

BHARATHIYA VIKAS TRUST–

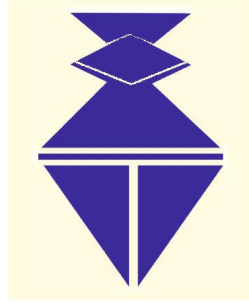
Call for Accreditation of Vendors (South Region)

For Supply, Installation, Commissioning and Maintenance of Solar Energy Solutions for Livelihood applications under Gap financing programme 2020-21.

Bharathiya Vikas Trust hereby invites bids for the Supply, Installation, Commissioning and Maintenance of Solar Energy Solutions for Livelihood applications under the Gap financing programme in the states of Karnataka, Andhra Pradesh, Telangana, Tamil Nadu during the year 2020-21

Bids, as per the terms and conditions should be submitted to the undersigned (by hard copy or email), at the below-mentioned address/ email ID by 5pm on or before 05/11/2020.

Procurement Officer – Bharathiya Vikas Trust
'Ananth', Perampalli, Shivalli – Udupi, Karnataka, India – 576 102
Ph. No: 0820-2570263, E-mail: procurement@bvtmanipal.org



BHARATHIYA VIKAS TRUST

TENDER NOTIFICATION

FOR

**THE SUPPLY, INSTALLATION, COMMISSIONING &
COMPREHENSIVE MAINTENANCE FOR 5 YEARS OF OFF-GRID
SOLAR ENERGY SOLUTIONS FOR LIVELIHOOD APPLICATIONS
UNDER GAP FINANCING PROGRAMME**

FOR SOUTH REGION

**IN THE STATES OF KARNATAKA, ANDHRA PRADESH,
TELANGANA, TAMIL NADU, DURING THE YEAR 2020-21.**

TENDER DOCUMENT

Released on 26/ 10/ 2020

Address for Communication

Bharathiya Vikas Trust

Ananth, Perampalli, Shivalli – UDUPI – 576 102

PH: 0820-2570263, E-mail: procurement@bvtmanipal.org

DISCLAIMER

NIT No: 2020-21/ 01

This tender by Bharathiya Vikas Trust (**BVT**) is for accreditation of clean energy enterprises for the work of supply, installation, commissioning and comprehensive maintenance of Solar Photovoltaic (SPV) off-grid systems for 5 years, for livelihood applications in Karnataka, Andhra Pradesh, Telangana and Tamil Nadu during the year 2020-21. This is to enable participation under the Gap financing programme of BVT.

NOTE:

1. Though adequate care has been taken while preparing the Notice Inviting Tender (NIT) document, the Bidders shall satisfy themselves that the document is complete in all respects. Intimation of any discrepancy shall be given to this office immediately. If no intimation is received from any Bidder within three (3) days from the date of notification of Tender, it shall be considered that the Tender document is complete in all respects.
2. Bharathiya Vikas Trust reserves the right to cancel/ withdraw this invitation for bids without assigning any reason and shall bear no liability whatsoever consequent upon such a decision
3. Bharathiya Vikas Trust reserves the right to modify, amend or supplement this document.
4. While this Tender has been prepared in good faith, neither Bharathiya Vikas Trust nor their employees or advisors make any representation or warranty, express or implied, or accept any responsibility or liability, whatsoever, in respect of any statements or omissions herein, or the accuracy, completeness or reliability of information, and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of this Tender, even if any loss or damage is caused by any act or omission on their part.

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Bharathiya Vikas Trust

Ananth, Perampalli, Shivalli – UDUPI – 576 102

PH: 0820- 2570263

E-mail: procurement@bvtmanipal.org

SOLAR TENDER: 2020-21/01; Dated 26-10-2020

NOTICE INVITING TENDER

Procurement Officer of Bharathiya Vikas Trust (BVT), Karnataka State, India hereby invites bids for supply, installation, commissioning & comprehensive maintenance for 5 years of off-grid solar energy solutions for livelihood applications in Karnataka, Andhra Pradesh, Telangana and Tamil Nadu, during the year 2020-21. These bids will be used to accredit clean energy enterprises who can participate in the Gap financing programme being undertaken by BVT.

