



ORISSA POWER TRANSMISSION CORPORATION LIMITED
OFFICE OF THE SR. GENERAL MANAGER,
CENTRAL PROCUREMENT CELL,
JANPATH, BHUBANESWAR - 751022

TENDER SPECIFICATION
NO. SRGM-CPC-TENDER-TELECOM- GPS TSE-96 / 09 -10

FOR
PROCUREMENT OF

GPS (GLOBAL POSITIONING SYSTEMS) based
TIME SYNCHRONIZATION EQUIPMENT(TSE)
For all Grid Sub-stations of OPTCL

Total Requirement : **83 Nos**



**ORISSA POWER TRANSMISSION CORPORATION LTD.
REGD. OFFICE: JANPATH, BHUBANESWAR – 751 022,
ORISSA**

TENDER NOTICE NO. 48 / 2009-10

For and on behalf of ORISSA POWER TRANSMISSION CORPORATION LTD, Sr. G.M. [C.P.C.] invites Tenders from reputed manufacturers or their channel partners / Authorised dealers having previous experience in the related field for Supply, Installation, Testing and Commissioning of GPS (Global Positioning system) based Time Synchronization Equipment at all Grid Sub-Stations (400 KV, 220 KV and 132 KV) under OPTCL, on turn key basis (**83 No**).as specified in the Tender specification. Tender papers shall be sold from **dt 19.11.2009 to dt 19.12.2009**. Interested firms may visit OPTCL's official web site <http://www.optcl.co.in> for detail specification.

SR. GENERAL MANAGER [C.P.C.]



NOTICE INVITING TENDER
ORISSA POWER TRANSMISSION CORPORATION LTD.,
REGD. OFFICE: JANPATH, BHUBANESWAR – 751 022,
ORISSA, INDIA.
TENDER NOTICE NO. 48 / 2009-10

For and on behalf of the ORISSA POWER TRANSMISSION CORPORATION LTD., the undersigned invites bids under two-part bidding system in double-sealed cover, duly super scribed with tender specification number and date of opening, from reputed manufacturer or their channel partner for supply of the following equipments along with accessories, as required under the following specifications.

<i>Sl. No.</i>	<i>Tender Specification No.</i>	<i>Description of equipments/work.</i>	<i>Quantity</i>	<i>Earnest Money Deposit (In Rs.)</i>	<i>Cost of Tender Spec. document (in Rs.)</i>	<i>Last date of receipt & opening of tender</i>
1.	Sr. GM-CPC-TENDER-TELECOM-GPS TSE - 96 / 09-10	Supply, Installation, Testing and Commissioning of Global Positioning System (GPS) based Time Synchronization Equipment (TSE), at all 400 kv , 220 kv & 132 kv s/s of OPTCL on turn key basis	83 Nos	2,75,000/-	10,000/- + 4% VAT	21.12.09.

The tender specification documents can be had from the office of the undersigned on payment of non-refundable cost of tender specification documents in the shape of cash from 10 A.M. to 1 P.M. during (both days inclusive) any working day from **dt 19.11.2009 to dt 19.12.2009** either in person or by remitting demand draft payable to Drawing & Disbursing Officer, ORISSA POWER TRANSMISSION CORPORATION LTD., Regd. Office: Janpath, Bhubaneswar- 751 022. No tender documents will be sold on any other day except as indicated.

The specification can also be down loaded from OPTCL'S official web site and the same may be submitted along with the cost of tender document by way of demand draft/pay order payable to D.D.O., OPTCL Ltd. Janapath, Bhubaneswar at the time of submission of tender document. In case, any deviation is found in the tender document, submitted by the tenderer from the content mentioned in our web site and/or non-submission of the cost of tender documents, the tender shall be liable to be rejected at any stage of the contract. The tenderer has to indemnify OPTCL for any loss accruing due to such alteration in the terms and conditions of the tender document &/ or for such alternation, resulting, in the cancellation of the contract.

The intending bidders, who want to get a copy of the tender specification document by post, are required to deposit an additional amount of Rs.200/- (Rupees two hundred) only over and above the cost of the tender specification, mentioned against each Tender Specification under heading "Cost of tender specification". Complete bids for different items will be received up

to **01.00 P.M.** only and the same will be opened at **03.00 P.M.** on the date mentioned in the notice inviting tender. Date and time of opening of price bids shall be intimated to the techno-commercially responsive bidders only. In the event of any specified date for the sale, submission or opening of bids being declared a holiday for purchaser, the bids will be sold/ received/ opened up to the appointed times on the next working day. Only one representative of each bidder will be allowed to participate in the bid opening with valid identification certificate. OPTCL also reserves the right to accept or reject any or all tenders without assigning any reason thereof, if the situation so warrants. OPTCL shall not be responsible for any postal delay or loss at any stage.

Minimum qualification criteria of bidders: AS STIPULATED IN SECTION-II, PART-I (G.T.C.C) OF THE TENDER SPECIFICATION.

**SR. GENERAL MANAGER
CENTRAL PROCUREMENT CELL**



FAX NO.: 0674 – 2542964
TELEPHONE NO.: 0674 – 2541801

**ORISSA POWER TRANSMISSION CORPORATION LTD.
OFFICE OF THE SR. GENERAL MANAGER
CENTRAL PROCUREMENT CELL
JANAPATH, BHUBANESWAR – 751022**

TENDER SPECIFICATION

NO. SRGM.-CPC –TENDER- TELECOM- GPS- TSE -96/09-10

CONTAINING

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- SECTION – II : GENERAL TERMS AND CONDITIONS
OF
CONTRACT (G.T.C.C.) (COMMERCIAL)**
- SECTION – III : LIST OF ANNEXURES (COMMERCIAL)**
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PART-I
SECTION-I
INSTRUCTIONS TO TENDERER

1. **Submission of Bids: -**

Sealed tenders in triplicate on two part bid basis, each complete in all respects, in the manner hereinafter specified are to be submitted in the office of Sr.General Manager [Central Procurement cell], OPTCL, Bhubaneswar on or before the date and time specified against the relevant tender Specification in the notice inviting the tenders. Each copy of the bids [Original, duplicate and triplicate] shall be in separate double sealed envelopes, super scribed on each of the covers, the relevant tender specification number and the due date of opening of the bids on the top right hand side of the envelopes. On the top left sides, original/duplicate/triplicate as is relevant, shall be written. The participants to the tender should be registered under Orissa Sales Tax/ Central Sales Tax 1947. 2. 2. **Division of Specification.**

The specification is mainly divided into two parts viz. Part-I & Part-II.

Part-I Consists of

- | | |
|--------------------------|--|
| [i] Section-I | Instruction to Tenderers. |
| [ii] Section-II | General Terms & conditions of contract. |
| [iii] Section-III | Schedules and forms etc. |
| [iv] Section-IV | Technical Specification. |

Part-II Consists of

- [i] Abstract of price components as per Annexure-IV**
[ii] Schedule of prices as per Annexure-V

3. **Tenders shall be in Two Parts**

The Tenderers are required to submit the tenders in two parts each in separate double sealed covers. Part-I shall be super scribed as “E.M.D”, technical and commercial and Part-II shall be super scribed as “Price Bid”

4. **Opening of Bids.**

- [a] **The part-I shall be opened in the Office of the Senior General Manager [Central Procurement Cell] in presence of such of the Tenderers or their authorized representatives [limited to one person only] on the due date of opening of tender. After scrutiny of the technical particulars and other commercial terms, clarifications, if required, shall be sought for from the bidders. The Tenderers shall be allowed 15 days time for such activity.**
- [b] On receipt of technical clarification, the bids shall be reviewed, evaluated and those not in conformity with the technical Specification / qualifying experience, shall be rejected. If any

of the technical proposal requires modification to make them comparable, discussion will be held with the participating bidders.

All the responsive bidders shall be given opportunity to submit the revised technical and revised price proposals as a follow up to the clarification (modification if any) on the technical proposals. The qualified bidders shall be given opportunity to submit revised price proposals within 15 days from the date of such discussion or within time frame mutually agreed, whichever is earlier.

- [c] When the revised price proposals are received, the original price proposals will be returned to the bidders unopened along with their original technical proposals. Only the revised technical and price proposals will be considered for bid evaluation. The price bids [Part-II] of such of the Tenderers, whose tenders have been found to be technically and commercially acceptable, including those supplementary revised price bids, submitted subsequently, shall be opened in the presence of the bidder's representative on a date and time which will be intimated to all technically and commercially acceptable Tenderers.
- [d] The bidders are required to furnish sufficient information to the Purchaser to establish their qualification, capacity to manufacture and/or supply the materials/perform the work. Such information shall include details of bidder's experience, its financial, managerial and technical capabilities.
- [e] The bidders are also required to furnish details of availability of appropriate technical staff and capability to perform after sales services. The above information shall be considered during scrutiny and evaluation of bids and any bid, which does not satisfactorily meet these requirements, shall not be considered for price bid evaluation.
- [f] The price bids of the technically and otherwise acceptable bids shall only be evaluated as per the norms applicable in terms of this Specification.

5 Purchaser's Right Regarding Alteration of Quantities Tendered:

The Purchaser may alter the quantities of materials/equipment at the time of placing orders. Initially the purchaser may place orders for lesser quantity with full freedom to place extension orders for further quantity under similar terms and conditions of the original orders. Orders may also be split among more than one tenderer for any particular item, if considered necessary in the interest of the Purchaser to get the goods/equipment earlier.

6 Procedure and opening time of tenders.

Tenders will be opened in the office of the Senior General Manager [C.P.C.] on the specified date and time in presence of the Tenderers or their authorized representatives [limited to one person only] in case of each bidder who may desire to be present, at the time of opening the bids. The Senior General manager [C.P.C.] or his authorized

representatives will, on opening each bid, read aloud the name of the bidder. He shall also read aloud the attested and unattested corrections and shall record the number of such corrections on each page of the Techno-Commercial Bid over his dated initials and also initial all such corrections.

