Sub: - Quotation for supply of battery bank at 33/11KV Pontemol Substation under the jurisdiction of Elect. Sub Div-I, Curchorem.

On Behalf of The Governor of Goa, quotation for the below mentioned work as per the terms and conditions depicted in Annexure-I, II & III is invited

**QUOTATION**

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Description</th>
<th>Unit</th>
<th>Qty.</th>
<th>Rate in figures &amp; words (Rs.)</th>
<th>Amount in figures (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Supply of 30V, 150 Amp Hr., Valve Regulated Lead Acid (VRLA) type maintenance free batteries set at 10 hr discharge rate consisting of 16 Nos, each of 2 V, cell having terminal connectors, self-supporting stack fully charged ready to use complete with all other accessories alongwith nut &amp; Bolts, as per technical specification mentioned in Annexure-III</td>
<td>No.</td>
<td>01</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sub total in Rs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Add GST @ 18%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grand Total in Rs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

E.M.D. Rs. 2, 879/- (Rupees Two Thousand Eight Hundred Seventy Nine only)

Last date & time of receipt of quotation: 02/06/2020 upto 15:00hrs.
Date & time of opening of quotation: 02/06/2020 at 15.30hrs.
All other Rules & Regulations in force shall be applicable
For more details please visit either Goa Govt. State portal or this office on any working day between 14:30 to 17:00hrs

Sealed quotation alongwith attached Terms and Conditions duly signed & super scribed on the top of envelop as “Quotation for supply of battery bank at 33/11KV Pontemol Substation under the jurisdiction of Elect. Sub Div-I, Curchorem.” should be inserted in the quotation box kept at office of the Executive Engineer, Elect, Dept., Div-VII (O & M) Curchorem or should reach to this office by post/ courier service on or before 02/06/2020 upto 15.00hrs. The quotation will be opened at 15.30hrs. on the same day.

Name:
Signature:
Stamp of the Contractor:
Encl: As above

Sd/-
EXECUTIVE ENGINEER-VII.

To,

Copy to:  
1) The Superintending Engineer, Elect. Dept., Circle-I/II, Margao/Panaji…. For information.  
3) The Divisional Accountant, Accounts Section, Elect. Div-VII, Curchorem….He is directed to be present on the day of opening.  
4) The Sub Divisional Engineer, Elect. Sub-Div-I, Curchorem.  
5) The Director of Information Technology, IT HUB, 2nd Floor, Altinho, Panaji-Goa…. With a request to publish the quotation called by this office on Goa Govt. State portal by 27/05/2020 (E-mail sent to stateportal.goa@nic.in)
1) **RATES:** - The Rates quoted should be firm.

2) **TAXES & DUTIES:** - The rates quoted shall be inclusive of GST. The landing cost shall include the following:
   a) Cost of material / equipment
   b) All applicable taxes and duties
   c) Packing, forwarding, freight, clearing charges etc.
   d) Cost of packets, containers, cases, etc.
   e) Insurance and other similar charge
   f) Freight charges upto destination and transportation charges upto the site or work place, loading, unloading, etc.
   g) All incidentals up to testing commissioning etc.

3) **VALIDITY:** - The Rates quoted should be valid for a period of 120 days from the date of opening of the quotation.

4) **COMPLETION PERIOD:** - The supply should be completed within a period of 15 days from the date of issue of firm supply order.

5) **EARNEST MONEY DEPOSIT:** - An amount of Rs. 2, 879/- towards EMD shall be furnished in a separate envelope, sealed and superscribed as “EMD FOR QUOTATION” (ENVELOPE-A). (Quotation No, & detail of Quotation to be specified) EMD shall be in the form of Demand Draft drawn in the name of The Executive Engineer, Elect, Division VII, Curchorem, on any schedule Bank guaranteed by Reserve Bank of India and made payable at par on any Branches in Goa. EMD payment by cash, cheque, fixed & short term deposit shall not be entertained. Quotation unaccompanied by EMD as above will be summarily rejected. The quotations for the work shall remain open for a period of 120 days from the opening of quotations. The Government shall without prejudice to any other right or remedy, be at liberty to forfeit 50 % of the earnest money if any bidder withdraws his quotation before that date or makes any modifications in terms & conditions which are not acceptable to the Department, and to forfeit the whole of the earnest money if the bidder, whose quotation is accepted, fails to commence the work specified in NIQ (Along with changes in scope) in the prescribed time or abandons the work before its completion.

