.	MMS Foundation (If Required)	✓	✓	✓	
5.	Connectors and harness	✓	✓	✓	
6.	DC & AC Cables	✓	✓	✓	Polycab
7.	Electrical and electronic earthing system	✓	✓	✓	Chemical Earthing
8.	Lightning protection system	✓	✓	✓	
9.	ACDB	✓	✓	✓	
10.	Power Evacuation at 415V	✓	✓	✓	
11.	SPD	✓	✓	✓	

## ADVANTAGES OF SOLAR ROOF TOP SYSTEM

- Saving in electricity bill for 25 long years.
- Maintenance free system.\*
- Hedge against increasing grid prizes, which have increased by 40 % in past 5 years.
- Accelerated depreciation benefit – your roof top investment is eligible for accelerated depreciation of 40 % in first year of commissioning.

## Disclaimer

This Proposal document is not an agreement by the WAAREE to the prospective clients or any other party. The purpose of this Proposal is to provide interested parties with an offer based on defined and assumed requirements. The entire offer is subject to change related to any change in the scope of work or terms of contract. This Proposal is based on material and information available in publicdomain.

This Proposal, along with its Formats, is not transferable. The Proposal and the information contained therein are to be used only by the person to whom it is issued. The information of Proposal shall not be copied or distributed by the recipient to third parties.

While the Proposal has been prepared in good faith, no representation or warranty, express or implied, is or will be made, and no responsibility or liability will be accepted by the Client, its employees or advisors or agents as to or in relation to the accuracy or completeness of the Proposal.

The binding document between the client and Waaree Energies Ltd will be a defined EPC contract/ material supply contract/ services contract document. Such a contract document will supersede all previous documents and written / oral communication.

This Proposal includes certain statements, estimates and projections with respect to the anticipated future performance of the Project. Such statements, estimates and projections reflect various assumptions concerning anticipated results, which assumptions may or may not prove to be correct. Neither the Client nor its employees or consultants make any representation or warranty with respect to the accuracy of such statements, estimates and projections and actual performance of the Project nor any opportunity, which may be materially different from that set forth in such statements, estimates and projections.

## Thank you

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**Green Sun Solar**

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