7. **Bidder's Liberty to deviate from Specification.**

The Tenderer may deviate from the specification while quoting, if in his opinion, such deviation is in line with the manufacturer's standard practice and conducive to a better and more economical offer. All such deviations should however be clearly indicated giving full justifications for such deviation. **[Read with Clause-9, Section-II of the Specification].**

8. **Eligibility for submission of bids.**

Only those manufacturers who have deposited the cost of tender specification are eligible to participate in the tender. They should submit the money receipt as a proof of such payment. Further, the tender specification can also be downloaded from OPTCL's website and the cost of tender specification, in such a case, shall have to be remitted along with the submission of tender papers. Tenders submitted by others will be rejected. Also tender specification downloaded from OPTCL website may not be taken as 100% correct due to website technical difficulties. So it is advisable to purchase hard copies from the office of the Sr. General Manager (C.P.C.), OPTCL, Bhubaneswar.

9. **Purchaser's right to accept/reject bids:**

The purchaser reserves the right to reject any or all the tenders without assigning any reasons what so ever if it is in the interest of OPTCL, under the existing circumstances. **[Read with clause-10, Section-II of the specification].**

10. **Mode of submission of Tenders.**

[A] Tenders shall be submitted in person or by Registered Post with AD. Any other means of delivery shall not be accepted. When delivered in person, the tenders shall be received by a responsible officer of the office of the Senior General Manager [C.P.C.], OPTCL who shall officially acknowledge the receipt of the same. Tenders received after due date and time shall be returned un-opened.

[B] **Telegraphic or FAX tenders** shall not be accepted under any circumstances.

11. **Earnest money deposit:**

The tender shall be accompanied by Earnest Money deposit of value specified in the notice inviting tenders against each lot /bid. Tenders without the required EMD as indicated at

Annexure-VIII will be rejected outright and their Part-II envelope will be returned to them, unopened.

The earnest money deposit shall be furnished in one of the following forms subject to the conditions mentioned below:

- (a) **Cash:-** Payable to drawing & disbursing Officer, OPTCL (Hd.qrs. Office), Bhubaneswar - 751022
- (b) **Bank Draft:** -To be drawn in favor of Drawing & Disbursing Officer, OPTCL [H.Qrs. Office], Bhubaneswar-751 022.
- (c) Bank Guarantee from any Nationalized/Scheduled Bank strictly as per enclosed proforma vide **Annexure-VI** to be executed on non-judicial stamp paper worth Rs.29.00 or as applicable, as per prevailing laws in force and also to be accompanied by the confirmation letter of the issuing Bank Branch.
- (d) National saving certificate, duly pledged in favour of Senior General Manager [Central Procurement Cell] OPTCL {H.Qrs.Office}, Bhubaneswar-751 022.

NOTE:

- (i). The validity of the EMD in the form of Bank Guarantee shall be at least for 240 days from the date of opening of tender failing which the tender will be liable for rejection.
- (ii) No interest shall be paid on the Earnest Money Deposit.
- (iii) E.M.D. in shape of cash may be submitted upto Rs. 25,000/- (Rupees twenty five thousand) only. Above Rs. 25,000/- (Rupees Twenty-five thousand) the Earnest Money Deposit shall be furnished in any one of the forms indicated above (i.e. Through Bank Draft, Bank Guarantee/ National Savings Certificate).
- (iv) No adjustment towards EMD shall be permitted against any outstanding amount with the ORISSA POWER TRANSMISSION CORPORATION LTD..
- (v) The chart showing particulars of EMD to be furnished by Tenderers of different categories is placed at **Annexure-VIII.**
- (vi) In the case of un- successful tenderer, the EMD will be refunded after the tender is decided. In the case of successful Tenderer, this will be refunded only after furnishing of security money referred to at **clause-19 of Section-II.** Suits, if any, arising out of this clause shall be filed in a Court of law to which the jurisdiction of High Court of Orissa extends.
- (vii) EMD will be forfeited if the tenderer fails to accept the letter of intent and/or purchase order issued in his favor or to execute the order, placed on them.
- (viii) **Tenders not accompanied by Earnest Money shall be disqualified.**

12. **Validity of the Bids: -**

The tenders should be **kept valid for a period of 240 days from the date of opening of the tender, failing which the tenders will be rejected.**

13. **PRICE: -**

Tenderers are requested to quote **FIRM** price. No deviation from FIRM PRICE will be entertained irrespective of deviation **clause No.7** of this part of the specification.

14. **Revision of tender price by Bidders: -**

- [a] After opening of tenders and within the validity of period, no reduction or enhancement in price will be entertained. If there is any change in price, the tender shall stand rejected and the EMD deposited shall be forfeited.
- [b] If required, the tenderers may be asked to extend the validity period of bids under the same terms and conditions as per the original tender except for the change in delivery period. In such an event, the Tenderers are free to change any or all conditions of their bids including price at their own risk.

15. **Tenderers to be fully conversant with the clauses of the Specification:**

Tenderers are expected to be fully conversant with the meaning of all the clauses of the specification before submitting their tenders. In case of doubt regarding the meaning of any clause, the tenderer may seek clarification in writing from the Senior General Manager (Central Procurement Cell) OPTCL. This, however, does not entitle the Tenderer to ask for time beyond due date, fixed for receipt of tender.

16. **Documents to Accompany Bids.**

Tenderers are required to submit tenders in the following manner:

Part-I of the Tender shall Contain the following documents.

- [i] Declaration Form. **[As per Annexure-I]**
- [ii] Earnest Money. **[As per Annexure-VIII]**
- [iii] Technical specification and Guaranteed Technical Particulars conforming to the Purchaser's Specification along with drawings, literatures and all other required Annexure, duly filled in.
- [iv] Photostat copies of type test certificates of materials/equipments offered as stipulated in the Technical Specification.
- [v] Abstract of Terms & conditions in prescribed proforma as per

Annexure-II.

- [vi] General Terms & Conditions of supply offer as per Section-II of the Specification.
- [vii] List of orders executed for similar materials/equipments during preceding **2 (two) years** indicating the customer's name, Purchase Order No. & Date, date of supply and date of commissioning etc.
- [viii] Data on past experience **as per Clause-7 of Section-II** of the Specification.
- [ix] Sales tax clearance certificate for the previous year. The permanent account number [PAN] of the firm is required under Income tax Act.

- [x] Audited Balance sheet & profit loss accounts of the bidder, for past **(3) three years.**
- [xi] Schedule of quantity and delivery in the prescribed Proforma vide **Annexure, as appended.**
- [xii] List of Orders in hand to be executed.

17. Documents/Papers to accompany Part-II Bid.

(a) Part – II of the tender shall consist of the following

- (i) Abstract of Price Component, as per **Annexure-IV**
- (ii) Schedule of prices in the prescribed proforma as per **Annexure-V**

18. Conditional Offer

Conditional offer shall not be accepted.

19. General: -

- (i) Over writing shall be avoided.
- (ii) Erasures and other changes shall bear the dated initial of the person signing the tender.
- (iii) In the event of discrepancy or arithmetical error in the schedule of price, the decision of the purchaser shall be final and binding on the Tenderer.
- (iv) For evaluation, the price mentioned in words shall be taken if there is any difference in figures and words in the price bid.
- (v) Notice inviting tender shall form part of this specification.
- (vi) The price bids of the technically and otherwise acceptable bids shall only be evaluated. The price bids of others along with EMD, if any, shall be returned to the bidders unopened.
- (vii) Tenderer can offer any lot or all the lots of the tender, if there are any lots. But the tender (bid) must be furnished separately for each lot. For each lot, the tenderer has to submit PART-I & PART-II of the bids separately.
- (viii) The person signing the tender should sign on each page of the Tender paper in acknowledgement of having gone through the entire Tender Specification and in agreement thereof. Tender papers, not signed on each page with official seal by the bidder(s), shall not be considered.
- (ix) **It should be distinctly understood that the part-II of the bid shall contain only details/documents relating to price, as outlined in clause-17 mentioned herein above. Inclusion of any other documents/information etc. shall render the bid liable for rejection.**
- (X) The tenderer should comply the following requirement along with the offer.
Adequate Experience in supply, Installation, Testing and Commissioning of GPS based Time Synchronization Equipment/ System.

PART-I
SECTION-II
GENERAL TERMS AND CONDITIONS OF CONTRACT [G.T.C.C.]

1. **Scope of the contract:**

The scope of the contract shall be to design, manufacture, supply of equipments along with Installation, Testing and commissioning on turn key basis, as per the specification at the consignee's site, and rendering services in accordance with the enclosed technical specification and bill of quantity.

2.0 **Definition of terms:**

For the purpose of this specification and General Terms and Conditions of contract [GTCC], the following words shall have the meanings hereby indicated, except where otherwise described or defined.

2.1 "The Purchaser" shall mean the Senior General Manager[Central Procurement Cell] for and on behalf of ORISSA POWER TRANSMISSION CORPORATION LTD., Bhubaneswar.

2.2 "The Engineer" shall mean the Engineer appointed by the Purchaser for the purpose of this contract.

2.3 "Purchaser's Representative" shall mean any person or persons or consulting firm appointed and remunerated by the Purchaser to supervise, inspect, test and examine workmanship and materials of the equipment to be supplied.

2.4 "The supplier" shall mean the bidder whose bid has been accepted by the purchaser and shall include the bidder's executives, administrators, successors and permitted assignees.

2.5 "Equipment" shall mean and include all machinery, apparatus, materials, and articles to be provided under the contract by the suppliers.

2.6 "Contract Price" shall mean the sum named in or calculated the bid.

2.7 "General Condition" shall mean these General Terms and Conditions of Contract.

2.8 "The Specification" shall mean both the technical as well as commercial parts of the specification annexed to or issued with GTCC and shall include the schedules and drawings, attached thereto as well as all samples and pattern, if any.

2.9 "Month" shall mean "Calendar month".

2.10 "Writing" shall include any manuscript, type written, printed or other statement reproduction in any visible form and whether under seal or under hand.

2.11 "FOR Destination costs" shall mean the cost of equipment and material at the consignee's store/site. The cost is inclusive of Excise duty, Sales tax and other local taxes, packing, forwarding and insurance and freight charges.

2.12 The term "Contract document" shall mean and include GTCC, specifications, schedules, drawings, form of tender, Notice Inviting Tender, covering letter, schedule of prices or the final General Conditions, any special conditions, applicable to the particular contract.

2.11 Terms and conditions not herein defined shall have the same meaning as are assigned to them in the Indian Contract Act, failing that in the Orissa General Clauses Act.

3. Manner of execution:

Supply, Installation and commissioning of GPS based Time Synchronization Equipment / System at 400KV, 220KV & 132KV Grid Sub-Station of OPTCL(As per schedule enclosed- Annexure)

3.1 Shall be carried out in an approved manner as described in the technical specification and, in accordance with relevant Standard Specification, to the reasonable satisfaction of the Engineer.

3.2 The contractor shall within 15 days after the date of acceptance of letter submit to the engineer, a detail program with bar chart for the execution of work for his consent. The contractors shall whenever required by the engineer also provide in writing for his information of general description of the arrangements and methods which the contractor proposes to adopt for the execution of the work.

3.3 If at any time it should appear to the engineer that the actual progress of works does not conform to the program to which consent has been given under sub-clause-3.1, the contractor shall produce a revised program showing the modification to such program necessary to ensure completion of the works within the stipulated time of completion.

4. Inspection and Testing:

[i] The purchaser's representative shall be entitled at all reasonable times during manufacture to inspect, examine and test at the supplier's premises, the materials and workmanship of all equipments to be supplied under this contract and if part of the said equipment is being manufactured in other premises, the supplier shall obtain for the purchaser's representative permission to inspect, examine and test as if the equipment were being manufactured in the contractor's premises. Such inspection, examination and testing shall not release the supplier from his obligations under the contract.

[ii] The Supplier shall give to the purchaser adequate time/notice (at least clear 15 days for inside the state suppliers and 20 days for outside the state suppliers) in writing for inspection of materials indicating the place at which the equipment/material is ready for testing and inspection and shall also furnish the shop Routine Test Certificate, Calibration certificates of Testing instruments, calibrated in Govt. approved laboratory with authenticity letter of that laboratory along with the offer for inspection. A packing list along with the offer, indicating the quantity which can be delivered in full truck load/Mini truckload to facilitate issue of dispatch instruction shall also be furnished.

- [iii] Where the contract provides for test at the Premises of the supplier or any of his sub-vendors, the supplier shall provide such assistance, labour, materials, electricity, fuel and instruments, as may be required or as may be reasonably demanded by the Purchaser's representative to carryout such tests efficiently. The supplier is required to produce shop routine test Certificate, calibration certificates of Testing Instruments before offering their materials/equipment for inspection & testing. The test house/ laboratory where tests are to be carried out must be approved by the Govt. A letter pertaining to Govt. approved laboratory must be furnished to the purchaser along with the offer for inspection.
- [iv] After completion of the tests, the Purchaser's representative shall forward the test results to the Purchaser. If the test results conform to the specific standard and specification, the Purchaser shall approve the test results and communicate the same to the supplier in writing. The supplier shall provide atleast five copies of the test certificates to the Purchaser.
- [v] The Purchaser has the right to have the tests carried out at his own cost by an independent agency whenever there is dispute regarding the quality of supply.
- [vi] The purchaser or his authorized representative shall be entitled at all reasonable times to inspect and supervise and test during erection / installation of the system.

5. Training facilities.

The supplier shall provide all possible facilities for training of Purchaser's Technical personnel, when deputed by the Purchaser for acquiring first hand knowledge in assembly of the equipment, its erection, commissioning and for it's proper operation and maintenance in service, wherein it is thought necessary by the purchaser.

6. Rejection of Materials.

In the event any of the equipments, supplied by the manufacturer is found defective due to faulty design, bad workmanship, bad materials used or otherwise not in conformity with the requirements of the Specification, the Purchaser shall either reject the equipment or ask the supplier in writing to rectify or replace the defective equipment free of cost to the purchaser. The contractor on receipt of such notification shall either rectify or replace the defective equipment free of cost to the purchase within 15 days from the date of issue of such notification by the purchaser. If the supplier fails to do so, the Purchaser may:-

- [a] At its option replace or rectify such defective equipments and recover the extra costs so involved from the supplier plus fifteen percent and/or.
- [b] Terminate the contract for balance work/supplies, with enforcement of penalty Clause as per contract for the un-delivered goods and with forfeiture of Performance Guarantee/Composite Bank guarantee.

- [c] Acquire the defective equipment/materials at reduced price, considered equitable under the circumstances.

7.Experience of Bidders:

The bidders should furnish information regarding experience particularly on the following points:

- [i] Name of the manufacturer:
- [ii] Standing of the firm and experience in manufacture of equipment/material quoted:
- [iii] Description of equipment/material similar to that quoted, supplied and installed during the last two years with the name(s) of the Organizations to whom supplies were made wherein, at least one (1) certificate shall be from a state/central P.S.U.
- [iv] Details as to where installed etc.
- [v] Testing facilities at manufacturer's works.
- [vi] If the manufacturer is having collaboration with another firm [s], details regarding the same.
- [vii] A list of purchase orders of identical material/equipments offered as per technical specification executed during the last three years along with users certificate. User's certificate shall be legible and must indicate, user's name, address, designation, place of use, and satisfactory performance of the equipment/materials for at least two years from the date of commissioning. Wherein at least one (1) certificate shall be from a State/Central or P.S.U. Bids will not be considered if the past manufacturing experience is found to be un-satisfactory or is of less than 2 (two) years on the date of opening of the bid and bids not accompanying user's certificate will be rejected.**

8. Language and measures:

All documents pertaining to the contract including specifications, schedule, notices, correspondence, operating and maintenance instructions., drawings or any other writing shall be written in English language. The metric system of measurement shall be used exclusively in this contract.

9. Deviation from specification:

It is in the interest of the tenderers to study the specification, specified in the tender schedule thoroughly before tendering so that, if any deviations are made by the Tenderers,(both commercial and Technical), the same are prominently brought out on a separate sheet under heading "Deviations Commercial" and "Deviations Technical".

A list of deviations shall be enclosed with the tender. Unless deviations in scope, technical and commercial stipulations are specifically mentioned in the list of deviations, it shall be

presumed that the tenderer has accepted all the conditions, stipulated in the tender specification, not withstanding any exemptions mentioned therein.

10. **Right to reject/accept any tender:**

The purchaser reserves the right either to reject or to accept any or all tenders if the situation so warrants in the interest of the purchaser. Orders may also be split up between different Tenderers on individual merits of the Tenderer. The purchaser has exclusive right to alter the quantities of materials/ equipment at the time of placing final purchase order. After placing of the order, the purchaser may defer the delivery of the materials. It may be clearly understood by the Tenderer that the purchaser need not assign any reason for any of the above action [s]

11. **Supplier to inform himself fully:**

The supplier shall examine the instructions to tenderers, general conditions of contract, specification and the schedules of quantity and delivery to satisfy himself as to all terms and conditions and circumstances affecting the contract price. He shall quote price [s] according to his own views on these matters and understand that no additional allowances except as otherwise provided there in will be admissible. The purchaser shall not be responsible for any misunderstanding or incorrect information, obtained by the supplier other than the information given to the supplier in writing by the purchaser.

12. **Patent rights Etc.**

The supplier shall indemnify the Purchaser against all claims, actions, suits and proceedings for the infringement of any patent design or copy right protected either in the country of origin or in India by the use of any equipment supplied by the manufacturer. Such indemnity shall also cover any use of the equipment, other than for the purpose indicated by or reasonably to be inferred from the specification.

13. **Delivery & Completion of works:-**

[a] Time being the essence of the contract; the equipment shall be supplied in all respect within the delivery period, specified in the contract. The Purchaser, however, reserves the right to reschedule the delivery and change the destination if required. The delivery period shall be reckoned from the date of placing the Letter of Intent/Purchase order, as may be specified in LOI / P.O..

[b] **The desired delivery period shall be 8 moths including all erection and commissioning works at individual sites and thereby handing over to the designated engineer.**

- [c] **TAKING OVER:** Upon receipt of intimation about completion of erection and commissioning of the system and after successful inspection, OPTCL Engineer in charge shall issue a taking over certificate in which he shall certify the date on which the system has been so taken over. This certificate shall be issued within 10 days of the intimation received from the contractor.

The issuance of a taking over certificate shall in no way relieve the contractor of his responsibility for the satisfactory operation of the system in terms of the specification.

14. **Despatch instructions.**

- [I] The equipments/ materials should be securely packed and dispatched directly to the specified site at the supplier's risk by Road Transport only.

[II] **Loading & unloading of Ordered Materials.**

It will be the sole responsibility of the supplier for loading and unloading of materials both at the factory site and at the destination site/store.

The Purchaser shall have no responsibility on this account.

15. **Supplier's Default Liability.**

- [i] The OPTCL may, upon written notice of default to the supplier, terminate the contract in circumstances detailed hereunder.

[a] If in the judgment of the OPTCL, the supplier fails to make delivery of equipment/material within the time specified in the contract or within the period for which if extension has been granted by the Purchaser in writing in response to written request of the supplier.

[b] If in the judgment of the OPTCL, the supplier fails to comply with any of the provisions of this contract.

[ii] In the event, Purchaser terminates the contract in whole or in part as provided in **Clause-15 (i)** of this section, the Purchaser reserves the right to purchase upon such terms and in such a manner as he may deem appropriate in relation to the equipment/material similar to that terminated and the supplier will be liable to the Purchaser for any additional costs for such similar equipment/material and/or for penalty for delay as defined in **clause-22** of this section until such reasonable time as may be required for the final supply of equipment.

[iii] In the event the Purchaser does not terminate the contract as provided in **clause 15(I)** of this Section, supplier shall be liable to the Purchaser for penalty for delay as set out in **Clause-22** of this section until the equipment is accepted. This shall be based only on written request of the supplier and written willingness of the Purchaser.

16 **Force Majeure:**

The supplier shall not be liable for any penalty for delay or for failure to perform the contract for reasons of force majeure such as acts of god, acts of the public enemy, acts of Govt., Fires, floods, epidemics, Quarantine restrictions, strikes, Freight Embargo and provided that the supplier shall within **Ten (10) days** from the beginning of delay on such account notify the purchaser in writing of the cause of delay. The purchaser shall verify the facts and grant such extension, if facts justify.

17. **Extension of time:-**

If the delivery of equipment/material is delayed due to reasons beyond the control of the supplier, the supplier shall without delay give notice to the purchaser in writing of his claim for an extension of time. The purchaser on receipt of such notice may or may not agree to extend the contract delivery date as may be reasonable but without prejudice to other terms and conditions of the contract.

18. **Guarantee period: -**

[i] The contractor shall warrant that the equipment will be new, unused and free from defects in material. The equipments/ works covered by this specification should be guaranteed for satisfactory operation and against defects in design, materials and workmanship for a period of at least 18 [eighteen] months from the last date of delivery & commissioning or 12 [twelve] months from the date of system put to service, whichever is earlier. The above guarantee certificate shall be furnished in triplicate to the purchaser for his approval. Any defect noticed during this period should be rectified by the supplier free of cost to the purchaser provided such defects are due to faulty design, bad workmanship or bad materials used, within one month upon written notice from the purchaser failing which provision of **clause 22 (ii)** shall apply.

[ii] Equipment/material failed or found defective during the guarantee period shall have to be guaranteed after repair/replacement for a further period of 12 months from the date of re-commissioning or 18 months from the date of receipt at the store/site after such repair/replacement which ever is earlier. The Bank Guarantee is to be extended accordingly. Date of delivery as used in this clause shall mean the date on which the materials are received in OPTCL'S stores/site in full & good condition which are released for Dispatch by the purchaser after due inspection.

19 **B.G. towards security deposit, 100% payment and performance guarantee:**

[i] **For manufacturers situated Inside & out side the state of Orissa.**

A Composite Bank Guarantee as per the Performa enclosed at Annexure-VII of the specification for 10% [ten percent] of the total FORD cost of the purchase order, shall be furnished from any nationalized/scheduled bank having a place of business at

Bhubaneswar, to the office of Sr.General Manager [Central Procurement Cell] OPTCL within 15 days from the date of issue of the purchase order,. The BG shall be executed on non judicial stamp paper worth of Rs.29.00 [Rupees twenty nine] only or as per the prevalent rules, valid for a period of 20 months from the last date of stipulated delivery period, for scrutiny and acceptance, failing which the supply order will be liable for cancellation without any further written notices. The BG should be accompanied by a confirmation letter from the concerned bank and should have provision for encashment at Bhubaneswar, before the Bank Guarantee is accepted and all concerned intimated.

- (ii) No interest is payable on any kind of Bank Guarantee.
- [iii] In case of non-fulfillment of contractual obligation, as required in the detailed purchase order/Specification, the composite Bank guarantee shall be forfeited.

20. Import License

In case imported materials are offered, no assistance will be given for release of Foreign Exchange. The firm should arrange to import materials from their own quota. Equipment of indigenous origin will be preferred.

21. (A) Terms of Payment.

(I) Payment shall be released on phased manner and on prorata basis after completion of installation and commissioning of GPS equipments at minimum of 25% of the total sub-station sites and taken over by OPTCL subject to furnishing and approval of Composite Bank Guarantee at the rate of 10% (Ten percent) of the cost of supplied materials, as stipulated under clause-19 of this specification & on prior approval of guarantee certificate &Test certificate by the Purchaser. The value of each completed portion of the job with applicable Taxes & Duties, Freight & Insurance if any along with erection and commissioning charges shall be paid on production of bill and verification thereof by designated engineer.

(ii) Payment of Freight & Insurance charges and Entry Tax.

Freight & Insurance Charges & Entry Tax, incorporated in the Purchase contract shall be paid after receipt of materials at stores/desired site in good condition and on production of authenticated documentary evidence, otherwise no Freight, Insurance charges & entry taxes shall be payable.

[B] The supplier shall furnish Composite Bank Guarantee of appropriate amount to OPTCL covering 10% of F.O.R. Destination cost of the purchase order well in advance (within 15 days from the date of issue of the purchase order) before dispatch of materials.

22. Penalty for Delay in Completion of Contract

- I) If the Supplier fails to deliver the materials/equipments within the delivery schedule, specified in the contract including delivery time extension, if any, granted thereto, the Purchaser shall recover from the Supplier, penalty for a sum of half percent (0.5 percent) of the Ex-works price of the un-delivered equipment for each calendar week of delay or part thereof. For this purpose, the date of receipted challan shall be reckoned as the date of delivery. The total amount of penalty shall not exceed five percent (5%) of the ex-works price of the unit or units so delayed. Equipment will be deemed to have been delivered only when all its components and accessories as per technical Specification are also delivered. If certain components & accessories are not delivered in time, the equipment will be considered delayed until such time as the missing parts are delivered.
- II) If the Supplier fails to rectify /replace the equipment/material within 30 days from the date of intimation of the defect, so noticed by the purchaser within the guarantee period then the penalty for sum of one half of the one percent (0.5%) of the total Purchase order amount for each calendar week of delay shall be recovered by the purchaser within the guarantee period. For this purpose, penalty date will start from the 30th. day from the date of issue of letter on defectiveness of equipment/material, so supplied, by the purchaser. The total amount of penalty in this case shall not exceed 10% (TEN PERCENT) of the purchase order amount. The purchase order amount shall mean ex-works price + freight & insurance and all taxes & duties. If the defects so intimated will not be rectified by the supplier within the guarantee period, then whole of the B.G. will be forfeited by the purchaser, without any intimation to the Supplier.

23. Insurance

The Supplier shall undertake insurance of stores covered by this Specification unless otherwise stated. The responsibility of delivery of the stores at destination in good condition rests with the Supplier. Any claim with the Insurance Company or transport agency arising due to loss or damage in transit has to be settled by the supplier. The Supplier shall undertake free replacement of materials damaged or lost, which will be reported by the consignee within 30 days of receipt of the materials at destination without awaiting for the settlement of their claims with the carriers and underwriters.

24. Payment Due from the Supplier. All costs and damages, for which the supplier is liable to the purchaser, will be deducted by the purchaser from any money, due to the supplier, under any of the contract (s), executed with OPTCL.

25. Sales Tax clearance certificate and Balance sheet and profit & Loss Account:

- i. Sales Tax clearance certificate for the previous year shall be enclosed with the tender.
- ii. Audited Balance Sheet and Profit & Loss Account of the bidder for the previous three years shall be enclosed to assess the financial soundness of the bidder(s).

26. Certificate of Exemption from Excise Duty/Sales tax.

Offers with exemption from Excise duty including sales tax shall be accompanied with authenticated proof of such exemption. Authenticated proof for this clause shall mean attested Photostat copy of exemption certificate. Any claim towards Excise duty/ Sales Tax shall be paid on actual basis subject to production of authenticated documentary evidence.

27. Supplier's Responsibility.

Notwithstanding anything mentioned in the Specification or subsequent approval or acceptance by the Purchaser, the ultimate responsibility for design, manufacture, materials used and satisfactory performance shall rest with the Tenderers. The Supplier(s) shall be responsible for any discrepancy noticed in the documents, submitted by them along with the bid(s).

28. Validity

Prices and conditions contained in the offer should be kept valid for a minimum period of 240 days from the date of opening of the tender, failing which the tender shall be rejected.

29. EVALUATION.

(i) Evaluation of bids will be on the basis of the FOR DESTINATION PRICE (By Road Transport) including Excise Duty, sales Tax & other levies as may be applicable. The FORD PRICE shall consist of the following components

- a) Ex-works price.
- b) Packing & Forwarding charges.
- c) Freight
- d) Insurance.
- e) Excise Duty.
- f) Sales Tax.
- g) Other levies.
- h) Mandatory spares, if any for maintenance of equipment. (At the discretion of the purchaser)
- i) Test charges, if any. .
- j) Supervision of erection, testing and commissioning charges, if any.
- k) Any other items, as deemed proper for evaluation by the purchaser.
- l) Loading factors will be taken in to account during evaluation if the prices of some of the items, not quoted.

(II) Weightage shall be given to the Following factors in the Evaluation & Comparison of Bids.

In comparing bids and in making awards, the Purchaser will consider other factors such as compliance with Specification, **minimum qualification criteria as per clause-30, outright rejection of tenders clause-34 of this tender**, relative quality, adaptability of Supplies or services, experience, financial soundness, record of integrity in dealings, performance of materials/equipments earlier supplied, ability to furnish repairs and maintenance services, the time of delivery, capability to perform including available facilities such as adequate shops, plants, equipment and technical organization.

30. Minimum Qualification Criteria of Bidders.

All the prospective bidders are requested to note that their bids for tendered equipment can only be considered for evaluation if:

- i) The bidder should have manufacture / supply experience along with erection & commissioning experience of above rated or higher capacity equipments for a minimum period of 3 (three) years as on the date of opening of the tender
- ii) At least 50% of the tendered quantity of above rated or higher capacity equipment should have been supplied and commissioned within the above-stipulated period.
- iii) The above rated or higher capacity equipment should have at least 2 (two) years successful performance from the date of commissioning. At least one of the performance certificates shall be submitted from Govt.of India/State Govt.(s) or their undertakings.
- iv) The bidder should have conducted type tests on the tendered equipments in Government approved laboratory within five years from the date of opening of the tender.
- v) **The bidder shall submit one sample of GPS Time Synchronization Equipment with all its sub systems as part of bid submission. The same shall be demonstrated by the bidder after inter facing with Numerical relays at the designated sub-station on or before due date of opening of price bid.**

31. Jurisdiction of the High Court of Orissa.

`Suits, if any, arising out of this contract shall be filed by either Party in a court of Law to which the jurisdiction of High court of Orissa extends.

32. Correspondences.

- i) Any notice to the supplier under the terms of the contract shall be served by Registered Post or by hand at the Supplier's Principal Place of Business.
- ii) Any notice to the Purchaser shall be served at the Purchaser's Principal Office in the same manner.

33. Official Address of the Parties to the Contract

The address of the parties to the contract shall be specified:-

- [i] **Purchaser:** Senior General Manager (Procurement)(CPC) OPTCL
Bhubaneswar-751022 (Orissa)
Telephone No. 0674 - 25418015
FAX No. 0674 - 2542964
- [ii] **Supplier:** Address
Telephone No.
Fax No.

34. Outright Rejection of Tenders

Tenders shall be outright rejected if the followings are not complied with.

- [i] The Tenderer should have purchased/obtained the Bid specification document from the office of the Purchaser or downloaded the same from website of OPTCL, but shall deposit the tender cost, while submitting the tender.
- [ii] The Tender shall be submitted in person or by Registered Post with A.D.
- [iii] The Tender shall not be submitted telegraphically or by FAX.
- [iv] The Tender shall be accompanied by the prescribed Earnest Money deposit.
- [v] The Tender shall be kept valid for a minimum period of 240 days from the date of opening of tender.
- [vi] The Tender shall be submitted in two parts as specified.
- [vii] The Tenders shall be accompanied by a list of major supplies effected prior to the date of opening of tender. Data of at least 3 (**three**) **years** shall be furnished.
- [viii] Tender shall be accompanied by Photostat copy of latest type test certificates (for the tests, carried out on the tendered equipments, being offered). Such type tests should have been conducted **within last five years** from the date of opening of this tender in a Government approved laboratory/CPRI in presence of any Government Organization's representative(s).
- [ix] The schedule of prices should be filled up fully to indicate the break-up of the prices including taxes and duties. Incomplete submission of this schedule will make the tender liable for rejection. **Vide Clause-4(ii) of Part-II.**
- [x] The Tenderer should quote 'FIRM' price only and the price should be kept valid for a minimum period of **240 days** from the date of opening of the tender.
- (xi) Tender shall be accompanied by legibly written **user's certificate** to prove the satisfactory operation of the offered equipments/materials for a **minimum period of 2 (two) years** from the date of commissioning/use as per the tender specification. User's certificate shall include the detailed address of the user with Equipment/Material, Name and type as per this specification, number of years of satisfactory use/operation & date of issue of this user's certificate with official seal written in English only & clearly visible must be

furnished. ***At least one of the user's certificates shall be from state or Central Govt. or their Undertakings.***

- (xii) Guaranteed Technical particulars & Abstract of terms and Conditions should be filled in completely.

35. Documents to be treated as confidential.

The supplier shall treat the details of the specification and other tender documents as private and confidential and these shall not be reproduced without written authorization from the Purchaser.

36. Scheme/Projects

The materials/equipment covered in this specification shall come under O & M works of Electrical Wing headed by C.G.M. (O & M).

SECTION – III

[LIST OF ANNEXURES]

The following schedules and proformas are annexed to this specification and contained in Section-III as referred to in the relevant clauses.

1	Declaration form	ANNEXURE-I
2	Abstract of terms and conditions to accompany Section-II of Part-I	ANNEXURE-II
3	Schedule of Quantity and Delivery	ANNEXURE-III
4	Abstract of price component [to accompany Part-II of this specification]	ANNEXURE-IV
5	Schedule of prices to accompany Part-II	ANNEXURE-V
6	Bank Guarantee form for earnest money deposit	ANNEXURE-VI
7	Composite Bank Guarantee form for security deposit, payment and performance	ANNEXURE-VII
8.	Chart showing particulars of E.M.D.	ANNEXURE – VIII
9.	Data on Experience.	ANNEXURE – IX
10.	Schedule of spare parts.	ANNEXURE-X
11.	Schedule of Installations.	ANNEXURE-XI

ANNEXURE - I DECLARATION FORM

To

Sir,

1. Having examined the above specification together with terms & conditions referred to therein * I/We the undersigned hereby offer to supply install & commission the equipments covered therein complete in all respects as per the specification and General conditions, at the rates, entered in the attached contract schedule of prices in the Tender.
2. * I/We hereby undertake to have the equipments delivered & commission the system within the time specified in the Tender..
3. * I/We hereby guarantee the technical particulars given in the Tender supported with necessary reports from concerned authorities.
4. * I/We certify to have purchased/ downloaded a copy of the specification by remitting *cash/money order/D.D./ remitting the cost of tender, herewith and this has been acknowledged by your letter/ money receipt No. Dated,
5. In the event of Tender, being decided in *my/our favour, * I/We agree to furnish the Composite B.G. in the manner, acceptable to ORISSA POWER TRANSMISSION CORPORATION LTD., and for the sum as applicable to *me/us as per clause-19 of section-II of this specification within 15 days of issue of letter of intent/purchase order failing which *I/We clearly understand that the said letter of Intent/Purchase order will be liable to be withdrawn by the purchaser, and the EMD deposited by us shall be forfeited by OPTCL.

Signed this

day of

`2008

Yours faithfully

Signature of the Tenderer with seal of the company

[This form should be dully filled up by the tenderer and submitted along with the original copy of the tender]

* (Strikeout whichever is not applicable).

ANNEXURE-II

ABSTRACT OF GENERAL TERMS AND CONDITIONS OF CONTRACT [COMMERCIAL] TO ACCOMPANY PART-I

1	(a) OPTCL Money Receipt No. & Date towards purchase of Tender. (b) Earnest money furnished. (A) Bank Guarantee, (B) Bank Draft.	
2	Manufacturer's supply experience including user's certificate furnished or not.[As per clause No.7 of Section-II.]	Yes/No
3	Deviations to the specification if any[list enclosed or not] [As per clause-9 of the Section-II] (a) Commercial (b) Technical.	Yes/No Yes/No
4	Delivery (period in months from the date of work order)	
5	Guarantee:- Whether agreeable to OPTCL's terms. [As per clause-18 of Section-II]	Yes/No
6	Whether agreeable to furnish Composite B.G. in case his tender be successful [As per clause-19 of Section-II]	Yes/No
7.	Terms of payment:- Whether agreeable to OPTCL's terms or not [As per clause-21 of Section-II]	Yes/No.
8.	Nature of price:- FIRM	Yes/No
9.	Penalty:- Whether agreeable to OPTCL's terms or not (As per clause-22 of Section-II)	Yes/No
10.	Whether STCC/ P&L A/C, Balance Sheet for the required period are furnished as per clause-25 of Section-II	Yes/No
11.	Validity: - Whether agreeable to OPTCL's terms or not [As per clause-28 of Section-II]	Yes/No
12.	Whether recent type test certificates from any Government approved laboratory are furnished or not. [As per clause-34[viii] of section-II]	Yes/No
13.	Whether guaranteed technical particulars in complete shape are furnished or not	Yes/No
14.	Whether dimensional design/drawings furnished or not	Yes/No
15.	Whether materials are ISI/ISO marked.	Yes/No
16.	Manufacturer's name and it's trademark.	Yes/No
17.	Whether registered under O.S.T / C.S.T. Act. 1947	Yes/No
18.	Whether declaration form duly filled in furnished or not.	Yes/No.

Place: -

Date: -

Signature of the Tenderer

with seal of the company

N.B. Delivery as per column 4 means supply, Installation & Commissioning of the system and final hand over to Purchaser.

ANNEXURE-III

SCHEDULE OF QUANTITY AND DELIVERY (To be filled up by the tenderer)

SL No	Description of materials	Quantity required	Desired Delivery	Destination	Remarks.
1	2	3	4	5	6
.					
.					
.					
.					
.					
.					
.					

Place:

Date:

N.B. Delivery as per column 4 means supply & Final Commissioning of the system

Signature of Tenderer
with seal of Company

ANNEXURE-IV

ABSTRACT OF PRICE COMPONENT [TO ACCOMPANY PRICEBID]

1	Price basis	F.O.R. Purchaser's destination Stores/site.
2	Packing & forwarding	
3	Rate of Insurance charges	
4	Rate of Freight charges	
5	Rate of excise duty	
6	Rate of sales Tax	
7	Rate of other taxes/levies /duties etc.	
8	Rate of entry tax.	
9.	Rate of Service Tax on supervision of erection testing and commissioning	
10.	Nature of price.	

Place
Date:

**Signature of Tenderer
With seal of company**

NB:- Abstract of price component shall be done for equipment/material offered, for testing & commissioning charges, if any. All the above prices will be taken during bid price evaluation.

ANNEXURE-V.

SCHEDULE OF PRICES

TENDER SPECIFICATION No.

Item No.	Description.	Qty (unit)	Unit Ex-factory Price.	Unit Packing & Forwarding.	Unit Freight Charges.	Unit Insurance Charges.	Unit landing cost at destination store/site excluding ST,ED & Entry tax.
1.	2.	3.	4.	5.	6.	7.	8.

Unit E.D.	Unit S.T.	Unit Entry Tax.	Unit landing Cost including All taxes & Duties.	Total landing cost Including all taxes & duties.
9.	10.	11.	12= (8+9+10+11)	13= (3X12)

Unit Erection & commissioning charges	Total Erection & commissioning charges	Total amount of consignment
14	15=3x14	16

Signature of Tenderer
Name, Designation and Seal

NB: -

1. The tenderer should fill up the schedule properly and in full. The tender will be rejected, if the schedule of price is submitted in incomplete form. No post tender correspondence will be entertained on break-up of prices. Also, the supplier should agree for delivery at sub-station site.
2. In case, where F&I components are not specifically indicated in this schedule, 5% of the ex-works price may be taken towards F&I components for the purpose of comparison of price.
3. The Tenderer shall certify in the price bid that MODVAT benefit, if any, has been fully passed on to the purchaser while quoting the tender price.
4. Conditional offers will not be acceptable.
5. The bidder is to clearly indicate the period up to which the tax holidays are available to them.
6. Price bid in any other format will not be acceptable and the offer will be rejected.
7. Test charges (Routine/type) if any, mandatory spares, if any, maintenance equipment charges, if any, as per Technical Specification, supervisory charges, if any, (Supervision of erection & commissioning charges per equipment & the same charges per day) shall be indicated separately, row-wise.
8. All the above charges will be taken into account, during bid price evaluation.

ANNEXURE-VI

PROFORMA FOR BANK GUARANTEE FORM FOR EARNEST MONEY DEPOSIT

Ref _____ Date _____ Bank Guarantee No: _____
1 In accordance with invitation to Bid No. _____ Dated _____ of ORISSA POWER TRANSMISSION CORPORATION LTD. [OPTCL][herein after referred to as the OPTCL for the purchase of _____ Messers _____ Address _____

_____ wish/wished to participate in the said tender and as a Bank Guarantee for the sum of Rs. _____ [Rupees _____]

Valid for a period of 240 days [Two hundred forty days] is required to be submitted by the Tenderer. We the _____

[Indicate the Name of the Bank]
[Hereinafter referred to as 'the Bank'] at the request of M/S _____

[Herein after referred to as supplier (s)] do hereby unequivocally and unconditionally guarantee and undertake to pay during the above said period, on written request by the Sr. General Manager [Procurement] ORISSA POWER TRANSMISSION CORPORATION LTD. _____

[Indicate designation of the purchaser]
an amount not exceeding Rs. _____ to the OPTCL, without any reservation. The guarantee would remain valid up to 4.00 PM of _____ [date] and if any further extension to this is required, the same will be extended on receiving instructions from the _____ on whose behalf this guarantee has been issued.

2. We the _____ do hereby, further undertake

[Indicate the name of the bank]

to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the OPTCL stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the OPTCL by reason of any breach by the said supplier [s] of any of the terms or conditions or failure to perform the said Bid . Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. _____

3. We undertake to pay the OPTCL any money so demanded notwithstanding any dispute or disputes so raised by the contractor [s] in any suit or proceeding instituted/pending before any Court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the supplier(s) shall have no claim against us for making such payment.

4. We, the _____ further agree that the guarantee

[Indicate the Name of the Bank] herein contained shall remain in full force and effect during the aforesaid period of 240 days [two hundred forty days] and it shall continue to be so enforceable till all the dues of the OPTCL under or by virtue of the said Bid have been fully paid and its claims satisfied or discharged or till C.M.D, ORISSA POWER TRANSMISSION CORPORATION LTD. certifies that the terms and conditions of the said Bid have been fully and properly carried out by the said Supplier [s] and accordingly discharges this guarantee. Unless a demand or claim under this guarantee is made on us in writing on or before the _____

we shall be discharged from all liability under this guarantee thereafter.

5. We, the _____ further agree with the OPTCL that [Indicate the name of the Bank] the OPTCL shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Bid or to extend time of performance by the said Supplier [s] from time to time or to postpone for any time or from time to time any of the powers exercisable by the OPTCL against the said supplier [s] and to forbear or enforce any of the terms and conditions relating to the said bid and we shall not be relieved from our liability by reason of any such variation, postponement or extension being granted to the said Supplier [s] or for any forbearance act or omission on the part of the OPTCL or any indulgence by the OPTCL to the said Supplier[s] or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. This guarantee will not be discharged due to the change in the name, style and constitution of the Bank or the supplier [s].

7. We, _____ lastly undertake not to revoke this [Indicate the name of the Bank] Guarantee during its currency except with the previous consent of the OPTCL in writing.

8. We the _____ Bank further agree that this guarantee shall also be invocable at our place of business at Bhubaneswar in the state of Orissa.

Dated _____ Day of _____

Witness ((Signature, names & address)

- 1.
- 2.

For _____ [Indicate the name of Bank]

ANNEXURE-VII

PROFORMA FOR COMPOSITE BANK GUARANTEE FOR SECURITY DEPOSIT , PAYMENT AND PERFORMANCE

This Guarantee Bond is executed this _____ day of _____ 2007 by us the _____ Bank at _____
P.O. _____ P.S. _____
District _____ State _____

1. WHEREAS the ORISSA POWER TRANSMISSION CORPORATION LTD., a body corporate constituted under the Electricity Act, 2003 [hereinafter called "the OPTCL" which shall include its successors and assigns has placed orders No. _____ Date _____ [hereinafter called "The Agreement"] on M/s. _____

[hereinafter called "The Supplier"] which shall include its successors & assigns for supply of materials.

AND WHERE AS the supplier has agreed to supply materials to the OPTCL in terms of the said agreement AND

WHEREAS the OPTCL has agreed [1] to exempt the supplier from making payment of Security [2] to release 100% payment of the cost of materials as per the said agreement and [3] to exempt from performance guarantee on furnishing by the Supplier to the OPTCL, a Composite bank Guarantee of the value of 10 % [ten percent] of the contract price of the said agreement.

NOW THEREFORE, in consideration of the OPTCL having agreed [1] to exempt the Supplier from making payment of Security [2] releasing 100% payment to the Supplier and [3] to exempt from furnishing performance guarantee in terms of the said agreement as aforesaid, we, the _____ [Bank][hereinafter referred to as 'the Bank'] do hereby undertake to pay to the OPTCL an amount not exceeding Rs. _____ [Rupees _____] against any loss or damage caused to or suffered by or would be caused to or suffered by the OPTCL by reason of any breach by the said Supplier [s] of any of the terms or conditions contained, in the said agreement.

2. We the (_____ Bank) do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on demand from the OPTCL stating that the amount claimed is due by way of loss or damage caused to or suffered by the OPTCL by reason of any breach by the said Supplier [s] of any of the terms or conditions, contained in the said agreement or by reason of the supplier's failure to perform the said agreement. Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. _____ [Rupees _____]

3. We the _____ Bank} also undertake to pay to the OPTCL any money so demanded notwithstanding any dispute or disputes raised by the supplier [s] in any suit or proceeding instituted/pending before any Court or Tribunal relating thereto our liability under this present being absolute and unequivocal.

The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the Supplier [s] shall have no claim against us for making such payment.

4 We, (_____ Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to do so enforceable till all the dues of the OPTCL under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Managing Director, ORISSA POWER TRANSMISSION CORPORATION LTD. certifies that the terms and conditions of the said agreement have been fully and properly carried out by the said Supplier [s] and accordingly discharges this Guarantee.

Unless a demand or claim under this guarantee is made on us in writing on or before the [Date _____], we shall be discharged from all liability under this guarantee thereafter.

5. We, (_____ Bank) further agree that the OPTCL shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Supplier [s] and we shall not be relieved from our liability by reason of any such variations or extension being granted to the said supplier [s] or for any forbearance, act or omission on the part of the OPTCL or any indulgence

by the OPTCL to the said Supplier [s] or by any such matter or thing whatsoever which under the law relating to sureties would but these provisions have effect of so relieving us.

1. This guarantee will not be discharged due to the change in the name , style and constitution of the Bank and supplier [s].

2. We,[_____Bank] lastly undertake not to revoke this guarantee during its currency except with the previous consent of the OPTCL in writing.

Date at _____the, _____day of _____Two thousand

For _____

[Indicate the name of the bank]

8. We the _____ Bank further agree that this guarantee shall also be invocable at our place of business at Bhubaneswar in the state of Orissa.

Witness (Name, Signature & Address)

1.

2.

For _____

[Indicate the name of Bank]

ANNEXURE-VIII

CHART SHOWING PARTICULARS OF EARNEST MONEY DEPOSIT FURNISHABLE BY TENDERERS

1.	Central and State Government Undertakings	Exempted
2.	All other inside & outside state units.	The amount of EMD as specified in the specification /Tender Notice in shape of bank guarantee /DD.

NB: - **REFUND OF E.M.D.**

- [a] In case of unsuccessful tenderers, the EMD will be refunded immediately after the tender is decided. In case of successful tenderer, this will be refunded only after furnishing of Composite Bank Guarantee referred to in **clause No.19 of Section-II** of this specification.
Suits, if any, arising out of EMD shall be filed in a court of law to which the jurisdiction of High Court of Orissa extends.
- [b] Earnest Money will be forfeited if the tenderer fails to accept the letter of intent/purchase order, issued in his favour or revises the bid price[s] within the validity period of Bid.

ANNEXURE-IX **DATA ON EXPERIENCE**

- [a] Name of the manufacturer.
- [b] Standing of the firm as manufacturer of equipment quoted.
- [c] Description of equipment similar to that quoted [supplied and installed during the last two years with the name of the organizations to whom supply was made].
- [d] Details as to where installed etc.
- [e] Testing facilities at manufacturer's works.
- [f] If the manufacturer is having collaboration with another firm, details regarding the same and present status.
- [g] A list of purchase orders, executed during last three years.
- [h] **A list of similar equipments of specified rating, voltage class, Impulse level, short circuit rating, Designed, manufactured, tested and commissioned which are in successful operation for at least two years from the date of commissioning with legible user's certificate. User's full complete postal address/fax/phone must be indicated. (Refer clause No.7 of the Part-I, Section-II of the specification).**

Place:

Date:

Signature of tenderer
Name, Designation, Seal

ANNEXURE-X

SCHEDULE OF SPARE PARTS FOR FIVE YEARS OF NORMAL OPERATION & MAINTENANCE

SL. No	Particulars	Quantity	Unit delivery rate	Total price

Place:

Date:

Signature of Tenderer

Name, Designation, Seal

ANNEXURE-XI

SCHEDULE OF INSTALLATIONS.

Rating of equipment	Other Parameters (if any)	Place of installation and complete postal address	Year of commissioning

Place: -

Date

Signature of Tenderer:

Name, Designation, Seal

PART – II PRICE BID

1. **PRICE:**

- (i) Bidders are required to quote their price(s) for goods offered indicating they are 'FIRM'
- (ii) The prices quoted shall be FOR Destination only at the consignee's site/store inclusive of packing, forwarding, Freight & Insurance. In addition, the break-up of FOR Destination price shall be given as per schedule of Prices in Annexure-V of Section – III. The Tenderer has to certify in the price bid that MODVAT benefit if any, has been fully passed on to the Purchaser, while quoting the tender prices.

2. **INSURANCE :**

Insurance of materials/equipments, covered by the Specification should normally be done by the Suppliers with their own Insurance Company unless otherwise stated. The responsibility of delivery of the materials/equipments at destination stores/site in good condition rests with the Supplier. Any claim with the Insurance Company or Transport agency arising due to loss or damage in transit has to be settled by the Supplier. The Supplier shall undertake free replacement of equipments/materials damaged or lost which will be reported by the Consignee within 30 days of receipt of the equipments/materials at Destination without awaiting for the settlement of their claims with the carriers and underwriters.

3. **CERTIFICATE FOR EXEMPTION FROM EXCISE DUTY/SALES TAX:**

Offers with exemption from excise Duty/ Sales tax shall be accompanied with authenticated proof of such exemption. Authenticated proof for this clause shall mean Photostat copy of exemption certificates, attested by Gazetted Officers of State or Central Government.

4. **PROPER FILLING UP OF THE PRICE SCHEDULE:**

- (i) In case where Freight & Insurance charges are not furnished, 5% of the Ex-works price shall be considered as the freight & Insurance charges.
- (ii) The tenderer should fill up the price schedule (Annexure-V of Section-III) properly and in full. The tender may be rejected if the schedule of price is submitted in incomplete form as per clause-34 (ix) of Section-II of the Specification.

5. **NATURE OF PRICE INDICATED IN SPECIFICATION SHALL BE FINAL.**

The nature of price indicated in the Clause-13, Section – I of PART –I of the Specification shall be final & binding.

GPS Based

TIME SYNCHRONIZATION EQUIPMENT (TSE)

TECHNICAL SPECIFICATIONS – GPS-TSE

1.0 **SCOPE:**

This specification covers the general requirement of the following.

- a.. Detailed design of the equipment.
- b. Complete manufacture including shop testing.
- c. Providing Engineering drawing, data, operational manual etc for the Purchaser approval.
- d. Packing and transportation from the manufacture site.
- e. Erection, testing and commissioning of the equipment.
- f. Reliability test performance and guarantee test on completion of commissioning..

2.0 **APPLICATION:**

The GPS-TSE shall be capable of synchronizing the equipments through individual port or through Ethernet ports for NTP and SNTP clients. Using SNTP, devices compliant to IEC 61850 shall get synchronized. It shall support networking protocols like NTP v2 9RFC 1119), NTP v3 (RFC 1305, CP/IP and Internet protocol IP v4.

2.1 The equipment shall generate the following formatted signals.

2.2 Inter Range Instrumentation Group (IRIG) B and E modes

2.3 RS-232 & RS-485 output in ASCII as per NENA standard & Extended ASCII format in Broadcast mode.

2.4 Pulse outputs at desired time intervals ranging from 1 minute to 1 day

3.0 **TECHNICAL DATA::**

The GPS-TSE shall be supplied in total, having the following sub-systems:

- * GPS Antenna
- * GPS Receiver unit
- * Time Code Generator
- * Distant View Display
- * Software to Synchronize Computers

- * IRIG Hub with booster
- * IRIG Hub without booster

3.1 **GPS-TSE antenna - Specifications**

The antenna shall be an active antenna to provide the timing signals even under weak signal conditions. In addition, antenna shall be water proof to operate satisfactorily in an open environment under all weather conditions. The basic specifications of this antenna are:

Environmental Specifications:

- | | | | |
|----|-----------------|---|---------------------------|
| a. | Operating Temp. | : | -40Deg C to +85 Deg C |
| b. | Storage Temp. | : | -40 Deg C to + 100 Deg. C |
| c. | Humidity | : | MIL STD-810E |
| d. | Waterproof | : | Submersion to 1 meter |

- e. vibration : 10-200 Hz Log sweep. 3g
(sweep time 30 minutes), 3 axes
- f. Shock : 50g vertical, 30g all axes
- g. Corrosion : 5% Salt spray

Technical Specifications:

- a. Power Consumption : 30mA Maximum at 5Vdc
- b. Output Impedance : 50 Ohms
- c. Frequency : L1 band (1575 MHz)
- d. Gain : minimum 30 dB
- e. Azimuth Coverage : Omni Directional- 360 deg.
- f. Elevation Coverage : Hemispherical (0 to 90 Deg.)
- g. Noise : 3.3dB maximum at (25 ±5 Deg)

Physical Characteristics: All mounting poles and fixtures required to commission the antenna on roof top or at any other location, as specified by the purchaser, shall be supplied by the supplier.

Antenna Weight: Less than 200 grams excluding supporting arrangements
 Mounting pole height: Minimum of 1 meter

Dimension of antenna: Not exceeding 80mm x 70mm
 Antenna Cable Specifications

- a. Type : RG-59
- b. Impedance : 75 Ohms
- c. Shielding : Foil and copper braid
100% coverage
- d. Connectors : Waterproof F-type
- e. Signal Attenuation : less than 10 dB for cable &
Connectors

3.2 GPS receiver unit – Specifications

3.2.1 The unit should be IP65 qualified

3.2.2 **Specifications of GPS receiver:**

- a. Frequency : L1, 1575.42 MHz
(Standard)
- b. No. of satellites : 8
- c. Accuracy of PPS : better than 1 microsecond
- d. Acquisition time
 - i. Hot Start : Less than 15 sec (90%)
 - ii. Warm Start : Less than 45 sec (90%)
 - iii) Cold Start : Less than 130 sec (90%)
- e. Battery Backup : To support Memory and RTC

3.3 Time Code Signal Generator – Specifications

3.3.1 **Specifications of Time Code Signal Generator:**

- a. Time Accuracy : better than 1 microsecond
- b. Display of Time : Indian Standard Time
- c. Local Display : Min. of 20 character x 4
lines. LCD with backlit for night visibility
- d. Keyboard : sufficient nos. to operate
menu

3.4 Time Code/ Pulse Outputs

3.4.1 IRIG-B Output – Modulated Signal

3.4.2 Modulating a 1 kHz/1ms carrier with a minimum of 4 Vpp

3.4.3 Signal level shall have a mark to space ratio of 3 : 1

3.4.4 20 ohms source impedance

3.4.5 Minimum of 3 Vpp on a load of 50 Ohms

3.4.6 IRIG-B Output – PWM signal

3.4.7 Open circuit levels : High - ≥ 4.0 volts, Low - ≤ 0.6 volts

3.4.8 Loading : Output TTL

3.4.9 Compatible loads : ≤ 600 Ohms

3.5.0 RS-232 & RS-485 output in ASCII as per NENA standard & Extended ASCII format in Broadcast mode:

3.5.1 Programmable Pulse Outputs

- * Minute Pulse
- * 15-minute pulse
- * 30 minute pulse
- * Hour pulse
- * Day pulse

3.5.2 IRIG-E Output – Modulated Signal (As optional feature)

- * Modulating a 100Hz/10ms carrier with a minimum of 4 Vpp
- * Signal level shall have a mark to space ratio of 3 :1
- * 20 ohms source impedance
- * Minimum of 3 Vpp on a load of 50 Ohms

3.5.3 IRIG-E Output – PWM signal (As optional)

- * Open circuit levels : High - ≥ 4.0 volts, Low - ≤ 0.6 volts
- * Loading : Output TTL
- * Compatible loads : ≤ 600 Ohms

3.6 Front Panel Visual Indications:

The user is required to know whether the GPS-TSE is deriving the clock from GPS or its own Real Time Clock (RTC). To facilitate this, visual indications using display/ LEDs for GPS LOCKED, GPS FAIL and RTC ON to be shown on the front panel of the Time Code Signal Generator.

3.6.0 LCD Display

- * The Time Code Generator shall have a LCD with the following capabilities / display parameters:
- * A minimum of 20 characters x 4 lines with LED backlit to give a clear view of the display parameters even in poor light conditions

- * The following parameters shall be displayed, either by keyboard selection or by automatic scrolling method:
IST time in 24 hour format
Lat & Long of the station

3.6.2 **Segment LED Display**

- * The unit should display the Day of the Year and time in HH:MM:SS format for clear view.

3.7 **IRIG Hub without Booster**

The Time Code Generator of GPS-TSE shall provide a minimum of 10 channels of IRIG signal with provision for up gradation up to 24 channels by the use of IRIG hub without booster..

3.8 **IRIG Hub with Booster**

In specific applications where the transmission of IRIG signal is beyond 100 meters, the supplier shall provide IRIG hub with booster to meet the high driving current requirements. The number of output channels should be 10.

3.9 **61850 Compliance**

- 3.9.1 The Time Code Generator shall generate Simple Network Time Protocol compliant signals over Ethernet for meeting requirements of IEC-61850 compliant systems.
- 3.9.2 3 x LAN interfaces shall be provided through RJ45 connector. Each LAN interface shall address an unique IP address which shall be user configurable.
- 3.9.3 After establishing the network connection, the Time server can also be configured and monitored remotely from a Workstation via TELNET, SSH or SNTP.
- 3.9.4 The SNTP/NTP compliant system shall also support the network protocols like NTP v2 (RFC 1119), NTP v3 (RFC 1305). TCP/IP and Internet protocol IP v4.
- 3.9.5 A simplified LINUX operating system shall be installed on the computer's Compact Flash Disk.
- 3.9.6 An SNTP client software for synchronizing the time of PC in the LAN shall be provided.
- 3.10 Distant View Display (DVD) – Specifications

The DVD shall be located in a position giving a clear view for maximum area in the sub-station. In many cases, the DVD may be located as much as 500 meters from the Time Code Signal Generator. In view of this, the signals from Time Code Signal Generator to DVD will have to be buffered sufficiently. It is recommended that the signals be in RS-422 levels, with driving capability of 1 Kilo Meters. The DVD should have to provision to send time signal to another DVD also. The DVD should meet the following specifications:

- a. Display Size : Minimum of 100 mm height
- b. Display type : 7 segment LED – Red for day light viewing
- c. Display Format : HH:MM:SS
- d. Up-dating rate: 1 Second

4.0 **Power Supply:**

The GPS-TSE shall operate at either of the following power supply levels:
Minimum of 100 V to Maximum of 250 V AC as available from AC mains supply. Minimum of 150 V to Maximum of 300 V DC, as available from sub-station batteries.

5.0 Synchronization Software

The Software supplied with the GPS-TSE should be capable of synchronizing the Computer / Server located within the substation, through RS-232 / RS-485 port. The software shall be compatible with Windows (98, 2000,NT and XP) based systems. The necessary converter should be provided.

6.0 General requirement:

6.1 All the materials, Electronic and power components and ICs used in the equipment shall be of highest quality and reputed make to ensure full reliability, longer life and sustained accuracy.

6.2 The Electronic components shall be mounted on the PCB having latest surface mounting technology.

6.3 The equipment shall be of rugged construction, light weight, portable and handy.

7.0 **After Sales support, Training & Maintenance:-**

The supplier shall arrange to provide free training at places as desired by OPTCL. The supplier shall provide competent & timely after sales service support. They should agree to take up AMC till completion of life cycle of the equipment.

8.0 **TEST:**

8.1 **Type Tests:**

The device should be type tested at any of the test laboratories by the Bidder as per relevant standards and this technical specification. The bidder shall furnish the following type tests reports along with the bid.

Bump Test

Vibration Test

Dry Heat Test

Shock Test as per IEC. 60255

Radiated Emission Test as per CISPR 22 of 1997, Class A

Electromagnetic field immunity test as per IEC 61000-4-3, 1995 Std.

Electrostatic discharge immunity test as per IEC – 61000 – 4 –2

High Energy Surge Immunity Test as per IEC 61000

Di- Electric Strength IEC 60255

Test certificate from National Physical Laboratory (NPL) Delhi, for accuracy of GPS Receiver.

Acceptance Test:

All acceptance test as stipulated in the relevant standards and in this specification shall be carried out by the supplier.

Routine test:

All Routine test as stipulated in the relevant standards and in this specification shall be carried out and routine test certificate / reports shall be submitted to OPTCL for approval and also submitted along with the equipment.

Guaranteed Technical Particulars

GPS Based Time Synchronization Equipment (.GPS-TSE)

Sl. No.	Requirement	Compliance
1	Manufacturer or Dealer	
2	If Manufacturer, in-house or licensed technology	
3.	Is the company ISO9001-2000 qualified for GPS-TSE (Attach copy of certificate)	
4	GPS-TSE antenna: i. operating Temp i) storage Temp iii) Humidity. iv) Waterproof v) Vibration vi) Shock vii) Corrosion	
5.	GPS receiver	
5a.	Technology (SMT or any other type)	
5b.	Technical Data i) Make ii) Frequency iii) No. of satellites iv) Time accuracy of PPS	
6.	Time code Signal Generator	
6a.	Technical data of signal generator i) Timing Accuracy Yes /No ii) Display of Time iii) Local Display- No. of Lines & characters, LED back-lit. iv) Key board	
6b.	IRIG-B Output If Yes, No. of channels available with out use of IRIG hub AND by use of IRIG hub (Mention separately)	Yes / No
6c.	RS-232 Output	Yes /No
6d.	Pulse Outputs	
	i) Buffered PPS-for calibration purpose only ii) Minute Pulse iii) 30 minute Pulse iv) Hour pulse v) Day pulse	Yes /No Yes /No Yes /No Yes /No Yes /No
6e.	Potential free contacts I) Solid State ii) Numeric iii) Can it provide min.100 milliamps at 200V DC	Yes /No Yes /No Yes /No
7.	Type of loading	
8.	Use of Booster	
9.	Accuracy certificate from National Physical Laboratory, Delhi.	Yes /No
10.	Front Panel visual indications i) GPS LOCKED ii) LOCAL CLOCK	Yes /No Yes /No
11.	Distant View Display (DVD) i) Signal Inter face with time code signal generator RS-422 or RS-485 ii) Display size iii) Display Type	

	iv) Display Format v) Updating rate	
12.	Power Supply i) AC-Min & Max ii) DC- Min & Max iii) Can the unit work either AC or DC	
13.	Synchronization Software i) Interface with PC-RS 232 ii) Compatibility with Windows (98, 2000, NT, & XP) iii) Compatibility with Linux	
14.	Compliance for Net working Protocols i) NTP ii) SNTP iii) TCP/ IP	Yes /No Yes /No Yes /No
15.	Meeting to IEC 61850 compliance using SNTP	Yes /No
16.	Availability of Number of ports	
17.	Type Test: Bump Test Vibration Test Dry Heat Test Shock Test as per IEC. 60255 Radiated Emission Test as per CISPR 22 of 1997, Class A Electromagnetic field immunity test as per IEC 61000-4-3, 1995 Std. Electrostatic discharge immunity test as per IEC – 61000 – 4 –2 High Energy Surge Immunity Test as per IEC 61000 Die- Electric Strength IEC 60255 Test certificate from National Physical Laboratory (NPL) Delhi, for accuracy of GPS Receiver.	Yes /No Yes /No Yes /No Yes /No Yes /No Yes /No Yes /No Yes /No Yes /No Yes /No Yes /No Yes /No
18.	Willingness for demo-of sample product before price bid opening.	Yes /No

Schedule - Annexure

LIST OF THE SUB-STATIONS

Sl. No.	Location of the Sub-Stations	Capacity in K.V.
1	AKHUSINGHI	132
2.	ANGUL	132
3	ASKA	132
4	BALASORE	220
5.	BALUGAON	132
6.	BARAGARH	132
7.	BARIPADA	132
8.	BARKOTE	220
9.	BERHAMPUR	132
10	BHADRAK]	220
11.	BHANJA NAGAR	220
12.	BIDANASI	220
13.	BOINDA	132
14.	BOLANGIR	220
15.	BOLANI	132
16.	BRAJARAJNAGAR	132
17.	BUDHIPADAR	220
18	BURLA (NEW)	220
19.	CHAINPAL	132
20.	CHANDAKA	220
21.	CHANDIKHOLE	132
22	CHATRAPUR	132
23	CHHEND	132
24	CHOUDWAR	132
25	CUTTACK	132
26.	DHENKANAL	132
27	DIGOPOHANDI	132
28	DUBURI (OLD)	220
29	DUBURI (NEW)	400
30	ICCL (CHOUDWAR)	132
31	GANJAM	132
32	JAGATSINGPUR	132
33	JAJPUR ROAD	132
34	JAJPUR TOWN	132
35	JALESWAR	132
36	JAYANAGAR GRID	220
37	JHARSUGUDA	132
38	JODA GRID	220
39	JUNAGARH	132
40	KALARANGI	132
41	KAMAKHYANAGAR	132
42	KANTAPALLI	132
43	KENDRAPADA	132
44	KESINGA	132
45	KHARIAR	132
46	KHURDA	132
47	MANCHESWAR	132
48	MENDHASAL	400
49	MERAMUNDALI	400

50	MOHANA	132
51	NARENDRAPUR	220
52	NAYAGARH	220
53	NIMAPARA	132
54	NUAPATNA	132
55	PALASPONGA	132
56	PARADEEP	132
57	PARLAKHEMUNDI	132
58	PATNAGARH	132
59	PATTAMUNDEI	132
60	PHULBANI	132
61	PURI	132
62	RAIRAKHOL	132
63	RAIRANGPUR	132
64	RAJGANGPUR	132
65	RANSINGPUR	132
66	RAYGADA	132
67	RENGALI SW.	220
68	ROURKELA	132
69	SAINTALA	132
70	SALIPUR	132
71	SAMBALPUR	132
72	SONEPUR	132
73	SORO	132
74	SUNABEDA	132
75	SUNDERGARH	132
76	TERKERA	220
77	TENTULIKHUNTI	132
78	THERUVALI	220
79	KARANJIA	132
80	PHULANAKHAR	132
81	BASTA	132
82	BARPALLI	132
83	BADAGADA (BBSR)	132

ANNEXURE – III

QUANTITY AND DELIVERY SCHEDULE

Sl. No.	Description	Quantity	Desired delivery of materials at site	Destination
I.	GPS based Time Synchronisation Equipment along with all accessories and Display Unit etc	83 Nos	8 months from the date of placement of purchase order which includes supply, Installation, commissioning and handing over to the OPTCL engineer	One No equipment at each Grid Sub-Station as per schedule

ANNEXURE – IV

[To be filled in by the bidder]

CHECK-LIST FOR DELIVERY SCHEDULE

Sl. No.	Description of the Equipment	Quantity	Delivery Schedule

Signature of the Tenderer
With seal and date-----