1.	Tender Ref No.	2020-21/ 01
2.	Last date & time for the bid submission	05/11/2020 at 5pm

Interested and eligible bidders may furnish the Technical & Commercial Bids for supply of solar systems to the below mentioned address/ email ID

Bharathiya Vikas Trust

Ananth, Perampalli, Shivalli – UDUPI, Karnataka, India – 576 102

PH: 0820- 2570263,

E-mail: procurement@bvtmanipal.org

Any further information or clarification may be obtained by email from procurement@bvtmanipal.org.

sd/-

**Procurement Officer
Bharathiya Vikas Trust**

INSTRUCTION TO BIDDERS

Eligibility to bidders:

- I. Organization should be in operation for atleast 1 year in the field of supply, installation and maintenance of Solar Energy Solutions.
- II. Company registration certificates or any other proof of incorporation to be submitted to establish the legal status.
- III. The company should be able to provide excellent service. It is expected that complaints will be addressed within 72 hrs of lodging. The company should provide a list of service centers or contact points in the region.
- IV. Solar panels used by the company should be of a supplier in India and should have manufacturing company name and the technical specifications
- V. Audited IT return for last financial year.
- VI. PAN card for the Organization.
- VII. Documents to establish that the organization has implemented projects of cumulative worth Rs 10 lakhs or more in the last one year.
- VIII. Service provider should provide service for the system for a minimum period of 1 year. This should include one scheduled service for every six months.

Cost of bidding:

The bidder shall bear all costs associated with the preparation and submission of Bid to the Procurement Officer, Bharathiya Vikas Trust herein after referred to as "the Purchaser". The Purchase will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

Technical proposal shall contain:

- I. Particulars of the Firm as per Annexure - 2
- II. Checklist of Documents to be submitted as per Annexure - 3
- III. The bidder has to submit acceptance letter of guarantee for 5 years for the total performance of the Solar Energy Systems
- IV. The bidder has to provide **nearest local service** centre details
- V. The bidder has to sign all the pages of the documents as token of acceptance of all terms and conditions.

Financial bid shall contain:

The rate quoted for supply of Solar Energy Solutions at the respective sites. The rate quoted should include GST, packing, forwarding charges including loading and unloading, installation and commissioning, etc.

Price schedule:

The Bidder shall complete the price schedule as per **Annexure 4 - PRICE SCHEDULE** furnished in the Bidding Documents, indicating the total cost towards supply, installation, commissioning and Maintenance of solar energy solutions for livelihood solutions as per the Technical specifications mentioned in the **Annexure – 1(a) TECHNICAL SPECIFICATIONS FOR SOLUTIONS**.

Final Price:

Prices quoted by the Bidder will be used for accreditation of the Bidder as a 'Clean Energy Enterprise under the Gap financing programme' and to determine the benchmark price of each solution category. The final price may vary based on transportation and other associated costs. However, BVT will use the prices quoted to finalize the benchmark price for the region and therefore the gap financing support for each solution category.

Format and Signing of Bid:

The Bidder shall submit copies of all the documents by email to procurement@bvtmanipal.org or hard copies may be submitted by hand or post/courier to the below mentioned address Procurement Officer, Bharathiya Vikas Trust, Ananth, Perampalli, Shivalli – UDUPI, Karnataka, India – 576 102

Deadline for Submission of Bids:

Bids must be received by the Purchaser not later than the time and date specified in the invitation for Bids (Section I). The Purchaser may, at its discretion, extend this deadline for submission of bid by amending the bid documents in which case all rights and obligations of

the Purchaser and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

Tender Opening and Evaluation of E-Tenders:

All Technical & Financial bids received will be opened on 5/ 11/ 2020 between 5pm and 5.30pm. The Bidders Names, Bid Modifications, or Withdrawals, Bid prices, Discounts and the presence or absence of the requisite details will be recorded by the Procurement Officer and submitted to the Accreditation and Benchmarking committee of the Bharathiya Vikas Trust. No Bid shall be rejected at bid opening, except for late bids, which will be rejected.

