

**Procedure to Participate in Tender**

**Tender Enquiry No - TPCODL/P&S/216/20-21**

<b>Tender Enquiry No.</b>	<b>Work Description</b>	<b>EMD (Rs.)</b>	<b>Tender Fee (Rs.)</b>	<b>Last Date and Time for payment of Tender Fee</b>
TPCODL/P&S/216/20-21	Supply of Single Phase, Class 1, 10-60 Amp, DLMS Compliant Whole Current Energy Meter with Meter box.	15,83,000	5000	09.03.2021; 15:00 Hrs

**Please note that corresponding details mentioned in this document will supersede any other details mentioned anywhere else in the Tender Document.**

**Procedure to Participate in Tender.**

Following steps to be done before “Last date and time for Payment of Tender Fee” as mentioned above:

1. Eligible and Interested Bidders to submit duly signed and stamped letter on Bidder's letter head indicating
  - a. Tender Enquiry number
  - b. Name of authorized person
  - c. Contact number
  - d. E-mail id
  - e. Details of submission of Tender Fee
  - f. GST Registration No
2. Non-Refundable Tender Fee, as indicated in table above, to be submitted in the form of Direct Deposit in the following bank account and submit the receipt along with a covering letter clearly indicating the Tender Reference/ Enquiry Number –

Beneficiary Name – TP Central Odisha Distribution Ltd.

Bank Name – STATE BANK OF INDIA

Branch Name – IDCO Towers, Bhubaneshwar

Address – PO- Sahidnagar, Janapath, Bhubaneswar.

Branch Code – 7891

Account No – 10835304915

IFSC Code – SBIN0007891

E-mail with necessary attachment of 1 and 2 above to be sent to [sony.jha@tpcentralodisha.com](mailto:sony.jha@tpcentralodisha.com) with copy to [sudhakar.behera@tpcentralodisha.com](mailto:sudhakar.behera@tpcentralodisha.com) before last date and time for payment of Tender Fee.

Interested bidders to submit Tender Fee and Authorization Letter before Last date and time as indicated above, after which link from TPCODL E-Tender system (Ariba) will be shared for further communication and bid submission.

Please note all future correspondence regarding the tender, bid submission, bid submission date extension, Pre-bid query etc will happen through TPCODL E-Tender system (Ariba). User manual to guide the bidders to submit the bid through E-Tender system (Ariba) is enclosed.

All communication will be done strictly with the bidders who have done the above step to participate in the Tender.

Also it may be strictly noted that once date of "Last date and time for Payment of Tender Participation Fee" is lapsed no Bidder will be sent link from TPCODL E-Tender System (Ariba). Without this link vendor will not be able to participate in the tender. Any last moment request to participate in tender will not be entertained.

Also all future corrigendums to the said tender will be informed on Tender section on website <https://www.tpcentralodisha.com>.

**OPEN TENDER NOTIFICATION FOR RATE CONTRACT  
FOR  
SUPPLY OF 1-PHASE, CLASS 1, 10-60 AMP,  
ENERGY METER WITH METER BOX**

**Tender Enquiry No.: TPCODL/ P&S/ 216/ 20-21**

**Due Date for Bid Submission: 25.03.2021 [15:00 Hrs.]**

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## 1.0 Event Information

### 1.1 Scope of work

Open Tenders are invited through e-tender bidding process from interested eligible bidders for entering into a Rate Contract valid for a period of **One Year** as defined below:

S. No.	Description	EMD Amount (Rs.)	Tender Fee (Rs.)
1.	Supply of Single Phase, Class 1, 10-60 Amp, DLMS Compliant Whole Current Energy Meter with Meter box	15,83,000	5,000

Note: Tender Fee is inclusive of GST

### 1.2 Availability of Tender Documents

Please Refer "Procedure to participate in the e-Tender".

### 1.3 Calendar of Events

(a)	Date of sale/ availability of tender documents from TPCODL Website	From 02.03.2021 onwards
(b)	Date by which Interested and Eligible Bidder to pay Tender Fee and confirm participation as mentioned in "Procedure to Participate in Tender"	09.03.2021, 15:00 Hrs
(c)	Last Date and time of receipt of pre-bid queries, if any	12.03.2021 up to 15:00 Hours
(d)	Date & Time of Pre-Bid Meeting (If any)	NA
(e)	Last Date of Posting Consolidated replies to all the pre-bid queries as received	17.03.2021
(f)	Last date and time of receipt of Bids	25.03.2021 up to 15:00 Hours
(g)	Date & Time of opening technical bids & EMD (Envelope-1 & 2)	Participating Bidders will get mail intimation from TPCODL E-Tender system (Ariba) when their Technical Bids are opened. Refer Section 4.2 for details
(h)	Date & Time of opening of Price of qualified bids	Bidders will get mail intimation from TPCODL E-Tender system (Ariba) when their Price Bids are opened (Refer Section 4.5)

**Note:-** In the event of last date specified for submission of bids and date of opening of bids is declared as a closed holiday for TPCODL, Bhubaneswar office the last date of submission of bids and date of opening of bids will be the following working day at appointed times.

### 1.4 Mandatory documents required along with the Bid

- 1.4.1 EMD (Line Item wise) of requisite value and validity.
- 1.4.2 Tender Fee of requisite amount, in case the tender is downloaded from website.
- 1.4.3 Requisite Documents for compliance to Qualification Criteria mentioned in Clause 1.7.
- 1.4.4 Drawing, Type Test details along with a sample of each item as specified at Annexure I (as applicable)
- 1.4.5 Duly signed and stamped 'Schedule of Deviations' as per Annexure III on bidder's letter head.
- 1.4.6 Duly signed and stamped 'Schedule of Commercial Specifications' as per Annexure IV on bidder's letter head.
- 1.4.7 Proper authorization letter/ Power of Attorney to sign the tender on the behalf of bidder.

- 1.4.8 Copy of PAN, GST, PF and ESI Registration (In case any of these documents is not available with the bidder, same to be explicitly mentioned in the 'Schedule of Deviations')
- 1.4.9 Bidder shall submit sample as per applicable technical specification in this tender. The sample shall be submitted at TPCODL office. A confirmation of submitted sample is to be shared by bidder before tender opening. In case of non-submission of sample, TPCODL reserve the right to reject the bid for further acceptance / evaluation.

***Please note that in absence of any of the above documents, the bid submitted by a bidder shall be liable for rejection.***

### **1.5 Deviation from Tender**

Normally, the deviations to tender terms are not admissible and the bids with deviation are liable for rejection. Hence, the bidders are advised to refrain from taking any deviations on this Tender. Still in case of any deviations, all such deviations shall be set out by the Bidders, clause by clause in the 'Annexure III - Schedule of Deviations' and same shall be submitted as a part of the Technical Bid.

### **1.6 Right of Acceptance/ Rejection**

Bids are liable for rejection in absence of following documents: -

- 1.6.1 EMD of requisite value and validity
- 1.6.2 Tender fee of requisite value
- 1.6.3 Price Bid as per the Price Schedule mentioned in Annexure-I
- 1.6.4 Necessary documents against compliance to Qualification Requirements mentioned at Clause 1.7 of this Tender Document.
- 1.6.5 Filled in Schedule of Deviations as per Annexure III
- 1.6.6 Filled in Schedule of Commercial Specifications as per Annexure IV
- 1.6.7 Receipt of Bid within the due date and time

TPCODL reserves the right to accept/reject any or all the bids without assigning any reason thereof.

### **1.7 Qualification Criteria**

1. The bidder should have an average annual turnover of Rs.150 Crores in last 3 financial years. Copy of audited P&L Account to be submitted in this regard.
2. The bidder should have supplied 10 Lacs of 1-Phase meters during the last 5 FY years. Copy of work order / completion certificate to be submitted in this regard.
3. Bidder shall submit satisfactory performance certificates for the past 1-year experience from 3 reputed companies. The work against these issued certificates should be completed in last seven years from the date of bid submission.
4. In case the bidder has a previous association with Tata Power group company for similar products and services, the performance feedback for that bidder by user group of Group Company shall only be considered irrespective of performance certificates issued by any third organization."
5. The bidder should have own manufacturing facility (in India) for manufacturing of meters. TPCODL reserve the right to confirm the manufacturing facility by visiting bidder's plant / works. The Bidder shall submit valid BIS license against the meters they offer. The license should bear the name/ trademark of the manufacturing company. If validity of the BIS certificate has expired and the firm has applied for renewal, copy of the letter of correspondence with previous approval must be attached in the bid document. Renewal copy of the same shall be produced to the authority as soon as obtained by the bidder.
6. The bidder should have their own laboratory having valid NABL accreditation certificate for conducting in-house testing of all Acceptance Tests as per TPCODL technical specification. Bidder must submit self-undertaking along with NABL accreditation certificate and

detail list of testing facility and testing equipment.

7. The subsidiaries of global/Indian companies are also eligible to bid if the qualification requirements stated above are met independently or in combination with the parent/sister concern/group company. However, the bidder should have an establishment of permanent nature in India. Bidder should submit the undertaking and details of address in this regard.

### **1.8 Marketing Integrity**

We have a fair and competitive marketplace. The rules for bidders are outlined in the General Condition of Contracts. Bidders must agree to these rules prior to participating. In addition to other remedies available, TPCODL reserves the right to exclude a bidder from participating in future markets due to the bidder's violation of any of the rules or obligations contained in the General Condition of Contracts. A bidder who violates the market place rules or engages in behavior that disrupts the fair execution of the marketplace, may result in restriction of a bidder from further participation in the marketplace for a length of time, depending upon the seriousness of the violation. Examples of violations include, but are not limited to:

- Failure to honor prices submitted to the marketplace
- Breach of terms as published in TENDER/NIT

### **1.9 Supplier Confidentiality**

All information contained in this tender is confidential and shall not be disclosed, published or advertised in any manner without written authorization from TPCODL. This includes all bidding information submitted to TPCODL. All tender documents remain the property of TPCODL and all suppliers are required to return these documents to TPCODL upon request. Suppliers who do not honor these confidentiality provisions will be excluded from participating in future bidding events.

### **2.0 Evaluation Criteria**

- The bids will be evaluated technically on the compliance to tender terms and conditions
- Bidders meeting Qualification Requirement as mentioned in 1.7, shall be evaluated technically.
- The bids will be evaluated commercially on the ***overall all-inclusive lowest cost basis*** as calculated in Schedule of Items [Annexure I]. TPCODL however, reserves right to split the contract line item wise and/or quantity wise, among more than one Bidder. Hence all bidders are advised to quote their most competitive rates.
- Bidder has to mandatorily quote against each item of Schedule of Items [Annexure I]. Failing to do so, TPCODL may reject the bids.

**NOTE:** *In case a new bidder is not registered with TPCODL, factory inspection and evaluation shall be carried out to ascertain bidder's manufacturing capability and quality procedures. However, TPCODL reserves the right to carry out factory inspection and evaluation for any bidder prior to technical qualification.*

*In case a bidder is found as Disqualified in the factory evaluation, their bid shall not be evaluated any further and shall be summarily rejected. The decision of TPCODL shall be final and binding on the bidder in this regard.*

**2.1 Price Variation Clause:** The prices shall remain FIRM during the entire contract period.

**2.2 Quantity variation Clause:** There will not be any guarantee on quantity of job. Job has to be carried out on as and when required basis order from TPCODL on the quantity as specified in release order.

### **3.0 Submission of Bid Documents**

#### **3.1 Bid Submission**

Bidders are requested to submit their offer in line with this Tender document. TPCODL shall respond to the clarification raised by various bidders and the replies will be sent to all participating bidders through TPCODL e-tender system (Ariba).

Bids shall be submitted in 3 (three) parts:

**FIRST PART: "EMD"** as applicable shall be submitted. The EMD shall be valid for 210 days from the due date of bid submission in the form of BG / Bank Draft / Bankers Pay Order (issued from a Scheduled Bank) online NEFT/ RTGS transfer favouring 'TP Central Odisha Distribution Limited' payable at Bhubaneswar. The EMD has to be strictly in the format as mentioned in General Condition of Contract, failing which it shall not be accepted by TPCODL and the bid as submitted shall be liable for rejection. A separate non-refundable tender fee of stipulated amount also needs to be transferred online through NEFT/ RTGS in case the tender document is downloaded from our website.

TPCODL Bank Details for transferring Tender Fee and EMD is as below:

**Account Name:** TP CENTRAL ODISHA DISTRIBUTION LIMITED

**Bank Name:** SBI, IDCO Towers, Bhubaneswar

**Bank Account No.:** 10835304915

**IFSC Code:** SBIN0007891

For Tender Fee and EMD submitted via online transfer, bidder to ensure that the same are carried out through separate transactions.

The EMD in the form of Bank Draft / BG /Bankers Pay Order shall be delivered at the following address in sealed envelope clearly indicating the tender reference / enquiry number, name of tender and bidder name:

**Chief (Procurement & Stores)**

TP Central Odisha Distribution Limited

2<sup>nd</sup> Floor, IDCO Towers, Janpath, Bhubaneswar-751022

**SECOND PART: "TECHNICAL BID"** shall contain the following documents:

- a) Documentary evidence in support of qualifying criteria
- b) Technical literature/GTP/Type test report etc. (if applicable)
- c) Qualified manpower (if available)
- d) Testing facilities (if applicable)
- e) No Deviation Certificate as per the Annexure III – Schedule of Deviations
- f) Acceptance to Commercial Terms and Conditions viz. Delivery schedule/period, payment terms etc. as per the Annexure IV – Schedule of Commercial Specifications.
- g) Quality Assurance Plan/Inspection Test Plan for supply items (if applicable)
- h) Project Implementation Plan including Level 2 Schedule for the project
- i) Unpriced mentioning "Quoted/Not Quoted" against all line items (Prices should not be mentioned)

**The technical bid shall be properly indexed and is to be submitted through TPCODL E-tender platform (Ariba) only. Hard copy of Technical Bids need not be submitted.**

The Bid prepared by the Bidder, and all correspondence and documents relating to the Bid exchanged by the Bidder and the TPCODL, shall be written in the English Language. Any printed literature furnished by the Bidder may be written in another Language, provided that this literature is accompanied by an English translation, in which case, for purposes of interpretation of the Bid, the English translation shall govern.

**THIRD PART: "PRICE BID"** shall contain only the price details and strictly in format as mentioned in **Annexure I (for Part-C)** with explicit break up of basic prices, Taxes & duties, etc. In case any discrepancy is observed between the item description stated in Schedule of Items mentioned in the

tender and the price bid submitted by the bidder, the item description as mentioned in the tender document (to the extent modified through Corrigendum issued if any) shall prevail. Price Bid is to be submitted in soft copy through TPCODL E-Tendering system (Ariba) only. **Hard copy of Price Bid not be submitted.**

#### **SIGNING OF BID DOCUMENTS:**

The bid must contain the name, residence and place of business of the person or persons making the bid and must be signed and sealed by the Bidder with his usual signature. The names of all persons signing should also be typed or printed below the signature.

The Bid being submitted must be signed by a person holding a Power of Attorney authorizing him to do so, certified copies of which shall be enclosed.

The Bid submitted on behalf of companies registered with the Indian Companies Act, for the time being in force, shall be signed by persons duly authorized to submit the Bid on behalf of the Company and shall be accompanied by certified true copies of the resolutions, extracts of Articles of Association, special or general Power of Attorney etc. to show clearly the title, authority and designation of persons signing the Bid on behalf of the Company. Satisfactory evidence of authority of the person signing on behalf of the Bidder shall be furnished with the bid.

A bid by a person who affixes to his signature the word 'President', 'Managing Director', 'Secretary', 'Agent' or other designation without disclosing his principal will be rejected.

The Bidder's name stated on the Proposal shall be the exact legal name of the firm.

#### **3.2 Contact Information**

Please note all correspondence regarding the tender, bid submission, bid submission date extension, Pre-bid query etc will happen only through TPCODL E-Tender system (Ariba).

No e-mail or verbal correspondence will be responded. All communication will be done strictly with the bidder who have done the above step to participate in the Tender.

#### **Communication Details:**

##### **Package Owner**

Name: Ms. Sony Jha  
Contact No: 9204752050  
E-Mail ID: [sony.jha@tpcentralodisha.com](mailto:sony.jha@tpcentralodisha.com)

##### **Escalation Matrix**

Name: Mr. Sudhakar Behera  
Designation: General Manager – Procurement (Commercial Services)  
Contact No: 9437282663  
E-Mail ID: [sudhakar.behera@tpcentralodisha.com](mailto:sudhakar.behera@tpcentralodisha.com)

Name: Mr. Pravin Ku Jain  
Designation: Chief (Procurement & Stores)  
E-Mail ID: [pkjain@tatapower.com](mailto:pkjain@tatapower.com)

**Bidders are strictly advised to communicate with Package Owner through TPCODL E-tender System (Ariba) only. They need to pay Tender Participation Fee and receive the Ariba log-in.**

#### **3.3 Bid Prices**

Bidders shall quote for the entire Scope of Supply / work with a break up of prices for individual items and Taxes & duties. The bidder shall complete the appropriate Price Schedules included herein, stating the Unit Price for each item & total price with taxes, duties & freight up to destination

at various sites of TPCODL. The all-inclusive prices offered shall be inclusive of all costs as well as Duties, Taxes and Levies paid or payable during the execution of the supply work, breakup of price constituents.

**Applicable GST to be specified clearly.**

The quantity break up shown else-where other than Price Schedule is tentative. The bidder shall ascertain himself regarding material required for completeness of the entire work. Any items not indicated in the price schedule but which are required to complete the job as per the Technical Specifications / Scope of Work mentioned in the tender, shall be deemed to be included in prices quoted.

**3.4 Bid Currencies**

Prices shall be quoted in Indian Rupees Only.

**3.5 Period of Validity of Bids**

Bids shall remain valid for 180 days from the due date of submission of the bid.

Notwithstanding clause above, the TPCODL may solicit the Bidder's consent to an extension of the Period of Bid Validity. The request and responses thereto shall be made in writing.

**3.6 Alternative Bids**

Bidders shall submit Bids, which comply with the Bidding documents. Alternative bids will not be considered. The attention of Bidders is drawn to the provisions regarding the rejection of Bids in the terms and conditions, which are not substantially responsive to the requirements of the bidding documents.

**3.7 Modifications and Withdrawal of Bids**

The bidder is not allowed to modify or withdraw its bid after the Bid's submission. The EMD as submitted along with the bid shall be liable for forfeiture in such event.

**3.8 Earnest Money Deposit (EMD)**

The bidder shall furnish, as part of its bid, an EMD amounting as specified in the tender. The EMD is required to protect TPCODL against the risk of bidder's conduct which would warrant forfeiture.

The EMD shall be denominated in any of the following form:

- Banker's Cheque/ Demand Draft/ Pay order drawn in favor of TP Central Odisha Distribution Limited payable at Bhubaneswar.
- Online transfer of requisite amount through NEFT/ RTGS.
- Bank Guarantee valid for 210 days after due date of submission.

***The EMD shall be forfeited in case:***

- a) The bidder withdraws its bid during the period of specified bid validity.

**Or**

- b) The successful Bidder does not
  - a) accept the Purchase Order, or
  - b) furnish the required Performance Security Bank Guarantee

**3.9 Type Tests (if applicable)**

The type tests specified in TPCODL specifications should have been carried out in certified Test Laboratories during the period not exceeding 5 years from the date of opening of technical bids and test reports are to be submitted along with the bids. If type tests carried out are not within the five years prior to the date of bidding, the bidder will arrange to carry out type tests specified, at his cost. The decision to accept/ reject such bids rests with TPCODL.

#### **4.0 Bid Opening & Evaluation process**

##### **4.1 Process to be confidential**

Information relating to the examination, clarification, evaluation and comparison of Bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process. Any effort by a Bidder to influence the TPCODL's processing of Bids or award decisions may result in the rejection of the Bidder's Bid.

##### **4.2 Technical Bid Opening**

The bids shall be opened internally by TPCODL. Participating Bidders will get mail intimation from TPCODL E-Tender system (Ariba) when their Technical Bids are opened.

Bids without EMD/ cost of tender (if applicable) of required amount/ validity in prescribed format, shall be rejected.

##### **4.3 Preliminary Examination of Bids/ Responsiveness**

TPCODL will examine the Bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the Bids are generally in order. TPCODL may ask for submission of original documents in order to verify the documents submitted in support of qualification criteria.

Arithmetical errors will be rectified on the following basis: If there is a discrepancy between the unit price and the total price per item that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price per item will be corrected. If there is a discrepancy between the Total Amount and the sum of the total price per item, the sum of the total price per item shall prevail and the Total Amount will be corrected.

Prior to the detailed evaluation, TPCODL will determine the substantial responsiveness of each Bid to the Bidding Documents including production capability and acceptable quality of the Goods offered. A substantially responsive Bid is one, which conforms to all the terms and conditions of the Bidding Documents without material deviation.

Bid determined as not substantially responsive will be rejected by the TPCODL and/or the TPCODL and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

##### **4.4 Techno Commercial Clarifications**

Bidders need to ensure that the bids submitted by them are complete in all respects. To assist in the examination, evaluation and comparison of Bids, TPCODL may, at its discretion, ask the Bidder for a clarification on its Bid for any deviations with respect to the TPCODL specifications and attempt will be made to bring all bids on a common footing. All responses to requests for clarification shall be in writing and no change in the price or substance of the Bid shall be sought, offered or permitted owing to any clarifications sought by TPCODL.

##### **4.5 Price Bid Opening**

Price Bid of only Technically and / or safety qualified Bidders shall be considered and open internally by TPCODL. Bidders will get mail intimation from TPCODL E-Tender system (Ariba) when their Price Bids are opened.

The EMD of the bidder withdrawing or substantially altering his offer at any stage after the technical bid opening will be forfeited at the sole discretion of TPCODL without any further correspondence in this regard.

##### **4.7 Reverse Auctions**

TPCODL reserves the right to conduct the reverse auction (instead of public opening of price bids) for the products/ services being asked for in the tender. The terms and conditions for such reverse auction events shall be as per the Acceptance Form attached as Annexure VI of this document. The

bidders along with the tender document shall mandatorily submit a duly signed copy of the Acceptance Form attached as Annexure VI as a token of acceptance for the same.

## **5.0 Award Decision**

TPCODL will award the contract to the successful bidder whose bid has been determined to be the lowest-evaluated responsive bid as per the Evaluation Criterion mentioned at Clause 2.0. The Cost for the said calculation shall be taken as the all-inclusive cost quoted by bidder in **Annexure I (Schedule of Items)** subject to any corrections required in line with **Clause 4.3** above. The decision to place rate contract / purchase order / LOI solely depends on TPCODL on the cost competitiveness across multiple lots, quality, delivery and bidder's capacity, in addition to other factors that TPCODL may deem relevant.

TPCODL reserves all the rights to award the contract to one or more bidders so as to meet the delivery requirement or nullify the award decision without assigning any reason thereof.

In case any supplier is found unsatisfactory during the delivery process, the award will be cancelled and TPCODL reserves the right to award other suppliers who are found fit.

## **6.0 Order of Preference/Contradiction:**

In case of contradiction in any part of various documents in tender, following shall prevail in order of preference:

1. Schedule of Items (Annexure I)
2. Post Award Contract Administration (Clause 7.0)
3. Submission of Bid Documents (Clause 3.0)
4. Scope of Work and SLA (if any)
5. Technical Specifications (Annexure II)
6. Inspection Test Plan (if any)
7. Acceptance Form for Participation in Reverse Auction (Annexure VI)
8. General Conditions of Contract (Annexure VII)

## **7.0 Post Award Contract Administration**

### **7.1 Special Conditions of Contract**

- After finalization of tender, Rate Contract shall be issued on successful bidder with a validity period of **One Year**.
- Business Associate (BA) shall submit applicable Performance Bank Guarantee as per GCC within 30 days of issuance of Rate Contract. PBG applicable shall be 5% of Total Contract Value. PBG submitted, shall be released after completion of applicable guarantee period plus three months of claim period.
- Guarantee applicable shall be as per technical specifications.
- Completion Schedule / Delivery period shall be as per timelines defined in Technical Specifications.
- TPCODL shall short close the issued Release Order / Rate contract, in case of any quality issues.
- Any change in statutory taxes, duties and levies shall be borne by TPCODL.
- All other terms and conditions of TPCODL GCC shall be applicable.

### **7.2 Drawing Submission & Approval (if applicable)**

The relevant drawings and GTPs need to be submitted as per special condition of contract mentioned in point no. 7.1.

### **7.3 Delivery Terms**

The delivery of material/work shall be done as per special condition of contract mentioned in point 7.1.

### **7.4 Guarantee Period**



Guarantee Period of the supplied material/work shall be as per technical specification attached separately with this tender.

