

बड़ौदा यू.पी.बैंक

क्षेत्रीय कार्यालय : नौगढ़, उसका रोड

सिद्धार्थनगर

BUPB/RO-N/2024-25/PE/4

Date-04.04.2024

Bid for Selection of Vendor for Supply, Installation and Commissioning of Solar Power Packs with Silent Generator as backup on Hiring Basis for different Branches under Naugarh Region

Scaled bid are invited from the reputed manufactures/companies/firms for onsite various branches/offices of our Bank located in NAUGARH Region of Baroda U.P Bank.

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|------------------------------------|----------------------|
| 1- Date of bid Notification: | 04.04.2024 |
| 2- Last date of submission of Bid: | 25.04.2024 (04.00PM) |
| 3- Date of opening of Bid: | 26.04-2024 (04.00PM) |

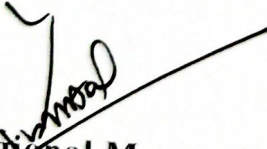
Address for Communication:-

Regional Manager, Baroda U.P. Bank, Regional Office- Naugarh, Uska Road, Hussainganj, Siddharthanagar 272208

* E-mail: pe.rosidn@barodauprrb.co.in

Contact Number: 7571811554

No queries shall be addressed/entertained after 25.04.2024


Regional Manager
Region: Naugarh



TENDER FORMAT ALONG WITH TERMS AND CONDITIONS FOR

Supply, Installation and Commissioning of Solar Power Packs with Silent Generator as backup on Hiring Basis

Sealed tenders are hereby invited for hiring Solar Power Systems to cater the electrical load at different Branches/Offices of Baroda U.P. Bank, Regional Office- Naugarh on pilot basis.

Based on the performance of the successful tenderer, rest branches will be awarded to him/them. Given below are the terms and conditions of the tender which is to be submitted in one sealed cover, comprising of two sealed covers, "Cover-1-EMD and Technical Bid Hiring of Solar Power System for various branches and COVER-2-Financial Bid"

Pre-Qualification Criteria:

1. The participating firm must have its registered office in Uttar Pradesh.
2. The participating firm must have an experience of not less than 2 years in supplying, Installation and commissioning of solar power packs to banks/financial institutions/Govt. offices.
3. The participating firm must have installed more than 30 solar power systems in last 2 years in banks/financial institutions/Govt. offices.
4. There should not be any unsatisfactory report from any organization against the participating
5. The participating firm must have an average annual turnover of Rs 25.00 lakh in last three financial years.

General terms & condition:

1. The successful bidder shall enter into an agreement with the bank for initial period of 6 years, which will be reviewed every year on the basis of performance.
2. New panel, new .PCU and new set of batteries must be installed at the site while commissioning the Solar Power Packs with Silent Gen-Set as per CPCB Norms as backup at the branches/offices.
3. The site clearance will be the sole responsibility of the participating firm/individual. However, the bank will try to settle the issues (if arises).
4. No extra charges shall be paid to the participating firm/individual for transporting solar power systems to the branches.
5. Commissioning the solar power systems and generator shall be whole sole responsibility of the participating firm/individual.
6. The successful bidder shall arrange for maintenance of their Solar Power Packs for reducing breakdowns to the minimum and for uninterrupted operation of Solar Power Packs and generator.
7. No advance **will be paid.**
8. The Bank reserves its right to deduct penalty in case solar power plant for branch is not able to provide power to 9hrs 30 minutes of branch/office working hrs. i.e., 9.00 AM to 06.30 PM penalty will be calculated as under:
 - a. For daily uptime less than 9 hrs but more than 8 hrs = penalty will be 20% of per day rent,
 - b. For daily uptime less than 8 hrs but more than 4 hrs = penalty will be 60% per day rent.
 - c. For daily uptime less than 4 hrs = penalty will be 100% per day rent.
9. The payment will be made on successful commissioning, invoices raised on monthly basis as per solar power plant capacity.

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10. **The supply of alternate power source during downtime is the sole responsibility of the vendor. In case, the vendor fails to provide the alternate power supply during the downtime of solar power system. The cost of providing alternate power supply shall be deducted from the monthly bill of the vendor.**
 11. The vendor will have to supply and install suitable length, size & capacity armored aluminum cable for connection.
 12. The firm to whom the contract is awarded will have to submit Rs. 100/- (Rs. One Hundred Only) non judicial stamp paper for drawing up the contract for the awarded branches.
 13. The contractor will have to arrange for workmen compensation insurance cover for their operating personnel.
 14. It shall be entirely the contractor's responsibility to ensure compliance / conformity to any related statutory obligations like those pertaining to pollution or electrical safety.
 15. Time allowed for supply, installation, testing and commissioning of the Solar Power System shall be month from date of order.
 16. If the services of the contractor are found unsatisfactory, the Bank reserves the right to terminate the contract after giving one month notice.
 17. If the successful bidder fails to perform the commencement of the contract within the specified time period, Bank reserves the right to forfeit and take any other penal action to safeguard its interest.
 18. Conditional Tenders are liable for rejection.
 19. In case, the services of successful bidder are found unsatisfactory, Bank reserves its right to terminate the contract after giving one month notice.
 20. Bank reserves the absolute right to accept / reject any or all the offers / tenders received without assigning any reason whatsoever.

Site Visit:

The tenderer must obtain himself on his own responsibility and his own expenses all information and data which may be required for the purpose of filling this tender document and enter into a contract for the satisfactory performance of the work. The Tenderer is requested to satisfy himself regarding the availability of water, power, transport and communication facilities, the character quality and quantity of the materials, labor, the law and order situation, climatic conditions local authorities requirement, traffic regulations etc.; The

Tenderer will be fully responsible for considering the financial effect of any or all the factors while submitting his tender.

Zero Deviation:

This is a ZERO Deviation Bidding Process Bidder is to ensure compliance of all provisions of the Bid Document and submit their Bid accordingly. Tenders with any deviation to the bid conditions shall be liable for rejection

Evaluation of LI Bidder:

The LI Bidder shall be finalized on basis of lowest rate quoted by firm/individual. The Monthly Rent quoted shall include all costs, allowances, insurances, taxes, levies, etc. excluding GST.

Awarding Work:

Work will be awarded to LI vendor only.

Validity of rates

Rates will be valid for the one year from the date of order. Bank can add or remove the branches for solar power system as per requirement at same rate.

TECHNICAL SPECIFICATIONS

GENERAL TECHNICAL SPECIFICATION

A Standalone or Off-Grid Solar Photovoltaic (PV) Hybrid power generator / plant proposed will comprise of Solar PV modules of the given capacity, with battery bank, necessary Power Conditioning Unit/electronics, interconnecting cables/wires, module mounting structures, necessary grounding/earthing, etc. Solar system will be Hybrid with an option to integrate with AC Grid.

The SPV Power Shall have a minimum capacity of 7.5 KVA with a suitable battery backup. The power plant provides a reliable and independent power supply for critical AC loads. The UPS should be designed to convert DC power produced by the SPV modules into AC power and adjust the voltage and frequency to desired level.

The Capacity and type of Solar Power Plant

Sr	Type Of Solar Power Generator/Plant		Battery Capacity/Configuration	No.Of Batteries
1	Solar PV Module For 7.5 KVA, 24 No. 335 Watt PV Module	7.5 KVA/180 Volt Single phase	150 AH/12V LMLA C10 tubular Solar Battery	15 No's
2	For 10 KVA, 32 No. 335 Watt PV Module	10 KVA/180 Volt Single Phase	200 AH/12V LMLA C10Tubular Solar Battery	15 No's

A. MINIMUM TECHNICAL REQUIREMENTS/STANDARDS:

1. SPV MODULES:

- I. Only Indian made Modules (IEC and BIS Tested) of reputed brand shall only be used in the plant.
- II. Crystalline high power efficiency cells shall be used in the Solar Plant.
- III. PV module junction box should be IP 67 protection rated. And front glass should be high transmission, low iron, tempered glass and module shall be with stand min 150 km/hr wind speed.
- IV. Module frame should be anodized aluminum alloy frame.
- V. Module should be zero negative power tolerance.
- VI. PV module must be warranted for Product Warranty minimum of 12 years and Linear Performance Warranty for 25 years with no more than 3% degradation in 1st year and 0.07% from year 2 to 25.
- VII. PV Module should compliance with IEC 60068-2-68:1994, IEC 62716:2013 and EN62716:2013, IEC 61701:2011 and EN 61701:2012, 62804-1:2015, IEC 61215-1:2016, EN 61215-1:2016, IEC 61215-1-1:2016, EN 61215-1-1:2016, IEC 61215-2:2016, EN 612152:2017, IEC 61730-1:2016, EN IEC 61730-1:2018, IEC 61730-2:2016 and EN IEC 617302:2018 . The bidder shall submit appropriate valid test certificates. The minimum validity of test report should be till March 2024.
- VIII. The offered Solar module performance test report issued from authorized MNRE/NABL/IEC/ILAC test lab should be submitted.
- IX. PV modules must have other features PID Resistance Technology, Multilayer EVA encapsulation for enhanced protection
- X. Each PV module must have sticker inside the module with the following information:
 - a) Name of the manufacturer of PVModule
 - b)Month and year of the manufacture of module
 - c) Made in India
 - d)Unique Serial No and Model No of the module

e) Following data maybe provided outside in such a way that it should not pull out during harsh environment condition: Peak wattage, Im, Vm and FF for the module

Test reports/ certificate from IEC/NABL/ILAC accredited laboratory to be mandatorily enclosed for relevant IEC and BIS Standards.

2. Balance of System (BOS) Items/Components:

The BOS items/components of the SPV power Plant/systems deployed must conform to the IEC and BIS standards/MNRE specifications/as specified below:

BOS Item	Applicable BIS and IEC standard or MNRE specifications	
	Standards Description	Standard Number
Cables	General Test and Measuring Method PVC insulated cables for working voltage and UV protected for outdoor installation	TUV certified DC Cables
		IEC 60228
		IS694
Switches/Circuit breakers/connectors with SPD	General Requirement Connectors — AC / DC Safety	IEC 529
		SPD As per IEC 61643-11/12
		IEC 60947, part I, II and III / IS 60947 part I, II and III
Junction Boxes/ Enclosures Box	General Requirements	IP 55 / IP 65
Earthing and Lightning Protection	General Requirements	IEC 62561-7

3. Module Mounting Structure

- I. Galvalume Module Mounting Structure (MMS) with AZ-150-550 mpa strength consisting of Hot Dip Galvanized leg insert.
- II. Module fixed tilt angle should be 20-28 degree tilt.
- III. There shall be a minimum air gap of 25 mm between the facing edges of two adjacent modules on all sides.
- IV. Each panel frame structure shall be fabricated as to be grouted on Roof on its legs.
- V. A weather proof junction box as per the relevant specifications is to be provided where the module terminals shall be interconnected and outputtaken.
- VI. All nut bolts, and fasteners should be made of 55304 Grade.
- VII. The structure should be designed to allow easy replacement of any module and shall be aligned with site requirement.
- VIII. The structure should be designed for simple mechanical and electrical installation.
- IX. The array structure shall be so designed that it will occupy minimum space without sacrificing the output from the SPV panels.
- X. It will be designed to withstand wind speeds of up to 150 Km/hr.
- XI. The systems should be installed at ground level / roof top at least the height of 450 mm with CC block size should be as per Staad reaction force and leg fixing method.
- XII. The legs of the structures made with hot dip GI member will be fixed and grouted in the RCC foundation columns made with 1:2:4 cement concrete. The foundation should be as per design of structure to withstand maximum wind loading

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4. Battery Rack/Trolley

Battery stand/rack of suitable size with roller for installation of Solar Tubular Batteries shall be provided.

5. Electrical Connections

High quality TUV certified copper wires/DC cables of reputed makes are to be provided for connecting Solar Modules, from junction box to PCU, and Battery of suitable cross sectional area in order to minimize loss not more than 2%.

A suitable connection point shall be provided to the consumer from PCU, at a distance not more than 03 meters, from where consumer shall have its own wiring to the use points

6. EARTHING & LIGHTNING PROTECTION

i. Chemical Earthing Electrode with Earth Enhancing compound with Dia.14.2mmx2.0mm long steel rod with 250micron Copper coated earthing electrode suitable for 18KA fault current along with 10kg earth enhancing chemical blackfill compound as per IEC 62561- 7 and 1 no. industrial Poly propylene plastic pit cover.

16 Sqmm Copper Cable for Earthing.

iii. Lightning Arrester - 2.0 meter long 16mm dia. with five spike and base plate made in high grade aluminum with copper coating Lightning.

7. Solar Battery :

I. Only Indian Branded Batteries of reputed brand shall be used in the plant.

II. Battery shall have a warranty/design life expectancy of min 5 years not more than 2 battery banks should be connected in parallel for better battery life.

Battery terminal shall be provided with covers suitable carrying handle shall be provided capacity of the battery bank shall not be less than as specified above at C-10 rate.

IV. Battery shall have a design life expectancy of >5 years at 50% DOD at 27°C.

SPECIFICATIONS OF SOLAR UPS

The details of solar charge controller and UPS should be as under:

Solar UPS OEM will take responsibility for all equipment's batteries, panel, Inverter required for desired output on its letter head

1. SOLAR CHARGE CONTROLLER:

Solar Charge controller should be an MPPT type only such that it tracks the maximum power point of PV panels all the time to maximize PV generation. MPPT charger should include below minimum features:

- i. Solar charger should be enclosed in a single unit along with UPS.
- ii. All the parameters of solar charger should be displayed on a common display on the front
- iii. Three stage battery charging (float, boost & equalize stages) for long life of the battery should be ensured in the Solar Charger topology.
- iv. Battery current limiting feature should be provided so as to avoid overcharging of batteries and charger should limit the current going in the batteries in such a situation.
- v. Battery & PV reverse polarity protection to be provided
- vi. Rated MCCB/ MCB on all PV inputs & battery inputs.

2. TECHNICAL SPECIFICATIONS

Sl No.	PARAMETERS	SPECIFICATIONS
4.1	UPS Type	ONLINE
4.2	Output Voltage	220 Volts \pm 1% Single phase, 3 wire output
4.3	Output Frequency	50Hz \pm 0.5% during standalone UPS operation. UPS to follow generator frequency up to \pm 3 Hz of the nominal output frequency during synchronized operation
4.4	Continuous Rating	7.5 / 10 KVA (from 0-50 degrees)
4.5	Surge Rating	Up to 150% of the continuous rating for a minimum of 5 seconds
4.6	Battery Nominal Voltage	180 V DC.
4.7	Waveform	Sine wave output
4.8	THD	Less than 5%
4.9	Efficiency	>90% peak efficiency
4.10	Regulation	Better than 2%
4.11	Internal Protection System	<ul style="list-style-type: none"> • UPS overload • Short circuit protection • Over/under AC voltage protection • Over/under frequency protection • Over/under battery voltage protection
4.12	Circuit Breakers	<ul style="list-style-type: none"> • PV (each Channel) • Battery • Mains • Load
4.13	Environmental	
4.14	Operating Temperature Range	0-50 degrees ambient
4.15	Humidity	0-90% non-condensing
4.16	Enclosure	IP-20 minimum

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Documents to be enclosed with Technical Bid are listed here as under:

- Tender form except the page titled "PRICE BID signed and stamped on each page (Only signature if individual is bidding) as a token of acceptance of tender terms & conditions and specifications.
- Copy of Registration Certificate of firm.
- Copy of PAN card of proprietor if firm is proprietary or copy of PAN card of the firm if it is a partnership firm.
 - a) Copy of PAN card of individual.
 - b) Copy of the GST registration certificate.
- Documentary proof like work order issued by any Govt. Financial Institution/ Govt. Offices/PSU for supplying, installation and commissioning of Solar Power Packs for ascertaining 2 year experience in the same.
- copy of Audited Balance Sheet for FY, 2022-23 & 2023-24.
- The Bidder should not be Blacklisted/ Defaulter by any Bank/Financial Institution. A self declaration should be submitted in this effect along with tender.

Financial Bid

Cover II should be super scribed "**Cover-II, Price Bid- Supply, Installation and commissioning of Solar Power Systems on Hiring basis**" It shall contain only one page , viz. the page titled "PRICE BID" of the tender form with rates duly filled and with signatures and seal (Only signature if individual is bidding) on the page.

Tenders are to be addressed to the Regional Manager Baroda U.P Bank, Regional Office-Naugarh ,USKA ROAD,HUSSAINGANJ,SIDDHARTHANAGAR-272208 and submitted by 04-04-2024 at 04:00 pm The technical bids will be opened on 26-04-2024 at 04:00 PM.

Cover I shall be opened first and thereafter Bank shall at its sole discretion fix time and date of opening of Cover ii which shall be intimated to the bidders. One representative of the bidder can be present to witness the tender opening,

Tenders not submitted in single cover comprising of two covers Cover I and Cover II, with proper address and super scribed properly as detailed above will not be accepted.

If on opening of Technical Bid tender is found to be conditional it will be rejected. If "PRICE BID" page of tender document in Cover II is not signed it will not be accepted

More than one tender will not be accepted from one firm or from an individual. Only registered firms or individuals can submit tenders.

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Price Bid

Rates per KVA for supply, installation and commissioning of Solar Power System

Sr.	Particular	Rates	Applicable GST
1.	Supply, installation And Commissioning of Solar power Packs with Silent Gen- Set at Branches, including its transportation, erection of structure, connection of solar power packs with branch supply	RsFor Min 7.5 KVA Solar power and Silent GenSet-5 KVA(in words) In Percentage
		RsFor Min 10 KVA Solar power and Silent GenSet-10KVA.....(in words) In Percentage

1. I/we hereby confirm that no extra charges shall be paid to us, on account of transportation of solar power systems, replacement of spare parts and necessary repairs required in functioning of solar power systems.
2. I/we authorize the bank to deduct the penalty as laid in the terms and conditions of the tender document.
3. I/we fully understand all the terms and conditions laid in the tender notice.
4. The quoted rate (Monthly rental) should be inclusive of specified, labor, wages, fixtures, transportation, installation, all charges & taxes (except GST), cost of the insurances covering all risk policies, cost towards testing of materials supplied, wastages, machinery, temporary works such as scaffolding, cleaning, overheads, profit, statutory expenses, incidental charges and all related expenses to complete the work including cost of repairs, replacement of the spare parts/Batteries.

Date:

**(Authorized Signatory)
Seal of the Firm**

M. S. S.