

UTTAR BIHAR GRAMIN BANK



Tender Document

Tender Reference Number: HO: IT: 2011-12:02

for

**Design, Engineering, Supply, Installation, Erection, Testing &
Commissioning**

of

Solar Power Solutions in Branches of Uttar Bihar Gramin Bank.

Last Date of Submission:: 23.01.2011 Time:: 5.00 PM
Date of opening of Technical Bid:: 25.01.2011 Time:: 11.00 AM

Invitation for tender offers

Uttar Bihar Gramin Bank, Head Office, Muzaffarpur invites sealed tenders on two bid system (technical bid and Commercial/price bid in separate envelope) as specified from eligible, reputed manufacturers and/or their authorized dealers for design, engineering, supply, installation, erection, testing & commissioning of DC plate rating Solar Power Solutions. The copy of tender document may be obtained from office of **Uttar Bihar Gramin Bank, IT Dept., Head Office, Kalambag Chowk, Muzaffarpur, BIHAR-842001** on all working days in person, after submission of the necessary price specified herein.

A complete set of tender document may be downloaded from the website: www.ubgb.in. However, such tender submitted must contain a demand draft covering of the price of tender, without which the offer will stand rejected.

The details are given below.

Tender Reference	HO:IT:2011-12:02
Bid For	Purchase, design, engineering, supply, installation, erection, testing & commissioning of Solar Power Solutions in 9 branches of Uttar Bihar Gramin Bank.
Quantity to be Purchased	The purchase will be for nine sets on pilot project basis. <u>The quantity may vary at the sole discretion of the Bank.</u>
Date of commencement of tender document	26/12//2011
Last Date and Time for receipt of tender offers	<u>23/01/2012 time 5.00PM</u>
Address for Tender submission.	Uttar Bihar Gramin Bank, IT Dept., Head Office, Kalambag Chowk, Muzaffarpur, BIHAR-842001
Email address	ubgb@ubgb.in
Contact Number	0621-2242996, 2243893
Date & Time of Opening of Bids	<u>25/01/2012time 11.00AM</u>
Opening of Bids	Envelope consisting of Eligibility part & Technical part (PART-A) of Tender shall be opened on the aforesaid date and time in the presence of bidders or their representatives. Opening date of Commercial/Price bid (PART-B) will be intimated later.
Cost of Tender Document	Rs 5000.00 (Rupees Five Thousand) only non refundable by Demand Draft in favour of "Uttar Bihar Gramin Bank, Head Office" payable at Muzaffarpur. In case the tender is downloaded from website, the amount should be submitted along with the Technical Bid.
Earnest Money Deposit(EMD)/Security Money Deposit	Rs 2,25,000.00 (Rs. Two Lakh Twenty five Thousand) only by Demand Draft in favour of "Uttar Bihar Gramin Bank, Head Office, Muzaffarpur" payable at Muzaffarpur. EMD should be submitted with the Technical Bid. This amount will be converted in Security Deposit for the performance of the contract by the successful bidder.

Tender offers will normally be opened on the date and time as mentioned above in the presence of bidder's representative who choose to attend the meeting at the time of opening of tender and no change in the date and time shall be made due to non attendance by some of the bidders. No separate intimation in this connection shall be sent to the bidders except in the case if the Bank at its discretion desires to change of bid opening date and time the same will be communicated through our website, if any.

The terms and conditions governing this tender are enclosed.

[R.K.ARORA]
CHAIRMAN

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PART: A

Technical Bid

Qualifying Requirements (Eligibility Criteria)

- The bidder submitting the offers should be a **Registered Manufacturing Company (ISO 9001 and/or 14000 certified) in the Solar PV industry having an Annual turnover of Rs. 10.00 Crore in Solar Photovoltaic (SPV) Module/Components/Systems business per year in the last two financial years as per the audited balance sheet available at the time of submission of tender.** This must be the individual Company's turnover and not that of any group of Companies. Certified /attested copies of registration with appropriate authority must be submitted.
- The Company should have **made net profits in last two financial years.**
- A copy of last two financial years' relevant audited balance sheets should be submitted with the offer.
- The bidder should have experience of having executed minimum two contracts on Design, Engineering, Supply, Installation, Erection, Testing and Commissioning of Solar Photovoltaic System in the range of minimum 2.5KWp and above.
- The bidder should have experience of having executed contract on Design, Engineering, Supply, Installation, Erection, Testing and Commissioning of Solar Photovoltaic System in the range of minimum 100Wp and above with not less than 10 in numbers for any Nationalized Banks/Financial Institutions/Central or State Government Organizations/Large corporates/NGOs in Bihar.
- **The bidder should have 05 support centers in the districts of North Bihar including Purnea & Muzaffarpur.**
- If the bidder is an authorized & an exclusive dealer of a reputed manufacturer of SPV, he should also meet the turnover and financial criteria mentioned above.
- The bidder should have **executed at least one single order of Rs. 15.00 Lakh for supply and installation of SPV modules/Systems.**
- **In case the manufacturer desires to quote through dealer they can authorize any one dealer to quote on their behalf. However, the performance of the contract will be the responsibility of the manufacturer.**