The 2nd envelope superscribed as “Financial bid” (Quotation No, & detail of Quotation to be specified) shall contain Price bid / Bidding schedule, duly signed by the tenderer on each page over their official rubber stamp, on all pages alongwith the financial bid and other documents (ENVELOPE-B).

The 3rd cover (ENVELOPE-C) pertaining to the tender shall be superscribed as detailed in quotation shall contain the other two envelopes (Envelope-A & Envelope-B) superscribed “EMD for quotation” and “Financial bid”. Name of the tenderer shall be written on the left hand side corner of the envelopes.

6) **PERFORMANCE SECURITY:** - In case of acceptance of the offer the performance security of 5 % of the order value shall be deposited with this office within 15 days of acceptance letter and the same shall be refundable on completion of the supply and recording of the completion certificate towards supply of materials.

7) **SECURITY DEPOSIT:** - Security deposit amounting to 2.5% of the ordered value will have to be paid or the same will be deducted from the bills adjusting the EMD paid. The security deposit will be retained in this office till expiry of guarantee period and thereafter the same will be refunded against an application in Form-28, subject to the condition that no defects are noticed and the service is entire satisfaction to the Engineer-in-charge and on recovery of any amount due to the Govt.

8) **PAYMENT:** - Payment will be made to you through ECS mode by Directorate of Accounts Panaji only after completion of supply in full and in good condition conforming to our specifications & acceptance by Sub-Divisional Engineer, Elect Sub Div-I, Curchorem. No additional payment will be made towards all types of taxes and duties mentioned as above in condition no. 2 all of which are deemed to have been included in the quoted rates whether expressively specified or not. The bill in quadruplicate duly pre-receipted and signed may be furnished to the Sub Divisional Engineer, Elect Sub Div- I, Curchorem, under intimation to this office for arranging payments. Contractor should also submit document authenticating, the up to date GST has been paid by the contractor, for effecting payment

9) **DELIVERY OF MATERIALS:** - The materials shall be delivered on or before the stipulated date as per the supply order to the Elect Sub I, Curchorem.

10) **CONTRACT CONDITION:** - Orders will be governed by the conditions of P.W.D. agreement Form No.9.

11) **THE RIGHT TO REJECT:** - The right to reject any or all the quotations, without assigning any reasons, shall rest with the undersigned.

12) **DATE OF RECEIPT & OPENING OF QUOTATION:** - The quotation will be received up to 15.00 hours on 02/06/2020 & it will be opened at 15.30 hours on the same day.

**EXECUTIVE ENGINEER,**
**DIVISION-VII, CURCHOREM**
1. Incase the contractor comes across any incorrect/missed out punctuations, typographical errors in spelling, leading incorrect impression or no meaning to the text, then they are advised to get the same clarified from the department. The interpretation of the Engineer-in-charge, in such cases shall be final.

2. The rates quoted by the contractor shall be firm. Any claim on the veracities at a later stage shall not be entertained.

3. The offer shall be valid for a minimum period of 120 days from the date of opening of the quotation.

4. The whole contract shall be governed by the agreement under CPWD form 09 for the contract for supply of materials.

1. STANDARD:
Unless otherwise specified the supply shall comply in all respects with the requirements of the specifications amended up to date and any revisions thereof that may be issued during the currency of the contract.

2. COMPLIANCE WITH THE REGULATIONS:
The materials supplied shall be in accordance with I.S. Specifications as amended up to date and all revision thereof that may be issued during the currency of the contract. The Supply shall also conform to Electricity Department rules/procedures.

3. PAYMENTS:
No advance payment shall be made along with the order. No payment will be made for the purpose of storing the materials, transportation, freight and insurance charges, taxes and duty, etc. – all of which are deemed to have been included in the quoted rates whether expressively specified or not. Final payment will be done only after completion of the supply by the Contractor and submission of detailed reports in triplicate.

Deductions: - The work contract tax and income tax shall be deducted at source from the eligible payments to the contractor as applicable from the bill. Department shall issue necessary TDS certificate to the contractor. Successful contractor should have to submit document authenticating upto date GST has been deposited, before placing of order.