Clarification of Bids:

During evaluation of Bids, the purchaser may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing (via email) and no change in prices or substances of the Bid shall be sought, offered or permitted.

Preliminary Examination:

The purchaser will examine the Bids to determine whether they are complete. Any incomplete bids will be rejected. The purchaser may waive any minor infirmity or non- conformity or irregularity in a bid, which does not constitute a material deviation.

Acceptance or rejection of bids:

- Procurement Officer, Bharathiya Vikas Trust reserves the right to accept or reject any bid and to annul the bidding process and reject all bids at any time prior to accreditation, without there by incurring any liability or any obligation to inform the affected bidder or bidders of the grounds for the said action.
- Any Bid with incomplete information is liable for rejection.

ANNEXURE 1(a):

TECHNICAL SPECIFICATIONS OF SOLUTIONS:

SOUTH REGION: Karnataka, Tamil Nadu, Telangana and Andhra Pradesh

Solution category (South region)	Panel Capacity with Module Mounting Structure	Battery Capacity with Battery Rack	CR/ Inverter Capacity	Cables		Safety Equipment
Cat – S1 (Single Cluster Milking Machine – 5 cows)	75 Wp	80 Ah, 12 V X 1 No.	20 A, 12 V – SSR type	2.5 sq.mm X 10 m 4 sq.mm X 10 m 10 sq.mm X 12 m 10 sq.mm 2C X 3 m	5W, 12 V – DC LED light X 1 No.	
Cat – S2 (Single Cluster Milking Machine – 10 cows)	120Wp	120 Ah, 12 V X 1 No.	20 A, 12 V – SSR type	2.5 sq.mm X 20 m 4 sq.mm X 10 m 16 sq.mm X 20 m 16 sq.mm 2C X 4 m	10W, 12 V – DC LED light X 1 No.	
Cat – S3 (Double Cluster Milking Machine – 15 cows)	150Wp	80 Ah, 12 V X 2 Nos.	20 A, 24 V – SSR type	4 sq.mm X 40 m 10 sq.mm X 30 m 10 sq.mm 2C X 5 m	5W, 12 V – DC LED light X 2 Nos.	
Cat – S4 (Double Cluster Milking Machine – 25 cows)	300Wp	150 Ah, 12 V X 2 Nos.	20 A, 12 V – SSR type	2.5 sq.mm X 10 m 4 sq.mm X 10 m 10 sq.mm X 12 m 10 sq.mm 2C X 3 m	5W, 12 V – DC LED light X 2 Nos. 10W, 12 V – DC LED light X 2 Nos.	
Cat – S5 (Rice Mill Unit – 240 kg/hr) Integrated Huller + polisher – 2 hp. Pre-Cleaner – 0.5 hp. Grader – 0.5 hp.	3.3 kWp	200 Ah X 8 Nos.	Will be provided by the machine manufacturer	4 sq.mm X 40 m 16 sq.mm X 30 m 25 sq.mm X 12 m Earthing Cable- 10 sq.mm X 25 m	10 W, 24 V – DC LED light X 2 Nos.	AJB – 5 IN 1 OUT with SPD & MCB X 1 No. Double pole MCB – 63 A, 230 Vac X 1 No. Lightning Protection System – Lighting arrester rod, conductors, earthing strip, and insulator. X 1 No.
Cat - S6 (Millet Processing System – any one machine at a time – Dehuller – 2 hp/ Destoner – 2 hp/	2.5 kWp	150 Ah, 12 V X 8 Nos.	5 kW, 6 kVA, 96 V	4 sq.mm X 40 m 6 sq.mm X 30 m 10 sq.mm X 12 m Earthing Cable- 10 sq.mm X 20		AJB – 2 IN 1 OUT with SPD & MCB X 1 No. Double pole MCB – 16 A, 230

<p>Grader – 0.5 hp) – 2 hp with 3 hrs. back-up</p> <p>(Dal Processing System – any one machine at a time) – 2 hp with 3 hrs. back-up</p> <p>(Flour/ Spice Processing System – any one machine at a time) – 2 hp with 3 hrs. back-up</p>				m		<p>Vac X 1 No.</p> <p>Lightning Protection System – Lighting arrester rod, conductors, earthing strip, and insulator X 1 No.</p> <p>GIPB – with SPD & MCB</p> <p>Earthing Kit – 2 Nos.</p>
<p>Cat- S7 (Flour/ Spice Processing System – any one machine at a time) – 1 hp with 3 hrs. back-up</p>	1.2 kWp	150 Ah, 12 V X 4 Nos.	3 kW, 4 kVA, 48 V	4 sq.mm X 24 m 6 sq.mm X 20 m 10 sq.mm X 6 m Earthing Cable- 10 sq.mm X 15 m		<p>AJB – 2 IN 1 OUT with SPD & MCB X 1 No.</p> <p>Double pole MCB – 16 A, 230 Vac X 1 No.</p> <p>Lightning Protection System – Lighting arrester rod, conductors, earthing strip, and insulator X 1 No.</p> <p>GIPB – with SPD & MCB</p> <p>Earthing Kit – 2 Nos.</p>

I, _____ (Name of signatory) on behalf of the bidder _____(Name of the bidder), hereby certify that I have noted the technical specifications of solutions mentioned above and the prices quoted in Annexure 4 are as per the details specified above and comply with the technical specifications mentioned in Annexure 1 (b).

Signature
(Name and Address of the Bidder with seal)
(In the capacity of..... Duly authorized to sign the Tender for and on behalf of _____)

ANNEXURE 1(b):

TECHNICAL SPECIFICATIONS OF COMPONENTS

The proposed project shall be commissioned as per the technical specifications given below. Any shortcomings will lead to cancellation of Letter of Award & Competent Authority's decision will be final and binding on the bidder.

SOLAR PV MODULE:

The PV modules used must qualify to the latest edition of IEC PV module qualification test or equivalent BIS standards Crystalline Silicon Solar Cell Modules IEC 61215/IS14286. In addition, the modules must conform to IEC 61730 Part-1- requirements for construction & Part 2 – requirements for testing, for safety qualification or equivalent IS

- For the PV modules to be used in a highly corrosive atmosphere throughout their lifetime, they must qualify to IEC 61701/IS 61701
- The total solar PV array capacity should not be less than allocated capacity and should comprise of solar crystalline modules of minimum Wp mentioned in the bill of materials/ above wattage. Module capacity less than minimum the mentioned Wp shall not be accepted.
- PV modules must be tested and approved by one of the IEC authorized test centres. The module frame shall be made of corrosion resistant materials, preferably having anodized aluminium.

The following information must be mentioned in the ID used on each module (This can be inside or outside the laminate, but must be able to withstand harsh environmental conditions).

- Name of the manufacturer of the PV module.
- Name of the manufacturer of Solar Cells.
- Month & year of the manufacture (separate for solar cells and modules)
- Country of origin (separately for solar cells and module)
- I-V curve for the module Wattage, I_{max} , V_{max} and FF (Fill Factor) for the module
- Unique Serial No and Model No of the module
- Date and year of obtaining IEC PV module qualification certificate.
- Name of the test lab issuing IEC certificate.
- Other relevant information on traceability of solar cells and module as per ISO 9001 and ISO 14001

Materials Warranty

- Material Warranty is defined as: The manufacturer should warrant the Solar Module(s) to be free from the defects and/or failures specified below for a period not less than twenty-five (25) years from the date of sale to the original customer ("Customer")
- Defects and/or failures due to manufacturing.
- Defects and/or failures due to quality of materials

- Non conformity to specifications due to faulty manufacturing and/or inspection processes. If the solar Module(s) fails to conform to this warranty, the manufacturer will repair or replace the solar module(s), at the Owners sole option.

Performance Warranty

The predicted electrical degradation of power generated not exceeding 20% of the minimum rated power over the 25-year period and not more than 10% after first ten years period of the full rated original output

MOUNTING STRUCTURE

- Hot dip galvanized MS/ anodized aluminium of size not less than 50 mm x 50 mm x 6 mm size shall be used for mounting the modules/ panels/arrays. Each structure should have angle of inclination as per the site conditions to take maximum irradiation. However to accommodate more capacity the angle inclination may be reduced until the plant meets the specified performance ratio requirements 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 (like Assam-basic wind speed of 180km/hour). It may be ensured that the design has been certified by a recognized Lab/ Institution in this regard and submit wind loading calculation sheet to APDCL in compliance to standards governing, as on date like IS-875, NBC etc. Suitable fastening arrangement such as grouting and clamping should be provided to secure the installation against the specific wind speed.
- The mounting structure steel shall be as per latest IS 2062: 1992 and galvanization of the mounting structure shall be in compliance of latest IS 4759 d) Structural material shall be corrosion resistant and electrolytically compatible with the materials used in the module frame, its fasteners, nuts and bolts. Necessary protection towards rusting need to be provided either by coating or ionization.
- The structures shall be designed to allow easy replacement of any module. The array structure shall be so designed that it will occupy minimum space without sacrificing the output from the SPV panels. Installation of solar structure should not damage the roof in any way. If any concrete or foundation is required, it should be pre cast type.
- Regarding civil structures the bidder need to take care of the load bearing capacity of the roof and need arrange suitable structures based on the quality of roof

DC COMBINER BOX/ARRAY JUNCTION BOX:

- The junction boxes are to be provided in the PV array for termination of connecting cables. The Junction Boxes (JBs) shall be made of GRP/FRP/Powder Coated Aluminium /cast aluminium alloy with full dust, water & vermin proof arrangement. All wires/cables must be terminated through cable lugs. The JB's shall be such that input & output termination can be made through suitable cable glands
- Copper bus bars/terminal blocks housed in the junction box with suitable termination threads Conforming to IP65 standard and IEC 62208 Hinged door with EPDM rubber gasket to prevent water entry with single compression cable glands, provision of earthing. It should be placed at 5 feet height or above for ease of accessibility
- Suitable markings shall be provided on the bus bar for easy identification and the cable ferrules must be fitted at the cable termination points for identification

BATTERY:

- Lead acid Tubular type
- All the batteries should have a C/10 rate of discharge. The voltage of each battery should be of 12 V.
- Battery should conform to the latest BIS/ International standards. A copy of the relevant test certificate for the battery should be furnished.
- The battery should be warranted for minimum 5 years.
- The battery should be installed inside the premises of consumers on a Battery rack of acid resistant material to bear the required battery load. The non-reactive acid proof mat should be provided around the floor space of battery bank

PCU/ INVERTER:

The power conditioning unit/ central inverter should be provided to convert DC power produced by SPV modules, in to AC power. The power conditioning unit/inverter should be Off-Grid type. Typical technical features of the inverter shall be as follows:

Power conditioning unit with inbuilt charge controller of capacity & ratings as specified in the below for various capacity of Solar Power Plants should convert DC power in to AC power, must confirm to standards IEC 61683.

The PCU will have the following features:

- MOSFET / IGBT based MPPT charging
- Wide input voltage range
- Output voltage 230V, +/-2% of modified/ pure sine wave for single phase.
- Output frequency: 50 Hz, +/- 0.5 Hz
- Capacity of PCU/ Inverter is specified at 0.8 lagging power factor
- THD: less than 3% Efficiency: >85% for 1.6 KW capacity of PCU at full load
- Ambient Temp 50 degree Celsius (max.)
- Operating humidity 95% maximum

Protections:

- Over voltage (automatic shutdown)
- Under voltage (automatic shutdown)
- Overload - Short circuit (circuit breaker & electronics protection against sustained fault)
- Over Temperature
- Battery, PV reverse polarity

Indicators

- Array on
- MPPT charger on
- Battery connected, charging
- Inverter ON
- Load on solar/ battery
- Grid charger on
- Load on Grid

- Grid on
- Fault

Display Parameters

- Charging current
- Charging voltage
- Voltage of PV panels
- Output voltage
- Grid voltage
- Inverter loading (kW) & Energy Generation (kWh)
- Output frequency
- Fault / fault code

Cooling: Air Cooled

When battery bank is fully charged, the PCU should have the feature to feed the power generated from solar to load and draw the additional power from main supply to meet the load requirements in the case load is more than solar energy produced.

The PCU/ inverters should be tested from the MNRE approved test centres / NABL /BIS accredited testing- calibration laboratories. In case of imported power conditioning units, these should be approved by international test houses.

SOLAR CHARGE CONTROLLER

- Charge controller should be MPPT charger type
- The charge controller shall conform IEC 62093 / IEC 60068 or MNRE standard.
- Control of the maximum charge of the battery by means of a steady-voltage charging
- Control of load output: it is automatically disconnected when the battery charge decreases to around 50% of its capacity and it will be reset when the 60% will be raised during battery recharge.
- Display of the state of battery charge.
- Display of charging mode.
- Protection against polarity reversal of PV array and battery, Over Current, Short Circuit, Deep Discharge, Input Surge Voltage; Blocking diode protection against battery night time leakage through PV Module.
- Temp. Compensation.
- The self-consumption of the charge controller shall not be more than 20 mA at rated voltage and rated current.

PROTECTIONS

The system should be provided with all necessary protections like earthing, Lightning, and grid islanding as follows:

LIGHTNING PROTECTION

The SPV power plants shall be provided with lightning & overvoltage protection. The main aim in this protection shall be to reduce the over voltage to a tolerable value before it reaches the PV or other sub system components. The source of over voltage can be lightning, atmosphere

disturbances etc. The entire space occupying the SPV array shall be suitably protected against Lightning by deploying required number of Lightning Arrestors. Lightning protection should be provided as per IEC 62305 standards. The protection against induced high-voltages shall be provided by the use of metal oxide arrestors (MOVs) and suitable earthing such that induced transients find an alternate route to earth.

EARTHING PROTECTION

Each array structure of the PV yard should be grounded/ earthed properly as per IS:3043 - 1987. In addition the lightning arrester/masts should also be provided inside the array field. Provision should be kept for shorting and grounding of the PV array at the time of maintenance work. All metal casing/shielding of the plant should be thoroughly grounded in accordance with Indian Electricity Act/IE Rules.

Earth Resistance shall be tested in presence of the representative of APDCL as and when required after earthing by calibrated earth tester. PCU, ACDB and DCDB should also be earthed properly. Earth resistance shall not be more than 5 ohms for individual pit and shall be less than 1.0 Ohms for Grid in line.

The earthing conductor shall be rated for the maximum short circuit current, and shall be 1.56 times the short circuit current. The area of cross -section of conductor shall not be less than 1.6 sq mm in any case. The earthing pits shall be made at locations approved by beneficiary.

CABLES

Cables of appropriate size to be used in the Project shall have the following characteristics:

- Shall meet IEC 60227/IS 694, IEC 60502/IS1554 standards
- Temp. Range: -10oC to +80oC.
- Voltage rating 660/1000V
- Excellent resistance to heat, cold, water, oil, abrasion, UV radiation
- Flexible
- Sizes of cables between array interconnections, array to junction boxes, junction boxes to Inverter etc. shall be so selected to keep the voltage drop (power loss) of the entire Project to the minimum. The cables (as per IS) should be insulated with a special grade PVC compound formulated for outdoor use.
- Cable Routing/ Marking: All cable/wires are to be routed in a GI cable tray and suitably tagged and marked with proper manner by good quality ferule or by other means so that the cable easily identified
- The Cable should be so selected that it should be compatible up to the life of the solar PV panels i.e. twenty five (25) Operational Years.
- The ratings given are approximately, Power Producer to indicate size and length as per system design requirement. All the cables required for the Project provided by the Power Producer. All cable schedules/layout drawings approved prior to installation.
- Multi Strand, Annealed high conductivity copper/aluminium conductor PVC type 'A' pressure extruded insulation or XLPE insulation. Overall PVC/XLPE insulation for UV protection Armored cable for underground laying. All cable trays including covers to be provided. All cables conform to latest edition of IEC/ equivalent BIS Standards as specified below: BOS item / component Standard Description Standard Number

Cables General Test and Measuring Methods, PVC/XLPE insulated cables for working Voltage up to and including 1100 V ,UV resistant for outdoor installation IS /IEC 69947.

- The size of each type of DC cable selected shall be based on minimum voltage drop.
- The size of each type of AC cable selected shall be based on minimum voltage drop however; the maximum drop shall be limited to 2 %.

TOOLS & TACKLES AND SPARES:

- a. After completion of installation & commissioning of the power plant, necessary tools & tackles shall be maintained by the successful bidder for maintenance purpose
- b. A list of requisite spares in case of PCU/inverter comprising of a set of control logic cards, IGBT driver cards etc. Junction Boxes. Fuses, MOVs / arrestors, MCCBs etc. along with spare set of PV modules be indicated, which shall be maintained. A minimum set of spares shall be maintained in the plant itself for the entire period of warranty and Operation & Maintenance which upon its use shall be replenished

DANGER BOARDS AND SIGNAGES:

Danger boards should be provided as and where necessary as per IE Act. /IE Rules as amended up to date. Three signage's shall be provided one each at control room, solar array area and main entry in to the area. Text of the signage's may be finalized in consultation with Bharathiya Vikas Trust.

FIRE EXTINGUISHERS:

The firefighting system for the proposed power plant for fire protection shall be consisting of

Portable fire extinguishers in the control room for fire caused by electrical short circuits

Sand buckets in the control room

The installation of Fire Extinguishers should confirm to TAC regulations and BIS standards. The fire extinguishers shall be provided in the control room housing PCUs as well as on the Roof or site where the PV arrays have been installed

DRAWINGS & MANUALS:

- Three sets of Engineering, electrical drawings and Installation and O&M manuals are to be supplied. Bidders shall provide complete technical data sheets for each equipment giving details of the specifications along with make/makes in their bid along with basic design of the power plant and power evacuation, synchronization along with protection equipment
- Approved ISI and reputed makes for equipment be used
- For complete electro-mechanical works, bidders shall supply complete design, details and drawings for approval to Bharathiya Vikas Trust before progressing with the installation work

SAFETY MEASURES:

The bidder shall take entire responsibility for electrical safety of the installation(s) and follow all the safety rules & regulations applicable as per Electricity Act, 2003 and CEA guidelines etc

ANNEXURE 2

DETAILS OF THE ORGANISATION

1	Name of the Supplier	
2	Year of starting the organization & registration number (photocopy of registration certificate or any other relevant document to be enclosed)	
3	Address of the Supplier (along with phone no.& pin code)	
4	Status of Supplier	Proprietorship / Partnership/ Pvt Ltd / Limited/others
5	(a) GSTIN (b) PAN No. of Income Tax Dept. (Photocopy of Income Tax (IT)) returns for the last Financial Year years to be enclosed	
6	Audit reports for the last years (Certified copy of Chartered Account' report in P&L account to be enclosed)	
7	Experience of Supplier/supplier relating to supply of solar energy-based solutions (supporting certificates to be enclosed)	
8	Particulars of Physical Infrastructure and total strength of staff available in the organization relating to Supplier/supply/testing etc.,	