### **7.5 Payment Terms**

On delivery of the materials/work completed in all respect and certification of acceptance by certified official, Associate shall submit the Bills/ Invoices in original in the name of Tata Power Central Odisha Distribution Limited to Invoice Desk. The payment shall be released **within 45 days** from the date of submission of certified bills/ invoices

### **7.6 Climate Change**

Significant quantities of waste are generated during the execution of project and an integrated approach for effective handling, storage, transportation and disposal of the same shall be adopted. This would ensure the minimization of environmental and social impact in order to combat the climate change

### **7.7 Ethics**

TPCODL is an ethical organization and as a policy TPCODL lays emphasis on ethical practices across its entire domain. Bidder should ensure that they should abide by all the ethical norms and in no form either directly or indirectly be involved in unethical practice.

TPCODL work practices are governed by the Tata Code of Conduct which emphasizes on the following:

- We shall select our suppliers and service providers fairly and transparently.
- We seek to work with suppliers and service providers who can demonstrate that they share similar values. We expect them to adopt ethical standards comparable to our own.
- Our suppliers and service providers shall represent our company only with duly authorized written permission from our company. They are expected to abide by the Code in their interactions with, and on behalf of us, including respecting the confidentiality of information shared with them.
- We shall ensure that any gifts or hospitality received from, or given to, our suppliers or service providers comply with our company's gifts and hospitality policy.
- We respect our obligations on the use of third party intellectual property and data.

Bidder is advised to refer GCC attached for more information.

Any ethical concerns with respect to this tender can be reported to the following e-mail ID: [purchase@cescoorissa.com](mailto:purchase@cescoorissa.com).

### **8.0 Specification and standards:**

Attached separately with tender.

### **9.0 General Condition of Contract**

Any condition not mentioned above shall be applicable as per GCC for Supply attached along with this tender.

### **10.0 Safety**

Safety related requirements as mentioned in our safety Manual is put in the Company's website and same shall be strictly followed.

<http://www.tpcentralodisha.com>

All Associates shall strictly abide by the guidelines provided in the safety manual at all relevant stages during the contract period.

**ANNEXURE I**  
**Schedule for Items**

S.No.	Item Description	Qty	Unit	HSN/SAC Code	Unit Rate (Rs.)	Appl. Taxes & Duties	All Inclusive Unit Rate (Rs.)	All Inclusive Total Value (Rs.)
1	2	3	4	5	6	7	8	9
1	1PH, 2W, 10-60A ENERGY METER WITH BOX	5,00,000	EA					
<b>Total All Inclusive Value</b>								

**Signature & Seal of the Bidder**

**NOTE:**

- The prices shall be FOR TPCODL Locations.
- Prices shall be firm till the validity of contract.
- The unit price with GST in column no. 8, is landed price for TPCODL.
- The bids will be evaluated commercially on the overall lowest cost basis.
- The bidders are advised to quote prices strictly in the above format. Failing to do so, bids are liable for rejection.
- The bidder must fill each and every column of the above format. ***Mentioning "extra/inclusive" in any of the column may lead for rejection of the price bid.***
- No cutting/ overwriting in the prices is permissible.

**Signature & Seal of the Bidder**

**ANNEXURE II**

**Technical Specifications**

**TECHNICAL SPECIFICATION  
FOR  
Single Phase  
Class 1, 10-60 Amp, DLMS Compliant  
Whole Current Energy Meter with Meter box**

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- 25. **MANUFACTURING ACTIVITIES**
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### 1.0 SCOPE:

This specification covers the technical requirements of design, manufacture, testing at manufacturer's works, packing, forwarding, supply and unloading at store/site of LT Single phase two Wire, 10-60 A DLMS Compliant static energy meters of accuracy class 1.0 (here after referred as meters) complete with all accessories for efficient and trouble free operation.

### 2.0 APPLICABLE STANDARDS:

The equipment covered by this specification shall conform to the requirements stated in latest editions of relevant Indian/ IEC Standards and shall conform to the regulations of local statutory authorities.

- |                         |   |
|-------------------------|---|
| a)IS 13779 (1999)       | :A.C. Static Watt hour meter class 1.0 and 2.0  |
| b)IS 15959(Part 1-2011) | : Data exchange for electricity meter reading, tariff and load control  |
| c)IS 15959(Part 2-2011) | : Data exchange for electricity meter reading , tariff and load control   |
| d)IEEE 802.15.4(2003)   | : Standard for local and metropolitan area networks   |
| e)IS 9000               | : Basic Environmental testing procedure for electrical and electronic items.  |
| f) IS 12346 (1999)      | : Specification for testing equipment for A.C.Electrical energy meter.  |
| g)IS11000 (1984)        | : Fire hazard testing   |
| h) IEC 62052-11 (2003)  | :Electricity Requirements (AC) General Requirements Tests and Test conditions for A.C.Static Watt hour meter for active energy Class 1.0 and 2.0. |
| i) IEC 62053-21 (2003)  | : A.C.Static Watt hour meter for active energy Class 1.0 and 2.0  |
| j) IS 15707 (2006)      | : Testing Evaluation installation and maintenance of AC Electricity Meters- Code of practice.   |
| k)IEC 60068             | : Environmental testing.  |
| l) CBIP – TR No.325     | : Specification for A.C.Static Electrical Energy Meters (latest amendment).   |
| m)CEA Regulation (2006) | : Installation and operation of meters Dtd: 17/03/2006.   |

### 3.0 CLIMATIC CONDITIONS OF THE INSTALLATION:

- |   |                |
|---|----------------|
| a) Max. Ambient Temperature                   | : 55 deg.C     |
| b) Max. Daily average ambient temp.           | : 40 deg.C     |
| c) Min Ambient Temp                           | : -5 deg C     |
| d) Maximum Humidity                           | : 95%          |
| e) Minimum Humidity                           | : 10%          |
| f) Average No. of thunderstorm days per annum | : 50           |
| g) Maximum Annual Rainfall                    | : 1450 mm      |
| h) Average No. of rainy days per annum        | : 60           |
| i) Rainy months                               | : June to Oct. |
| j) Altitude above MSL not exceeding           | : 300 meters   |
| k) Wind Pressure                              | : 200 kg/sq m  |

The atmosphere is generally laden with mild acid and dust in suspension during the dry months and is subjected to fog in cold months. The design of equipment and accessories shall be suitable to withstand seismic forces corresponding to an acceleration of 0.3 g.

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#### 4.0 GENERAL TECHNICAL REQUIREMENTS:

S.No.	DESCRIPTION	REQUIREMENT
4.1	Type of the meter	Single phase two wire ,whole current meter- direct reading type without application of any multiplication constant. It also Consists of measuring elements, TOU of register, Display.
4.2	Accuracy Class of the meter	1.0
4.3	Basic Current (I <sub>b</sub> ) & rated Maximum current (I <sub>max</sub> )	I <sub>b</sub> = 10A; I <sub>max</sub> = 60 Amps (Meter shall be able to continuously carry 120% of I <sub>max</sub> Meeting the accuracy requirements)
4.4	Reference Conditions for testing the performance of the meter	V <sub>ref</sub> = 230 V Frequency = 50hz Temperature= 27 °C (if the tests are made at the temperature other than reference temperature the results shall be corrected by applying Mean Temperature Coefficient 0.05 )
4.5	Operating Voltage	Meter shall be operational with required accuracy from 0.6 V <sub>ref</sub> to 1.2 V <sub>ref</sub> . However meter shall withstand the maximum system Voltage of 440V (for minimum 5 min).
4.6	Operating Frequency	50 Hz± 5%.
4.7	Power Consumption	Voltage circuit: Maximum 1.5 W and 10 VA Current Circuit :Maximum 1 VA
4.8	Starting Current	20mA (0.2% of I <sub>b</sub> )
4.9	Short time over current	1800 A for 0.01 sec ( 30I <sub>max</sub> for one half cycle at rated frequency)
4.10	Influence of heating	Temperature rise at any point of the external surface of the meter shall not exceed by more than 20K with an ambient temperature at 45° C.
4.11	Rated Impulse withstand voltage	6KV (shall be applied ten times with one polarity and then repeated with the other polarity.)
4.12	AC withstand voltage for 1 min	4 KV
4.13	Insulation resistance a) Between each current (or voltage circuit) & each and every other circuit. :	5 M ohm.
4.14	Mechanical requirements	Meter shall be in compliance with clause 12.3 of IS 13779
4.15	Resistance to heat and fire	The terminal block and Meter case shall ensure safety against The spread of fire. They shall not be ignited by thermal overload of live parts in contact with them as per IS 13779. Fire retardant material shall be used.
4.16	Protection against penetration of dust and water.	Degree of protection :IP 51 or better as per IS 12063/60529, but with suction in the meter. Meter shall comply with clause 6.9 and 12.5 of IS 13779



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4.17	Resistance against Climatic influence.	Meter shall be in compliance with clause 12.6 of IS 13779.
4.18	Electromagnetic Compatibility (EMC)	Requirements shall be as per CBIP technical report no 325 (latest amendment)
4.19	Accuracy requirements	Meter shall be in compliance with clause 11 of IS 13779.
4.20	Power factor range	Zero lag to Zero lead.
4.21	Energy measurement	Fundamental energy +Energy due to Harmonics
4.22	Connection Diagram	The connection diagram for the system shall be provided on terminal cover.
4.23	Self-Diagnostic feature	The meter shall have indications for un satisfactory / non-functioning of (i) Real Time Clock (ii) RTC battery (iii) Non Volatile Memory
4.24	Initial startup of meter	Meter shall be fully functional within 5 sec after reference Voltage is applied to the meter terminals.
4.25	Alternate mode of supply to the meters	In case of power failure, reading/data shall be to downloaded with the help of battery of long life(minimum ten years)
4.26	Sleep Mode	Meter shall not go in sleep mode .Display should not be "OFF at any point of time when power up.
4.27	Internal diameter of the terminal holes Depth of the terminal holes	8.5mm (minimum) 25 mm
4.28	Clearance between adjacent terminals	10 mm ( minimum)
4.29	Display	Backlit LCD, Scrolling, 10 seconds for each parameter minimum 6 Digits LCD display. The back lit must be of bright colour for proper visibility of meter reading
4.30	Security feature	Programmable facility to restrict the access to the information recorded at different security level such as read communication, write communication etc.
4.31	Software and communication compatibility	The bidder shall supply software required for communication though CMRI and BCS software free of cost and necessary training. The meter shall be compatible to communication with GSM/GPRS/RF modems in DLMS protocol.
4.32	Calibration	Meters shall be software calibrated at factory and modifications in calibration shall not be possible at site by any means. However parameters like RTC, TOD slots, billing date, display, tariff etc shall be reconfigure through CMRI and any other support will be provided without any additional cost to TPCODL till the useful life of the meters.
4.33	Usage Application	Indoor
4.34	Ultrasonic welding	Meter cover and body should be Ultrasonic/chemical welded

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4.35	Meter Dimension in MM	Is not more than 170L*140W*100H
4.36	Real Time clock	Accuracy of RTC Should be as per CBIP-325 report and shall not vary by more than 6 min per year. RTC should be programmed by BCS and MRI
4.37	No display	Meter design in such a way, meter data retrieved if meter found no display.
4.38	KVAH & KVA calculation	Apparent Calculation should be Lag+Lead

**5.0 Communication capabilities and software feasibilities:**

The meter shall have facilities for data transfer locally through CMRI (Using optical port/GSM/GPRS/RF modems).

Optical communication port shall be available for communication. Communication ports shall not be affected by any type of injection /unauthenticated signals and having proper sealing arrangement. The complete data shall be downloaded within 2 minutes. Meter Optical port base of meter to be magnetic type.

The bidder should provide DLMS compliance for Communication with the meter at Optical / RJ11 (RJ11 is optional). Optical Communication port shall be available for communication along with additional RJ11 port with specific pin configuration of utility along with sealing arrangement to communicate with GSM/GPRS/RF modems.

The XML files of downloaded data from meter will be as per MIOS standards.

The bidder shall supply software required for local (CMRI) & remote (AMI) connectivity including required training to use the software free of cost. Bidder shall provide the communication protocol / APIs as per MIOS standards for communication with meter through local (CMRI) / remote (AMI) as and when required by TPC free of cost during life of meter.

Bidder should also provide software for changing firmware of meters in mass without any additional cost.

Bidder should also provide BCS for viewing the data downloaded through CMRI/Laptop/HHU.

API required for converting raw files to XML should also provide.

Communication of the meter at optical port should be as per IS15959 (Part-2):2016  
Bidder must provide necessary support if required for integration of his meters with AMR/Ami systems of the utility whenever required.

Bidder to supply protocol to read the meters supplied against, using intelligent GSM/GPRS/RF modems with store and forward feature without any additional cost. Bidder to provide API on MIOS standard to convert meter data in to XML and read API for hosting in server and modems GSM/GPRS/RF based for readings of meters from any third party manufactured modems. Bidder must provide necessary support if required during integration

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## 6.0 Immunity against external influencing signals:

### 6.0.1 Magnetic Field:

Meter shall record accurate energy in case of any external influencing signals in line with IS 13779:1999 Cl.11.2 and variation in limits of error (up to 100% I<sub>max</sub>) shall be as per the table 17 of IS 13779. Meter shall be immune to magnetic field such that it shall not affect the normal overall functionality. However, in case of abnormal magnetic field as defined below meter shall perform as per the following features:

- a) Meter shall log the event in its memory as "MAGNET" with date and time stamp within 2 minutes of application of abnormal magnetic field and shall start recording at 100% I<sub>max</sub> and after removal of magnet, back to normal recording within 2 minutes
- b) Meter shall show "Magnet" in the display.

#### Abnormal Magnetic field is defined as below;

- a) Continuous DC magnetic induction: >0.2 Tesla ± 5%(Value of the magneto motive force to be applied shall be generally >10000 ATs,
- b) AC magnetic induction: Immune for 10 milli Tesla ( if produced with circular metal core with square cross section as specified in CBIP latest report with 2800 AT
- c) Permanent Magnet: Immune up to 0.5T and Event logging >0.5T

### 6.0.2 Electrostatic Discharge (ESD)

Meter shall be immune up to 50 kV and shall record accurate energy as per IS-13779:1999. Meter shall log the event into memory as 'ESD' with date & time stamp for any ESD greater than 50 kV.

The shielding around the meter shall be such that it does not get affected by high voltage, high and low energy impulse when comes in contact with meter from any side.

The meter should immune to high/ low frequency Jammer devices. Meter shall log event in its memory as jammer with date and time stamp along with snapshot.

The meter should be immune or log the tamper on application of any other higher magnetic field of any frequency waves, micro waves etc.

### 6.0.3 Neutral Disturbance

The meter shall log in the memory as 'NEUTRAL DISTURBANCE' with date and time stamp and show 'ND' for Frequency variation below 47 Hz and above 53 Hz with time delay of 2 min and for Pulsating DC and Chopped AC of any value with time delay of 2 min.

The meter shall not saturate on passage of direct current, which can cause the meter either to stop recording/ record inaccurately. DC injection shall be tested both in phase and neutral. Measurement by meter shall not get influenced by injection of DC signal/ DC pulse upto 330V and for any value beyond this, the meter shall log the event into memory as 'NEUTRAL DISTURBANCE' with date & time stamp after time delay of 2 min(occurrences and restoration time).

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The meter shall record energy proportional to the current and V Ref (230V) when any of the tamper circuits enclosed as per annexure are used to tamper energy using a diode or a variable resistance or a variable capacitance energy saving device. The measurement by meter shall not get influenced by injection of AC Voltages/Chopped signal/DC signal/ DC pulse of low frequency and harmonics. The meter should be immune to such Neutral Disturbance. In case the meter accuracy is disturbed under Neutral Disturbance, it should be able to log the event.

#### 6.0.4 Single Wire

Single Wire tamper (Neutral Missing): When neutral is disconnected from both load side and supply side, the meter should record energy as per rated parameters (Vref). However, meter shall start registering energy

- a) At a current of >500mA under tamper condition of neutral missing (where battery is used for voltage reference). Meter will perform the fraud energy registration above 500mA assuming Vref (from battery) and Unity power factor.
- b) Condition no. 38 of Annexure I ( Timer test ) : The timer operation duration shall be 30 seconds.

#### 6.0.5 Abnormal and Tamper conditions:

The meter shall record forward energy under any abnormal conditions as given in the annexure I.

All the tamper events i.e. shall be logged in the memory of the meter with date and time stamp of occurrence and restoration along with instantaneous electrical parameter (Voltage, Current (phase and neutral), energy, pf , frequency etc )

Meter shall store cumulative count and cumulative durations all the tamper event which have logged by meter from the date of energization till life of meter.

Tamper count shall be incremented only on the occurrence of the any tamper event with date and time Stamp on FIFO basis. The event of which the restoration not occurred those should not be removed from meter memory and FIFO should not applicable for unrestored event.

The cover open tamper detection should be through heavy duty, sturdy micro switch such that it should not Operate on vibration or impact during handling or testing.

Meter shall have neutral CT for tamper identification and analysis.

Persistence time for occurrence and restoration for the events and compartment block size shall be as per table given below

Persistence Time for Occurrences	Persistence Time for Restoration	Threshold Value for Occurrence of Events	Threshold Value for Restoration of Events	Compartment Size
----------------------------------	----------------------------------	--	---	------------------

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ESD/JAMMER = immediate (record only 1 event on first application & only one event for next 1min )	ESD/JAMMER = 0 Hr 01 Min 0 sec (ESD) (should restore after 1 min. of last application )	Immunity up to 50 KV	Removal of ESD/Jammer signal	25
Magnet = 0 Hr 2 Min 0 sec (MAG)	Magnet = 0 Hr 2 Min 0 sec (MAG)	<p>&gt;0.5 Teslafor permanent magnet OR DC magnetic induction &gt; 0.2T OR AC magnetic induction &gt; 10 mT</p>	<p>&lt; 0.5 Tesla for permanent magnet OR DC magnetic induction &lt; 0.2T or AC magnetic induction &lt;10 mT</p>	25
Meter Top Cover Open (TC Open) Immediate	Meter Top Cover Open (TC Open) immediate	If meter top cover is opened	NA	05 (Stay put Type)
Single Wire = 0 Hr 30 Min 0 sec (SW)	Single Wire = 0 Hr 2 Min 0 sec (SW)	<p>a) At a current of &gt;500mA under tamper condition of neutral missing (where battery is used for voltage reference). Meter will perform the fraud energy registration above 500mA assuming Vref (from battery) and UPF.  b) At a current of &gt;1 amps under tamper condition of neutral missing (where third CT is used for voltage reference). Meter will perform the fraud energy registration above 1A assuming Vref (from third CT) and UPF.  c) Condition no. 38 of Annexure I (Timer test): The timer operation duration on/off time for 30 seconds with constant current for 30 min.</p>	Voltage > 190 V	25

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Neutral Disturbance = 0 Hr 1 Min 0 sec (ND)	Neutral Disturbance = 0 Hr 02 Min 0 sec (ND)	Voltage >145% of Vref, Current >10% Ib OR Frequency < 47 Hz OR Frequency > 53 Hz OR DC voltage /signal injection/ as per the conditions of clause 4.3.4	Voltage <115% of Vref Current > 10% Ib AND Frequency > 47 Hz OR Frequency < 52 Hz	25
Current Mismatch = 0 Hr 10 Min 0 sec (CM)	Current Mismatch = 0 Hr 02 Min 0 sec (CM)	In -Ip ≥ 20 % of Ib AND In > Ip Meter recording should be on higher of the current (either phase or neutral) if there is a mismatch	In -Ip < 20 % of Ib	25
Low Voltage Check = 0 Hr 30 Min 0 sec (LVC)	Low Voltage Check = 0 Hr 02 Min 0 sec (LVC)	Voltage < 70% of Vref AND current > 2% Ib	Voltage > 80% of Vref AND current > 2% Ib	25
Power OFF = 0 Hr 10 Min 0 sec	Power On = immediate	Actual Voltage off	Actual Voltage On	25
Over Load (If enabled) OL 0 Hr 30 Min 0 sec	Over Load = 0 Hr 2 Min 0 sec	> 120% Imax	< 100% Imax	25
Microwave immediate (record only 1 event on first application & only one event for next 1min )	Microwave 0 Hr 01 Min 0 sec (should restore after 1 min. of last application)	Any higher frequency magnetic waves, micro waves > 10 mT	Removal of device	25
Temperature Rise = 0 Hr 30 Min 0 sec (TR)	Temperature Rise = 0 Hr 02 Min 0 sec (TR)	Temperature > 70°C	Temperature < 60°C	25 (Stay put type)
EL WC 0 Hr 30 Min 0 sec	EL WC 0 Hr 02 Min 0 sec	The difference between phase and neutral current > 6.25 % of Ib	the difference between phase and neutral current < 6.25%of Ib	10

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### 7.0 GENERAL TECHNICAL REQUIREMENTS

The Meter shall be designed and constructed in such a way as to avoid introducing any danger in normal use and under normal conditions, so as to ensure especially personal safety against electric shock, safety against effect of excessive temperature, protection against spread of fire, protection against penetration of solid objects, dust and water.

All parts, which are subject to corrosion under normal working conditions, shall be protected effectively. Any protective coating shall not be liable to damage by ordinary handling or damage due to exposure to air, under normal working conditions. Meter shall withstand Solar radiation.

The meters shall be designed and manufactured using SMT (Surface Mount Technology) components. All the material and electronic power components used in the manufacture of the meter shall be of highest quality and reputed make to ensure higher reliability, longer life and sustained accuracy as given below or any other equivalent make with the strict approval of Purchaser:

S No	Component Function	Requirement	Makes and Origin
1.	Measurement/ computing chips	The Measurement/ computing chips used in the meter should be with the Surface mount type along with the ASICs	<u>USA:</u> Analog Devices, Cyrus Logic, Atmel, Phillips <u>South Africa:</u> SAMES <u>Japan:</u> NEC or any reputed make
2.	Memory chips	The memory chips should not be affected by the external parameters like sparking, high voltage spikes or electrostatic discharges.	<u>USA:</u> Atmel, National Semiconductors, Texas Instruments, Phillips <u>Japan:</u> Hitachi or Oki
3.	Display modules	The display modules should be well protected from the external UV radiations. The display visibility should be sufficient to read the meter mounted between height of 0.5m and 2m. The construction of the modules should be such that the displayed quantity should not be disturbed with the life of display. ( Pin Type) It should be trans-reflective STN type industrial grade with extended temperature range.	<u>Taiwan:</u> Holtek <u>Singapore:</u> Bonafied Technologies <u>Korea:</u> Advantek <u>China:</u> Xiamen
4.	Optical port	Optical port should be used to transfer the meter data to meter reading instrument. The mechanical construction of the port should be such to facilitate the data transfer easily.	<u>USA:</u> National Semiconductors <u>Holland / Korea:</u> Phillips <u>Taiwan:</u> MAXIM <u>Japan:</u> Hitachi
5	P.C.B.	Glass Epoxy, fire resistance grade FR4,	<u>A class vendor</u>

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		with minimum thickness 1.6 mm	
6.	Electronic Components	The active & passive components should be of the surface mount type & are to be handLead & soldered by the state of art assembly processes.	USA: National Semiconductors, Atmel, Phillips, Texas Instruments Japan: Hitachi, Oki, AVX or Ricoh Korea: Samsung
7.	Battery	Lithium with guaranteed life of 15 years	Varta / Tedirun /Sanyo or equivalent.
8.	RTC / Micro controller	The accuracy of RTC shall be as per relevant IEC / IS standards	USA: Philips , Dallas, Atmel, Motorola Japan: NEC or Oki

Note: The makes of the components are in the preferential order. The bidder shall submit necessary documents for the components.

### 8.0 Meter Body:

Meter body shall be made of unbreakable, high grade, fire retardant reinforced Insulating material (protective Class II) with FVo Fire Retardant, self extinguishing, UV stabilize, recyclable and Anti oxidation properties. The minimum thickness of the meter enclosure shall be 2mm. Meter base shall be opaque with polycarbonate LEXAN 500R or equivalent on prior approval from the Purchaser. Meter cover shall be transparent with polycarbonate LEXAN 143R/943A or equivalent on prior approval from the Purchaser. Meter cover & base shall be provided with continuous and seamless Ultrasonic/chemical welding such that it is not opened without breaking the enclosure. Front cover & base shall be such that it is not possible to cut & open the meter without certainly damaging the meter body and by no means shall an attempt to reassemble would not leave physical evidence. The meter body shall be sealed in such a way that opening of meter base and cover is possible only after breaking the seal(s). Unidirectional screws to be used on meter covers where ever required.

However single case meter body would be highly preferred. I.e. meter top cover and base shall be of single mould, thus nullifying the possibility of opening of meter case.