Payments will be done through ECS Mode (Electronic clearance system). You are therefore requested to give the following details
1. Name of the Contractor / Supplier
2. Phone No (Mobile)
3. Name, Branch and address of Bank to which payment to be credited
4. Type of account
5. Bank IFSC code
6. PAN No
7. TIN No

4. AGREEMENT AND GOVERNMENTING CONDITIONS:
The contractor whose offer is accepted will have to enter in to an agreement in the C.P.W.D. Form-9.

5. DEVIATIONS: Any deviation to these specifications if found necessary by the tenderer shall clearly be set forth in the separate schedule giving valid basis for such deviations. The advantage claimed if any to such deviation shall be clearly indicated.

6. GUARANTEE:-

6.1) The contractor shall warrant that the materials will be new and in accordance with the specification, will be free from defects in materials & workmanship. The contractor shall furnish performance guarantee for a period of 12 calendar months (Guarantee period) from the date of supply of materials. Any defects in failure observed during the period of guarantee will be the duty of the contractor to attend and rectify it on priority basis when informed or noticed at his own cost.
7. COMPLETION PERIOD:
The time allowed for completion of supply under this contract shall be of 15 days from the date of written orders to commence the supply.

7.1. Compensation for failure to supply the materials within stipulated time period. The time allowed for supply of materials as entered in the quotation shall be strictly observed by the contractor and shall be deemed to be of essence of the contractor on the part of the contractor and shall be reckoned from the date of firm order. Delay in the supply of the materials as per clauses of CPWD 8 shall attract the compensation/penalty @1% of the value of supply order per day for every day the supply remains uncommented or unfurnished after the stipulated completion date put to subject to total compensation not exceeding 10% on total cost of supply as per supply order.

Name:
Signature: EXECUTIVE ENGINEER-VII
Stamp of the Contractor:

ANNEXURE-III
Technical specification for MAINTENANCE FREE VALVE REGULATED LEAD ACID BATTERY

All the materials/components used in batteries shall be free from flaws and defects and shall conform to the relevant Indian Standards and good engineering practice.

The contractor shall submit the drawings and get the owners approval before proceedings.

Battery:
The DC battery bank (consisting of 16nos. of 2V Cells) shall be made up of stationary, maintenance free, value regulated (VRLA type) Lead Acid cells. The battery shall work on the gas recombination principle and has to be designed to meet the requirements of a wide range of applications. These batteries shall be suitable for a long life under continuous float operations at 2.15 to 2.25 Volts per cell, and occasional high discharges. The Battery bank voltage shall be 30V DC. The construction of cells shall conform to latest revisions of relevant IS as applicable, IEC 60896-2:1995, TEC. spec. G/BAT-01/02 of March 2000, BS 6290 Part-IV and IEEE 1188 Standards.

The battery shall be designed for high integrity and long life, safe use, ease of installation, eco-friendly cadmium free alloy and leak and explosion proof.

Float life of the battery shall be designed for 20years at 27degree C on full float with recommended charging methods. The Cyclic life at 27 degree C shall be 1200Cycles at 80% depth of discharge, 2000cycles at 50% depth of discharge and, 4000 cycles at 20% depth of discharge.

Operating range of temperature shall be (-) 20 degree C to (+) 55 degree C.

Cell terminals: All cell terminals shall be lead plated copper core inserts for high conductivity, Cell terminal posts shall be equipped with connection bolts having acid resisting bolts and nuts.

Container: Containers shall be made of high impact polypropylene co-polymer (preferably of flame retardant polypropylene UL 94 V 0/28 % LOI), with ribbed jar design for better heat dissipation. Containers shall be robust, heat resistant, leak proof, non-absorbent, acid resistant and free from flaws.

The container and cover sealing shall be done using heat sealing method for better joint strength. Safety Valve: self sealing. Pressure regulated and explosion proof safety valve shall be provided.

Plates: The positive plate shall be flat pasted type with lead calcium high Tin alloy grid to resist corrosion and for longer life. The negative plate shall be flat pasted type with lead calcium alloy grid for maintenance free characteristics. The plates shall be designed for maximum durability during all services conditions including high rate of discharge and rapid fluctuations of load. The construction of plates shall conform to latest revision of relevant IS as applicable. and IEC 60896-2:1995, TEC Spec. G/BAT-01/02 of March 2000 and also conforming to BS 6290 Part-IV & IEEE 1188.

Separators: The separators shall have low resistance, high porosity and highly absorbent type glass mat separator (AGM) and shall maintain the electrical insulation between the plates and shall allow the electrolyte to flow freely. The positive and negative terminal posts shall be clearly marked.