Instructions to Bidder

1. Two Bid System Tender

Uttar Bihar Gramin Bank intends to purchase and install Solar Power Solutions in its nine (9) Branches on PILOT basis for power supply to PCs and lighting system. **The quantity may vary at the sole discretion of the Bank.** The details of the required items are given in this tender. Tender Offers (Technical & Commercial(price) bid in separate envelope) must be submitted at the same time, giving full particulars at the Bank's address given below, **on or before the last date & time mentioned in covering letter.** All envelopes should securely be sealed and stamped. **Further, the Bank reserves its right to reject this tender and even the entire project without assigning any reason, whatsoever.**

All the envelopes must be superscribed with the following information:

- Type of Bid [Technical /Commercial (Price) Bid]
- Tender Reference Number
- Due Date
- Name of Bidder
- Name & Telephone No. of Contact Person of Bidder.

1. 1. ENVELOPE-I (Technical Bid):

The Technical Bid duly sealed should be completed in all respects and contain all information including technical and commercial terms asked for, except prices. The Technical Bid should include all items asked for. The technical bid **should not contain any price information**. The **Technical Bid with any price information anywhere is liable to be rejected**. The Technical Bid should indicate all products and services asked for.

1.2. ENVELOPE-II (Commercial /Price Bid) :

The Commercial/Price Bid should only contain the prices for items quoted and should not contradict the Technical Bid in any manner.

Two envelopes (Technical Bid & Commercial Bid) containing this offer should also be sealed. Both the envelopes should be superscribed with tender number and due date of opening. Both envelopes should be placed in one separate envelope which should be duly sealed. This envelope should also be superscribed with the tender number and due date of opening. On the due date of tender opening only technical bid (envelope I) will be opened.

The Commercial/Price Bid (envelope II) will be opened of only such bidders whose Technical Bids have been accepted. **The successful bidder will be informed by the Bank in due course.**

2. General Terms and Conditions

Terms and conditions for bidders who participate in the tender are specified in the section called “Terms and Conditions”. These terms and conditions will be binding on all the bidders. These terms and conditions will also form a part of the purchase order, to be issued to the successful bidder (vendor) on the outcome of the tender process.

2.1. Offer Validity Period

The offer should hold good for a period of **180 days** from the closing date of the tender.

2.2. Address for Communication

Offers should be addressed to the following officer at the address given below.

General Manager,
Uttar Bihar Gramin Bank,
Head Office, Sharma Complex,
Kalambag Chowk,
Muzaffarpur.
Bihar-842001

2.3. Modification and Withdrawal of Offers

The bidder may modify or withdraw their offer after its submission, provided that written notice of the modification or withdrawal is received by Uttar Bihar Gramin Bank only prior to the closing date and time prescribed for submission of offers. If the bidder withdraws his offer after opening of the technical bid, the earnest money will be forfeited without any notice.

2.4. Opening of Offers by Uttar Bihar Gramin Bank

Tender offers will be opened at Head Office; Muzaffarpur on the date and time mentioned for opening for Tender, in the presence of bidder's representative who chooses to attend the meeting at the time of opening of tender and no change in the date and time shall be made due to non attendance by some of the bidders. No separate intimation in this connection shall be sent to the bidders except in the case of change of bid Opening date and time, if the Bank at its sole discretion requires, will be communicated through Bank's website, if any.

2.5. Placement of Purchase Order

Purchase Order will be placed to the Lowest Bidder [L1] among the technically accepted offers. It is absolutely essential for the bidders to quote the lowest price at the time of making the offer in their own interest, as Uttar Bihar Gramin Bank will not enter into price negotiations. It should be noted that Price bid will be accepted only from the bidders who qualify in the "Technical Bid".

2.6. Preliminary Scrutiny

Uttar Bihar Gramin Bank will scrutinize the offers to determine whether they are complete, free from any errors and required technical documentation have been furnished, whether the documents have been properly signed, and whether items are quoted as per the schedule/annexure.

2.7. Clarification of Offers

To assist in the scrutiny, evaluation and comparison of offers, Uttar Bihar Gramin Bank may, at its discretion, ask some or all bidders for clarification of their offers. The request for such clarifications and the response will necessarily be in writing.

2.8. Documentation

The following information should be furnished along with the technical bid by means of printed technical brochures.

- Make and model numbers of all the items quoted for.
- Specifications of all items asked along with technical specifications table.
- Point wise confirmation of details as specified under "Technical Specification" section.

2.9. Submission of Technical Details

It is mandatory to provide the technical details in the format as per the technical specifications required by the Bank. *The offer may not be evaluated by* Uttar Bihar Gramin Bank in case of non adherence to or partial submission of technical details as per the specification given in the tender. Uttar Bihar Gramin Bank will not allow/permit changes in the product once it is submitted. The relevant product information, brand and model number offered, printed product brochure, technical specification sheets etc. should be submitted along with the offer. **Failure to submit this information along with the offer could result in disqualification.**

2.10. Make and Models of the Equipment

It is mandatory to provide make, model and part number of all equipments and their subcomponents as asked in the technical specification. The offer may not be evaluated and/or will be liable for rejection in case of non-submission or partial submission of make, model and part numbers/serial numbers of the items offered. Please note that substituting this information by just brand name is not enough.

2.11. Format for Technical Bid

The Technical Bid must be made in an organized, structured and neat manner. Brochures/leaflets should be submitted as a bound document and not in a loose form.

The suggested format for submission of Technical Bid is as follows.

1. Index. Indexing should be done properly by giving page number with flags.
2. Covering Letter.
3. Technical Offer with Specifications as given in Annexure A

Term No	Short Description of term	Complied (Yes/No)	Detailed explanation about deviation, if not complied
1	Technical Inspection and performance Evaluation		

4. Warranty and AMC details to be quoted separately.
5. Delivery and Implementation schedule.
6. Technical Documentation (Product Brochures, Leaflets, Manuals etc.). An index of technical documentation submitted with the offer must be enclosed.
7. Details of past installations.

2.12. Standards

All standards to be followed should adhere to the guidelines set by MNRE (Ministry of New and Renewable Energy), Govt. of India, or Bureau of Indian Standards (BIS) specifications. **As per guidelines set by MNRE, manufacturer or its authorized dealer should get the Solar Photovoltaic (SPV) samples tested at Solar Energy Centre or ERTL, Kolkata or CPRL, Bangalore. All test centers should qualify all the measure parameters with appropriate remarks. The report issued by test center should provide a note on qualification of the sample with adequate reasons.**

2.13. Technical Inspection and Performance Evaluation

Uttar Bihar Gramin Bank reserves its right to carry out a technical inspection and performance evaluation (bench-marking) of complete central system in a factory test environment. For this purpose, our personnel may have to visit the factory site, which shall be provided at the Vendor's cost.

2.14. Completeness of Installation

The vendor has to install the Solar Power Unit within a period of two weeks of delivery. The installation will be deemed as incomplete if any component of the items supplied, batteries etc., or any documentation/media is not delivered or is delivered but not installed and/or not operational or not acceptable to Uttar Bihar Gramin Bank after acceptance testing/examination.

In such an event, the supply & installation will be termed as incomplete and it will not be accepted and warranty period will not commence. The entire site will be accepted after complete installation of equipment and satisfactory working of the entire equipment for a minimum period of 10 days. Necessary installation certificate will be issued by the concerned Branch Manager of the Bank which shall be the proof of date of installation.

2.15. Designing of Modules/Arrays

The vendor should visit the site before designing and engineering of SPV modules to ascertain the available space for erection of solar panels. He should design the modules/arrays in such a manner so that the required panels to be installed might be designed or engineered as per available space.

2.16. Manuals

The Vendor will have to supply all necessary documentation for training use and handling of the Solar system. This will include at least, one set of original copies per installation of the user manuals, reference manuals, operational manuals and system management manuals in English or Hindi or both if possible.

2.17. Solar Unit Failure

If during the warranty period, any equipment has a failure on four or more occasions in a quarter, it shall be replaced by equivalent new equipment by the vendor at no cost to Uttar Bihar Gramin Bank.

2.18. Unacceptable Quality of Items purchased

The vendor should not substitute any internal components or subsystems of Solar Solutions by similar items from different manufacturers, without adequate justification that is acceptable to Uttar Bihar Gramin Bank.

2.19. Technical Requirements

Uttar Bihar Gramin Bank intends to go green by installation of rooftop Solar Photovoltaic (SPV) system in the premises of its 9(nine) branches on PILOT basis as per location given in ANNEXUE-B **which may be substituted by other branch as per discretion of the Bank.** The equipments as per under mentioned table are to be operated in these Branches.

Solar Power Generating System with Energy Management system providing 230 Volts, +/- 3 % Pure Sine Wave, 50 Hz AC Power is required for running following equipments with backup facility of 03 (three) days NO SUN Autonomy.