### 9.0 Terminals, Terminal Block

Terminals may be grouped in terminal block having adequate insulating properties and mechanical strength. In order to satisfy such requirements when choosing insulating materials for the terminal block adequate testing of materials shall be taken into account. Terminal block and terminal cover shall be of a material which complies with the requirements of IS11731 (part 1) method FH1. The material of which the terminal block is made shall be capable of passing the test given in ISO 75 for temperature of 135°C and pressure of 1.8 M Pa. The terminal block shall be of opaque with polycarbonate LEXAN500R or equivalent on prior approval from the Purchaser

The terminals shall be marked properly on the terminal block for making external connections.

The terminals and connections shall be suitable to carry up to 120 % of I<sub>max</sub> continuously (I<sub>max</sub> 60 A). The terminal block, the terminal cover and the meter case shall ensure reasonable safety against the spread of fire. They shall not be ignited by thermal overload of live parts in contact with them.

The manner of fixing the conductors to the terminals shall ensure adequate and durable contact such that there is no risk of loosening or undue heating. Terminals shall be preferably of MS cage clamp type as per IS: 15707 or of flat end screw with at least 9 mm dia of screw for better contact area.

Internal diameter of the terminal holes shall be minimum 8.5 mm; minimum clearance between adjacent terminals shall be 10 mm. Depth of the terminal holes shall be of 25 mm. Terminal screws shall be of Zinc plated MS bottle type.



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Terminal block shall be such that the risk of corrosion resulting from contact with any other metal part is minimized. Electrical connections shall be so designed that contact pressure is not transmitted through insulating material.

**Terminal Cover:**

Terminal cover shall be of short type and shall be transparent with polycarbonate LEXAN 143R/943A or equivalent on prior approval from the Purchaser. Appropriate space shall be available for incoming /out going cables without damaging/stressing terminal cover (terminal cover design shall be as per the Purchaser approval). After sealing the cover, terminals shall not be accessible without breaking the seals. Terminal Cover with 4 U cuts to enable smooth insertion of cable in the terminals.

**Sealing of meter**

Reliable sealing arrangement shall be provided to make the meter tamper evident and to avoid fiddling or tampering by unauthorized persons.

. One no polycarbonate seal and two nos hologram seals shall be provided by the bidder. All the seals shall be fixed on meter body by the bidder at his works before dispatch.

One sealing provision shall be provided at meter terminal cover, such that terminal shall not be accessible without breaking the seals. All the seals shall be provided on front side only and as per the Purchaser specification. Rear side sealing arrangement shall not be accepted. Bidder shall provide seals as per CEA regulation (2006). Only patented seals to be used as per CEA requirements.

**10 TOD Feature:**

The meter shall be capable of measuring Cumulative Energy (KWh), KVarh Lag, Kvarh Lead, Kvah and MD (KW, KVA)with time of day (TOD) registers having 2 zones (no. of zones & time slot shall be programmable by CMRI with adequate security level). Annexure attached.

TOD Slot Configuration shall be as follows-

	Time Slots
TOD 1	00 to 06 Hrs
TOD 2	06 to 24 Hrs

**11 MD Integration:**

The MD integration period shall be 15 minutes (integration period-programmable by CMRI at site and also thru AMR with adequate security level). The MD resetting shall be automatic at the 1st of the month i.e. 0000 hours of 1<sup>st</sup> day of the month. Manual MD reset button shall not be available. Last 12 MD values shall be stored in the memory. MD shall be recorded and displayed with minimum three digits before decimal and minimum two digits after decimal points. MD integration shall be Block Type Demand.

**12 Parameters In BCS**

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All these parameters shall be downloaded locally or remotely. All the parameters shall be recorded in its NVM(Non Volatile Memory). NVM shall have minimum retention time of 10 Years. Below mention current, history billing data and at least 25 tamper event for each tamper shall be available In NVM.

**Billing Information**

Current+ 12 History billing Date  
 Current + 12 Month History of Energy (KWH, KVAH, KVARH Lag, KVARH Lead,)  
 Current + 12 Month History Consumption (KWH, KVAH, KVARH Lag, KVARH Lead)  
 Current + 12 Month History of Demand (KW,KVA, KVAR Lag, KVAR Lead) Along with date and time stamp  
 Current + 12 Month History of PF  
 Current + 12 Month Power ON/Off Hours

TOD wise billing Information

Current + 12 Month History of Energy (KWH, KVAH, KVARH Lag, KVARH Lead)  
 Current + 12 Month History of Consumption (KWH, KVAH, KVAR Lag, KVAR Lead)  
 Current + 12 Month History of Demand (KW, KVA, KVAR Lag, KVAR Lead) along with date and time stamp  
 Current + 12 Month History of PF

**Load survey:**

The meter shall be capable of recording load profile of 90 days 15 min IP for ON days only for following parameters.

Voltage  
 Phase Current  
 Neutral Current  
 PF  
 KWH  
 KVAH  
 KW  
 KVA

**MID Night Energy:**

Meter shall be capable of recording daily Midnight Energy(KWH, KVAH, KVARH Lag, KVARH Lead) and Demand(KW,KVA) 00:00 to 24:00 Hrs for 90 power ON days.

**Instantaneous Parameters:**

Meter shall be capable of recoding following Instantaneous parameter In Memory and should be available in BCS

Meter Serial No  
 Meter Type  
 Meter date and Time  
 MRI date and time  
 Dump date and time  
 Voltage

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Phase Current  
Neutral current  
Signed Power Factor  
Instantaneous Load (KW, KVA)  
Present Cumulative energy (KWH, KVAH)  
Cumulative Tamper count  
Cumulative Billing Count  
Cumulative Power ON duration in minutes  
Other Parameter as per IS15959

**General Information:-**

Meter shall be capable for providing below mention general parameters in memory and should be available in BCS

Meter serial No  
Meter Type  
Manufacture Name  
Manufacture date  
Meter Class  
Meter constant  
Meter voltage rating  
Meter current rating  
Firmware version of meter  
TOD profile showing timing and seasons  
Meter display sequence

**Transactions:-**

All the change in software of meter to be logged along with date and time stamp, reading and.

**13 Display units:**

The display unit shall be Pin type built-in liquid crystal display (Permanently backlit type LCD). The LCD shall be of STN (Super Twisted Nematic) construction suitable for maximum temperature withstands 65 degree C and minimum temperature withstands 0degree C during normal operating condition. The LCD display shall have a wide viewing angle of 120 degree. When the meter is not energized the electronic display need not be visible. The display shall not be affected by electrical, magnetic disturbances and ESD. The back lit must be green in color while in normal registration modes.

The KWh register shall have minimum 6 digits and size of the digits shall be minimum 10mmx6mm. Cumulative energy (KWh) shall be displayed without decimal in auto scroll mode. (However decimal shall be available in push button mode for high resolution display(minimum 4digits after decimal) for testing). Separate mode for high resolution display to be provided with scroll lock facility.

Persistence time for each parameter shall be 10 second. Values followed by header shall be avoided. (I.e. if MD1 is displayed in Auto scroll mode, Header (MD1) and value (say 5.23 KW) shall be shown simultaneously; it shall not be shown in successive displays. Off time shall not be available in auto scroll mode between each cycle. Auto scroll mode is restored after 30 sec, if push button is not operated.

Display Sequence

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Auto Mode of Display:-  
LCD Segment Check  
Meter Date  
Meter Time  
Cumulative KWh  
Previous month Maximum Demand (KW)

Push Button Mode of Display :-

LCD Segment Check  
Meter Sl. No.  
Date  
Time  
Cumulative Kwh  
Previous Month Cumulative KWh(History1-3)  
Present Month MD KW followed by Date & Time  
Previous Month MD KW (History1-3) followed by Date & Time  
Present Month MD KVA followed by Date & Time  
Previous Month MD KVA (History1-3) followed by Date & Time  
Voltage  
Phase Current  
Neutral Current  
Instantaneous Power Factor with Lag/Lead Sign  
Instantaneous Load in KW

High Resolution Display Cumulative Kwh (4 Digits after Decimal) shall be provided with scroll lock facility).

Auto scroll mode is restored after 30 sec, if push button is not operated.

#### 14 Output Device:

The meters shall have a suitable test output device. Red color blinking LED (marked as imp/kWh) shall be provided in the front. This device shall be suitable for using with sensing probe used with test benches or reference standard meters.

Power ON indication- LED or Icon on LCD Display

#### 15 NAME PLATE AND MARKING:

Meters shall have a name plate clearly visible and effectively secured against removal. The base color of Name plate shall be white indelibly and distinctly marked with all essential particulars as per relevant standards along with the following. The Serial no. series applicable for the meters shall be provided by TPCODL

- i. Manufacturer's name
- ii. Type designation
- iii. Category
- iv. Number of phases and wires
- v. Serial number ( Meter serial number shall be laser printed on name plate instead on sticker)
- vi. Serial number along with barcode
- vii. Month and Year of manufacture
- viii. Unit of measurement
- ix. Reference voltage ,frequency
- x. Ref. temperature if different from 27 deg. C
- xi. Rated basic and maximum Current

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- xii. Meter constant (imp/kWh)
- xiii. 'BIS' Mark
- xiv. Class index of meter
- xv. "Property of TPCODL
- xvi. Purchase Order No. & date
- xvii. Guarantee period
- xviii. Sign of double square
- xix. Country of manufacture
- xx. Firmware version of meter

## 16 TESTS:

All routine, acceptance & type tests shall be carried out on the meter and meter body separately in accordance with the relevant IS/IEC. All routine/acceptance tests shall be witnessed by the purchaser/his authorized representative. All the components shall also be type tested as per the relevant standards. Following tests shall be necessarily conducted in addition to the tests specified in IS/IEC.

### Routine Test

- i. AC High Voltage test
- ii. Insulation test
- iii. Test on limits of error
- iv. Test of starting current
- v. Test of no load condition

### Acceptance test:

- i. AC High Voltage test
- ii. Insulation test
- iii. Test on limits of error with following loads

120% I max(72A)	I max (60A)	Ib(10A)	0.5 Ib (5A)	0.1Ib (1A)	0.05Ib (0.5A)
UPF, 0.8 lead and 0.5 lag	UPF, 0.8 lead and 0.5 lag	UPF, 0.8 lead and 0.5 lag	UPF, 0.8 lead and 0.5 lag	UPF, 0.8 Lead and 0.5 lag	UPF

- iv. Test of meter constant
- v. Test of starting current
- vi. Test of no load condition
- vii. Test of repeatability of error.
- viii. Test of power consumption.
- ix. Test for Immunity against external influencing signal as per the Purchaser specification
- x. Test for Immunity against DC Immunity as per the Purchaser specification
- xi. Test for Immunity against Tamper conditions as per the Purchaser specification
- xii. Error measurements with 38 abnormal condition as per annexure I
- xiii. Test to Influence of Harmonics
- xiv. Supply voltage and frequency variation test
- xv. Testing of self diagnostic features and tamper count increment and logging with date and time.

### Type test:

- i. All tests as defined in IS 13779:1999 with latest edition.

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- ii. Test against abnormal magnetic influence as per CBIP TR 325 with latest edition.
- iii. DC immunity test (injection both on phase and neutral terminal) with latest edition
- iv. Test for Material used for Terminal Block and meter body as per relevant standards with latest edition

Note:- Bidder must mention IS 13779:1999 with latest edition in factory test report.

**Special test:**

- i. The bidder shall demonstrate the communication capability of the meter through communication modes as defined in the specification before conducting acceptance tests. The bidder shall ensure that API (Application protocol interface) is compatible with TPC.
- ii. Overload test at 120% of I<sub>max</sub> for accuracy under different abnormal condition as per as per annexure I.

**17 TYPE TESTS CERTIFICATES:**

The bidder shall furnish the type test certificates of the meter for the tests as mentioned above as per the corresponding standards. All the tests shall be conducted at CPRI / ERDA as per the relevant standards. Type test should have been conducted in certified Test Laboratories during the period not exceeding 5 years from the date of opening the bid. In the event of any discrepancy in the test reports i.e. any test report not acceptable or any/all type tests (including additional type tests, if any) not carried out, same shall be carried out without any cost implication to TPCODL.

**18 PRE-DISPATCH INSPECTION:**

The successful bidder shall submit two prototype samples for further testing and compliance as per specifications and getting approval before mass manufacturing. Inspection may be made at any stage of manufacture at the discretion of the purchaser and the equipment, if found unsatisfactory as to workmanship or material, the same is liable to rejection.

Equipment shall be subject to inspection by a duly authorized representative of the Purchaser. Bidder shall grant free access to the places of manufacture to TPCODL's representatives at all times when the work is in progress. Inspection by the TPCODL or its authorized representatives shall not relieve the bidder of his obligation of furnishing equipment in accordance with the specifications. Material shall be dispatched after specific MDCC (Material Dispatch Clearance Certificate) is issued by TPCODL.

Following documents shall be sent along with material

- a) Test reports
- b) MDCC issued by TPC
- c) Invoice in duplicate
- d) Packing list
- e) Drawings & catalogue
- f) Guarantee / Warrantee card
- g) Delivery Challan
- h) Other Documents (as applicable)

**19 INSPECTION AFTER RECEIPT AT STORE:**

The material received at Purchaser's store shall be inspected for acceptance and shall be liable for rejection, if found different from the reports of the pre-dispatch inspection and one copy of the report shall be sent to Project Engineering department.

The successful bidder shall submit two extra boxes (unpaid) per lot delivered, with serial nos. in continuation to the lot (lot size shall be 15,000 numbers or as defined in the order) to the Purchaser for further testing and confirmation in line with the specifications and the material shall be liable for rejection, if test results are found different from the reports of the pre-dispatch inspection and one copy of the report shall be sent to Project Engineering department.

**20 GUARANTEE:**

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Bidder shall stand guarantee towards design, materials, workmanship & quality of process / manufacturing of items under this contract for due and intended performance of the same, as an integrated product delivered under this contract. In the event any defect is found by the purchaser up to a period of at least 60 months from the date of commissioning or 66 months from the date of last supplies made under the contract whichever is earlier, Bidder shall be liable to undertake to replace/rectify such defects at its own costs, within mutually agreed time frame, and to the entire satisfaction of the Company, failing which the purchaser will be at liberty to get it replaced/rectified at bidder's risks and costs and recover all such expenses plus the Company's own charges (@ 20% of expenses incurred), from the bidder or from the " Security cum Performance Deposit" as the case may be.

Bidder shall further be responsible for 'free replacement at site' for another period of THREE years from the end of the guarantee period for any 'Latent Defects' if noticed and reported by the purchaser. Data of all defective meters sent to bidder shall be downloaded by bidder prior to repairing these meters.

Manufacture should collect disputed meter from meter stores and provide testing report of disputed meter refer by TPCODL for lifetime.

**21 PACKING:**

Bidder shall ensure that all material covered under this specification shall be prepared for rail/road transport (local equipment) and be packed in such a manner as to protect it from damage in transit. The material used for packing shall be environmentally friendly.

Packing and transportation shall be as per IS 15707:206 clauses 9.1 and 9.2. Routine test report of the individual meter shall be kept inside each card board carton of the meter. Serial numbers of meters need to be mentioned in the form of barcodes on external surface of meter packing box.

**22 TENDER SAMPLE:**

Bidders are required to manufacture 3nos. sample meters as per the Purchaser specification and submit the sample along with bid for approval.

**23 QUALITY CONTROL:**

The bidder shall submit with the offer Quality assurance plan indicating the various stages of inspection, the tests and checks which will be carried out on the material of construction, components during manufacture and bought out items and fully assembled component and equipment after finishing. As part of the plan, a schedule for stage and final inspection within the parameters of the delivery schedule shall be furnished.

Quality should be ensured at the following stages:

- At PCB manufacturing stage, each board shall be subjected to computerized bare board testing.
- At insertion stage, all components should undergo computerized testing for conforming to design parameter and orientation.
- Complete assembled and soldered PCB should undergo functional testing using Automatic Test Equipment (ATEs).
- Prior to final testing and calibration, sample meters shall be subjected to ageing test (i.e. meters will be kept in ovens for 24 hours at 55 Deg. C temperature and atmospheric humidity under real-life condition at its full load current. After 24 hours meter should work satisfactorily)

The Purchaser's engineer or its nominated representative shall have free access to the bidder's/manufacturer's works to carry out inspections.

**24 MINIMUM TESTING FACILITIES:**

Bidder shall have adequate in house testing facilities for carrying out all routine tests & acceptance tests as per relevant International / Indian standards. The bidder shall have duly calibrated Reference Standard meter

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of Class 0.05 accuracy or better. The bidder's Lab must be NABL accredited. Necessary document to be submitted along with the Bid.

**25 MANUFACTURING ACTIVITIES:**

The successful bidder will have to submit the bar chart for various manufacturing activities clearly elaborating each stage, with quantity. This bar chart shall be in line with the Quality assurance plan submitted with the offer. This bar chart will have to be submitted within 15 days from the release of the order.

**26 SPARES, ACCESSORIES & TOOLS:**

Bidder to be provide free of cost 02 nos of JIG for retrieving data from memory of meter with every new design of meter. Jig should be such that NVM can be push fit on jig and data can be retrieve from this NVM

**27 Blue Tooth Meter Reading:**

Inbuilt facility for blue tooth based meter reading is preferable.

**28 List of additional annexures to be submitted by individual utilities during procurement process:**

- a) Display sequence
- b) TOD configuration
- c) Kvah & Kva calculation method

**29 DRAWINGS:**

Following drawings & Documents shall be prepared based on TPCODL specifications and statutory requirements and shall be submitted with the bid:

- a) Completely filled-in Technical Parameters.
- b) General arrangement drawing of the meter
- c) Terminal Block dimensional drawing
- d) Mounting arrangement drawings.
- e) General description of the equipment and all components with makes and technical requirement
- f) Type Test Certificates
- g) Experience List
- h) Manufacturing schedule and test schedule

After the award of the contract, four (4) copies of following drawings, drawn to scale, describing the equipment in detail shall be forwarded for approval:

S. No.	Description	For Approval	For Review Information	Final Submission
1	Technical Parameters	√		√
2	General Arrangement drawings	√		√
3	Terminal block Dimensional drawings	√		√
4	Mounting arrangement drawing.	√		√
5	Manual/Catalogues		√	
6	Transport/ Shipping dimension drawing		√	√
7	QA & QC Plan	√	√	√
8	Routine, Acceptance and Type Test Certificates	√	√	√

Bidder shall subsequently provide Four (4) complete sets of final drawings, one of which shall be auto positive suitable for reproduction, before the dispatch of the equipment. Soft copy (Compact Disk CD) of all the drawing, GTP, Test certificates shall be submitted after the final approval of the same to purchaser.



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All the documents & drawings shall be in English language.

Instruction Manuals: Bidder shall furnish two softcopies (CD) and four (4) hard copies of nicely bound manuals (In English language) covering erection and maintenance instructions and all relevant information and drawings pertaining to the main equipment as well as auxiliary devices.

**30 GUARANTEED TECHNICAL PARTICULARS:**

S.No	Description	Units	As Furnished by Bidder
1	Type of meter		
2	Accuracy Class of the meter		
3	Ib & I <sub>max</sub>	A	
4	Operating Voltage	V	
5	Operating Frequency	Hz	
6	Power Consumption and Burden		
7	Starting Current	mA	
8	Short time over current	A	
9	Influence of heating		
10	Rated impulse withstand voltage	KV	
11	AC withstand Voltage for 1 min	KV	
12	Insulation resistance a) Between frame & Current, voltage circuits connected together: b) Between each current (or voltage circuit) & each and every other circuit.	M ohm	
13	Mechanical requirement as per IS 13779		
14	Resistance to heat and fire (As per specification)		
15	Degree of protection		
16	Resistance against climatic influence (as per IS 13779)		

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17	Electromagnetic Compatibility (EMC) as per CBIP Technical report no 88(latest amendment		
18	Accuracy requirements (As per IS 13779		
19	Power factor range		
20	Energy measurement		
21	Connection Diagram for system on terminal cover	Yes/No	
22	Self diagnostic feature		
23	Initial start up of meter (meter shall be fully functional within 5 sec after reference voltage is applied to the meter terminals)		
24	Terminal block a) Depth of the Terminal holes b) Internal diameter of terminal holes c) Clearance between adjacent terminals	mm mm mm	
25	Communication capabilities as per clause 5.0		
26	Immunity against abnormal Magnetic influence,		
27	Immunity against HV ESD		
28	DC Immunity as defined in		
29	Grade of material for a) Meter base b) Meter cover c) Terminal block d) Terminal cover		
30	Total Tamper counts		
31	Recording forward energy in all conditions as per annexure I ( including current/potential reversal)	Yes/No	
32	Makes of all components used in the meter.	Yes/No	
33	Non Volatile memory (Retention period)		
34	Measuring elements used in the meter		
35	Power supply to circuit in case of supply failure		

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36	Display of measured values (As per specification –clause 13)	Yes/No	
37	LCD display ( Type and viewing angle)		
38	Pulse rate	Imp/kWh, Imp/kVArh	
39	Name plate marking	Yes/No	
40	Routine test certificates	Yes/No	
41	Acceptance test certificates	Yes/No	
42	Type test certificates	Yes/No	
43	Guarantee certificates	Yes/No	
44	Display Sequence	Yes/No	
45	Tamper thresholds	Yes/No	
46	Ultrasonic Welding of cover and Base	Yes/No	
47	Fire retardant category of meter Body And terminal block		
48	Supply of jig for retrieval of Damaged/ burnt meter.		
49	Meter shall be programed for like RTC, TOD etc		
50	Dimension of meters L*B*H		
51	KVAH & KVA calculation		
52	Meter data retrieved if meter found no display	Yes/No	
53	RJ 11 Pin configuration as per TPC	Yes/No	
54	Clause wise Compliance & mention Deviation against each clause if any	Agreed/Not Agreed	

## Electronics parts

Sr NO	Component Fundtion	Requirement	Makes and Origin ( to be provide by Bidder)
1.	Measurement/ computing chips	The Measurement/ computing chips used in the meter should be with the Surface mount type along with the ASICs	
2.	Memory chips	The memory chips should not be affected by the external parameters like sparking, high voltage spikes	

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		or electrostatic discharges.	
3.	Display modules	The display modules should be well protected from the external UV radiations . The display visibility should be sufficient to read the meter mounted between height of 0.5m and 2m. The construction of the modules should be such that the displayed quantity should not disturbed with the life of display. ( Pin Type) It should be trans-reflective STN type industrial grade with extended temperature range.	
4.	Optical port	Optical port should be used to transfer the meter data to meter reading instrument. The mechanical construction of the port should be such to facilitate the data transfer easily.	
5	P.C.B.	Glass Epoxy, fire resistance grade FR4, with minimum thickness 1.6 mm and Conformal coating required to protect from Environment like moisture	
6.	Electronic Components	The active & passive components should be of the surface mount type & are to be handled & soldered by the state of art assembly processes.	
7.	Battery	Lithium with guaranteed life of 15 years	
8.	RTC / Micro controller	The accuracy of RTC shall be as per relevant IEC / IS standards	
Note: Bidder shall submit necessary documents for substantiate the component makes.			

### 31 SCHEDULES OF DEVIATIONS:

The bidders shall set out all deviations from this specification, Clause by Clause in this schedule. Unless specifically mentioned in this schedule, the tender shall be deemed to confirm the purchaser's specifications.

#### **(TO BE ENCLOSED WITH THE BID)**

All deviations from this specification shall be set out by the bidders, clause by Clause in this schedule. Unless specifically mentioned in this Schedule, the tender shall be deemed to confirm the purchaser's specifications:

S.No.	Clause No.	Details of deviation with justifications
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We confirm that there are no deviations apart from those detailed above.  
Seal of the Company.