Horizontal plate stacking shall be adopted in order to increase consistency of performance, better heat dissipation, eliminate acid stratification and for longer life.
Electrolyte: The electrolyte shall be prepared from battery grade high purity sulphuric acid conforming to IS:226 to minimize self life.

There shall be no requirement of water topping throughout the battery life. Also no corrosive fumes.

Manufacture’s identification system

The following information shall be indelibly marked on outside of each cell:
Manufacturer’s name and trade mark
Country and year of manufacture
Manufacturer’s type designation
AH Capacity at 10 hr. discharge rate.
Serial number
Upper and lower electrolyte level in case of transparent containers

Connectors and fasteners

Lead coated copper connectors shall be used for connecting up adjacent cells, rows and end take off. Bolts, nuts and washers shall be effectively lead coated to prevent corrosion. End take off connectors shall be provided for end connections from positive and negative poles of the batteries to the power cables. More than one cable may be required to be connected to the battery terminals. Suitable arrangement for termination of multiple cables shall be provided so as to avoid extra load on the battery terminals. The cable will be single core having stranded aluminum conductor and PVC insulation which will be arranged by the employer separately. All the connectors and lugs shall be capable of continuously carrying the 30 minute discharge current of the respective batteries and shall be capable to carry 4KA for 1 Sec.

Battery racks: The cells /battery shall be supplied with compact, non-corrosive, self-supporting, floor mounted stand of robust design.

Tests

3.1 Batteries shall conform to all type tests as per the latest revisions of relevant IS as applicable. IEC 60896-2:1995, TEC Spec. G/BAT-01/02 of March 2000, BS 6290 Part-IV and IEEE 1188 Standards the latest issue of IS:1651 or IS:1652 (Whatever is applicable depending on type of battery being offered).

3.2 All acceptance test as required by the relevant Indian standards and other standards cited above shall be carried out at site after completion of installation. The capacity tests shall be carried out for 10 hr discharge rating. The contractor shall arrange for all necessary equipment, including the variable resistor, tools, tackles and instruments. If a battery fails to meet the guaranteed requirements the owner shall have the option of asking the contractor to replace the same with appropriate batteries at no extra cost and without affecting the commissioning schedule of the employer.

3.3 If successful contractor has not manufactured and commissioned the specified cell size, they must manufacture and test the prototype in advance and employer’s approval for the same.

Following type test shall be carried out on each type of cells in the presence of employer’s representative, if desired by the owner.
1. Capacity test
2. Watt hour and AH efficiency test

The contractor shall give at least three weeks advance notice of the date when the test are to be carried out. Three copies of the type test certificates shall be furnished to the employer for approval before dispatch of the equipment from works. The cost of the cells to be used for type tests shall be included in the respective types tests charges quoted by contractor, these cells shall not be supplied.

Accessories

The following information shall be given on the instruction cards supplied with the battery:
   a) Manufacturer’s instruction/literature/drawings and relevant details.
   b) Designation of cell in accordance with relevant IS and other standards mentioned at Clause 3.1 (Whatever applicable)

A complete set of all the accessories and devices for maintenance of batteries shall be supplied along with each type of battery bank. The following items comprise the complete set of accessories:
1) 6 nos. of cell testing voltmeter (3-0-3V) conforming to IS:1248.
2) 4 pairs of rubber gloves
3) 4 set of spanners
4) 6 nos. of instructions cards
MATERIALS:-
All materials such as clamps, bolts & Nuts, etc. required for this work should be hot dip galvanized as per relevant I.S.S.

NOTE:
All the materials to be supplied by the contractor should be confirming to relevant I.S. standards as amended up-to-date & as per the approved designs of the department. Where such standard does not exist one should strictly confirmed to the drawings, specification & general standards mentioned/enclosed. The materials offered by the contractor shall be the makes approved by the department in the enclosed list.

(APPROVED MAKES OF EQUIPMENTS)

<table>
<thead>
<tr>
<th>Sr.No</th>
<th>Name of Equipment</th>
<th>Preferred Makes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2V SMF VRLA DC Battery</td>
<td>Exide, Amaraja, HBL Power System Ltd., Tata Green.</td>
</tr>
</tbody>
</table>

Stamp: EXECUTIVE ENGINEER-VII  
ELECTRICITY DEPARTMENT,  
GOVT. OF GOA

Sign: Name of Contractor: