

Bid Document

Bid Details	
Bid End Date/Time	15-07-2020 18:00:00
Bid Opening Date/Time	15-07-2020 18:30:00
Bid Life Cycle (From Publish Date)	90 (Days)
Bid Offer Validity (From End Date)	30 (Days)
Ministry/State Name	Uttar Pradesh
Department Name	Public Works Department Uttar Pradesh
Organisation Name	N/a
Office Name	Uttar Pradesh
Total Quantity	5
Item Category	Solar Power Plant (Roof Top) for ONGRID System, Three Phase
Bidder Turnover (Last 3 Years)	28 Lakh (s)
OEM Average Turnover (Last 3 Years)	28 Lakh (s)
Experience Criteria	1 Year (s)
MSE Exemption for Years Of Experience and Turnover	Yes
Startup Exemption for Years Of Experience and Turnover	Yes
Document required from seller	Experience Criteria,Past Performance,Bidder Turnover,Certificate (Requested in ATC),OEM Authorization Certificate,OEM Annual Turnover *In case any bidder is seeking exemption from Experience / Turnover Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer
Past Performance	30 %
Bid to RA enabled	No
Inspection Required	No
Estimated Bid Value	9150000

EMD Detail

Advisory Bank	Bank of India
EMD Percentage(%)	2.00
EMD Amount	183000

ePBG Detail

Advisory Bank	Bank of India
ePBG Percentage(%)	5.00
Duration of ePBG required (Months).	62

(a). EMD EXEMPTION: The bidder seeking EMD exemption, must submit the valid supporting document for the relevant category as per GeM GTC with the bid. Under MSE category, only manufacturers for goods and Service Providers for Services are eligible for exemption from EMD. Traders are excluded from the purview of this Policy.

(b). EMD & Performance security should be in favour of Beneficiary, wherever it is applicable.

Beneficiary:

unit in charge (electrical)
Uttar Pradesh, Rajkiya Nirman Nigam Limited
(Girish Kumar Verma)

Splitting

Bid splitting not applied.

1. Experience Criteria: In respect of the filter applied for experience criteria, the Bidder or its OEM {themselves or through reseller(s)} should have regularly, manufactured and supplied same or similar Category Products to any Central / State Govt Organization / PSU / Public Listed Company for number of years as indicated in the bid document before the bid opening date. Copies of relevant contracts to be submitted along with bid in support of having supplied some quantity during each of the year. In case of bunch bids, the category of primary product having highest value should meet this criterion.
2. OEM Turn Over Criteria: The minimum average annual financial turnover of the OEM of the offered product during the last three years, ending on 31st March of the previous financial year, should be as indicated in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the OEM is less than 3 year old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria.
3. Past Performance: The Bidder or its OEM {themselves or through re-seller(s)} should have supplied same or similar Category Products for 30% of bid quantity, in at least one of the last three years before the bid opening date to any Central / State Govt Organization / PSU / Public Listed Company. Copies of relevant contracts (proving supply of cumulative order quantity in any one year) to be submitted along with bid in support of quantity supplied in the relevant year. In case of bunch bids, the category related to primary product having highest bid value should meet this criterion.

Solar Power Plant (Roof Top) For ONGRID System, Three Phase (5 set)

Technical Specifications

[* As per GeM Category Specification](#)

Specification	Specification Name	Values	Bid Requirement (Allowed Values)
GENERIC	A Grid Tied Photo Voltaic (SPV) power plant consists of	SPV array, Module Mounting Structure, Power Conditioning Unit (PCU) consisting of Maximum Power Point Tracker (MPPT), Inverter, and Controls and Protections, interconnect cables and switches	SPV array, Module Mounting Structure, Power Conditioning Unit (PCU) consisting of Maximum Power Point Tracker (MPPT), Inverter, and Controls and Protections, interconnect cables and switches
	PV Array Mounting	Mounted on a suitable structure	Mounted on a suitable structure
	Grid tied SPV system is	Without battery and designed with necessary features to supplement the grid power during day time.	Without battery and designed with necessary features to supplement the grid power during day time.
	Components and parts used in the SPV power plants including the PV modules, metallic structures, cables, junction box, switches, PCUs etc	as per relevant BIS or IEC or international specifications, as applicable	*
	Installation and testing for complete system	Yes including Civil Work, Designing, Fabrication, Cabling Work with suitable Bolts, Nuts, Clamps, Connectors and testing etc	Yes including Civil Work, Designing, Fabrication, Cabling Work with suitable Bolts, Nuts, Clamps, Connectors and testing etc
INVERTER	Rated out put power of inverter (Kw)	30	30
	Switching device	IGBT	IGBT
	No. of Phase (in Nos.)	1	1
	Inverter output wave form	Pure sine wave	Pure sine wave
	Technology	MPPT Based	*
	No. of MPPT per inverter (in Nos.)	2	2
	No. of string at input	2 sets	2 sets

	side of inverter (input port +ve and -ve) (hint: 1 sets contains 1 +ve and 1 -ve port)		
	Maximum power point tracker	Integrated in the PCU/inverter to maximize energy drawn from the array	Integrated in the PCU/inverter to maximize energy drawn from the array
	Operating Voltage Range of Inverter	200 V to 1000 V	200 V to 1000 V
	Over load support at Input side, DC	20% of Maximum Input Voltage for 3 phase system	20% of Maximum Input Voltage for 3 phase system
	Maximum input current for each MPPT (in A)	28.5	28.5
	Service condition	Outdoor	Outdoor
	Ingress protection rating of inverter	IP 65 (for outdoor use)	IP 65 (for outdoor use)
	Cooling medium for inverter	Nature air cooled	Nature air cooled
	Manual switch for disconnecting DC supply	Yes	Yes
	Inverter mounting type	Wall Mounted	Wall Mounted
	Standard accessories for Inverter	MC4 DC Connectors, AC Connectors, Mounting bracket, Nuts and Bolts and inverter manuals	*
	Isolation between input DC and output AC	Yes	*
INVERTER OUT PUT	Maximum current for 3 phase inverter (in A)	50	50
	Output voltage (in V)	415 for 3 phase	415 for 3 phase
	Invert auto trip at output side	Lower : at 304 V, Higher : at 460 V with adjustable	Lower : at 304 V, Higher : at 460 V with adjustable
	Frequency range	50 Hz +/-3	*
	Grid Frequency Synchronization range	+ 3 Hz or more	*
	Grid Voltage tolerance	-20% and +15%	*
	Overall Efficiency (in %)	>96	>96
	Efficiency	as per IEC 61683 /	*

	Measurements for Power conditioners / Inverters	IS:61683	
	Environmental Testing for Power conditioners / Inverters	as per IEC 60068-2 (1,2,14,30) /Equivalent BIS Std	*
	PCU/inverter shall be capable of complete automatic operation for	wake-up, synchronization and shutdown.	*
PROTECTION FOR INVERTER	Out put over current protection	Yes	*
	Out put over voltage protection	Yes	*
	Short circuit protection	Yes	*
	Overload protection	125% for 30 sec	125% for 30 sec
	Over temperature protection	Yes at 65 Deg. C Cooling Fan will auto switch ON	Yes at 65 Deg. C Cooling Fan will auto switch ON
	Surge protection	Metal Oxide Varistor (MOV)	Metal Oxide Varistor (MOV)
	Insulation Resistance Monitoring	Yes	Yes
	Grid Monitoring protection	Yes	Yes
	THD (in %)	< 3%	*
	Power factor at rated out put power	> 0.9	> 0.9
	Inverter body material	Aluminium Casting	*
SERVICE CONDITION	Operating temperature	-25 to +60 deg. C	-25 to +60 deg. C
	Relative Humidity (in %)	> 95 % non condensing	*
	Maximum altitude above sea level (in m)	4000	*
DISPLAY FEATURES ON INVERTER	Type of display	LCD	LCD
	Display parameters	DC Voltage, DC Current, AC Voltage, AC Current, Out put frequency, Power Factor	DC Voltage, DC Current, AC Voltage, AC Current, Out put frequency, Power Factor
	Display for Generating power data	Daily, Weekly, Monthly, Yearly with total generation	*
	Generating power Data storage facility	Yes for 2 Years from the date of commissioning	Yes for 2 Years from the date of commissioning

	Interface facility for transmitting the generating power data for cloud storage	With GPRS Dongle without SIM card	With GPRS Dongle without SIM card
	Net meter	Approved by Government of India/State Government authority concerned for connecting to Grid	Approved by Government of India/State Government authority concerned for connecting to Grid
Add on items - DC DISTRIBUTION BOARD	DC Distribution panel to receive the DC output from the array field	Yes with surge arrestors	Yes with surge arrestors
	Ingress protection (Enclosure protection) of DC Distribution Box	IP65	IP65
	Material of bus bar and size	Copper, size as per inverter rating	Copper, size as per inverter rating
	Circuit Breaker for input side (DC side) for each inverter	MCB 15 A	MCB 15 A
Add on items - CABLE FOR INPUT	ISI Marked Connecting cables according to Inverter rating for each system	PV Module to Inverter DC	PV Module to Inverter DC
	Electric Cable for Input	1C x 4 Sq. mm, Copper Cable (as per IS:694:2010 latest)	1C x 4 Sq. mm, Copper Cable (as per IS:694:2010 latest)
	Cable Length for PV Module to Inverter, DC (in m)	10	*
Add on items - AC DISTRIBUTION BOARD	AC Distribution Panel Board (DPB) for controlling the AC power from PCU/inverter	3 Phase 415 Volt +/- 10%, 50 HZ +/-3 Hz	3 Phase 415 Volt +/- 10%, 50 HZ +/-3 Hz
	Panel construction	Metal clad, totally enclosed, floor mounted, air insulated, cubical type with change over switch	Metal clad, totally enclosed, floor mounted, air insulated, cubical type with change over switch
	Ingress protection (Enclosure protection) of AC Distribution Box	IP65 for outdoor	IP65 for outdoor
	All switches and the circuit breakers,	IS:60947 part I, II and III.	IS:60947 part I, II and III.

	connectors should conform to		
	Panels designed for minimum expected ambient temperature	45 deg. C	45 deg. C
	Circuit Breaker for output side (AC side) for each inverter	MCB 100 A	MCB 100 A
Add on items - CABLE FOR OUTPUT	ISI marked Connecting cables according to Inverter rating for each system	From Inverter to Net Meter and to mains at LT Bus bar while in grid tied mode	From Inverter to Net Meter and to mains at LT Bus bar while in grid tied mode
	Conformity of the specification for cable	3.5C x 10 Sq. mm, Copper Cable (as per IS:694:2010 latest)	3.5C x 10 Sq. mm, Copper Cable (as per IS:694:2010 latest)
	Cable length for output side (from inverter to Net Meter for each system) (in m)	5	5
Other Add on Items	Cabling work at input side for each system	With PVC Conduit pipe with necessary clamps and screws	With PVC Conduit pipe with necessary clamps and screws
	Cabling work at Output side for each system	With G.I. Cable Tray with fitment accessories	With G.I. Cable Tray with fitment accessories
	Lightning arrestor for each unit	Yes	*
	Earthing for each inverter	G.I. Pipe, G.I. Wires and earthing as per IS:3043-1987	*
	Danger boards and signages	1 No	1 No
PV Module	PV Module manufactured in	India	*
	PV Module conforming to	IEC 61215/IS:14286 latest for Crystalline silicon terrestrial	*
	PV Moduels Constrution, Testing and Safety requirements	as per IEC 61730 (Part 1) and (Part 2) latest	*
	PV Modules shall comply Salt Mist Corrosion testing	as per IEC:61701/IS:61701 latest	*
	PV Module rating (in Wp)	Range 250 - 1000	*

	Tolerance for rated output power of PV Module	+/-3%	*
	No. of PV Module for each solar power plant system	-	*
	The peak-power point voltage and the peak-power point current of any supplied module	not vary by more than 2 %	*
	Protective devices against surges at the PV module	Yes	*
	Material for Module Frame (Corrosion resistant)	Anodized aluminum	*
	Each PV Module supply with	IV Curve sheet at STC	*
	Each PV Module shall supply with RF ID tag with complete information about PV Modules	Yes	*
ARRAY STRUCTURE	Material of mounting structure	Hot dip galvanized MS mounting structures	*
	Angle of inclination as per the site conditions to take maximum insolation	Yes for each mounting structure	*
	Material of mounting structure for mounting the modules/ panels/arrays	Structural Steel, Grade: E300 (as per IS:2062:2011 latest)	*
	Galvanization of the mounting structure	as per IS:4759 latest	*
	Structural material shall be corrosion resistant and electrolytically compatible	Module frame, fasteners, nuts and bolts	*
	Material of fasteners	Steel as per IS:1367 (Pt.1):2002 latest	*
	The structures design	Designed to allow easy replacement of any module	*
	Civil structures	As per the load bearing capacity of the roof and the suitable structures based on the quality of roof	*

JUNCTION BOX	The total load of the structure (when installed with PV modules)	Less than 60 kg/m2. on the terrace	*
	Minimum clearance of the structure from the roof level	300 mm	*
	The junction boxes	Provided in the PV array for termination of connecting cables	*
	Junction Box on PV Module	Sealed type	*
	Material of Junction Box	FRP (Fibre reinforced plastics)	FRP (Fibre reinforced plastics)
	Ingress protection (Degree of Protection) for Junction Box	IP65	*
	Wires/cables termination	Through Cable Lugs	*
	Input and output termination	Through single or double compression cable glands.	*
	Copper bus bars/terminal blocks housed in the junction box with suitable termination threads	Yes	*
	Provision of earthing	Yes	*
	Surge protection device for each junction box	Yes	*
Wind Load	The Mounting structure shall be so designed to withstand the speed for the wind zone of the location where a PV system is proposed to be installed	Yes	Yes
	Compliance to wind velocity test for the Mounting structure of PV System	as per IS 875:1987 part 3 latest	as per IS 875:1987 part 3 latest
	Regional wind withstand capacity which the Mounting structure of PV system support is suitable to withstand (in	180	180

	Km/Hour)		
WARRANTY & GUARANTEE	Minimum guarantee for maintaing of output peak watt capacity	> / = 90% at the end of 10 years and >/= 80% at the end of 25 years	> / = 90% at the end of 10 years and >/= 80% at the end of 25 years
	Warranty for PV Modules from the date of supply as per MNRE specn	>/=25 Years	*
	The Warranty Card	Contain the details of the system and information about the system and conditions of warranty	*
	OPERATION and MAINTENANCE MANUAL for each solar PV module shall be furnish to the buyer / consignee	Yes	*
	All the test reports and certificates shall be furnish by the seller to buyer / consignee on demand	Yes	*
	Minimum area required for installation Solar panels (sq. mt) - Must declare in Sq. Mtr.	-	*
	Minimum area required for installation of Solar Inverter (sq. mt) - - Must declare in Sq. Mtr.	-	*
	Minimum area required for installation of Net Meter (sq. mt) - - Must declare in Sq. Mtr.	-	*
	In case of Grid failure, or low or high voltage	Solar PV system out of synchronization and disconnected from the Grid	*
	Provision for Isolation of inverter output with respect to the Grid	Provided with 4 Pole Isolator	*
	Locking facility for isolation switch	Yes	*
CERTIFICATIONS	PV Modules shall comply with BIS compulsory registration scheme and certificates shall furnish to buyer /	Yes	*

	consignee on demand		
	BIS CRS Certificate for PV Module	as per IS:14286 (for Crystalline Silicon Terrestrial Photovoltaic (PV) modules)	*
	BIS CRS Number - Must declare	-	*
	Availability of type test reports ofm Wind Load withstand test for Mounting strucutre including calculation sheet from Central Govt., Lab/NABL.ILAC acreediated lab to prove conformity of the specification and agreed to furnish test reports and certif	Yes	*
	Availability of type test reports for PCU/Inverter, PV Module to prove the conformity of the specifiction from	Central Govt.LAB	Central Govt.LAB
	Report Number - Must declare	-	*
	Report date - Must declare	-	*
	Name of Lab - Must declare	-	*
	Address of lab - Must declare	-	*
	Agreed to furnish all the test reports and certification to buyer / consignee on demand	Yes	*

* Specifications highlighted in bold are the Golden Parameters.

* Bidders may note that In respect of non-golden Parameters, the specifications 'Values' chosen by Buyer will generally be preferred over 'Bid requirement (allowed Values) by the Buyer.

Additional Specification Documents

Consignees/Reporting Officer and Quantity

S.No.	Consignee/Reporting Officer	Address	Quantity	Delivery Days
1	Subhash Chand	206001,UPRNN Ltd. Electrical Unit Etawah	5	30

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Bid Specific Additional Terms and Conditions

1. Without prejudice to Buyer's right to price adjustment by way of discount or any other right or remedy available to Buyer, Buyer may terminate the Contract or any part thereof by a written notice to the Seller, if:
 - i) The Seller fails to comply with any material term of the Contract.
 - ii) The Seller informs Buyer of its inability to deliver the Material(s) or any part thereof within the stipulated Delivery Period or such inability otherwise becomes apparent.
 - iii) The Seller fails to deliver the Material(s) or any part thereof within the stipulated Delivery Period and/or to replace/rectify any rejected or defective Material(s) promptly.
 - iv) The Seller becomes bankrupt or goes into liquidation.
 - v) The Seller makes a general assignment for the benefit of creditors.
 - vi) A receiver is appointed for any substantial property owned by the Seller.
 - vii) The Seller has misrepresented to Buyer, acting on which misrepresentation Buyer has placed the Purchase Order on the Seller.
2. IMPORTED PRODUCTS: In case of imported products, OEM or Authorized Seller of OEM should have a registered office in India to provide after sales service support in India. The certificate to this effect should be submitted.
3. Pre-dispatch inspection at Seller premises (Fee/Charges to be borne by the BUYER): Before dispatch, the goods will be inspected by Buyer / Consignee or their Authorized Representative or by Nominated External Inspection Agency (independently or jointly with Buyer or Consignee as decided by the Buyer) at Seller premises (or at designated place for inspection as declared / communicated by the seller) for their compliance to the contract specifications. Fee/Charges taken by the External inspection Agency and any external laboratories testing charges shall be borne by the Buyer. For in-house testing, the Sellers will provide necessary facilities free of cost. Seller shall notify the Buyer through e-mail about readiness of goods for pre-dispatch inspection and Buyer will notify the Seller about the Authorized Representative/ Nominated External Inspection Agency and the date for testing. The goods would be dispatched to consignee only after clearance in pre-dispatch inspection. Consignee's right of rejection as per GTC in respect of the goods finally received at his location shall in no way be limited or waived by reason of the goods having previously been inspected, tested and passed by Buyer/ Consignee or its Nominated External Inspection Agency prior to the goods' shipment. While bidding, the sellers should take into account 7 days for inspection from the date of email offering the goods for inspection. Any delay in inspection beyond 7 days shall be on the part of the buyer and shall be regularised without Liquidated Damages.
4. Successful Bidder can submit the Performance Security in the form of Fixed Deposit Receipt also (besides PBG which is allowed as per GeM GTC). FDR should be made out or pledged in the name of UPRNN LTD A/C (Name of the Seller). The bank should certify on it that the deposit can be withdrawn only on the demand or with the sanction of the pledgee. For release of Security Deposit, the FDR will be released in favour of bidder by the Buyer after making endorsement on the back of the FDR duly signed and stamped along with covering letter. Successful Bidder has to upload scanned copy of the FDR document in place of PBG and has to ensure delivery of hard copy of Original FDR to the Buyer within 15 days of award of contract.
5. Scope of supply (Bid price to include all cost components) : Supply Installation Testing and Commissioning of Goods
6. Bidder's offer is liable to be rejected if they don't upload any of the certificates / documents sought in the Bid document, ATC and Corrigendum if any.
7. ISO 9001: The bidder must have ISO 9001 certification.
8. The bidder is required to upload, along with the bid, all relevant certificates such as BIS licence, type test certificate, approval certificates and other certificates as prescribed in the Product Specification given in the bid document.
9. To be eligible for award of contract, Bidder / OEM must possess following Certificates / Test Reports on the date of bid opening (to be uploaded with bid): TO BE UPLOAD.

10. Bidder Turn Over Criteria: The minimum average annual financial turnover of the bidder during the last three years, ending on 31st March of the previous financial year, should be as indicated in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the bidder is less than 3 year old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria.
11. OEM Turn Over Criteria: The minimum average annual financial turnover of the OEM of the offered product during the last three years, ending on 31st March of the previous financial year, should be as indicated in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the OEM is less than 3 year old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria. In case of bunch bids, the OEM of CATEGORY RELATED TO primary product having highest bid value should meet this criterion.
12. Availability of Service Centres: Bidder/OEM must have a Functional Service Centre in the State of each Consignee's Location in case of carry-in warranty. (Not applicable in case of goods having on-site warranty). If service center is not already there at the time of bidding, successful bidder / OEM shall have to establish one within 30 days of award of contract. Payment shall be released only after submission of documentary evidence of having Functional Service Centre.
13. Dedicated /toll Free Telephone No. for Service Support : BIDDER/OEM must have Dedicated/toll Free Telephone No. for Service Support.
14. Escalation Matrix For Service Support : Bidder/OEM must provide Escalation Matrix of Telephone Numbers for Service Support.
15. Warranty period of the supplied products shall be 5 years from the date of final acceptance of goods or after completion of installation, commissioning & testing of goods (if included in the scope of supply), at consignee location. OEM Warranty certificates must be submitted by Successful Bidder at the time of delivery of Goods. The seller should guarantee the rectification of goods in case of any break down during the guarantee period. Seller should have well established Installation, Commissioning, Training, Troubleshooting and Maintenance Service group in INDIA for attending the after sales service. Details of Service Centres near consignee destinations are to be uploaded along with the bid
16. Procurement under this bid is reserved for purchase from Micro and Small Enterprises from the State of Bid Inviting Authority whose credentials are validated online through Udyog Aadhaar for that product category. If the bidder wants to avail the reservation benefit, the bidder must be the manufacturer of the offered product in case of bid for supply of goods. Traders are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises. In respect of bid for Services, the bidder must be the Service provider of the offered Service. Relevant documentary evidence in this regard shall be uploaded along with the bid in respect of the offered product or service.
17. The Bidder / OEM {themselves or through reseller(s)}, should have executed project for supply and installation / commissioning of same or similar Category Products during preceding 3 financial years (i.e. current year and three previous financial years) as on opening of bid, as per following criteria:
 - (i) Single order of at least 35% of estimated bid value; or
 - (ii) Two orders of at least 20% each of estimated bid value; or
 - (iii) Three orders of at least 15% each of estimated bid value.Satisfactory Performance certificate issued by respective Buyer Organization for the above Orders should be uploaded with bid. In case of bunch bids, the Category related to primary product having highest bid value should meet this criterion

[This Bid is also governed by the General Terms and Conditions](#)

---Thank You---