Designation

Signature

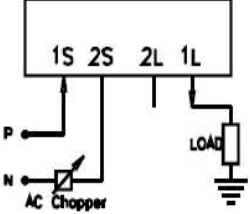
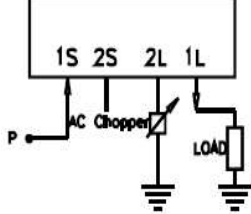
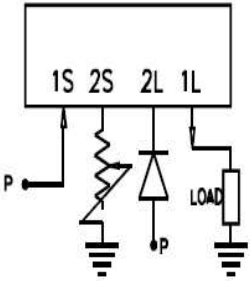
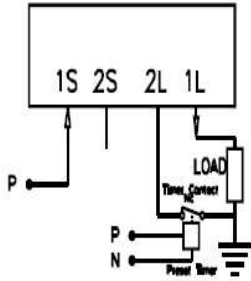
Annexure :-1



No	Name of Condition	Graphical View	No	Name of Condition	Graphical View
1	Normal condition		2	Phase neutral interchanged at supply side4	
3	Supply-Load interchanged		4	Phase & Neutral interchanged in condition (3)	
5	Full Load Earthed		6	phase-neutral interchanged at supply side in condition (5)	
7	supply load interchanged in condition(5)		8	phase and neural wire interchanged in condition (7)	
9	Partial load earthed		10	phase & Neutral wire interchanged in condition (9)	
11	supply-load interchanging in condition (9)		12	Phase & Neutral wire interchanged in condition (11)	
13	Neutral current reversed		14	Phase & Neutral interchanged in condition 13	
15	supply load interchanging in condition 13		16	Phase-Neutral interchanged in condition 15	

No	Name of Condition	Graphical View	No	Name of Condition	Graphical View
17	Partial load earthed in condition 13		18	Phase-Neutral interchanged in condition 17	
19	Supply-load interchanging in condition 17		20	Phase-Neutral interchanged in condition 19	
21	Current bypass		22	Neutral Missing	
23	Neutral Missing Phase-at 2S		24	Supply-load interchanged in condition 22	
25	Phase at 2L in condition 24		26	Diode (Reversed) in Neutral	
27	Diode(forward) in Neutral		28	Full load earthed in condition 26	
29	Full load earthed in condition 27		30	Neutral Missing, diode (reversed) at 2L & earthed full load earthed	
31	Diode forward in condition 30		32	Neutral Missing, variable load at 2L & earthed, full load earthed	
33	Neutral Missing, variable capacitance at 2L & earthed, full load earthed		34	chopper in neutral	

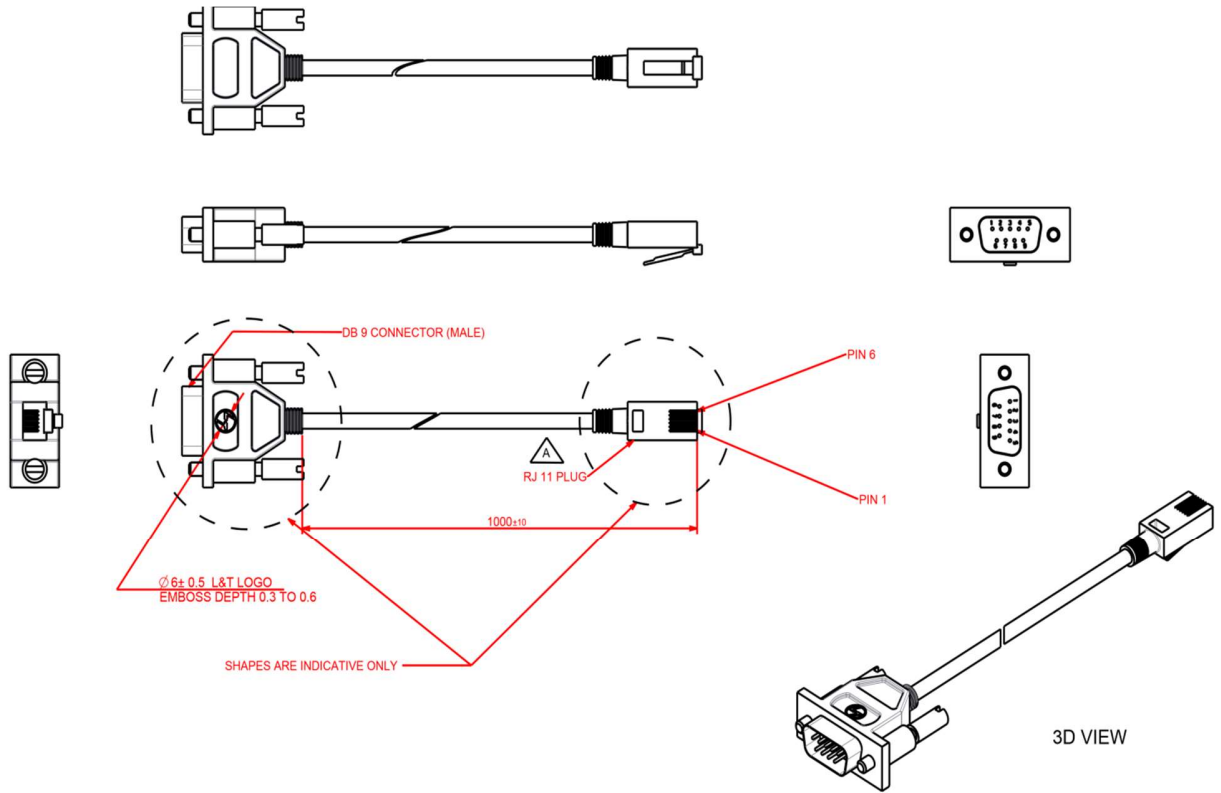
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No	Name of Condition	Graphical View	No	Name of Condition	Graphical View
35	Load earthed in condition 34		36	Neutral Missing, AC Chopper & earthed, full load earthed	
37	Neutral Missing, earthed load, diode in output and variable resistance with earthing at the input		38	Neutral Missing full load earthed at regular time interval	



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Pin configuration of RJ11 Port is as below:-



RJ11 PIN Name	RJ11 PLUG	DB9 MALE CNR	DB9 PIN Name
VCC	PIN 2	PIN 7	VCC
GRND	PIN 3	PIN 5	GRND
TX	PIN 5	PIN 2	RX
RX	PIN 4	PIN 3	TX
		PIN 4 & 6 Short	
		PIN 7 & 8 Short	

Note:- FCI make RJ11 6P4C plug to be used.

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### TECHNICAL SPECIFICATION FOR POLYCARBONATE METER BOX (HINGE TYPE)

1	<b>SCOPE</b>	This specification covers the technical requirements of design, manufacture, testing at manufacturer's works, packing, forwarding, supply and unloading at store/site and performance of single phase <b>polycarbonate meter box</b> (Hinge Type) with all accessories for trouble free and efficient operation.																
2	<b>APPLICABLE STANDARDS</b>	<p>The equipment covered by this specification shall unless otherwise stated, be designed, manufactured and tested in accordance with the latest editions of the following Indian/International standards and shall conform to the regulations of the local statutory authorities.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">IS: 14772-2000</td> <td>General requirements for enclosure for accessories for household and similar fixed electrical installations- Specification</td> </tr> <tr> <td>IS: 8623(Part 1)-1993</td> <td>Specification for low-voltage switchgear and control gear assemblies Part 1 for type tested and partially type tested assemblies</td> </tr> <tr> <td>IS: 11731(Part II)-1992</td> <td>Methods of test for determination of Flammability of solid electrical insulating materials when exposed to an igniting source</td> </tr> <tr> <td>IS 4249-1967</td> <td>Specification for classification and method of test for non-ignitable and self-extinguishing properties of solid electrical insulating materials</td> </tr> <tr> <td>IS 8828-1996</td> <td>Electrical Accessories- Circuit Breakers for Over Current Protection for Household and Similar Installations</td> </tr> <tr> <td>IS 5133(Part II)-1969</td> <td>Specification for boxes for the enclosure of electrical accessories</td> </tr> <tr> <td>IS 2500(Part 1)-2000</td> <td>Sampling procedure for inspection by attributes part 1 sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection</td> </tr> <tr> <td>UL 746-C</td> <td>Polymeric materials in electrical equipments</td> </tr> </table>	IS: 14772-2000	General requirements for enclosure for accessories for household and similar fixed electrical installations- Specification	IS: 8623(Part 1)-1993	Specification for low-voltage switchgear and control gear assemblies Part 1 for type tested and partially type tested assemblies	IS: 11731(Part II)-1992	Methods of test for determination of Flammability of solid electrical insulating materials when exposed to an igniting source	IS 4249-1967	Specification for classification and method of test for non-ignitable and self-extinguishing properties of solid electrical insulating materials	IS 8828-1996	Electrical Accessories- Circuit Breakers for Over Current Protection for Household and Similar Installations	IS 5133(Part II)-1969	Specification for boxes for the enclosure of electrical accessories	IS 2500(Part 1)-2000	Sampling procedure for inspection by attributes part 1 sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection	UL 746-C	Polymeric materials in electrical equipments
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3	<b>CLIMATIC CONDITIONS OF THE INSTALLATION</b>	<p>The atmosphere is generally laden with mild acid and dust suspended during dry months and subjected to fog in cold months. The design of the equipment and accessories shall be suitable to withstand seismic forces corresponding to an acceleration of 0.1g.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;">a) Max. Ambient Temperature</td> <td style="text-align: right;">: 50 deg.C</td> </tr> <tr> <td>b) Max. Daily average ambient temp.</td> <td style="text-align: right;">: 40 deg.C</td> </tr> <tr> <td>c) Min Ambient Temp</td> <td style="text-align: right;">: 0 deg C</td> </tr> <tr> <td>d) Maximum Humidity</td> <td style="text-align: right;">: 95%</td> </tr> <tr> <td>e) Minimum Humidity</td> <td style="text-align: right;">: 10%</td> </tr> </table>	a) Max. Ambient Temperature	: 50 deg.C	b) Max. Daily average ambient temp.	: 40 deg.C	c) Min Ambient Temp	: 0 deg C	d) Maximum Humidity	: 95%	e) Minimum Humidity	: 10%						
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		<p>f) Average No. of thunderstorm days per annum : 50  g) Average Annual Rainfall : 750 mm  h) Average No. of rainy days per annum : 60  i) Rainy months : June to Oct.  j) Altitude above MSL not exceeding : 300 meters  k) Wind Pressure : 126kg/sq m up to an elevation of 10mtrs</p> <p>The atmosphere is generally laden with mild acid and dust suspended during dry months and subjected to fog in cold months. The design of the equipment and accessories shall be suitable to withstand seismic forces corresponding to an acceleration of 0.1g</p>
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<b>4.0</b>	<b>GENERAL TECHNICAL REQUIREMENTS</b>	
<b>S. NO.</b>	<b>DESCRIPTION</b>	<b>REQUIREMENT</b>
<b>1</b>	Application	Outdoor
<b>2</b>	Degree of ingress protection	IP 55
<b>3</b>	Flammability requirement	FV0
<b>4</b>	Grade of material	Fire Retardant Polycarbonate, Self Extinguishing, UV stabilized and anti oxidation properties
<b>5</b>	Material a) Base :  b) Cover :	a) Polycarbonate equivalent to Lexan 943 A/ Makrolon 6457 transparent (no colour)  b) Polycarbonate equivalent to Lexan 943 A/ Makrolon 6457 with clear transparent (no color)
<b>6</b>	Thickness of box	2 mm (minimum)
<b>7</b>	Gasket material	Soft neoprene rubber gasket shall be provided all around the periphery of box for protection against ingress of dust & water inside the box.
<b>8</b>	Material withstand temperature	125 deg. C +/- 2 deg. C
<b>9</b>	Dielectric withstand for the box	5 kV for 1 min

<b>5.0</b>	<b>GENERAL CONSTRUCTIONS</b>	<p>5.1-The meter box shall be weather proof, tamper proof and shall be made of Injection moulded reinforce polycarbonate material having FV0 fire retardant, self-extinguishing, UV stabilization and Anti oxidation properties. Base shall be transparent(no color) whereas the cover shall be completely transparent for polycarbonate material .The material for base and cover shall be Lexan 943 A/ Makrolon 6457 or equivalent with 2 mm thickness.</p> <p>5.2- The meter box shall have a taper corner for easy flow of rain water and shall have degree of IP55 for protection against dust and water.</p> <p>5.3-The box shall be provided with meter mounting arrangement along with MS plate on top for mounting the meter from different manufacturers, having different mounting dimensions. The top plate shall be fixed on the base taking care of the alignment with the fixing holes provided in the base. The detail drawing of the mounting arrangement of all the meters shall be provided to successful bidders by the TPCODL.  A generalized arrangement (Base of the box) for fixing of different makes of meter to be provided. Detailed Dimensional Drawing shall be provided with the Bid.</p>
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		<p>5.4- The meter shall be mounted with the help of MS plate such that it is centrally placed in the box and there shall be clearance of 25 mm between the meter and top of the box. A minimum clearance of 50 mm shall be maintained on both sides, between meter and box. A minimum clearance of 10mm at the back &amp; 15mm on the front shall be maintained. A minimum clearance of 50mm shall be provided from the terminal cover to the box to be provided.</p> <p>5.5- The design of the meter box shall be such as to easy facilitate easy wiring and access to meter terminals. Nylon gland of internal diameter of around 25 mm shall be provided for I/C and O/G cables of size armoured 2Cx16. The holes for I/C and O/G cables shall be provided in left and right side of meter box at around 30-35mm from bottom corner.</p> <p>5.6- The number of pillers to be provided in box as per TPCODL different type of meters. If there is any change in existing meter design or new meter introduced, bidder shall provide meter mounting piller accordingly in meter box with modification in their mould without any extra cost.</p> <p>5.7- The box cover shall be fixed to the base through two nos. Metallic Hinges having Minimum length 40 mm with three screws. The arrangement of the hinges shall be provided on left side of the box. The screws shall not be fixed from outside so that it cannot be visible from outside to avoid any manipulation. The overlapping on hinges should be such that it metallic portion should not be accessible from outside when closed, to achieve this the cover lapping to be provided. The box cover shall be open able by more than 120 degrees. All metallic parts should be well protected against corrosion.</p> <p>5.8- For holding and sealing the box, four U-shaped latches of approx..size 25 mm shall be provided on three side of box( two on right side and one each on top and bottom side).The latch shall be GI with minimum thickness of 1.2 mm. The latch shall be provided along with suitable clamp assembly in base as well as cover, such that these are fully covered by the latch after closing. The clamp along with the latch shall be provided with a sealing hole such as to provide a sealing arrangement in the assembly and alignment of holes should be perfect so that seal wire may be easily install.</p> <p>5.9- Suitable rubber gasket of suitable size (properly fixed throughout the periphery in groove without any white marks) for protection all around the cover shall be provided.</p> <p>5.10. The box shall be provided with four mounting (fixing) holes of 8 mm size. The screws and gitties of 6mm size with around 50mm length to be provided for mounting of box in each box in packed in a separate pack.</p> <p>5.11- After closing and sealing the meter box, it shall not be possible to forcefully enter any sharp object inside the box without breaking base/cover. The material should not be flexible to allow any deformation for any object entry . Suitable overlapping (20 mm) shall be provided between base and cover to avoid access to the meter or its accessories inside the meter box by any means after sealing the box.</p> <p>5.12- Box shall be provided with 1 no. earthing nut and bolt of size M8x35 mm on the left hand side in the base of meter box for providing earth connection. The earth terminal shall be identified by means of the sign ,marked in a legible manner on or adjacent the terminal.</p>
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		<p>5.13 The box size should be such that it should accommodate the meter having top opening hinged terminal cover</p> <p><b>5.14 The earthing bolt and the gland shall be connected with metallic GI plate of 1.2mm thick. This plate shall be placed inside of the box.</b></p> <p><b>5.15 The glands should be of 25 mm diameter and without inclined length but should have extended threads of 15mm inside box and a gland cap should be fixed on this gland from inside. The inside gland cap shall have opening of 18mm on the side of the earthing bolt incomer side and other side gland cap (outgoing) shall have 16mm opening.</b></p> <p><b>5.16 The box cover and base should have overlapping of more than 22mm long from inside and outside (Cover design should ensure the same) Such that the cover and the base once fixed one should not force insert any sharp object or screwdriver etc. This shall be tested at any sample during tendering, pre-manufacturing or during supply.</b></p> <p><b>5.17 Push button arrangement (spring loaded) shall be required on the cover of the box to operate the meter display push button from outside the meter box for reading the meter display parameters in absence of power supply without opening the meter cover.</b></p> <p><b>The base of the box shall be provided with multiple arrangements so that different makes of meters may also be fitted.</b></p> <p><b>5.18 Two nos. of holes of adequate size capable of accommodating service cable shall be provided at two sides of the box for cable incoming &amp; outgoing. It shall not be possible to access the meter terminals from outside of the meter box. Suitable arrangement to be provided.</b></p>						
<b>6.0</b>	<b>NAME PLATE AND MARKING</b>	<p>The meter box shall be provided with durable and legible marking laser printed / embossing. The following shall be embossed / laser printed with "PO No with date" , "PROPERTY OF TPCODL" , "ITEM CODE NUMBER" , The name plate shall be indelibly and distinctly marked with all essential particulars as per the relevant standards along with the following information :</p> <ol style="list-style-type: none"> <li>a) Manufacturer's name</li> <li>b) Serial number</li> <li>c) Month and Year of manufacturing</li> <li>d) PO Number &amp; date</li> <li>e) Property OF TPCODL-Odisha</li> <li>f) Danger Sign</li> </ol>						
<b>7.0</b>	<b>TESTS</b>	<p>All routine, acceptance &amp; type tests shall be carried out in accordance with the relevant IS/IEC. All routine &amp; acceptance tests shall be witnessed by the purchaser/his authorized representative. All the components shall also be type tested as per the relevant standards. Following tests shall be necessarily conducted on the meter box in addition to others specified in IS/IEC standards.</p>						
<b>7.1</b>	<b>Type Test</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">S.no.</th> <th style="text-align: center;">Tests/ Standard</th> <th style="text-align: center;">Requirements</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td>Protection against electric shock (IS : 14772 - 2000)</td> <td>Enclosure shall be so designed that when they are mounted as for normal use, the live parts of any correctly installed accessories or</td> </tr> </tbody> </table>	S.no.	Tests/ Standard	Requirements	1	Protection against electric shock (IS : 14772 - 2000)	Enclosure shall be so designed that when they are mounted as for normal use, the live parts of any correctly installed accessories or
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				<p>any parts of these accessories which may become live due to a fault shall not be accessible.</p>	
		2	Provision for earthing (IS : 14772-2000)	Enclosure shall be provided with a facility for permanent and reliable connection to earthing	
		3	Resistance to ageing, humid conditions, Ingress of solid objects and to harmful ingress of water (IS : 14772-2000)	<p><b>Resistance to Ageing :</b> Enclosure shall be kept in a heating cabinet with temp 70 ± 2 deg C for 7 days as per IS. After completion of the test, the enclosure shall not show any cracks.</p> <p><b>Humid conditions :</b> Enclosure shall be kept in a cabinet with humidity between 91 to 95 % for 7 days as per IS. After completion of the test, the enclosure shall not show any cracks.</p> <p><b>Resistance against ingress of solid objects and to harmful ingress of water :</b> Enclosure shall be subjected to test for degree of protection (IP 55) as per IS 12063 IS 60529.</p>	
		4	Mechanical strength/ Impact Resistance Test (IS : 14772-2000)/(UL : 746 C)	<p>The sample shall be subjected to Impact resistance test as per the respective standards and shall not show occurrence of any of the following:</p> <p>making uninsulated live parts accessible to contact, producing a condition that might affect the mechanical performances of the enclosure, producing a condition that would increase the likelihood of an electric shock</p>	
		5	Resistance to heat / Ball Pressure Test (IS : 14772-2000)	The test shall be made on a sample in a heating cabinet at a temp of 125 ±2 deg C for 1 per IS. After completion of test, the diameter of the impression caused by the ball shall be measured and should not exceed 2 mm.	
		6	Resistance to Abnormal heat and fire/ Glow wire test (IS : 14772-2000)	Parts of insulating materials which might be exposed to thermal stresses due to electric effects shall not be affected by abnormal heat and by fire. The compliance shall be checked by means of the glow wire test performed at 960 deg C, according to IS 11000(Part 2/sec 1) with no flame and glowing.	

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		7	Resistance to Tracking (IS 14772-2000)	The sample when tested as per clause no 17 of IS: 14772, shall show no flashover after completion.	
		8	Flammability test (IS : 11731 (Part II)-1986)/UL :94)	The sample shall comply to flammability requirements of category FV0/V0 as per respective standards	
		9	Test for self-extinguishing property (IS:4249-1967)	The sample when tested as per clause 3.5.1 of IS 4249, shall comply to the specified requirements.	
		10	Test for water absorption (IS: 5133 (Part II )-1969)	The sample shall be heated to a temperature of 50 ± 3 deg. C for 24 h, as per IS and after completion, the water absorbed should not be more than 1%.	
		11	Verification of Die-electric properties (IS :8623 (Part I)-1993)	The enclosure shall be tested as per clause no 8.2.2 of IS 8623(Part 1), with test voltage of 5 kV for 1 minute and withstand it satisfactorily.	
		12	UV Light Exposure (UL-746C)	<p>The sample when exposed to UV light as per the defined test method, shall comply to following</p> <ul style="list-style-type: none"> <li>a) <b>Physical Properties:</b> The average value of physical properties after the UV light exposure shall not be lower than 70% of its initial value (without UV aging) i.e. the variation shall not be more than 30%.</li> <li>b) <b>Flammability Test :</b> After the UV light exposure, the flammability requirement of FV0 shall remain unchanged.</li> <li>c) <b>Flexural Strength:</b> After the UV light exposure, Flexural strength shall not be lower than 70% of its initial value (without UV aging) i.e. the variation shall not be more than 30 %.</li> </ul>	
7.2	<b>Routine tests</b>	<ol style="list-style-type: none"> <li>1. Marking</li> <li>2. Visual Examination and Dimensions</li> <li>3. Protection against electric shock</li> <li>4. Provision for earthing</li> </ol>			
7.3	<b>Acceptance Tests</b>	<ol style="list-style-type: none"> <li>1. Marking</li> <li>2. Visual Examination and Dimensions</li> <li>3. Protection against electric shock</li> <li>4. Provision for earthing</li> </ol>			



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		<ol style="list-style-type: none"> <li>5. Mechanical strength/Impact Resistance Test</li> <li>6. Resistance to Abnormal heat and fire/ Glow wire test</li> <li>7. Flammability test</li> <li>8. Verification of Die-electric properties</li> <li>9. Finishing of box</li> </ol>
8.0	<b>TYPE TEST CERTIFICATES</b>	The bidder shall furnish the type test certificates for the tests as mentioned above as per the corresponding standards. All the tests shall be conducted at CPRI/ERDA/UL or equivalent accredited labs as per the relevant standards. Type tests should have been conducted in certified Test laboratories during the period not exceeding 5 years from the date of opening the bid. In the event of any discrepancy in the test reports, i.e. any test report not acceptable, same shall be carried out without any cost implication to the Purchaser.
9.0	<b>PRE-DISPATCH INSPECTION</b>	<p>The successful bidder shall submit one pre-manufacturing sample samples (non-returnable) for further testing and compliance as per specifications and should get approval from TPDDL before mass manufacturing.</p> <p>Equipment shall be subject to inspection by a duly authorized representative of the Purchaser.</p> <p>Inspection may be made at any stage of manufacture at the option of the purchaser and the equipment if found unsatisfactory as to workmanship or material, the same is liable to rejection. Bidder shall grant free access to the places of manufacture to the Purchaser's representatives at all times when the work is in progress. Inspection by the Purchaser or it's authorized representatives shall not relieve the supplier of his obligation of furnishing equipment in accordance with the specifications. Material shall be dispatched after specific MDCC (Material Dispatch Clearance Certificate) is issued by the Purchaser.</p> <p>Following documents shall be sent along with material :</p> <ol style="list-style-type: none"> <li>a) Test reports</li> <li>b) MDCC issued by Purchaser</li> <li>c) Invoice in duplicate</li> <li>d) Packing list</li> <li>e) Drawings &amp; catalogue</li> <li>f) Guarantee / Warrantee card</li> <li>g) Delivery Challan</li> <li>h) Other Documents (as applicable)</li> </ol>
10.0	<b>INSPECTION AFTER RECEIPT AT STORE</b>	<p>The material received at Purchaser's store shall be inspected for acceptance and shall be liable for rejection, if found different from the reports of the pre-dispatch inspection and one copy of the report shall be sent to Engineering department.</p> <p>TPCODL can send any of the supplied material for further testing at any lab for compliance of material in line with the specifications and the material shall be liable for rejection, if test results are found different from the reports of the pre-dispatch inspection or tender test reports.</p>
11.0	<b>GUARANTEE</b>	Bidder shall stand guarantee towards design, materials, workmanship & quality of process/manufacturing of items under the contract for due and intended performance of the same, as an integrated product delivered under this contract. In the event any defect is found by the Purchaser up to a period of 60 months from the date of commissioning or 66 months from the date of last supplies made under the contract, whichever is earlier. Bidder shall be liable to undertake to replace/rectify such defects



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		<p>at his own costs, within mutually agreed timeframe, and to the entire satisfaction of the Purchaser, failing which the Purchaser will be at liberty to get it replaced/rectified at Bidder's risks and costs and recover all such expenses plus the Purchaser's own charges (@ 20% of expenses incurred), from the Bidder or from the "Security cum performance Deposit" as the case may be. In case box fails within the guarantee period, the purchaser will immediately inform the bidder who shall take back the failed box within 15 days from the date of intimation at his own cost and replace/repair the box within forty five days of date of intimation with a roll over guarantee.</p> <p>Bidder shall further be responsible for 'free replacement' for another period of THREE years from the end of the guarantee period for any 'Latent Defects' if noticed and reported by the Purchaser.</p>
12.0	<b>PACKING</b>	Bidder shall ensure that all the equipment covered under this specification shall be prepared for rail/road transport in a manner so as to protect the equipment from damage in transit. The material used for packing shall be environmentally friendly.
13.0	<b>TENDER SAMPLE</b>	Bidders are required to manufacture three sample boxes as per the TPCODL specification and submit the sample boxes along with the bid for further testing and approval of samples. These samples shall be retained till the final PO placed against tender and for successful bidder these shall be retained till final supply against order.
14.0	<b>QUALITY CONTROL</b>	The bidder shall submit with the offer Quality assurance plan indicating the various stages of inspection, the tests and checks which will be carried out on the material of construction, components during manufacture and bought out items and fully assembled component and equipment after finishing. As part of the plan, a schedule for stage and final inspection within the parameters of the delivery schedule shall be furnished. The Purchaser's engineer or its nominated representative shall have free access to the manufacturer's/sub-supplier's works to carry out inspections.
15.0	<b>MINIMUM TESTING FACILITIES</b>	Bidder shall have adequate in house testing facilities for carrying out all routine tests, acceptance tests as per Indian/International standards.
16.0	<b>MANUFACTURING ACTIVITIES</b>	The successful bidder will have to submit the bar chart for various manufacturing activities clearly elaborating each stage, with quantity. This bar chart should be in line with the Quality assurance plan submitted with the offer. This bar chart will have to be submitted within 15 days from the release of the order.
17.0	<b>SPARES, ACCESSORIES AND TOOLS</b>	Not applicable
18.0	<b>DRAWING AND DOCUMENTS</b>	<p>Following drawings and documents shall be prepared based on Purchaser specifications and statutory requirements and shall be submitted with the bid :</p> <ol style="list-style-type: none"> <li>a) Completely filled in Technical Particulars (GTP)</li> <li>b) General description of the equipment and all components &amp; accessories</li> <li>c) General arrangement for meter box</li> <li>d) Experience List</li> <li>e) Type test certificates</li> </ol> <p>After the award of the contract, soft copies of following drawings, drawn to scale, describing the equipment in detail shall be forwarded for approval.</p>

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The TP Central Odisha Distribution Limited		Specification for single Phase DLMS Energy Meter (10-60A)
Meter management Group		

		h)	Box mounting arrangement with four screws provided	Yes/No	
		i)	Push Button Arrangement		
		i)	A. Size of incoming & outgoing cable hole is 25mm B. location of hole from bottom base (30-40mm)	Yes/No	
		j)	Weight of complete box in kg with +/- tolerance	kg	
		k)	Cover is overlapping the base more than 22 mm from inside and outside of box base	Yes/no	
		l)	4 Number Gitti and screws provided with M6 Screw with min. length 50mm	Yes/no	
		m)	MS plate for meter mounting provided on Top side (without sharp corners)		
		n)	Two nos. GI Hinges having Minimum length 40 mm with three screws	Number & mm	
		o)	Angle of Box opening	degree	
		p)	Number of U-shaped GI clamp & latches – 4	Number	
		q)	GI U clamp with 1.2mm thickness on three sides having min.25mm length	Yes/No	
		r)	Sealing hole to be provided in clamp and latches		
		s)	Overlapping of cover on base inside and outside	mm	
		t)	Number and size of earthing M8 bolt with 35mm length	Number & mm	
		u)	Location of earthing bolt on Sides above side gland		
		v)	Earthing sign with green background on GI sheet to be provided near earth bolt		
		w)	Two nos. of holes of adequate size capable of accommodating service cable shall be provided at two sides of the box for cable incoming & outgoing. It shall not be possible to access the meter terminals from outside of the meter box. Suitable arrangement to be provided.		
		11	Name plate and marking		
		12	Type test Report		
		13	The both gland provided with inside gland cap		
		14	The earth connectivity plate between incoming gland and earth bolt provided with 1.2mm thick GI		

The TP Central Odisha Distribution Limited		Specification for single Phase DLMS Energy Meter (10-60A)
Meter management Group		

		15	Gland cap thickness 3mm and design per annexure-1 having 15mm threading width for fixing on gland from inside box.								
		16	Mounting pillars as per annexure 2 and agreed to provide any changes in future as per prevailing meters & TPCODL requirements								
		17	The box size is suitable for single phase meter having top opening hinged terminal cover (Suitability shall be tested on samples)								
		18	Clause wise Compliance & mention Deviation against each clause if any	Agreed /Not Agreed							
<b>20.0</b>	<b>SCHEDULE OF DEVIATION</b>	<p>The bidders shall set out all deviations from this specification, Clause by Clause in this schedule. Unless specifically mentioned in this schedule, the tender shall be deemed to confirm the purchaser's specifications.</p> <p style="text-align: center;"><b><u>(TO BE ENCLOSED WITH THE BID)</u></b></p> <p>All deviations from this specification shall be set out by the bidders, clause by Clause in this schedule. Unless specifically mentioned in this Schedule, the tender shall be deemed to confirm the purchaser's specifications:</p> <table border="1" data-bbox="459 1128 1382 1489" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th data-bbox="459 1128 767 1193">S.No.</th> <th data-bbox="767 1128 1075 1193">Clause No.</th> <th data-bbox="1075 1128 1382 1193">Details of deviation with justifications</th> </tr> </thead> <tbody> <tr> <td data-bbox="459 1193 767 1489" style="height: 100px;"></td> <td data-bbox="767 1193 1075 1489"></td> <td data-bbox="1075 1193 1382 1489"></td> </tr> </tbody> </table> <p>We confirm that there are no deviations apart from those detailed above.</p> <p>Seal of the Company <span style="float: right;">Signature :</span></p> <p style="text-align: right;">Designation :</p>				S.No.	Clause No.	Details of deviation with justifications			
S.No.	Clause No.	Details of deviation with justifications									

**ANNEXURE III**

**Schedule of Deviations**

*Bidders are advised to refrain from taking any deviations on this TENDER. Still in case of any deviations, all such deviations from this tender document shall be set out by the Bidders, Clause by Clause in this schedule and submit the same as a part of the **Technical Bid**.*

*Unless specifically mentioned in this schedule, the tender shall be deemed to confirm the TPCODL's specifications:*

<b>S. No.</b>	<b>Clause No.</b>	<b>Tender Clause Details</b>	<b>Details of deviation with justifications</b>

*By signing this document we hereby withdraw all the deviations whatsoever taken anywhere in this bid document and comply to all the terms and conditions, technical specifications, scope of work etc. as mentioned in the standard document except those as mentioned above.*

**Seal of the Bidder:**

**Signature:**

**Name:**

**ANNEXURE IV**

**Schedule of Commercial Specifications**

***(The bidders shall mandatorily fill in this schedule and enclose it with the offer Part I: Technical Bid. In the absence of all these details, the offer may not be acceptable.)***

<b>S. No.</b>	<b>Particulars</b>	<b>Remarks</b>
1.	Prices firm or subject to variation (If variable indicate the price variation clause with the ceiling if applicable)	Firm / Variable
1a.	If variable price variation on clause given	Yes / No
1b.	Ceiling	----- %
1c.	Inclusive of Excise Duty	Yes / No (If Yes, indicate % rate)
1d.	Sales tax applicable at concessional rate	Yes / No (If Yes, indicate % rate)
1e.	Octroi payable extra	Yes / No (If Yes, indicate % rate)
1f.	Inclusive of transit insurance	Yes / No
2.	Delivery	Weeks / months
3.	Guarantee clause acceptable	Yes / No
4.	Terms of payment acceptable	Yes / No
5.	Performance Bank Guarantee acceptable	Yes / No
6.	Liquidated damages clause acceptable	Yes / No
7.	Validity (180 days) (From the date of opening of technical bid)	Yes / No
8.	Inspection during stage of manufacture	Yes / No
9.	Rebate for increased quantity	Yes / No (If Yes, indicate value)
10.	Change in price for reduced quantity	Yes / No (If Yes, indicate value)
11.	Covered under Small Scale and Ancillary Industrial Undertaking Act 1992	Yes / No (If Yes, indicate, SSI Reg'n No.)

**Signature & Seal of the Bidder**

**ANNEXURE V**

**Checklist of all the documents to be submitted with the Bid**

Bidder has to mandatorily fill in the checklist mentioned below:-

<b>S. No.</b>	<b>Documents attached</b>	<b>Yes / No / Not Applicable</b>
1	EMD of required value	
2	Tender Fee as mentioned in this RFQ	
3	Company profile/ organogram	
4	Signed copy of this RFQ as an unconditional acceptance	
5	Duly filled schedule of commercial specifications (Annexure IV)	
6	Sheet of commercial/ technical deviation if any (Annexure III)	
7	Balance sheet for the last completed three financial years; mandatorily enclosing Profit & loss account statement	
8	Acknowledgement for Testing facilities if available (duly mentioned on bidder letter head)	
9	List of Machine/ tools with updated calibration certificates if applicable	
10	Details of order copy (duly mentioned on bidder letter head)	
11	Order copies as a proof of quantity executed	
12	Details of Type Tests if applicable (duly mentioned on bidder letter head)	
13	All the relevant Type test certificates as per relevant IS/ IEC (CPRI/ ERDA/ other certified agency) if applicable	
14	Project/ Supply Completion certificates	
15	Performance certificates	
16	Client Testimonial/ Performance Certificates	
17	Credit rating/ Solvency certificate	
18	Undertaking regarding non blacklisting (On company letter head)	
19	List of trained/ Untrained Manpower	

**Signature & Seal of the Bidder**

Annexure VI

**Acceptance Form for Participation In Reverse Auction Event**

*(To be signed and stamped by the bidder)*

In a bid to make our entire procurement process more fair and transparent, TPCODL intends to use the reverse auctions as an integral part of the entire tendering process. All the bidders who are found as technically qualified based on the tender requirements shall be eligible to participate in the reverse auction event.

**The following terms and conditions are deemed as accepted by the bidder on participation in the bid event:**

1. TPCODL shall provide the user id and password to the authorized representative of the bidder. *(Authorization Letter in lieu of the same shall be submitted along with the signed and stamped Acceptance Form).*
2. TPCODL will make every effort to make the bid process transparent. However, the award decision by TPCODL would be final and binding on the supplier.
3. The bidder agrees to non-disclosure of trade information regarding the purchase, identity of TPCODL, bid process, bid technology, bid documentation and bid details.
4. The bidder is advised to understand the auto bid process to safeguard themselves against any possibility of non-participation in the auction event.
5. In case of bidding through Internet medium, bidders are further advised to ensure availability of the entire infrastructure as required at their end to participate in the auction event. Inability to bid due to telephone line glitch, internet response issues, software or hardware hangs, power failure or any other reason shall not be the responsibility of TPCODL.
6. In case of intranet medium, TPCODL shall provide the infrastructure to bidders. Further, TPCODL has sole discretion to extend or restart the auction event in case of any glitches in infrastructure observed which has restricted the bidders to submit the bids to ensure fair & transparent competitive bidding. In case of an auction event is restarted, the best bid as already available in the system shall become the start price for the new auction.
7. In case the bidder fails to participate in the auction event due any reason whatsoever, it shall be presumed that the bidder has no further discounts to offer and the initial bid as submitted by the bidder as a part of the tender shall be considered as the bidder's final no regret offer. Any offline price bids received from a bidder in lieu of non-participation in the auction event shall be out-rightly rejected by TPCODL.
8. The bidder shall be prepared with competitive price quotes on the day of the bidding event.
9. The prices as quoted by the bidder during the auction event shall be inclusive of all the applicable taxes, duties and levies and shall be FOR at TPCODL site.
10. The prices submitted by a bidder during the auction event shall be binding on the bidder.
11. No requests for time extension of the auction event shall be considered by TPCODL.
12. The original price bids of the bidders shall be reduced on pro-rata basis against each line item based on the final all inclusive prices offered during conclusion of the auction event for arriving at Contract amount.

**Signature & Seal of the Bidder**



**Annexure VII**  
**General Conditions of Contract –**

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<b>2.0</b>	<b>ETHICS</b>
<b>3.0</b>	<b>CONTRACT PARAMETERS</b>
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3.2	Contract Commencement Date
3.3	Contract Completion Date
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GENERAL CONDITIONS OF CONTRACT

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## 1.0 ORGANIZATIONAL VALUES

The Tata Group has always been a value driven organization. These values continue to direct the Group's growth and businesses. The six core Tata Values underpinning the way we do business are:

**Integrity** - We must conduct our business fairly, with honesty and transparency. Everything we do must stand the test of public scrutiny.

**Understanding** - We must be caring, respectful, compassionate and humanitarian towards our colleagues and customers around the world and always work for the benefit of India.

**Excellence** - We must constantly strive to achieve the highest possible standards in our day to day work and in the quality of goods and services we provide.

**Unity** - We must work cohesively with our colleagues across the group and with our customers and partners around the world to build strong relationships based on tolerance, understanding and mutual co-operation.

**Responsibility** - We must continue to be responsible and sensitive to the countries, communities and environments in which we work, always ensuring that what comes from the people goes back to the people many times over.

**Agility** - We must work in a speedy and responsive manner and be proactive and innovative in our approach.

## 2.0 ETHICS

In our effort towards Excellence and in Management of Business Ethics at TPCODL, an Ethics Management Team is constituted.

The main objective of the Ethics Management Team is to:

1. Record, address and allay the issues and concerns on ethics raised by different stakeholders like employees, consumers, vendors, Associates etc. by initiating immediate corrective actions.
2. Ensure proper communication of the ethics policies and guidelines through prominent displays at all offices of TPCODL and through printed declarations in all concerned documents where external stakeholders are involved.
3. Ensure proper framework of policies as preventive measures against any ethics violation recorded by them.
4. Prepare and submit MIS of all issues and concerns, corrective and preventive actions on monthly basis to the top management for their information.

All Associates and Stakeholders are requested to register any grievance on ethics violation on our website [www.tpccentralodisha.com](http://www.tpccentralodisha.com).

## 3.0 CONTRACT PARAMETERS

### 3.1 Issue/Award of Contract

TPCODL awards the contract to the Associate in writing in the form of Purchase Order (PO) or Rate Contract (RC), hereafter referred as Contract, through in any or all of following modes physical handover / post / e-mail / web document / fax with all the attachments/enclosures which shall be part of the contract document.

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On receipt of the contract, the associate shall return to TPCODL copy of the contract document duly signed by legally authorized representative of associate, within two days of Effective Date of Contract for contracts having contract execution time less than 30 days and within five days for all other contracts.

### **3.2 Contract Commencement Date**

The date of issue/award of contract shall be the Effective Date of Contract or Contract Commencement date.

### **3.3 Contract Completion Date**

The date of expiry of Guarantee Period shall be deemed as the Contract Completion Date.

### **3.4 Contract Period/Time**

The period from Contract Commencement Date to Contract Completion Date shall be deemed as the Contract Period/Time.

### **3.5 Contract Execution Completion Date**

The stipulated date for completing the supply as per schedule of quantities shall be deemed as the Contract Execution Completion Date.

### **3.6 Contract Price /Value**

The total all inclusive price/value mentioned in the PO/RC is the Contract Price/Value and is based on the quantity, unit rates and prices quoted and awarded and shall be subject to adjustment based on actual quantities supplied and accepted and certified by the authorized representative of the company unless otherwise specified in schedule of quantities or in contract documents.

### **3.7 Contract Document**

The Contract Document shall mean and include but not limited to the following:

- NIT/Tender Enquiry, QR, Instruction to Bidders, Special Condition of Contract (SCC) of tender, GCC, Technical & Commercial Specifications including relevant annexure and attachments).
- Bids & Proposals Received from Associate including relevant annexure/attachments.
- RC/PO with agreed deviations from the tender/bid documents.
- All the Inspection and Test reports, Detailed Engineering Drawings.
- Material Dispatch Clearance Certificate (MDCC).
- Minutes of Meeting (MoM)

### **3.8 Contract Language**

All documents, instructions, catalogues, brochures, pamphlets, design data, norms and calculations, drawings, operation, maintenance and safety manuals, reports, labels, on deliveries and any other data shall be in English Language.

The Contract documents and all correspondence between the TPCODL, Third Parties associated with the contract, and the Associate shall be in English language.

However, all signboards required indicating "Danger" and/or security at site and otherwise statutory required shall be in English, Hindi, and local languages.

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### 3.9 Reverse Auction

TPCODL reserves the right to conduct the reverse auction (instead of public opening of price bids) for the products / services being asked for in the tender. The terms and conditions for such reverse auction events shall be as per the Acceptance Form attached in Annexure F.

### 4.0 SCOPE OF WORK

All the activities that are to be undertaken by the Associate to realize the contractual deliverables in completeness form Scope of Work. Following clauses list, but not limited to, major requirements of the scope of work.

The associate shall satisfy himself and undertake fully the technical/commercial requirements of items to be supplied as listed in the Schedule of Quantities together with the tests to be performed /test reports to be furnished before dispatch, arrangement of stage and final inspections during manufacturing as per terms and conditions of contract, technical parameters & delivery terms and conditions including transit insurance to be met in order to fully meet TPCODL's requirements.

Completeness: Any supplies and services which might have not been specifically mentioned in the Contract but are necessary for the scope mentioned in Special Terms & Conditions and/or completeness of the works at the highest possible level, including any royalties, license fees & compensation to be paid, whether incurred by the associates or by a third party for the work covered in the scope, regardless of when incurred, shall be supplied/provided by the associate without any extra cost and within the time schedule for efficient, smooth and satisfactory operation and maintenance of the works at the highest possible level under Indian conditions (but according to international standards for facility of this type), unless expressly excluded from the scope of supplies and services in this Contract.

TPCODL have the right, during the performance of the Contract, to change the scope and/or technical character of the Project and/or of the supplies and services stipulated in the Contract by submitting a request in writing to the Associate. The Associate shall, within fifteen days of receipt of such request from the TPCODL, provide Purchaser with a reasonably detailed estimate of the cost of the change outlined in the request.

In the event, TPCODL requests a change, the Contract price and time shall be adjusted upwards or downwards, as the case may be and shall be mutually agreed to. The associate shall not be entitled to any extension of time unless such changes adversely affect the time schedule.

The Associate shall not proceed with the changes as requested till adjustment of contract price and time schedule where so applicable in terms of or otherwise directed by the TPCODL.

### 5.0 PRICES/RATES/TAXES

Unless specified elsewhere in the contract document, the prices/rates are inclusive of cost of finished product for which MDCC will be issued by TPCODL, packaging and forwarding charges, freight and transit insurance charges covering loading at Associate's works, transportation to TPCODL store/site & unloading & delivery at TPCODL stores/TPCODL site, cost of documentation including all the relevant test certificates and other supportive documents to be furnished.

The Prices/Rates are inclusive of all taxes, levies, cess and duties, particularly Goods and Services Tax as applicable. All government levy / taxes shall be paid only when the invoice is submitted according to the relevant act.

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The prices/rates shall remain firm till actual completion of entire supply of goods/material/equipment as per contract is achieved and shall remain valid till the completion of the contract.

The prices shall remain unchanged irrespective of TPCODL making changes in quantum in all or any of the schedules of items of contract.

### **5.1 Changes in Statutory Tax Structure**

If rate of any or all of the statutory taxes and duties applicable to the contract changes, such changes shall be incorporated by default if the changes occur within the contract execution time and shall be applicable if the contract is executed by the Associate within the Contract Execution Time.

For execution of contracts beyond contract execution time, where the delay is not attributable to TPCODL no upward revision in tax /duties shall be considered irrespective of changes in the statutory tax structure either within the contract execution time or beyond. However, in such cases, benefits due to any downward revisions in statutory tax rates shall be passed on to TPCODL.

### **6.0 TERMS OF PAYMENT**

On delivery of the materials in good condition and certification of acceptance by TPCODL official, Associate shall submit the Bills/Invoices in original in the name of "TP Central Odisha Distribution Limited" to invoice desk, complete with all required documents as under:

- Test Reports (4 sets).
- MDCC issued by TPCODL.
- Packing List.
- Drawing and Catalogue.
- Guarantee/Warrantee Card.
- Delivery Challan.
- O&M Manual.
- Copy of Order.
- Minutes of Meeting.

Bills/ invoices shall mention Supplier's GST Number. TPCODL will make 100% payment within 30 days of submission of the Bill/Invoice complete in all respects and along with all the requisite documents mentioned above, subject to condition that Associate has furnished the requisite Security-cum-Performance Guarantee as stipulated in the contract.

### **6.1 Quantity Variation**

Payment will be made on the basis of actual quantity of supplies/actual measurement of works accepted by TPCODL and not on the basis of contract quantity.

### **6.2 Full and Final Payment**



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Full & Final Payment in all contracts shall be made subject to the associate submitting “No Demand Certificate” in the format as per Annexure-C.

## 7.0 MODE OF PAYMENT

Payment shall be made through crossed Cheque or RTGS whichever of the two modes chosen by the Associate, in favour of Associate’s Bank Account on TPCODL records, on whose name Contract has been issued. Those Associates opting for the RTGS mode shall submit the details of Bank Account and other details as per annexure G. Further, for any payments made, TPCODL is not responsible for any consequences/disputes Associate have among the owners channel partners, sub-Associates and all such dispute/concerns shall be settled solely by the Associate.

## 8.0 SECURITY CUM PERFORMANCE DEPOSIT

Associates shall submit within 15 days from the effective date of issue of PO/RC, Security Performance Bank Guarantee (SPBG) in the format as per Annexure B of this document from banks acceptable to TPCODL for:

- (a) 5% of the PO value if purchase order value is more than Rs 5 Crores.
- (b) 10% of the PO value if purchase order value is less than Rs 5 Crores.

This shall remain valid till the end of the Guarantee Period of contract, plus one month.

- (c) 5% of the RC value in case of Rate Contract. This shall remain valid till the Guarantee period plus one month.

- For PO/RC values less than Rs. 5 lacs, Associate may request for deduction of amount equivalent to SPBG value from their first invoice. Such amount shall be withheld by TPCODL while processing the invoice and shall be released after completion of Guarantee Period plus one month.
- For PO/RC values less than Rs. 3 lacs, the clause (8.0) for Security cum Performance Bank Guarantee (SPBG) shall not be applicable.
- In case of RC (Rate Contract) after the expiry of RC validity, Associate shall have to submit SPBG. However, the Associate has the option to re-submit the SPBG as per actual RO (Release Order) value issued against the RC, valid for Guarantee Period plus one month. The Guarantee Period shall be considered as per the last RO issued against the said RC. The original SPBG as submitted against the RC shall be released on submission of the new SPBG to TPCODL. Alternatively, Associate may extend the validity of original SPBG only till the requisite period, i.e. Guarantee Period plus one month.

## 9.0 STATUTORY COMPLIANCE

### 9.1 Compliance to Various Acts

Associate should ensure adherence to all applicable laws, rules and regulation applicable under this contract from time to time. In case of violation any risk, costs etc shall be in associates account and keep TDPPL indemnified always till completion of contracts.

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## 9.2 SA 8000

TPCODL expects its Associates to follow guidelines of SA 8000:2014 on the following aspects

1. Child Labour
2. Forced or Compulsory Labour
3. Health & Safety
4. Freedom of Association & Right to Collective Bargaining
5. Discrimination
6. Disciplinary Practices
7. Working Hours
8. Remuneration
9. Management System

## 9.3 Affirmative Action

TPCODL appreciate and welcome the engagement/employment of persons from SC/ST community or any other deprived section of society by their business associates.

### Relaxation in Contract Clauses under Affirmative Action for SC/ ST Business Associates\*\*

TPCODL believes that inclusive growth is the key to sustainable development, and to promote the same Policy on Affirmative Action for Scheduled Caste & Scheduled Tribe Communities has been adopted across the company.

Under the same pre-text, and to promote entrepreneurship among SC/ST community TPCODL has taken initiative by proposing relaxations in contract clauses as per below:

S. No	Initiative	for SC/ ST BA's	Guideline Document
1	Tender Fees	100% waiver for SC/ST community	All Open Tenders
2	Earnest Money Deposit	50 % relaxation of estimated EMD value	All limited and Open Tenders
3	Performance Bank Guarantee	50% relaxation in PBG for order value above 50 lacs else 25% relaxation	All limited and Open tenders
4	Turnover	25% relaxation in company turnover under qualifying requirement criteria	All Open Tenders

### \*\*Classification of BAs under SC/ST shall be governed under following guidelines:

- Proprietorship/ Single Ownership Firm: Proprietor of the firm should be from SC/ST community. Governing document shall be duly audited balance Sheet for the last FY bearing the name of proprietor.
- Partnership Firm: Only such firms shall qualify which have SC/ST partners holding equal to or more than 50% of the total ownership pattern of the firm. Governing document shall be Partnership Deed and audited balance sheet/ ITR for last FY.
- Private limited company: Only such firms shall qualify which have SC/ST directors holding equal to or more than 50% of the total ownership pattern of the firm. Governing document shall be Memorandum of Understanding (MoU) and/or Article of Association (AoA).