Signature of the bidder and address with seal

Date:

ANNEXURE - 3

Sl.No.	Description	Whether the Document is enclosed or not	Page No. From and to
1	Details of Organization as per Table –I	YES/NO	
2	Copies showing the legal status, places of registration and principal place of business of the firm	YES/NO	
3	Copies of audited financial statements for the last financial years	YES/NO	
4	Copies of GST registration and GST returns filled in the last financial years	YES/NO	
5	Copies of income tax registration and income tax returns filled in the last financial years.	YES/NO	
6	Acceptance to give 5 years guarantee for trouble free operation and maintenance.	YES/NO	
7	Address of the nearest official Service Centre of the company.	YES/NO	

I abide by all the above terms & conditions.

PLACE:

DATE:

SIGNATURE OF THE BIDDER and with office seal

ANNEXURE 4

PRICE SCHEDULE

PARTICULARS TO BE SUBMITTED IN THE TABLE BELOW:

PRICE SCHEDULE FOR THE SUPPLY, INSTALLATION, COMMISSIONING & COMPREHENSIVE MAINTENANCE FOR 5 YEARS OF OFF-GRID SOLAR ENERGY SOLUTIONS FOR LIVELIHOOD APPLICATIONS IN THE STATES OF KARNATAKA, ANDHRA PRADESH, TELANGANA AND TAMIL NADU DURING THE YEAR 2020-21, UNDER THE GAP FINANCING PROGRAMME OF BVT.

Rates quoted by the bidder:

- I. The rates should be mentioned solution category wise, clearly both in words and figures.
- II. Rates should be inclusive of GST.
- III. Rates should include an average transportation cost for supply of solution category in the region of operation of the bidder.

SOUTH REGION: Karnataka, Tamil Nadu, Telangana, Andhra Pradesh

Solution category (South region)	Final rates in INR (all-inclusive and as per conditions mentioned above)
Cat – S1 (Single Cluster Milking Machine – 5 cows)	
Cat – S2 (Single Cluster Milking Machine – 10 cows)	
Cat – S3 (Double Cluster Milking Machine – 15 cows)	
Cat – S4 (Double Cluster Milking Machine – 25 cows)	
Cat – S5 (Rice Mill Unit – 240 kg/hr) Integrated Huller + polisher – 2 hp. Pre-Cleaner – 0.5 hp. Grader – 0.5 hp.	
Cat - S6 (Millet Processing System – any one machine at a time – Dehuller – 2 hp/ Destoner – 2 hp/ Grader – 0.5 hp) – 2 hp with 3 hrs. back-up (Dal Processing System – any one machine at a time) – 2 hp with 3 hrs. back-up (Flour/ Spice Processing System – any one machine at a time) – 2 hp with 3 hrs. back- up	
Cat- S7 (Flour/ Spice Processing System – any one machine at a time) – 1 hp with 3 hrs. back- up	

CONDITIONS:

1. If our tender is accepted and accreditation granted to our enterprise/ organization, we hereby undertake to abide by the stipulated Terms and Conditions, to supply, install and maintain solar energy-based solutions for livelihood applications.
2. If accredited, we agree to abide by the conditions of the BVT Gap financing programme. We will strictly observe the laws against fraud and corruption in force in India namely "Prevention of corruption act 1988".
3. We understand that you are not bound to determine the benchmark price based on the lowest offer that you may receive.
4. We accept that all disputes between parties will be adjudicated by a competent court in Udupi, India.

I, _____ (Name of signatory) on behalf of the bidder _____ (Name of the bidder), hereby certify that I have noted the technical specifications of solutions mentioned in Annexure 1 (a) and the technical specifications for components mentioned in Annexure 1 (b) and the prices quoted above are as per the details specified and in compliance with Annexure 1 (a) and 1 (b).

Dated this..... day of.....2020.

Signature
(Name and Address of the Tender with seal)
(In the capacity of..... Duly authorized to sign the Tender for and on behalf
of_____)