Equipments	Qty.	Power (watt) per equip. per hour	Operational duration	Watt-Hour
Desktop Computer incl. Server with TFT monitor.	4	140	8 Hrs	4480
Dot Matrix Printer	2	75	2 Hrs	300
Pass Book Printers	1	75	2 Hrs	150
Scanner	1	75	2 Hrs	150
VSAT Modem	1	50	8 Hrs	400
Total Watt-Hrs				5480

Electrical Installations	Qty	Power (watt) per equip.	Operational duration	Watt-Hour
CFLs (11W) DC	04	11	6 Hrs	264
DC Wall Fans (400 mm)	03	18	6 Hrs	324
Total Watt-Hrs				588

Total Energy requirement: 5480 + 588 = 6068 Watt-Hours

The Battery bank should be designed to provide load energy requirement for minimum of 03 (three) days in the event of **no sunshine / cloudy / foggy conditions**. Interested bidders may inspect the site at their own cost and determine the load and solutions thereof as per suitability of locations.

2.20. Delivery

Delivery is to be done at the installation site / location mentioned in ANNEXURE-C or at the substituted site as per discretion and requirement of the Bank.

The Bank reserves the right to accept /reject any or all tenders received without assigning any reason.

Technical Specifications

Technical Specifications of Solar Photovoltaic (SPV) System.

Minimum Capacity of the Solar Photovoltaic (SPV) System is :

Solar Panel : 2.5 KWp

Battery : 48V, 500AH @ C/10 discharge rate

Charge Controller: 48 V, 60 A

Inverter: 48 V, 3KVA (pure sine wave)

However, the supplier is free to offer higher capacity in order to ensure the proper function of the equipment as described at 2.19 above.

The equipments should perform satisfactorily in the ambient conditions prevalent in Bihar in all seasons.



Solar PV Module

1. Solar PV module array to be of high efficiency Solar Modules utilizing mono/multi Crystalline Silicon Solar PV cells. It is advisable to have appropriate certificate for SPV module from the testing centers mentioned above. **Power output Guarantee offered for the SPV Module shall not be less than 10 years.**
2. Solar PV module array to be of high efficiency Solar Modules utilizing mono/multi Crystalline Silicon Solar PV cells. Individual Solar module rating should not be less than 75 Wp @ STC (Standard Test Condition).
3. Each Solar PV module offered should meet following Minimum requirement.
 - i) Efficiency of module $\geq 12.5\%$
I-V curve of each PV module with SI Nos. should be submitted along with Modules.
 - ii) Power output Guarantee offered for the SPV Module shall be :
12 years (with less than 10% degradation)
And 25 years (with less than 20% degradation).
 - iii) Solar PV Modules shall conform to **IEC-61215 (Ed.II), and IEC 61730 Part-1 & Part-II standards**. Test Certificates to be submitted along with the bid.
 - iv) With RFID on Solar Modules.

Following details to be provided.

- Maximum Power , Pmax
- Open Circuit Voltage, Voc
- Short Circuit Current , Isc
- Voltage at Max Power Vmp
- Current at Max power Imp
- Efficiency of module.

Type of Solar P V Modules offered should have proven Performance Track record in Indian climatic conditions

II. Module mounting structure / Array

- Structure shall be designed for simple mechanical and electrical installation. It shall support SPV modules at a given orientation, absorb and transfer the mechanical loads to the ground properly.
- The mounting structure should be galvanized with anti corrosive paint.
- The array structure shall be so designed & engineered that it will occupy minimum space without sacrificing the output from SPV panels & shall withstand heavy winds. Support structure design and foundation or fixation mounting arrangements should withstand minimum horizontal wind speed of 120kms / hr.
- **The Structure should have suitable anti-theft measures to prevent easy removal of Solar Modules.**

III. Array Junction Box

- The junction boxes shall be dustproof, vermin proof and waterproof and made of FRP / Thermo Plastic with IP65 protection.
- The terminals shall be connected to copper bus bar arrangement of proper sizes.
- The junction boxes shall have suitable cable entry points fitted with cable glands of appropriate sizes for both incoming and outgoing cables.
- Suitable markings shall be provided on the bus bar for easy identification and cable ferrules shall be fitted at the cable termination points for identification.
- The rating of the JB's shall be suitable with adequate safety factor to inter connect the Solar PV array.
- Metal oxide varistors shall be provided inside the Array Junction Boxes.

IV. Battery Bank

The battery Bank of the solar system should be of positive Tubular Plate type, low maintenance lead acid flooded electrolyte, or gel type VRLA.

The Performance Warranty of the Battery Bank should not be less than 05 Years.

Main features of the battery.

- ▲ The batteries shall be of **02V Cells and capacity at C/10 rate**
- ▲ Polypropylene Container
- ▲ Terminals: Of lead alloy, suitable for bolted connection.
- ▲ Vent Plugs: Micro porous, ceramic for minimizing electrolyte loss (for flooded electrolyte type).
- ▲ Positive Plate: Tubular Type.
- ▲ Negative Plate: Flat plate with grids cast of corrosion resistant special alloy.
- ▲ Separators : Micro porous polyethylene envelope.
- ▲ Topping Up frequency : once in 8/10 months (for flooded electrolyte type).
- ▲ High charging efficiencies: Ah efficiency; In excess of 90%.
- ▲ Low rate of self-discharge: less than 3% per month at 30°C.
- ▲ Capacity to sustain partial state of charge – should withstand partial state of charge up to six months.

The Battery of reputed make to be used shall be in the field along with a Solar PV system, working satisfactorily for more than 5 Years.

V. Battery Rack

A suitable battery rack with interconnections & end connector shall be provided to suitably house the batteries in the bank. Battery interconnecting links shall be provided for interconnecting in series and in parallel as needed. Connectors for inter cell connection (series / parallel) shall be maintenance free screws. Insulated terminal covers shall be provided.

VI. Power Conditioning Unit (PCU)

Solar Charge Controller

The Solar charge controller is one of the main components of the system and Battery charge/discharge operation must be done to achieve highest cycle life of the battery bank, being installed. The Solar Regulator should be micro controller based with PWM regulation and low energy consumption towards system efficiency.

Inverter/ Control Electronics

Inverter is a major component of the system and does the function of inverting DC to AC. Inverter should also charge the battery bank from the AC mains as and when it is required. The Inverter is to be of Online Topology with the load getting Inverted power at all times.

- ▲ Inverters shall be of very high quality having high efficiency and shall be capable of running in isolated mode. The inverter should be completely compatible with the solar charge controller and distribution panel.
- ▲ The inverter shall be designed for continuous, reliable power supply as per specifications. The inverter shall have high conversion efficiency from 25 percent load to the full rated load. The peak efficiency of the inverter shall be more than 90% and more than 80% at partial load (50%-75%).
- ▲ The Inverter shall have internal protection arrangement against any sustained fault.
- ▲ The Inverter shall have provision for input & output isolation.
- ▲ The PCU shall have provision to charge from Grid Power/Generator, when required.
- ▲ Each solid-state electronic device shall have to be protected to ensure long life of the inverter as well as smooth functioning of the inverter.
- ▲ Tripping voltage & start up voltage for the inverters should be perfectly matched with the recommendation of battery manufacturers.
- ▲ Details of proper operation, maintenance and troubleshooting are to be furnished.

The Following features should be present.

- ▲ Inverter mode nominal AC Volt O/P : 230 V \pm 3%
- ▲ Inverter Surge O/P rating : 150% for 15 Sec, 200% for 3 Sec
- ▲ Inverter mode Frequency : 50Hz \pm 0.5Hz
- ▲ Wave Shape : Sinusoidal
- ▲ Design : Microcontroller/DSP, Mosfet /IGBT Topology
- ▲ Soft Start : To be incorporated
- ▲ Over voltage / under voltage / over load / short circuit protection to be present
- ▲ Peak Efficiency : > 90%
- ▲ THD : < 3%
- ▲ Grid supply voltage window : 180 to 270 Volt
- ▲ Generator Compatibility: To be Compatible, will accept power from generator or grid.
- ▲ Operating Temperature : 0°C to 50°C
- ▲ Humidity up to 95% non-condensing
- ▲ Acoustic warning : battery low, Over load.

Others

VII. Cables and accessories

All the cables shall be supplied conforming to IS 694 & shall be of 650 V/ 1.1 kV grade as per requirement. Only PVC insulated Copper cables shall be used. The size of the cables between array interconnections, array to junction boxes, junction boxes to DCDB, DCDB to PCU etc shall be so selected to keep the voltage drop and losses to the minimum.

All installation accessories, which are required to install and successfully commission the power plant, are to be provided.

VIII. Earthing and protection

The array structure of the System shall be grounded properly using adequate number of grounding kits. All metal casing / shielding of the plant shall be thoroughly grounded to ensure safety of the power plant. Earthing connection will be provided by the Bank.

IX. System Functioning

The system should be compatible with Solar and Mains. Priority should always be given to the Solar Energy. Depending upon specified battery state of charge and availability of the sun/mains the source of battery-charging shall be selected.

The grid charging is switched on only when battery reaches a specified SOC / Volt (user defined) and stopped when battery has reached a specified SOC / Volt again, thus ensuring solar energy is fully utilized; i.e., after grid charging has stopped, solar will have to do the end charging.

When Solar & mains are available and battery is fully charged, the load shall be supplied by solar energy.

When solar is not available but grid is available, AC mains will supply the load along with charging the battery bank.

X. Scope of Work

This job involves by means of the enclosed specification to design, manufacture, supply, installation & commissioning of the Solar Power Generating System with **5 years warranty period**. **The warranty should cover all the equipments, parts & labour.**

XI. After Sales Services

The Vendor should ensure five years onsite after sales service free of cost during which include routine and preventive maintenance every quarter.

XII. Other Conditions

1. Technical description for all components & electronics along with block diagram, Layout, drawing is to be submitted.
2. The bidder should be approved manufacturer of MNRE, Govt. of India and is actively participating in various MNRE programs in the country as per Govt. Policy.

PART: B

Commercial/Price Bid

Commercial Terms and Conditions

Kindly note that no deviation from the terms mentioned hereunder will be acceptable.

1. Format for Commercial Term

The Commercial Offer must not contradict the Technical Offer in any way. The suggested format for submission of Commercial Offer is as follows.

1. Index
2. Covering Letter
3. Confirmation of commercial term as specified below.

2. Alternative Offers

Each offer should specify only a single solution, which is cost-effective and meets the tender specifications and should not include many alternatives.

3. Payment Terms

Uttar Bihar Gramin Bank will make payment as follows.

Sr. No.	Payment due on	Percentage of amount to be paid	Remarks
1	Against Delivery of all Equipments ordered	40%	40 % of the order value will be paid on delivery of all equipment ordered, by Head office against acknowledged delivery challans.
2	Against installation and acceptance by the Bank	40%	40 % of the order value will be paid by Head office, on completion of installation of Solar Power unit.
3	Performance Bank Guarantee.	20%	The balance of 20% will be paid by the Head office, after submission of Performance Bank Guarantee (as per the Bank's standard format) for the equivalent amount valid for the warranty period i.e. 05 yrs and additional claim period of 03 months.

4. Prices should be quoted on FOR destination basis inclusive of all taxes.

5. Delivery and Installation

- a) The Vendor shall be responsible for delivery and installation of the equipment ordered at all the sites and for making them fully operational at no additional charge within **08 - 12 weeks from the date of the respective work order placed by the Bank.**
- b) If the vendor fails to deliver and/or install all the equipment ordered within the stipulated time schedule or by the date extended by Uttar Bihar Gramin Bank, it will be a breach of contract. In such case the Bank reserves its right to impose any or all of the following conditions.

- i) The levy on agreed liquidated charge @0.05% per day of delay.
- ii) To cancel the order and purchase the material from any other source by forfeiting the earnest /security money without any notice to the vendor.

6. Penalty for Delay in installation

For any delay in installation of the Solar Power Solution, Uttar Bihar Gramin Bank will charge penalty @ 1% of the order value per week or part thereof, subject to a maximum of 5%. Thereafter Order may be cancelled and other penal measure may be taken like foreclosure of BG, etc.

7. Order Cancellation

Uttar Bihar Gramin Bank reserves its right to cancel the order in the event of one or more of the following situations.

1. Delay in delivery and installation beyond 12 weeks from the date of respective work order.
2. Discrepancy in Solar Power Units noticed during installation.

8. Acceptance Tests

At the discretion of Uttar Bihar Gramin Bank, acceptance test will be conducted by the vendor at the site in the presence of the officials of Uttar Bihar Gramin Bank and/or its nominated consultants. The tests would check for **trouble-free operation of the complete system for ten consecutive days including three consecutive days NO SUN AUTONOMY period** apart from physical verification and testing. There shall not be any additional charges payable by Uttar Bihar Gramin Bank for carrying out this acceptance test. Uttar Bihar Gramin Bank will take over the system on successful completion of the above acceptance test.

9. Warranty

The offer must include a **minimum five years comprehensive on-site warranty** from the date of installation and acceptance of the system by Uttar Bihar Gramin Bank. The warranty will start only after complete installation and acceptance of equipments in the Branch /Office as a unit.

Vendor shall be fully responsible for the manufacturer's warranty in respect of proper design, quality and workmanship of all equipment, accessories etc. covered by the tender. Vendor must warrant all equipments, accessories, spare parts etc. against any manufacturing defects during the warranty period. During the warranty period, vendor shall maintain the systems and repair/replace at the installed site all defective components, at no charge to Uttar Bihar Gramin Bank.

Warranty should not become void if Uttar Bihar Gramin Bank buys any other solutions from a third party and installs it with/in the Solar Power Solution in the presence of the representative of the vendor. The format for the warranty card is attached as ANNEXURE-C

10. Annual Maintenance Charges (AMC)

This will commence after expiry of five years warranty period. The vendor should also quote separately for annual comprehensive maintenance at site (for Solar Power Solutions) for **five years** from the date of expiry of the warranty period. During AMC period, vendor shall maintain the systems and repair/replace at the installed site all defective components, at no charge to Uttar Bihar Gramin Bank. **The Vendor must have five service centres the districts of North Bihar including Muzaffarpur. The full address & contact details of service centre should be attached with Technical Bid (Part-A).**

The offer must give commitment to provide maintenance and should quote price for five years from the date of expiry of warranty. Uttar Bihar Gramin Bank will pay annual maintenance charges (AMC) in Indian Rupees at the end of each quarter for every quarter.

This charge should be indicated separately in the Commercial/Price Bid.

11. Spare parts

Since the contract will be covered by warranty period and annual maintenance contract for five years, vendor will make available the spare parts for the systems available during contract period and also for a minimum period of five years from the date of expiry of warranty. Thereafter, vendor will give at least Six months notice prior to discontinuation of support services, so that Uttar Bihar Gramin Bank may order its requirements of the spares, if it so desires. If any of the spare parts is not available or difficult to procure or the procurement is likely to be delayed for replacement if required, the replacement shall be carried out with state of the art technology equipment of equivalent capacity or higher capacity at no additional charges to Uttar Bihar Gramin Bank. No extra charge will be paid for the same.

12. Penalty for Downtime

Any equipment that is reported to be down on a given date should be either fully repaired or replaced by temporary substitute (of equivalent configuration) within 24 hours. Required equipment should be readily available on standby position either in the Bank or at the service center of the vendor so that replacement of temporary substitute can be done at minimum delay. However, the downtime should not exceed 12 hours for city locations and 48 hours for remote/rural locations. The reporting will be through a telephonic message or any other mode viz. email, fax as Uttar Bihar Gramin Bank may decide.

In case vendor fails to meet the above standards of maintenance, there will be a **penalty of Rs.500 per day** subject to a maximum of 5% of the order value for the units affected.

The temporary substitute equipment should be replaced by the original equipment duly repaired within a week's time, failing which the above penalty will be imposed for the number of days exceeding one week.

13. Indemnity

Vendor shall indemnify, protect and save Uttar Bihar Gramin Bank against all claims, losses, costs, damages, expenses, action suits and other proceeding, resulting from infringement of any patent, trademarks, copyrights etc. or such other statutory infringements in respect of all the equipments supplied by him.

14. Publicity

Any publicity by the vendor in which the name of Uttar Bihar Gramin Bank is to be used should be done only with the explicit written permission of Uttar Bihar Gramin Bank.

15. Guarantees

Vendor should guarantee that the systems delivered to Uttar Bihar Gramin Bank are brand new, including all components. All the units must be supplied with their original and complete printed documentation.

16. Resolution of Disputes

All disputes arising out of tender will be settled by Bank's advisory committee at Uttar Bihar Gramin Bank, Head Office: Muzaffarpur only and binding on the vendor.

17. Jurisdiction

All disputes will be subject matter of the Court situated at Muzaffarpur (Bihar).

18. Earnest Money Deposit (EMD):

After the bid is finalized, the EMD will be returned to the bidders who fail to be the L1 vendor and the EMD of the L1 vendor will be retained by the Bank until AMC expires. This EMD will be treated as Security Deposit of the Vendor for that period. **NO interest will be paid by the Bank on such deposit.**

General Instructions to Bidders:

1. Non-transferable Tender

This tender document is not transferable. Only the vendor, who has purchased this tender, is entitled to quote.

2. Credentials

The Technical offers must contain the credentials of the vendor, which should clearly indicate that the vendor is eligible by all means to participate in the tendering process. The responsibility to prove the eligibility of the vendor to participate in the tendering process is on the vendor itself.

3. Erasures or Alterations

The offer should be neatly typed and no hand-written addition/alterations should be there. Such additions/alterations will make the offer ineligible. Technical details must be completely filled up. Correct technical information of the product being offered must be filled in. Filling up of the information using terms such as "OK", "accepted", "noted", "as given in brochure/manual" is not acceptable. Uttar Bihar Gramin Bank may treat offers not adhering to these guidelines as unacceptable.

4. Location

This tender is being floated by the Uttar Bihar Gramin Bank, Head Office, Muzaffarpur. The Solar Power Units and other items being procured through this tender shall be installed by the vendor at different locations as per Annexure – B after getting the order of the Uttar Bihar Gramin Bank. The Bank reserves its right to make changes in the location, if found necessary.

5. Right to Alter Quantities

Uttar Bihar Gramin Bank reserves the right to alter the quantities specified in the tenders. Uttar Bihar Gramin Bank also reserves the right to delete one or more items from the list of items specified in tender.

6. Repeat Orders

Uttar Bihar Gramin Bank reserves the right to place a repeat order on the vendor under the same terms and conditions within the validity period of the offer.

7. Costs & Currency

1. The offer must be in fixed price basis in Indian Rupees only. Rates quoted by Bidder will be 'FOR' destination prices inclusive of taxes, levies, duties, packing, forwarding, freight, insurance, loading, unloading, supply, installation, commissioning, and any/ all charges for successful Supply & Installation of the systems at any locations in Bihar.
2. The rates quoted by the Bidder shall be firm and no escalation will be allowed on any account whatever be the case.
3. Bidder shall submit the rates as per the enclosed Performa of schedule of rates separately in ANNEXURE-D
4. Minimum of **five-year comprehensive on-site warranty covering replacement of all parts with labour cost.** This period will start from the date of installation and acceptance of all the equipments by Uttar Bihar Gramin Bank.
5. Annual Maintenance Charges for five years to start after five years of warranty period.
6. All costs should be given in figures and words simultaneously.

8. Taxes

The offer shall be inclusive of all taxes No price variation relating to increase in Customs Duty, Excise Tax, Currency variation etc. will be permitted.

9. Derivation of Lowest bid

Lowest bid will be arrived on Total Cost of the Ownership (TCO).

TCO = Total Basic value + Installation Charges + Packing & forwarding Charges + Freight + Insurance + AMC amount of 05 years after expiry of warranty period with year wise spread.

10. Annual Maintenance Charge [AMC]

Please note that AMC for 05 years after expiry of warranty to be quoted separately failing which the bid will be summarily rejected.

The Vendor should accept terms of AMC as set by the Bank after the completion of Warranty Period for a further minimum period of 05 years.

Cost of equipment	% of AMC in terms of cost	Amount of AMC per anum	Amount for 05 years

Annexure –B

Name of Branches and their location

SN	Branch	Address of Branch
01	Araria	Novratan Chowk, Station Road, Araria(Bihar)-854311
02	Gaura Bazar	Uttar Bihar Gramin Bank Gaura Bazar Brach, PO Gaura, Dist.: Saran 841 301
03	Katihar Bazar	Uttar Bihar Gramin Bank, Katihar Bazar Branch, Choudhary Complex(1st Floor), Bata Chowk, Dr. R. Prasad Road, Katihar, PIN-854105
04	Madhepura	Uttar Bihar Gramin Bank Subhash Chowk, Main Road, Verma Complex, P.O. Madhepura-852113
05	Mirganj	Uttar Bihar Gramin Bank P.O. Mirganj P.S. Mirganj, Distt. Gopalganj-841438
06	Motihari	Uttar Bihar Gramin Bank Po: Motihari, Pin code: 845401
07	Muzaffarpur	Uttar Bihar Gramin Bank Sharma Complex Kalambag chowk, Muzaffarpur-842001
08	Purnia	Uttar Bihar Gramin Bank, Purnia Branch, NH-31, Distt:- Purnia, PIN-854301
09	Saharsa	Uttar Bihar Gramin Bank D.B. Road, P.O. Saharsa Distt. Saharsa (Bihar)-852201

ANNEXURE-C

FORMAT FOR WARRANTY CARD TO BE SUPPLIED WITH EACH SOLAR PV SYSTEM

1. Name & Address of the Bidder
2. Name & Address of the branch where the system is deployed
3. Date of commissioning of the system
4. Details of PV Module (s) supplied with the Solar PV system
 - a. Make (Name of the Module manufacturer)
 - b. Model
 - c. Serial No(s)
 - d. Wattage of the PV Module (s) under STC
 - e. Warranty valid up to
5. Details of Battery
 - a. Make (Name of the battery manufacturer)
 - b. Model
 - c. Batch/Serial No(s)
 - d. Rated Voltage & Ampere Hour (AH) details of battery at C/20 or C/10
 - e. Warranty valid up to
6. Details of Electronics & other BOS items.
 - a. System Make (Name of the Bidder)
 - b. Model
 - c. Serial No(s)
 - d. Warranty valid up to
7. Designation & Address of the person to be contacted for claiming Warranty obligations.

Signature

Name & Designation of the Bidder

Place & Date:

(During the warranty period user reserves the right to cross check the performance of the systems with the minimum performance levels specified in the specifications)

BIDDING SCHEDULE FOR SOLAR PHOTOVOLTAIC SYSTEM

Price for the contract as per Technical proposal given in PART A

Sl. No.	PART	QUANTITY	RATE (Per Quantity)	AMOUNT
1	Solar Photovoltaic Modules			
2.	Power Conditioning Unit			
3.	Batteries with rack			
4.	Solar Charge Controller / Control Electronics			
5.	Installation and Commissioning charges			
	Sub Total (In Figures)			
	Sub Total (In Wards)			

Signature of Authorized Person: _____
 Date: _____
 Name: _____
 Place: _____
 Designation: _____
 Company Seal: _____

UNDERTAKING BY THE BIDDER

I/We during the course of implementation of this project may be having access to restricted/confidential/Internal information/data of the bank; and therefore, the undersigned undertakes that:

- a. I/We will not disclose or make available to any third party of the bank, any confidential, internal or proprietary contents of the knowledge or information of the bank or information about its clients maintained on the knowledge or information bases of the bank, nor will I/We grant direct access to such information or information sharing processes unless :
- b. The concerned information owner in the bank gives them expressed, advanced and written permission as to each and every third party, and ;
- c. Each and every employee of the third party enters into a written agreement in the form of this Agreement. Such confidentiality will be maintained by me/us during the period of my/our contract with the bank as well as after the termination of such contract.

I/We will protect confidential / internal information of the bank from loss and unauthorized use and manipulation and will indemnify the Bank in case of reputation loss or any kind of loss.

Seal and Signature of the Vendor