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Governing document shall be Memorandum of Understanding (MoU) and/or Article of Association (AoA).

*Note: Certification from SC/ST commission shall be required for deciding upon SC/ST status of a person.*

## **10.0 QUALITY**

### **10.1 Knowledge of Requirements**

The Associate shall be deemed to have carefully examined and to have knowledge of the equipment, the general and other conditions, specifications, schedules, drawings, etc. forming part of the Contract and also to have satisfied himself as to the nature and character of the work to be executed and the type of the equipment and duties required including wherever necessary of the site conditions and relevant matters and details. Any information thus procured or otherwise obtained from TPCODL/Consultants shall not in any way relieve the Associate from his responsibility and executing the works in accordance with the terms of contract.

### **10.2 Material/Equipment/Works Quality**

The items / works under the scope of the Associate shall be of the best quality and workmanship according to the latest engineering practice and shall be manufactured from materials of best quality considering strength and durability for their best performance and, in any case, in accordance with the specifications set forth in this Contract. All material shall be new. Substitution of specified material or variation from the process of fabrication/ construction/ manufacture may be permitted but only with the prior written approval of the TPCODL.

### **10.3 Adherence to Rules & Regulations**

The Associate shall procure and/or fabricate/erect all materials and equipment in accordance with all requirements of Central and State enactment, rules and regulations governing such work in India and at site. This shall not be construed as relieving the Associate from complying with any requirement of TPCODL as enumerated in the Contract which may be more rigid than and not contrary to the above mentioned rules, nor providing such construction as may be required by the above mentioned rules and regulations. In case of variance of the Technical Specification from the laws, ordinance, rules and regulations governing the work, the Associate shall immediately notify the same to the TPCODL. It is the sole responsibility of the Associate, however, to determine that such variance exists. Wherever required by rules and regulations, the Associate shall also obtain the statutory authorities' approval for the plant, machinery and equipment to be supplied by the Associate.

### **10.4 Specifications and Standards**

The Associate shall follow all codes and standards referred in the Contract Document. Codes and standards of other may be followed by the Associate with the prior written approval of TPCODL, provided materials, supplies and equipment according to the standard are equal to or better than the corresponding standards specified in the Contract.

Brand names mentioned in the Contract documents are for the purpose of establishing the type and quality of products to be used. The Associate shall not change the brand name and qualities of the bought out items without the prior written approval of the TPCODL. All such products and equipment shall be used or installed in strict accordance with original manufacturer's recommendations, unless otherwise directed by the TPCODL. In any circumstances the codes, specimen and standards prescribed by any government agency should not be violated.

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## 11.0 INSPECTION/PARTICIPATION

### 11.1 Right to Carry Out Inspection

TPCODL reserves the right to send its representatives for inspection or participation at various stages of contract execution listed below, applicable as per contract construction.

- During basic design and detail engineering of material/ Equipment carried out by Associate /Outsourced Agencies.
- During manufacturing stages of the product at Associate's/Associate's Outsourced Agency's Plant/Facility.
- During Pre-dispatch Inspection and Testing of finished/manufactured product at Associate's/Associate's outsourced Agency's Plant/Facility.
- During Installation & Commissioning Activities/Stages.
- Prior to Clearing of the completed installation for commissioning.
- Any other stage as find appropriate by TPCODL during contract execution time.

All inspections and participations shall be carried out by TPCODL giving written intimation to the Associate or receiving appropriate advance written inspection call from the Associate, unless otherwise specified elsewhere in the contract document.

### 11.2 Facilitating Inspection

The Associate shall provide all opportunities and information to TPCODL's engineers to get acquainted with the technical know-how and the methods and practices adopted by the Associate in basic and detail engineering. The Associate shall provide documents, drawings, calculations etc. as may be required by TPCODL's Engineers.

The Associate shall provide free of charge office accommodation, office facilities, secretarial services, communication facilities, general and drawing office stationary, etc. as may be reasonably required by the TPCODL's engineers. Similarly, facilities shall also be provided by Associate's outsource agencies/partners/authorized dealers (collectively termed as sub associates) if such basic and detail engineering activities are carried out in the design offices of sub-Associates.

The Associate shall be responsible for the safety of employees of TPCODL/Third Party Agency when they are at the Associate's /Associate's outsource agency's plant or facility for carrying out/witnessing inspection/testing. All statutory safety precautions as applicable shall be followed by the Associate during Inspection Testing. If TPCODL inspectors are not satisfied with the safety arrangements at the plant, TPCODL have the right to call off inspection till such time corrective action is taken by the Associate.

Before raising the call for pre-dispatch final inspection and testing, the Associate shall conduct all the tests—type tests, routine tests etc-as specified in the contract document and submit copies of the test certificates to TPCODL along with the inspection call, for scrutiny of TPCODL.

The Associate and TPCODL shall jointly document all the observations, comments and action points after completion of inspection and it shall be binding on the Associate to provide compliance on all the points requiring compliance and furnish the compliance report to the designated authority of TPCODL for receiving clearance for dispatch of materials

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### 11.3 Third Party Nomination

TPCODL also may nominate a third party for the purpose of carrying out the inspection and such an agency shall be entitled to all the rights and privileges of TPCODL as far as conducting the inspection.

### 11.4 Waiver of Inspections

TPCODL on its own discretion shall chose to waive off any inspection and ask the Associate to submit all the test reports as applicable as per contract specifications, related to inspection and testing of the goods ordered for scrutiny and clearance for dispatch.

### 11.5 Incorrect Inspection Call

In case it is observed that the material offered for inspection is not ready at the time of TPCODL inspection visit rendering it as futile, all costs towards such inspection shall be recovered from the BA. Taxes as applicable on such recoveries shall be borne by the BA.

## 12.0 MDCC & DELIVERY OF MATERIALS

### 12.1 Material Dispatch Clearance Certificate

Associate shall deliver material/goods/equipment against Supply Contracts or Supply Part of Composite/Service Contracts only after receiving Material Dispatch Clearance Certificate (hereafter termed as MDCC) issued by designated authority of TPCODL. Material delivered at TPCODL stores or at project site without a valid MDCC issued by the designated official of TPCODL shall be rejected. MDCC shall be issued to associate furnishing compliance report on the action points documented during pre-dispatch inspection and testing at Associate's/ Sub Associate's plant/ facility. In case Pre-dispatch inspection is waived at the discretion of TPCODL, then, MDCC shall be issued on receiving all the test reports-routine& type-from the Associate and finding them in order.

The associate shall include and provide for securely protecting and packing the materials so as to avoid loss or damage during handling and transport by air, sea, rail and road or any other means.

All such packing shall allow to the extent possible for easy removal and checking at Site. The associate shall take special precautions to prevent rusting of steel and iron parts during transit by sea. Gas seals or other materials shall be utilized by the associate for protection against moisture during transit of all Plant and Equipment.

Each Equipment or parts of Equipment shall be tagged with reference to the assembly drawings and corresponding part numbers. Each bale or package shall contain a packing note quoting specifically the name of the associate, item description, quantity, item / package identification.

All packing cases, containers, packing and other similar materials shall be new and supplied free by the associate and it shall not be required to be returned to the associate.

Notwithstanding anything stated in this clause, the associate shall be entirely responsible for loss, damage or depreciation or deterioration to the materials and supplies due to faulty and/or insecure packing or otherwise during transportation to the Site until otherwise provided herein.

In case of the consignments dispatched by road, the associate shall ensure that it or its subcontractors:

- i) Identify and obtain the correct type of trucks/trailers, keeping in view the nature of consignments to be dispatched.

ii) Take such actions as may be necessary to avoid all possible chances of damages during transit and to ensure that all packages are firmly secured.

Timelines for inspection and MDCC is as below:

S. No.	Inspection	MDCC issuance time including Inspection time (max.)
1	Outside Bhubaneswar	12 days
2	Within Bhubaneswar	5 days
3	Waiver*	3 working days

\* Associate is expected to raise the inspection call assuming that Inspection shall be carried out by TPCODL. The decision for waiver of inspection shall be on sole discretion of TPCODL.

### 12.2 Right to Rejection on Receipt

Goods/Material/Equipment delivered in condition physically damaged & incomplete as a product ordered, or not packed and transported as per the terms and conditions of the contract is liable to be rejected. Such item shall be lifted back by Associates within 15 days from receipt of rejection note from TPCODL and have to supply back the material within next 30 days or within the timeframe mutually decided by Associate and TPCODL.

If delivery of the material is beyond the agreed time, Liquidated damage clause, mentioned in this GCC separately shall be applicable; but the period for levy of LD shall be considered as per the original delivery schedule and not from the agreed timelines for material rectification.

### 12.3 Consignee

Unless otherwise specified in the Contract Document, Materials/Goods/Equipment shall be consigned to "Stores-In-Charge", TPCODL, Bhubaneswar.

### 12.4 Submission of mandatory documents on Delivery

Following documents shall be mandatorily submitted by BA along with supply of material to TPCODL stores/site:

S. No.	Documents	Requisite
1	Invoice copy in original	With all consignments
2	LR copy	Wherever required
3	Packing list	With all consignments
4	MDCC	With all consignments
5	Purchase order / Release order	Signed copy
6	Test certificates	With all consignments
7	Inspection/JVR report	In case pre-dispatch inspection is conducted
8	Device data in CD as per template for metering items	Wherever applicable

### 12.5 Dispatch and Delivery Instructions

S. No.	Instructions
1	Purchase order/ Release order no. shall be mentioned on invoice and on material

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2	TPCODL material code and material description shall be mentioned in invoice and on material.
3	“Property of TPCODL” shall be embossed on material.
4	The material shall be properly sealed and packed in standard packing as per purchase order terms & conditions.
5	The weight and quantity of material shall be mentioned wherever applicable
6	The material supplied shall be co-related with the packing list.
7	The name plate detail on equipment shall include Material code, Material description, specification detail of material [as applicable], Serial No. Year of manufacturing, PO/RO no. and date, “PROPERTY OF TPCODL, Bhubaneswar”, Guarantee period and Associate’s name.
8	In case of manual unloading, supplier / transporter shall deploy sufficient Labour for unloading the material at TPCODL central store. For heavy item(s), crane will be provided by TPCODL [unloading cost will be recovered from the associate].
9	The driver should have valid License and one helper in truck. All the documents of truck like registration papers, PUC etc. should be available in Truck.
10	BA representative should accompany the material and get it unloaded / stacked in his presence wherever possible.

### 13.0 GUARANTEE

#### 13.1 Guarantee of Performance

Associates shall stand guarantee that the equipment and material supplied under the contract is free from design, manufacturing, material, construction, erection & installation and workmanship & quality defects and is capable of its due, rated and intended quality performance, as an integrated product delivered under the contract, for a specific period termed as Guarantee Period(as elaborated elsewhere in this clause). The Associate should also guarantee that the equipment/material is new and unused except for the usage required for the tests and checks required as part of quality assurance.

#### 13.2 Guarantee Period

The Guarantee Period will be equipment/service/work specific and shall be as specified in the Standard Specifications of TPCODL for the equipment/material/service/work and where standard specifications are not part of contract documents or guarantee period is not specified in the standard specifications,, the guarantee period shall be as per the Special Terms and Conditions of the Contract. In case of no mention of the guarantee period in standard specifications or SCC Guarantee Period will be 12 Months from the Date of Commissioning or 24 months from the date of delivery of final lot of supplies made, whichever is earlier.

#### 13.3 Failure in Guarantee Period (GP)

If the equipment and material supplied under the contract fails to perform its due, rated & intended quality performance, during the Guarantee period, the associate is liable to undertake repair/rectify/replace the equipment and material supplied within time frame specified in the SCC or elsewhere in the contract documents at associate’s cost to make the equipment and material supplied/service or work rendered under the contract of performing its due, rated and intended quality performance. If Associate fails to repair/rectify/replace the equipment or material supplied rendered under the contract, failed in Guarantee Period, TPCODL will be at liberty to get the same done at Associate’s risks and costs and recover all such expenses plus the TPCODL’s own

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charges (@ 20% of expenses incurred), from the Associate or from the "Security cum Performance Deposit" as the case may be.

If during the Warranty/ Guarantee period some parts of the supplies are replaced owing to the defects/ damages under the Warranty, the Warranty period for such replaced parts shall be until the expiry of twelve months from the date of such replacement or renewal or until the end of original Guarantee period, whichever is later.

Any repairs during the Guarantee Period shall be carried out by the Associate within 30 days of reporting the issue to Associate by TPCODL. However, if replacement of the Equipment is required, Associate shall notify the same to TPCODL within 7 days of reporting the issue by TPCODL. Thereafter, the total time for supply of new equipment/ material shall be equal to the original delivery period of that equipment/ material as specified in the Contract. In case the Associate is not able to rectify/ replace the faulty equipment/ material within the stipulated timelines as mentioned above, penalty shall be levied as per the Liquidated Damages clause mentioned in this document. The penalty amount shall be recovered from the payment due to the vendor or by encashment of the SPBG as the case may be.

#### **13.4 Cost of repairs on failure in GP**

The cost of repairs/rectification/replacement, required transportation, site inspection /mobilization/dismantling and re-installation costs as applicable, to be borne by Associate. The Associate has to ensure that the interruption in the usage of intended purpose of the equipment is minimized to the maximum extent In lieu of the time taken for repairs/rectification/replacement.

#### **13.5 Guarantee period for Goods Outsourced**

If the Associate outsources partly equipment/materials/services from third party as mutually agreed upon at the pre award stage of contract, TPCODL shall have the benefit of any additional guarantee period if provided by the third party for the part supplied/executed by them.

#### **13.6 Latent Defect**

Hidden defects in manufacturing or design of the product supplied and which could not be identified by the tests conducted but later manifested during operation of the equipment are termed as latent defects. Associates shall further be responsible for 'free replacement' for another period of THREE years from the end of the guarantee period for any 'Latent Defects' if noticed and reported by the Company.

#### **13.7 Support beyond the Guarantee Period**

The Associate shall ensure availability of spares and necessary support for a period of atleast 10 years post completion of guarantee period of equipment supplied against the contract.

#### **14.0 LIQUIDATED DAMAGES**

- a) For supplies which are of standalone use, multiple in quantities and having a single final delivery schedule, Liquidated damages shall be levied without prejudice to any of the other contractual rights of TPCODL, as described below:

For delay of each week and part thereof from the delivery schedule specified in the contract, 1% of contract value corresponding to undelivered quantity, provided full quantity is supplied within 130% of the original contract time. If full contractual quantity is not delivered within 130% of contract time for delivery, TPCODL has the right to levy LD on the entire contract value, subject to a maximum of 10% of the total contract value.



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- b) For Supplies having phased delivery schedule as per contract terms, standalone use and multiple in quantities, Liquidated damages shall be levied without prejudice to any of the other contractual rights of TPCODL, as described below:

For the purpose of calculating and applying LD, each delivery lot shall be considered separately. For delay of each week and part thereof, from the delivery schedule specified for the lot, 1% of the contract value corresponding to the undelivered quantity of the lot subject to a maximum of 10% of the total contract value of the subject lot. However, if full contractual quantity is not delivered within 130% of contract time for delivery, TPCODL has the right to levy LD on the entire contract value, subject to a maximum of 10% of the total contract value. Deduction of LD shall be on landed cost i.e contract value inclusive of taxes and in pursuant statutory compliance GST would be applicable at the stipulated rate and the same shall be borne by Business Associate. In case of LD deduction, a GST invoice shall be issued by TPCODL as a proof of deduction/recovery.

#### **14.1 LD Waiver Request**

Any request of LD waiver shall be submitted within thirty (30) days of deducting LD. Request submitted beyond the timeline shall not be entertained.

#### **15.0 UNLAWFUL ACTIVITIES**

The Associate shall have to ensure that none of its employees are engaged in any unlawful activities (whether covered under the scope of the present GCC or not) subversive of the TPCODL's interest failing which appropriate action (legal or otherwise) may be taken against the Associate by the TPCODL, in accordance with the terms of the present GCC.

#### **16.0 CONFIDENTIALITY**

Associate and its employees or representatives thereof shall strictly maintain the confidentiality of various information they come across while executing the contract as detailed below.

##### **16.1 Documents**

All maps, plans, drawings, specifications, schemes and other documents or information related to the Contract/Project and the subject matter contained therein and all other information given to the Associate by the TPCODL in connection with the performance of the contract shall be held confidential by the Associate and shall remain the property of the TPCODL and shall not be used or disclosed to third parties by the Associate for any purpose other than for which they have been supplied or prepared. The Associate may disclose to third parties, upon execution of confidentiality agreements, such part of the drawings, specifications or information if such disclosure is necessary for the performance of the Work provided such third parties agree in writing to keep such information confidential to the same extent and degree as provided herein, for the benefit of the TPCODL.

##### **16.2 Geographical Data**

Maps, layouts and photographs of the unit/plant including its surrounding regions showing vital installation for national security of country or those of TPCODL shall not be published or disclosed to the third parties or taken out of the country without prior written approval of the TPCODL and upon execution of confidentiality agreements satisfactory to the TPCODL with such third parties prior to disclosure.

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### **16.3 Associate's Processes**

Title to secret processes if any developed by the Associate on an exclusive basis and employed in the design of the equipment shall remain with the Associate. TPCODL shall hold in confidence such processes and shall not disclose such processes to the third parties without prior approval of the Associate and execution by such third parties of secrecy agreements satisfactory to the Associate prior to disclosure. Upon completion of contract, such processes shall become the property of the TPCODL. Title to technical specifications, drawings, flow sheets, norms, calculations, diagrams, interpretations of test results, schematics, layouts and such other information, which the Associate has supplied to the TPCODL under the Contract shall be passed on to the TPCODL. The TPCODL shall have the right to use these for construction, erection, start-up, Trial Run, operation, maintenance, modifications and/or expansion of the works including for the manufacture of spare parts.

### **16.4 Exclusions**

The provision of Clauses 16.1 to 16.3 shall not apply to information:

- Which at the time of disclosure are in the public domain which later on become part of public domain through no fault of the party concerned, or
- Which were in the possession of the party concerned prior to disclosure to him by the other party, or
- Which were received by the party concerned after the time of disclosure without restriction on disclosure or use, from a third party who did not acquire such information directly or indirectly from the other party or has no obligation of confidentiality for such information.

### **16.5 Violation**

In case of violation of this clause, the Associate is liable to pay compensation and damages as may be determined by the competent authority of TPCODL.

## **17.0 INTELLECTUAL PROPERTY RIGHTS**

If, in the course of performance of its functions and duties as envisaged by the scope of the present GCC, the Associate acquires or develops, any unique knowledge or information which would be covered, or, is likely to be covered within the definition of a trademark, copyright, patent, business secret, geographical indication or any other form of intellectual property right, it shall be obliged, under the terms of this present GCC, to share such knowledge or information with the TPCODL. All rights, with respect to, or arising from such intellectual property, as afore mentioned, shall solely vest in TPCODL.

Moreover, the Associate undertakes not to breach any intellectual property right vesting in a third party/parties, whether by breach of statutory provision, passing off, or otherwise. In the event of any such breach, the Associate shall be wholly liable to compensate, indemnify or make good any loss suffered by such third party/parties, or any compensation/damages arising from any legal proceeding/s, or otherwise. No liability of TPCODL shall arise in this respect, and any costs, damages, expenses, compensation payable by TPCODL in this regard to a third party/parties, arising from a legal proceeding/s or otherwise, shall be recoverable from the Associate.

## **18.0 INDEMNITY**

The Associate shall at all times indemnify, keep indemnified and hold harmless the TPCODL and its officers, directors, employees, affiliates, agents, successors and assigns against all actions, claims, demands, costs, charges and expenses arising from or incurred by reason of any

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infringement of patent, trade mark, registered design, copy rights and/or industrial property rights by manufacture, sale or use of the equipment supplied by the Associate whether or not the TPCODL is held liable for by any court judgement. In this connection, the TPCODL shall pass on all claims made against him to the Associate for settlement.

The Associate assumes responsibility for and shall indemnify and save harmless the TPCODL from all liability, claims, costs, expenses, taxes and assessments including penalties, punitive damages, attorney's fees and court costs which are or may be required to be paid by the TPCODL and its officers, directors, employees, affiliates, agents, successors and assigns arising from any breach of the Associate's obligations under the Contract or for which the Associate has assumed responsibilities under the Contract including those imposed under any local or national law or laws, or in respect to all salaries, wages or other compensation for all persons employed by the Associate or his Sub-Associates or suppliers in connection with the performance of any work covered by the Contract. The Associate shall execute, deliver and shall cause his Sub-Associate and suppliers to execute and deliver, such other further instruments and to comply with all the requirements of such laws and regulation as may be necessary there under to conform and effectuate the Contract and to protect the TPCODL.

The TPCODL shall not be held responsible for any accident or damages incurred or claims arising, due to the Associate's error there from prior to completion of work. The Associate shall be liable for such accidents and after completion of work for such accidents as the case may be due to negligence on his part to carry out Work in accordance with Indian laws and regulations and the specifications set forth herein.

## 19.0 LIABILITY & LIMITATIONS

### 19.1 Liability

Except for any specific liability which may be identified in the Contract and which may be payable hereunder, Associate shall not be liable for any special, incidental, indirect, or consequential Damages or any loss of business Contracts, revenues or other financial loss (or equivalents thereof no matter how claimed, computed or characterized) arising out of or in connection with the Performance of the Work or supply of Goods ***unless caused by Associate's negligence, willful misconduct or breach of contract.***

If the Associate is a joint venture or consortium, all concerned parties shall be jointly and severally bound to the TPCODL for the fulfillment of the provisions of the Contract. The consortium or the joint venture shall designate one party as their leader, who will be the coordinator between the parties and TPCODL. The constituents & leader of the consortium or joint venture shall not be changed without the prior consent of TPCODL.

TPCODL shall have no liability or any special, incidental, indirect or consequential Damages for any loss of Business Contracts, revenues or other financial loss arising out of this Contract.

### 19.2 Limitation of Liability

The total liability of Associate against any contract shall be limited to the Total All Inclusive Contract Value.

## 20.0 FORCE MAJEURE

Force Majeure applies if the performance by either Party ("the Affected Party") of its obligations under Contract is materially and adversely affected.

"Force Majeure" shall mean any event or circumstance or combination of events or circumstances referred below and their consequences that wholly or partly prevents or unavoidably delays any

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Party in the performance of its obligations under this Agreement, but only and to the extent that such events and circumstances are not within the reasonable control, directly or indirectly, of the Affected Party and could not have been avoided even if the Affected Party had taken reasonable care:

- Act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, embargo, blockade, revolution, riot, bombs, religious strife or civil commotion, etc. ▪ Politically motivated sabotage, or terrorism, etc.
- Action or Act of Government or Governmental agency for which remedy is beyond the control of the affected parties. ▪ Any act of God.

Note: Causes like power breakdown/ shortages/fire/strikes, accidents etc do not fall under Force Majeure.

Time being the essence of the Contract, if either party is prevented from the performance of its obligations in whole or in part due to an event of Force Majeure, then provided Notice of happening of any event by the Affected Party is given to the other party within seven (7) days from the date of occurrence of such event, which DIRECTLY has impact on works and submitted details and quantum of resulting effect, but at the same time had made all possible efforts to mitigate and overcome effects thereof, the Affected Party's performance under this Contract shall be suspended until such event ceases and the Scheduled Completion shall be delayed accordingly.

If Force Majeure event(s) continue for a period of more than three months, the parties shall hold consultation to discuss the further course of action.

Neither party shall be considered to be in default or in breach of its obligation under the Contract to the extent that performance of such obligation by either party is prevented by any circumstances of Force Majeure which arise after effective date of Contract.

Neither party can claim any compensation from the other party on account of Force Majeure.

## **21.0 SUSPENSION OF CONTRACT**

### **21.1 Suspension for Convenience**

TPCODL may, at any time and at its sole option, suspend execution of all or any portions of the schedule of items of contract to be supplied/work to be executed by Associate under the contract by providing to the Associate at least two business days written notice for contracts having contract completion period less than sixty days and at least seven business days' notice for all other contracts.

Upon receipt of any such notice, the Associate shall respond as follows as applicable as per contract construction.

- Immediately discontinue further supply of material/goods specified in the suspension notice for supply contracts
- Immediately discontinue further service/work and supply of materials of those services/materials/work specified in the suspension notice for service /composite contract
- Promptly make every reasonable effort to obtain suspension, upon terms satisfactory to TPCODL, of all orders, outsourcing arrangements, and rental Contracts to the extent that they relate to performance of the portion of Work suspended by the notice.

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- Protect and maintain the portion of the service/Work already completed, including the portion of the Work suspended hereunder, unless otherwise specifically stated in the notice.
- Continue delivering/carrying out the supply/service/work items as per contract conditions, which do not fall under purview of the suspension notice.

On receipt of resumption notice from TPCODL, the Associate shall resume execution of contract as specified in the resumption notice, within the time frame specified in the resumption notice.

### **21.2 Suspension for Breach of Contract conditions.**

TPCODL shall suspend execution of whole/or part thereof the contract till such time Associate complies with the conditions stipulated under section clause 22.1 for breach/default of contract conditions.

### **21.3 Compensation in lieu of Suspension**

If the suspension of the contract in whole or in part is for convenience of TPCODL and not due to any breach of contract conditions by the associate, TPCODL at its discretion shall consider compensating all reasonable additional costs incurred by Associate in lieu of suspension of whole or part of contract, on representation of the Associate providing justified estimates of such additional costs and such estimates are found acceptable and approved by competent authority of TPCODL.

If the suspension of contract in whole or part thereof is due to breach of contract conditions (refer clause 22.1) by the Associate, Associate shall not be entitled for any compensation for any cost incurred in lieu of suspension of whole or part of contract and also shall be liable for compensating all the losses arising to TPCODL in lieu of suspension of contract. Resumption notice shall be subject to the Associate taking corrective action for the breach of contract conditions within the time frame and as per the terms specified in the suspension notice.

## **22 TERMINATION OF CONTRACT**

### **22.1 Termination for Default/Breach of Contract**

The contract / PO /RC shall be subject to termination by TPCODL in case of breach of the contract by the Associate which shall include but not be limited to the following:

- a. Withdrawal or intimation by the Associate of its intent to withdraw or surrender the execution / completion of the contracted work /PO or failure in ensuring adherence to any delivery schedules, in deviation of the contract/PO.
- b. Refusal or neglect on the part of the Associate to supply material/equipment of quantity or quality as specified by TPCODL and within the timeframe as specified in the contract document or refusal or neglect to execute the services/work in terms of the agreed standards of quantity or quality and/or within the timeframe specified in the contract/PO.
- c. Failure in any respect to perform any portion of the Work contracted with promptness, diligence, or in accordance with the terms of the contract.
- d. Failure to furnish guarantees as specified and /or failure to comply with the terms thereof.
- e. Failure to furnish such relevant documents or information within the time specified which may be necessary for due execution / completion of the works and documentation.

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- f. Liquidation, bankruptcy either voluntary or involuntary OR entering into any composition or compromise with its creditors, or Insolvency.
- g. In case any reasonable information has been received by TPCODL that Associate has adopted/ or attempted to adopt any unethical conduct, action in award of the contract /PO or at any time thereafter.
- h. Failure to comply with applicable statutory provisions as contained in the contract or failure to comply with the applicable laws.
- i. Failure to comply with safety regulations/clauses stipulated in the contract or as may be generally instructed by TPCODL.

If the default or breach as specified under clause 22 (except sub clause g thereof) be committed by the associate for the first time, TPCODL shall issue, along the with notice of default or breach, a warning notice instructing the associate to take remedial/corrective action within the time frame stipulated in the warning notice and not to repeat the same in future. The timeframe for corrective action by the associate shall be specific to the nature of breach of contract and the same shall not be objected to by the Associate. If the Associate fails to comply with the instructions in the warning notice or in taking corrective action to the satisfaction of TPCODL then TPCODL may terminate the entire or part of contract at its discretion by issuing termination notice without incurring any liability on this ground.

In case the contract is terminated for any breach of the nature specified in clause 22 g stated above, TPCODL shall have the right to terminate all the contracts TPCODL is having with the Associate by issuing termination notice which shall be without prejudice to the other rights of TPCODL available to it under law.

Without prejudice to its right to terminate for breach of contract, TPCODL may, without assigning any reason, terminate the Contract in whole or in part at any time at its discretion while the contract is in force by serving a written notice of two weeks to the Associate.

In the event of TPCODL having proceeded with termination of the contract the associate shall comply and proceed further in the following manner:

- a) Associate shall discontinue the supply, on the expiry of the said period of two weeks.
- b) Associate shall ensure that no further steps are being taken towards discharge of the obligations, terms and conditions as contained in the contract/PO. This shall include initiation of actions not limited to discontinuation of other allied and associated arrangements which the associate might have entered into with third parties for due discharge of its obligations under the contract with TPCODL.
- c) The Associate shall perform thereafter such tasks as may be necessary to preserve and protect the terminated portion of the material/service/work in progress and the materials and equipment at TPCODL sites or in transit thereto. However the associate shall continue to fulfill its contractual obligations with regard to the part of contract not terminated.
- d) It shall be open for TPCODL to conduct a joint assessment with the associate of the material, supplies, equipment ,works or in general as to the subject matter of the contract in regard to which the associate claims having completed its obligations before or during such termination.

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- e) It shall be open to TPCODL to seek invocation of the performance bank guarantee or any other guarantee or other security deposit by whatever name called submitted by the associate, which shall not be objected to or protested against by the associate.

In case of termination of the contract the parties agree to be governed inter alia by the following:

- a) In case TPCODL exercises its right of termination as stated above the associate shall not dispute or object to the same.
- b) The Associate shall be entitled to receive and claim only such payments OR sums of money from TPCODL as may be found payable to it in regard to works executed by it under the terms of the contract and no other claim of any nature whatsoever shall be made by the Associate.
- c) All such provisions which the parties have agreed to survive and prevail even after termination of the contract shall remain effective despite the termination.

In the event of such termination, TPCODL may finish the Work by whatever method it may deem expedient, including the hiring of services and /or purchase of material equipment from such third parties as TPCODL may deem fit or may itself provide any labor or materials and perform any part of the Work. The associate undertakes to bear the incremental costs if any paid by TPCODL in such a case attributable to failure on the part of the associate. The Associate in such a case shall not be entitled to receive any further payments and any sums found payable to it may be adjusted by TPCODL against the amount recoverable from him on this ground. The same shall be without prejudice to other rights available to TPCODL under law against the associate. Upon the termination of any of the contract due to occurrence of any circumstances provided in clauses stated above and constituting repeated breach or misconduct, TPCODL shall be entitled to bar the associates its agents, affiliates from undertaking any negotiation / tendering, bidding, participation activities concerning TPCODL for a period of two years from date of such termination. The same shall be without prejudice to other rights available to TPCODL.

### **22.2 Termination for Convenience of Associate**

Associate at its convenience may request for termination of contract, clearly assigning the reason for such request. TPCODL has full right to accept, reject or partially accept such request. However, associate shall continue its supply as per contract till final approval is given to associates for such termination.

### **22.3 Termination for Convenience of TPCODL**

TPCODL at its sole discretion may terminate the contract by giving 30 days prior notice in writing or through email to the Associate. TPCODL shall pay the Associate for all the supplies/ services rendered till the actual date of contract termination against submission of invoice by the Associate to that effect.

## **23.0 DISPUTE RESOLUTION & ARBITRATION**

In case of any dispute or difference the parties shall endeavour to resolve the same through conciliatory and amicable measures within 15 Days failing which the matter may be referred by either party for resolution by the sole arbitrator to be appointed mutually by both the parties. The arbitral proceedings shall be conducted in accordance with Arbitration and Conciliation Act 1996 and the place of arbitration shall be Bhubaneswar. The language to be used at proceedings shall be English and the award of the arbitrator shall be final and binding on the parties. The parties shall bear their respective costs of arbitration. The associate shall continue to discharge its obligations towards due performance of the works as per the terms of the contract during the

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arbitration proceedings unless otherwise directed in writing by TPCODL or suspended by the arbitrator. Further, TPCODL shall continue making such payments as may be found due and payable to the associate for such works.

### **23.1 Governing Laws and Jurisdiction**

The parties shall be subject to the jurisdiction of the courts of law in Bhubaneswar and any matter arising here from shall be subject to applicable law in force in India.

## **24.0 ATTRIBUTES OF GCC**

### **24.1 Cancellation**

The Company reserves the right to cancel, add, delete at its sole discretion, all or any terms of this GCC or any contract, order or terms agreed between the parties in pursuance without assigning any reasons and without any compensation to the Associates.

### **24.2 Severability**

If any portion of this GCC is held to be void, invalid, or otherwise unenforceable, in whole or part, the remaining portions of this GCC shall remain in effect.

### **24.3 Order of Priority**

In case of any discrepancies between the stipulations in General Conditions of the Contract (GCC) and Special Conditions of Contract (SCC), the GCC shall stand superseded by the SCC to the extent stipulated hereinabove while balance portion of respective clauses of GCC shall continue to be applicable.

## **25.0 ERRORS AND OMISSIONS**

The Associate shall be responsible for all discrepancies, errors and omissions in the drawings, documents or other information submitted by him, irrespective of whether these have been approved, reviewed or otherwise accepted by the TPCODL or not. However any error in design/drawing arising out of any incorrect data/written information from TPCODL will not be considered as error and omissions on part of the Associate.

## **26.0 TRANSFER OF TITLES**

The title of ownership and property to all equipment, materials, drawings & documents shall pass to the TPCODL on acceptance of material by store/site after Inspection.

However, such passing of title of ownership and property to the TPCODL shall not in any way absolve, dilute or diminish the responsibility and obligations of the Associate under this Contract including loss or damages and all risks, which shall vest with the Associate.

## **27.0 INSURANCE**

The Contractor shall take out the Insurance Policies which shall cover all risks including the following, as applicable:-

- a) The value of the policy shall cover the total value of all the items till they are handed over to TPCODL.
- b) TPCODL shall be the principal holder of the policy. The Associate shall be the loss payee under the policy. Associate / Sub-contractor of the Associate shall not be holders or beneficiaries in the policy nor shall they be named in the policy. TPCODL reserves the exclusive right to assign the policy.



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- c) While the payment of premium may be phased in agreement with the insurance company, at no time shall goods and services required to be provided by the associate shall remain uninsured in accordance with (a) above.
- d) A copy of the Insurance policy shall be made available to TPCODL prior to first dispatch lot of any Equipment and policy shall be kept alive and valid at all times up to the stage of final acceptance.
- e) TPCODL reserves the right to take out whatever policy that is deemed necessary by him if the associate fails to keep the said policy alive and valid at all times and/or causes lapses in payment of premium thereby jeopardizing the said policy. The cost of such policy(s) shall be recovered / deducted from the amount payable to the associate.
- f) The policy shall ensure that the TPCODL's decision regarding replacement of goods damaged, lost or rendered unusable shall be final.

In all cases, the associate shall lodge the claims with the underwriters and also settle the claims and shall also notify TPCODL of any filed claims. However, the associate shall proceed with the repairs and/or replacement of the equipment/components without waiting for the settlement of the claims. In case of seizure of materials by concerned authorities, the associate shall arrange prompt release against bond, security or cash as required. TPCODL, upon request by the associate, will extend all reasonable assistance to the associate in such a case.

All the insurance claims shall be processed and settled by the associate and the missing/damaged items shall be replaced/repared by them without any extra cost to TPCODL and without affecting the completion time.

**28.0 SUGGESTIONS & FEEDBACK**

We welcome all our Business Associates to write to us about their experience with TPCODL; be it our Company, our services or our people. Each and every concern, issue, query and suggestion from you will help us to become a better company to work with and shall help us develop a strong bonding of trust and a long term relationship with you.

You may send your feedback by filling up our Business Associate Feedback Form enclosed herewith as *Annexure-E*. You can also log on to our website [www.tpcentralodisha.com](http://www.tpcentralodisha.com) to provide your feedback.

- Suggestions for us
- Feedback form
- Knowledge Sharing/ Experience with TPCODL
- Any issues with TPCODL.

Submission of feedback form is mandatory before the release of final payment to the BA.

**29.0 CONTACT POINTS**

In case Business Associate needs information with respect to payments or has any grievances, same may be lodged by log on to our website [www.tpcentralodisha.com](http://www.tpcentralodisha.com)

**30.0 LIST OF ANNEXURES**

S. No.	Subject	Annexure
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1.	Performa for Bid Security Bank Guarantee	A
2.	Performa for Performance Bank Guarantee (CP cum EP)	B
3.	Performa for No Demand Certificate by Associate	C
4.	Performa For Application For Issuance of Consolidated TDS Certificate	D
5.	Business Associate Feedback Form	E
6.	Acceptance Form For Participation In Reverse Auction Event	F
7.	Form for RTGS Payment	G
8.	Vendor Appraisal Form	H
9.	Manufacturer Authorization Form	I

**ANNEXURE-A**

**PROFORMA FOR BID SECURITY BANK GUARANTEE**

**The TP Central Odisha Distribution Limited  
Bhubaneswar**

WHEREAS, (Name of the Bidder) \_\_\_\_\_  
(hereinafter called "the BIDDER") has submitted his bid dated \_\_\_\_\_ for the (Name  
of Contract) \_\_\_\_\_ (hereinafter called "the BID").

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KNOW ALL men by these presents we (Name of the Bank) \_\_\_\_\_ of (Name of the Country) \_\_\_\_\_ having our registered office at \_\_\_\_\_ (hereinafter called "the BANK) are bound unto The TP Central Odisha Distribution Limited (TPCODL) in the sum of \_\_\_\_\_ for which payment well and truly to be made to the TPCODL the Bank binds himself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_.

The CONDITIONS of this obligation are:

- i) If the Bidder withdraws his Bid during the period of bid validity specified in the Proforma of Bid or
- ii) If the Bidder having been notified of the acceptance of his Bid by the TPCODL during the period of bid validity fails or refuses to furnish the Contract Performance Bank Guarantee, in accordance with the Instructions to Bidders.

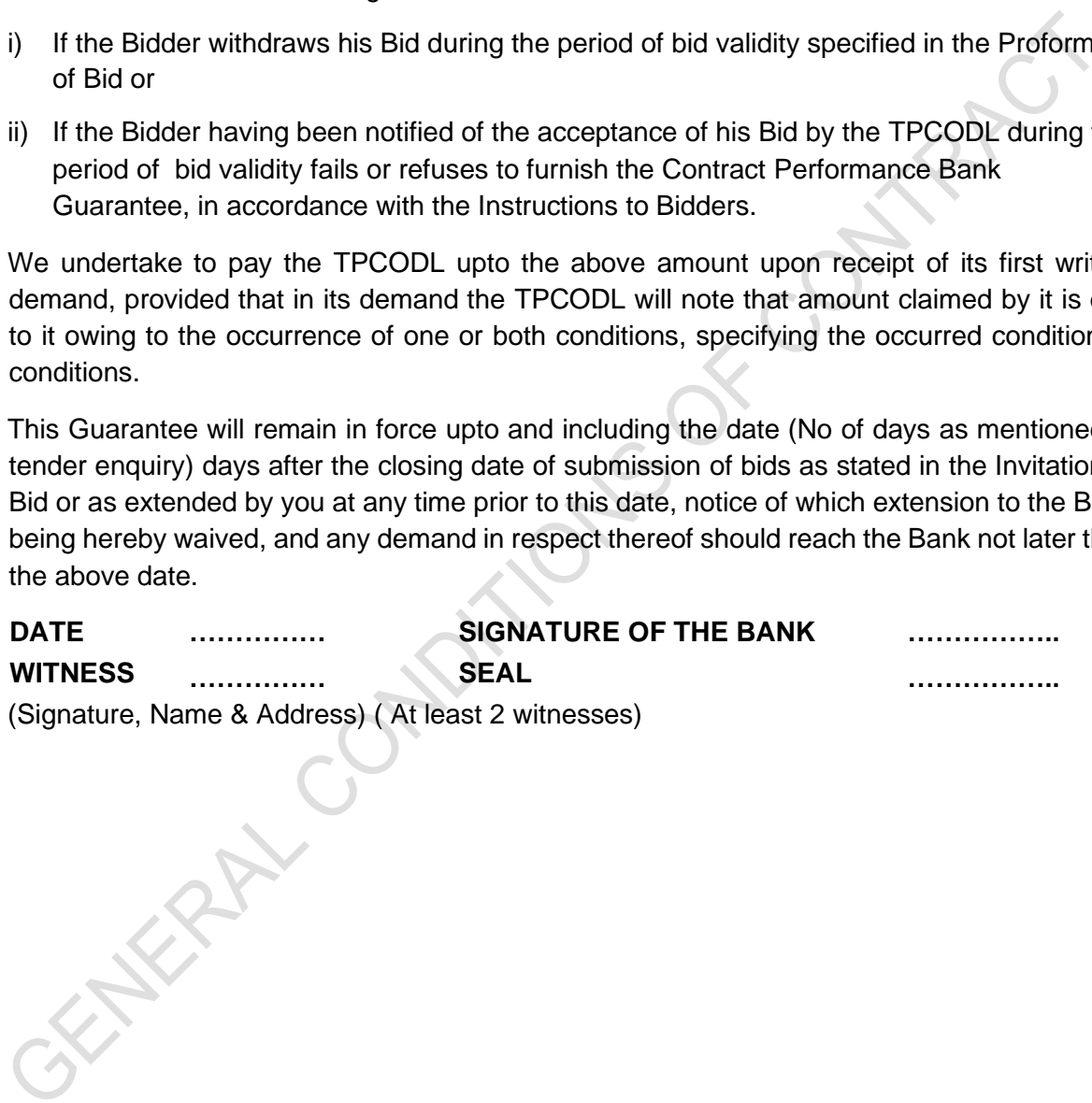
We undertake to pay the TPCODL upto the above amount upon receipt of its first written demand, provided that in its demand the TPCODL will note that amount claimed by it is due to it owing to the occurrence of one or both conditions, specifying the occurred condition or conditions.


This Guarantee will remain in force upto and including the date (No of days as mentioned in tender enquiry) days after the closing date of submission of bids as stated in the Invitation to Bid or as extended by you at any time prior to this date, notice of which extension to the Bank being hereby waived, and any demand in respect thereof should reach the Bank not later than the above date.

**DATE** ..... **SIGNATURE OF THE BANK** .....

**WITNESS** ..... **SEAL** .....

(Signature, Name & Address) ( At least 2 witnesses)



	TP CENTRAL ODISHA DISTRIBUTION LIMITED	
	WORK INSTRUCTION /OPERATING GUIDELINES	
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**ANNEXURE- B**

**PROFORMA FOR PERFORMANCE BANK GUARANTEE (CP cum EP)**

**(On Rs.100/- Stamp Paper) Note:**

- a) Format shall be followed in toto
- b) Claim period of one month must be kept up
- c) The guarantee to be accompanied by the covering letter from the bank confirming the signature to the guarantee

**The TP Central Odisha Distribution Limited**

**Bhubaneswar**

**CP cum EP BG No.....**

**Order/Contract No.....dated.....**

1. You have entered into a Contract No \_\_\_\_\_ with M/s. \_\_\_\_\_ (hereinafter referred to as "the Vendor") for the supply cum erection / civil work of \_\_\_\_\_ (hereinafter referred to as "the said Equipment") for the price and on the terms and conditions contained in the said contract.
2. In accordance with the terms of the said contract, "the Vendor" agreed to furnish you with an irrevocable, unconditional and acceptable bank guarantee for 10% of the value of contract and to be valid till the end of Guarantee period plus one month towards "Contract cum Equipment performance". For this purpose you have agreed to accept the guarantee.
3. In consideration thereof, we, \_\_\_\_\_ hereby irrevocably and unconditionally guarantee to pay to you on demand but in any case before the end of five working days from the date of the claim and without demur and without reference to "the Vendor" such amount or amounts not exceeding the sum of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) being \_\_\_\_\_% (\_\_\_\_\_ percent) of the total value of the contract on receipt of your intimating that "the Vendor" has not fulfilled his contractual obligations. You shall be the sole judge for such non-fulfillment and "the Vendor" shall have no right to question such judgment.
4. You shall have the right to file / make your claim on us under the guarantee for a **further period of one month** from the date of expiry.
5. This guarantee shall not be revoked without express consent and shall not be affected by your granting time or any other indulgence to "the Vendor", which shall include but not be limited to, postponement from time to time of the exercise the same in you or any right which you may have against "the Vendor" and to exercise the same in any covenant contained or implied in the said contract or any other course or remedy or security available to you, and our Bank shall not be released from its obligations under this guarantee by

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your exercising any of your rights with reference to matters aforesaid or any of them or by reasons of any other act or forbearance or other acts of omission or commission on your part or any other indulgence shown by you or by any other matter or thing whatsoever which under the law would, but for this provision have the effect of relieving our bank from its obligation under this guarantee.

6. We also agree that you shall be entitled at your option to enforce this guarantee against our bank as a principal debtor, in the first instance, notwithstanding any other security or guarantee that you may have in relation to "the Vendor's" liabilities in respect of the premises
7. This guarantee shall not be affected by any change in the constitution of our Bank or "the Vendor" or for any other reason whatsoever.
8. Any claim / extension under the guarantee can be lodge-able at outstation banks or at Bhubaneswar branch and claim will also be payable at Bhubaneswar Branch (to be confirmed by Bhubaneswar Branch by a letter to that effect in case BG is from the branch outside Bhubaneswar).
9. Notwithstanding anything herein contained, our liability under this guarantee is limited to Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_) only and the guarantee will remain in force upto and including \_\_\_\_\_ (Date) and shall be extended from time to time for such period or period as may be desired by "the Vendor".
10. Unless a demand or claim under this guarantee is received by us in writing within one months from \_\_\_\_\_ (expiry date) i.e. on or before \_\_\_\_\_ (claim period end date), we shall be discharged from all liabilities under this guarantee thereafter.

Dated at \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_

Bank's rubber stamp

1.

Banks full address

Designation of Signatory

2.

Bank official number

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**ANNEXURE-C**

**PROFORMA FOR “NO DEMAND CERTIFICATE” BY ASSOCIATE**

(On Company’s Letter head or with Company Seal)

(To be submitted by the Associate to TPCODL Accounts Department at the time of receipt of full and final payment)

**(Certificate No. CCP/002)**

Name of the Project Order/

Contract No.

Dated

Name of the Associate Scheme

No. / Job No.

We, M/s. \_\_\_\_\_ (Associate) do hereby acknowledge and confirm that we have received the full and final payment due and payable to us from TPCODL, in respect of our aforesaid Order No \_\_\_\_\_ dated \_\_\_\_\_ including amendments, if any, issued by TPCODL to our entire satisfaction and we further confirm that we have no claim whatsoever pending with TPCODL under the said contract / W.O.

Notwithstanding any protest recorded by us in any correspondence, documents, measurement books and / or final bills etc., we waive all our rights to lodge any claim or protest in future under this contract.

We are issuing this “NO DEMAND CERTIFICATE” in favour of TPCODL, with full knowledge and with our free consent without any undue influence, misrepresentation, coercion etc.

**Place**

**Name**

(Company Seal)

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**ANNEXURE-D**

**PROFORMA FOR APPLICATION FOR ISSUANCE OF CONSOLIDATED TDS  
CERTIFICATE**

To be printed on the letterhead

To,

The TP Central Odisha Distribution Limited,

Bhubaneswar

**Sub: Application for issuance of Consolidated TDS Certificate for the FY \_\_\_\_\_**

Dear Sir,

I / we hereby request / authorize you to issue me / us a consolidate TDS Certificate for the financial year \_\_\_\_\_ against tax deducted at source by you from my / our payments / bills during the said year from time to time under Chapter XVII – B of the Income Tax Act, 1961. For and on behalf of

Signature

Name

Address

Contact No. (Land Line)

(Mobile)

PAN #

Assessing authority

**ATTACH THE COPY OF PAN CARD**

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**ANNEXURE-E**

**BUSINESS ASSOCIATE FEEDBACK FORM**

With an objective to improve our internal processes and systems, and serve you better, we solicit your valuable feedback & suggestions. It is estimated that it will take about 10 minutes to complete this survey. We assure you that your feedback shall be kept confidential. Please send the duly filled feedback form in the "TPCODL addressed - attached envelop"

**You are associated with us as**

- OEMs    Service Contractor    Material Suppliers    Material & Manpower Supplier

**You are associated with us for**

- Less than 1 year    More than 1 year but less than 3 years    More than 3 years

**Your office is located at**

- Bhubaneswar    Within 200 kms from Bhubaneswar    More than 200 kms from Bhubaneswar

**Your nearly turnover with TPCODL**

- Less than 25 Lacs    25 Lacs to 1 Crore    More than 1 Cr.

**Additional Information**

<b>Your Name</b>	
<b>Your Designation</b>	
<b>Your Organization</b>	
<b>Contact Nos.</b>	
<b>Email</b>	

*We once again thank you for your participation in this survey. Please spare 10 minutes to give your feedback on following pages (Section A to E)*



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### SECTION – A

(Please ✓ mark in the relevant box and give your remarks / suggestions / information for our improvement).

S. No.	Parameters	1	2	3	4	5	Remarks/ Suggestion
		Do Not Agree	Slightly in Agreement	In Fair Agreement	Mostly in Agreement	Fully Agree	
1	You receive all relevant queries / tenders from us in timely manner.						
2	We provide you enough lead time to respond to our queries / tenders.						
3	We provide you adequate support (drawings, documents, clarifications, briefing etc.) to enable you meet our requirements.						
4	All following elements of our contract / purchase order are rational :						
4.1	Scope of Work						
4.2	Delivery / Execution Schedule						
4.3	Payment Terms						
4.4	Liquidated Damages						
4.5	Performance Guarantee						
5	Our purchase orders / contracts are simple, specific & easy to understand						
6	TPCODL demonstrate willingness to be flexible in administration of Contract / Purchase Order						
7	We provide timely responses / clarifications to your queries						
8	TPCODL representative you interact / coordinate with is adequately empowered to support you in meeting contractual obligations						
9	TPCODL provide you all necessary infrastructure support for timely and quality completion of work (including AMC)						
10	TPCODL Engineer-in-Charge timely certifies the jobs executed/ material supplied						
11	TPCODL Engineer-in-Charge efficiently supervises the job execution for timely completion of job						
12	BIRD (Bill Inward Receipt Desk) initiative has improved payment disbursement process						

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S. No.	Parameters	1	2	3	4	5	Remarks/ Suggestion
		Do Not Agree	Slightly in Agreement	In Fair Agreement	Mostly in Agreement	Fully Agree	
13	Our approach for Inspection and Quality Assurance effective to expedite project completion?						
14	TPCODL never defaults on contractual terms						
15	In TPCODL Contracts closure is done within set time limit						
16	Our material receiving procedures are well defined and efficiently deployed to reduce mutual inconvenience						
17	Bank Guarantees are released in time bound manner						
18	Our processes related to payment / account settlement are effective.						
19	You get payments on time						
20	TPCODL Employees follow Ethical behaviour						

**SECTION – B**

SECTION – B (Please rate the following parameters on a scale of 1 to 5, where 1 - Minimum; 5 - Maximum)

S. No.	Parameters	1	2	3	4	5	Remarks/ Suggestion
1	How do you rate courtesy/ empathy/ attitude level and warmth of TPCODL employees you interact with from following team?						
1.1	Project Engineering						
1.2	District / Zones						
1.3	Projects/HOG (TS &P)						
1.4	Inspection & Quality Assurance						
1.5	Stores						
1.6	Metering & Billing						
1.7	Accounts / Finance						
1.8	Administration						
1.9	IT & Automation						
2	How would you rate TPCODL in comparison to your other clients in terms of <b>fairness of treatment and transparency</b> with its Business Associates?						
3	How would you rate TPCODL in comparison to your other clients in terms of <b>processes and systems to manage partnership</b> with its Business Associates						
4	How would you rate TPCODL in comparison to your other clients in terms of <b>building long term &amp; mutually relationship</b> with its Business Associates						

**SECTION – C**

Please √ mark in the relevant box and give your remarks / suggestions / information for our improvement.

S. No.	Parameters	Certainly No	Probably No	Certainly Yes	Probably Yes	Remarks/ Suggestion
1	Based on your experience with TPCODL, would you like to continue your relationship with TPCODL?					
2	If someone asks you about TPCODL, would you talk “positively” about					

	TPCODL?					
3	Would you refer TPCODL name to others in your community, fraternity and society as a professional & dynamic organization?					

**SECTION - D**

**If we ask you to rate us on a scale of 1 to 10, how will you rate TPCODL, that truly represents your overall satisfaction with us (please tick appropriate box) -**

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

**SECTION - E**

Please ✓ mark in the relevant box and give your remarks / suggestions / information for our improvement.

Please spare your thoughts for TPCODL's improvement in particular areas of weaknesses, particularly relating to some great practices, attitudes that you have seen elsewhere in Indian and International Organizations, which you recommend TPCODL to adopt. Please give your valuable salient recommendations.

Please spare your thoughts for TPCODL's improvement in particular areas of major concerns for you. We also welcome your suggestions to adopt any best practices, attitudes that you

Recommendation	<i>Please tick (✓) your top 5 expectations out of the following 10 points listed below -</i>	
(Please list down improvement you expect from TPCODL)	<i>Timely payment</i>	
1	<i>Flexibility in Contracts/PO</i>	
	<i>Clarity in PO,s &amp; Contracts</i>	
2	<i>Timely response to quarries</i>	
	<i>Timely certification of works executed</i>	
3	<i>Clarity in Specs, drawings, other docs etc.</i>	
	<i>Adequate information provided on website for tender notification, parties qualified etc.</i>	
4	<i>Timely receipt of material at site for execution</i>	
	<i>Performance Guarantee/EMD released in time</i>	

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5	<i>Inspection &amp; quality assurance support for timely job completion</i>
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We thank you for your time and courtesy!!

**ANNEXURE-F**

**ACCEPTANCE FORM FOR PARTICIPATION IN REVERSE AUCTION EVENT**

***(To be signed and stamped by the bidder prior to participation in the auction event)***

In a bid to make our entire procurement process more fair and transparent, TPCODL intends to use the reverse auctions through SAP-SRM tool as an integral part of the entire tendering process. All the bidders who are found as technically qualified based on the tender requirements shall be eligible to participate in the reverse auction event.

**The following terms and conditions are deemed as accepted by the bidder on participation in the bid event:**

1. TPCODL shall provide the user id and password to the authorized representative of the bidder. (Authorization Letter in lieu of the same shall be submitted along with the signed and stamped Acceptance Form).
2. TPCODL will make every effort to make the bid process transparent. However, the award decision by TPCODL would be final and binding on the supplier.
3. The bidder agrees to non-disclosure of trade information regarding the purchase, identity of TPCODL, bid process, bid technology, bid documentation and bid details.
4. The bidder is advised to understand the auto bid process to safeguard themselves against any possibility of non-participation in the auction event.
5. In case of bidding through Internet medium, bidders are further advised to ensure availability of the entire infrastructure as required at their end to participate in the auction event. Inability to bid due to telephone line glitch, internet response issues, software or hardware hangs, power failure or any other reason shall not be the responsibility of TPCODL.
6. In case of intranet medium, TPCODL shall provide the infrastructure to bidders. Further, TPCODL has sole discretion to extend or restart the auction event in case of any glitches in infrastructure observed which has restricted the bidders to submit the bids to ensure fair & transparent competitive bidding. In case an auction event is restarted, the best bid as already available in the system shall become the start price for the new auction.
7. In case the bidder fails to participate in the auction event due any reason whatsoever, it shall be presumed that the bidder has no further discounts to offer and the initial bid as submitted by the bidder as a part of the tender shall be considered as the bidder's final no regret offer. Any offline price bids received from a bidder in lieu of non-participation in the auction event shall be out rightly rejected by TPCODL.
8. The bidder shall be prepared with competitive price quotes on the day of the bidding event.
9. The prices as quoted by the bidder during the auction event shall be inclusive of all the applicable taxes, duties and levies and shall be FOR at TPCODL site.
10. The prices submitted by a bidder during the auction event shall be binding on the bidder.
11. No requests for time extension of the auction event shall be considered by TPCODL.
12. The original price bids of the bidders shall be reduced on pro-rata basis against each line item based on the final all inclusive prices offered during conclusion of the auction event for arriving at Contract amount.

**Signature & Seal of the Bidder**



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Name of the Authorized Signatory: \_\_\_\_\_ :

Contact Person's Name:

Official Correspondence Address:

We confirm that we will bear the charges, if any, levied by our bank for the credit of NEFT/RTGS amounts in our account. Any change in above furnished information shall be informed to TPCODL well in time at our own. Further, we kept TPCODL indemnified for any loss incurred due to wrong furnishing of above information.

Thanking you,

For \_\_\_\_\_

**(Authorised Signatory)**

**(Signature with Rubber Stamp)**

**Certification from Bank:**

We confirm that we are enabled for receiving NEFT/RTGS credits and we further confirm that the account number (specify Bank a/c no.) of (Please mention here name of the account holder), the signature of the authorised signatory and the MICR and IFSC Code of our branch mentioned above are correct.

This also is certified that the above information is correct as per Bank record

**(Manager's/ Officers Signature under Bank Stamp)**

**ANNEXURE-H**  
**VENDOR APPRAISAL FORM**

<b>TO BE SUBMITTED BY VENDOR (To be filled as applicable)</b>			
<b>VENDOR:</b>			
<b>1.0</b>	<b>DETAILS OF THE FIRM</b>		
	1.1	NAME (IN CAPITAL LETTERS)	:
	1.2	TYPE OF CONCERN (PROPRIETARY) Partnership, Pvt. Ltd., Public Ltd. etc.	:
	1.3	YEAR OF ESTABLISHMENT	:
	1.4	LOCATION OF OFFICE POSTAL ADDRESS TELEGRAPHIC ADDRESSES, TELEX NO. FAX NO.	:
	1.5	LOCATION OF MANUFACTURING UNITS	:
		i) UNITS 1	:
		ii) OTHER UNITS	:
<b>2.0</b>	<b>PRODUCTS MANUFACTURED</b>		
<b>3.0</b>	<b>TURNOVER DURING THE LAST 3 YEARS (TO BE VERIFIED WITH THE LATEST PROFIT &amp; LOSS STATEMENT).</b>		
<b>4.0</b>	<b>VALUE OF FIXED ASSETS</b>		
<b>5.0</b>	<b>NAME &amp; ADDRESS OF THE BANKERS</b>		
<b>6.0</b>	<b>BANK GUARANTEE LIMIT</b>		
<b>7.0</b>	<b>CREDIT LIMIT</b>		
<b>8.0</b>	<b>TECHNICAL</b>		
	8.1	NO. OF DESIGN ENGINEERS (INDICATE NO. OF YEARS EXPERIENCE IN RELATED FIELDS)	:
	8.2	NO. OF DRAUGHTS MEN	:
	8.3	COLLABORATION DETAILS (IF ANY)	:
		8.3.1 DATE OF COLLABORATION	:
		8.3.2 NAME OF COLLABORATOR	:
		8.3.3 RBI APPROVAL DETAILS	:
		8.3.4 EXPERIENCE LIST OF COLLABORATOR	:
		8.3.5 DURATION OF AGREEMENT	:
	8.4	AVAILABILITY OF STANDARDS / DESIGN PROCEDURES / COLLABORATOR'S /	:



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		DOCUMENTS (CHECK WHETHER THESE ARE LATEST/CURRENT)	
	8.5	TECHNICAL SUPPORT, BACK-UP GUARANTEE, SUPERVISION, QUALITY CONTROL BY COLLABORATOR (WHEREVER ESSENTIAL). (THIS CLAUSE IS RELEVANT WHEN VENDOR'S EXPERIENCE IS INADEQUATE)	:
	8.6	QUALITY OF DRAWINGS	:
<b>9.0</b>	<b>MANUFACTURE</b>		
	9.1	SHOP SPACE, LAYOUT LIGHTING, VENTILATION, ETC.	:
	9.2	POWER (KVA)	:
		MAINS INSTALLED	:
		UTILIZED	:
		STANDBY POWER SOURCE	:
	9.3	MANUFACTURING FACILITIES (ATTACH LIST OF EQUIPMENT AS APPLICABLE)	:
		9.3.1 MATERIAL HANDLING	:
		9.3.2 MACHINING	:
		9.3.3 FABRICATION	:
		9.3.4 HEAT TREATMENT	:
		9.3.5 BALANCING FACILITY	:
		9.3.6 SURFACE TREATMENT PRIOR TO PAINTING/ COATING, POLISHING, PICKLING, PASSIVATION, PAINTING, ETC.	:
	9.4	SUPERVISORY STAFF	:
	9.5	ADEQUACY OF SKILLED LABOURS (MACHINISTS, WELDERS, ETC.)	:
	9.6	NO. OF SHIFTS	:
	9.7	TYPE OF MATERIAL HANDLED (SUCH AS CS, SS, ETC.)	:
	9.8	WORKMANSHIP	:
	9.9	MATERIAL IN STOCK AND VALUE	:
	9.10	TRANSPORT FACILITIES	:
	9.11	CARE IN HANDLING	:
<b>10.0</b>	<b>INSPECTION / QC / QA / TESTING</b>		
	10.1	NUMBER OF PERSONNEL (INDICATE NO. OF YEARS OF EXPERIENCE)	:
	10.2	INDEPENDENCE FROM PRODUCTION	:

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	10.3	AVAILABILITY OF PROCEDURAL WRITE UP/QUALITY PLAN	:
	10.4	INCOMING MATERIAL CONTROL AND DOCUMENTATION	:
	10.5	RELIABILITY/REPUTATION OF SUPPLY SOURCES	:
	10.6	STAGE INSPECTION AND DOCUMENTATION	:
	10.7	SUB-ASSEMBLY & DOCUMENTATION	:
	10.8	FINAL INSPECTION AND DOCUMENTATION	:
	10.9	PREPARATION OF FINAL DOCUMENTATION PACKAGE	:
	10.10	TYPE TEST FACILITIES	:
	10.11	ACCEPTANCE TEST FACILITIES	:
	10.12	CALIBRATION OF INSTRUMENTS AND GAUGES (WITH TRACEABILITY TO NATIONAL STANDARDS) (ATTACH LIST)	:
	10.13	STATUTORY APPROVALS LIKE BIS, IBR, ETC.(AS APPLICABLE)	:
	10.14	SUB-VENDOR APPROVAL SYSTEM AND QUALITY CONTROL	:
	10.15	DETAILS OF TESTS CARRIED OUT AT INDEPENDENT RECOGNIZED LABORATORIES	:
		i) FURNISH LIST OF TESTS CARRIED OUT AND THE NAME OF THE LABORATORY WHERE THE TESTS WERE CONDUCTED	:
		ii) CHECK AVAILABILITY OF CERTIFICATES AND REVIEW THESE WHEREVER POSSIBLE	:
	<b>11.0</b>	<b>EXPERIENCE (INCLUDING CONSTRUCTION / ERECTION / COMMISSIONING) TO BE FURNISHED IN THE FORMAT INDICATED IN APPENDIX)</b>	:
	<b>12.0</b>	<b>SALES, SERVICE AND SITE ORGANIZATIONAL DETAILS</b>	:
	<b>13.0</b>	<b>CERTIFICATE FROM CUSTOMERS (ATTACH COPIES OF DOCUMENTS)</b>	:
	<b>14.0</b>	<b>POWER SITUATION</b>	:
	<b>15.0</b>	<b>LABOUR SITUATION</b>	:
	<b>16.0 *</b>	<b>APPLICABILITY OF SC/ST RELAXATION (Y/N) IF YES, SUPPORTING DOCUMENTS TO BE ATTACHED</b>	
	<b>17.0</b>	<b>ORGANIZATIONAL DETAILS</b> 1. PF NO 2. ESI NO 3. INSURANCE FOR WORK MAN COMPENSATION ACT NO 4. ELECTRICAL CONTRACT LIC NO 5. ITCC / PAN NO 6. SALES TAX NO 7. WC TAX REG. NO	:
	<b>18.0</b>	<b>DOCUMENTS TO BE ENCLOSED:</b>	

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	<ol style="list-style-type: none"> <li>1. FACTORY LICENSE</li> <li>2. ANNUAL REPORT FOR LAST THREE YEARS</li> <li>3. TYPE TEST REPORT FOR THE ITEM</li> <li>4. PAST EXPERIENCE REPORTS</li> <li>5. ISO CERTIFICATE –QMS, EMS, OHAS, SA</li> <li>6. REGISTRATION OF SALES TAX</li> <li>7. COPY OF TIN NO.</li> <li>8. COPY OF SERVICE TAX NO.</li> <li>9. REGISTRATION OF CENTRAL EXCISE</li> <li>10. COPY OF INCOME TAX CLEARANCE.</li> <li>11. COPY OF PF REGISTRATION</li> <li>12. COPY OF ESI REGISTRATION</li> <li>13. COPY OF INSURANCE FOR WORK MAN COMPENSATION ACT NO</li> <li>14. COPY OF ELECTRICAL CONTRACT LIC NO</li> <li>15. COPY OF PAN NO</li> <li>16. COPY OF WC TAX REGISTRATION</li> <li>17. DOCUMENTS IN SUPPORT OF SC/ST RELAXATION AT S.NO.16.0</li> <li>18. GSTN CERTIFICATE</li> </ol>	
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**\* Classification of BA s under SC/ST shall be governed under following guidelines:**

- **Proprietorship/ Single Ownership Firm:** Proprietor of the firm should be from SC/ST community. Governing document shall be Proprietorship Deed.
- **Partnership Firm:** Only such firms shall qualify which have SC/ST partners holding equal to or more than 50% of the total ownership pattern of the firm. Governing document shall be Partnership Deed.
- **Private Limited Company:** Only such firms shall qualify which have SC/ST directors holding equal to or more than 50% of the total ownership pattern of the firm. Governing document shall be Memorandum of Understanding (MoU) and/or Article of Association (AoA).

*NOTE: Certification from SC/ST Commission shall be required for deciding upon SC/ST status of a person.*

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**ANNEXURE-I**  
**MANUFACTURER AUTHORIZATION FORM**

*(To be submitted on OEM's Letter Head)*

Date: .....

Tender Enquiry No.: .....

To,  
Chief (Procurement & Stores)  
The TP Central Odisha Distribution Limited,  
Bhubaneswar

Sir,

WHEREAS M/s. *[name of OEM]*, who are official manufacturers of ..... having factories at *[address of OEM]* do hereby authorize M/s *[name of bidder]* to submit a Bid in relation to the Invitation for Bids indicated above, the purpose of which is to provide the following Goods, manufactured by us

.....and to subsequently negotiate and sign the Contract.

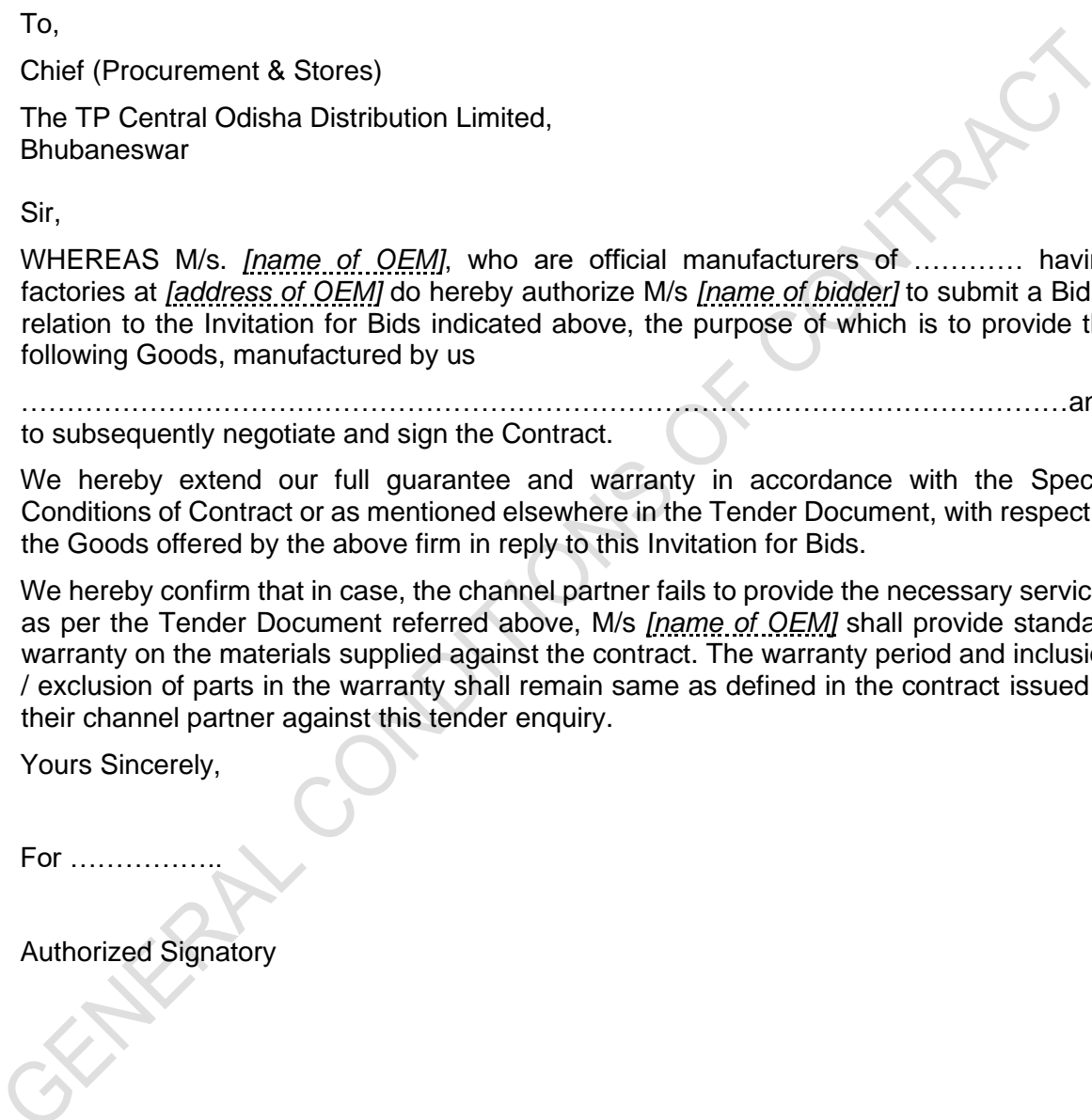
We hereby extend our full guarantee and warranty in accordance with the Special Conditions of Contract or as mentioned elsewhere in the Tender Document, with respect to the Goods offered by the above firm in reply to this Invitation for Bids.

We hereby confirm that in case, the channel partner fails to provide the necessary services as per the Tender Document referred above, M/s *[name of OEM]* shall provide standard warranty on the materials supplied against the contract. The warranty period and inclusion / exclusion of parts in the warranty shall remain same as defined in the contract issued to their channel partner against this tender enquiry.

Yours Sincerely,

For .....

Authorized Signatory



**Annexure VIII**

**Safety Policy and Safety Terms and Conditions –  
Attached separately with the tender.**

**Annexure IX**

**Tata Code of Conduct (TCoC)**

The Owner abides by the Tata Code of Conduct in all its dealing with stake holders and the same shall be binding on the Owner and the Contractor for dealings under this Order/ Contract. A copy of the Tata Code of Conduct is available a tour website:

**<https://www.tatapower.com/pdf/aboutus/Tata-Code-of-Conduct.pdf>**

The Contractor is requested to bring any concerns regarding this to the notice of our Chief Procurement & Stores e-mail ID: [pkjain@tatapower.com](mailto:pkjain@tatapower.com).

**Annexure X**  
**Environment & Sustainability –**



## **CORPORATE ENVIRONMENT POLICY**

**Tata Power is committed to a clean, safe and healthy environment, and we shall operate our facilities in an environmentally sensitive and responsible manner. Our commitment to environmental protection and stewardship will be achieved by:**

- Complying with the requirements and spirit of applicable environmental laws and striving to exceed required levels of compliance wherever feasible
- Ensuring that our employees are trained to acquire the necessary skills to meet environmental standards
- Conserving natural resources by improving efficiency and reducing wastage
- Making business decisions that aim towards sustainable development
- Engaging with stakeholders to create awareness on sustainability

(Praveer Sinha)  
CEO & Managing Director

Date: 15<sup>th</sup> June, 2018

**TATA POWER**  
**Lighting up Lives!**





## CORPORATE SUSTAINABILITY POLICY

At Tata Power, our Sustainability Policy integrates economic progress, social responsibility and environmental concerns with the objective of improving quality of life. We believe in integrating our business values and operations to meet the expectations of our customers, employees, partners, investors, communities and public at large

- We will uphold the values of honesty, partnership and fairness in our relationship with stakeholders
- We shall provide and maintain a clean, healthy and safe working environment for employees, customers, partners and the community
- We will strive to consistently enhance our value proposition to the customers and adhere to our promised standards of service delivery
- We will respect the universal declaration of human rights, International Labour Organization's fundamental conventions on core labour standards and operate as an equal opportunities employer
- We shall encourage and support our partners to adopt responsible business policies, Business Ethics and our Code of Conduct Standards
- We will continue to serve our communities:
  - By implementing sustainable Community Development Programmes including through public/private partnerships in and around our area of operations
  - By constantly protecting ecology, maintaining and renewing bio-diversity and wherever necessary conserving and protecting wild life, particularly endangered species
  - By encouraging our employees to serve communities by volunteering and by sharing their skills and expertise
  - By striving to deploy sustainable technologies and processes in all our operations and use scarce natural resources efficiently in our facilities
  - We will also help communities that are affected by natural calamities or untoward incidence, or that are physically challenged in line with the Tata Group's efforts

The management will commit all the necessary resources required to meet the goals of Corporate Sustainability.

(Praveer Sinha)  
CEO & Managing Director

Date: 15<sup>th</sup> June, 2018

**TATA POWER**  
Lighting up Lives!

