

Procedure to Participate in Tender

Tender Enquiry No- TPCODL/P&S/100000380/2023-24

Tender Enquiry No.	Work Description	EMD* (Rs.)	Tender Fee** (Rs.)	Last Date for payment of Tender Fee
TPCODL/P&S/ 1000000380/2023-24	Supply of 11KV & 33KV HT XLPE Cable	Rs. 10,00,000	5,000	27.05.2023

* EMD is exempted for MSME, Odisha Bidders. However, MSME Bidder shall be barred to participate in the tendering process for a period of 2 years in case they back out post award of the contract. MSME BAs needs to submit Bid Security Declaration as per the attached format. ** MSMEs registered in the State of Odisha shall pay tender fee of Rs. 1,000/- including GST.

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 are to be followed before "Last date for Payment of Tender Fee":

- 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
 - g. Details of submission of Tender Fee
 - h. MSME Certificate, wherever applicable
 - i. Details of Bank Account for refund of EMD
 - j. Postal Address for refund of EMD
- 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:	P.O Sahidnagar, Janapath, Bhubaneswar.
Branch Code:	7891
Account No:	10835304915
IFSC Code:	SBIN0007891

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E-mail with necessary attachment of 1 and 2 above to be sent to <u>manas.patra@tpcentralodisha.com</u> and cc to <u>sudhakar.behera@tpcentralodisha.com</u> 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 that all future correspondence regarding the tender, bid submission, due date extension, Pre-bid query, etc. will take place through TPCODL E-Tender system (Ariba) only. User manual to guide the bidders to submit the bid through E-Tender system (Ariba) is enclosed.

All communication shall be held only with the bidders who have carried out the above steps to participate in the Tender.

It is to be 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, bidder will not be able to participate in the tender. Any last moment request to participate in tender will not be considered.

Further, all future corrigendum to the said tender will be uploaded in the Tender section on website https://www.tpcentralodisha.com.



OPEN TENDER NOTIFICATION

FOR

SUPPLY OF 11 & 33 KV HT XLPE CABLE

Tender Enquiry No.: TPCODL/P&S/100000380/2023-24

Due Date for Bid Submission: 08.06.2023 [17:00 Hrs.]

TP Central Odisha Distribution Limited 2nd Floor, IDCO Towers, Janpath, Bhubaneswar – 751022

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1.0 Event Information

1.1. Scope of work

Open Tenders are invited from interested Bidders entering into a Rate Contract valid for one year for the following:

S.	Description	EMD Amount	Tender Fee	
No.		(₹)	(₹)	
1.	SUPPLY OF 11 & 33 KV HT XLPE CABLE	₹ 10,00,000	₹ 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 18.05.2023 onwards
(b)	Date by which Interested and Eligible Bidder to pay Tender Fee and confirm participation as mentioned in "Procedure to Participate in Tender"	27.05.2023
(c)	Last Date of receipt of pre-bid queries, if any	31.05.2023
(d)	Pre-Bid Meeting*	-
(e)	Last Date of Posting Consolidated replies to all the pre-bid queries as received	03.06.2023
(f)	Last date and time of receipt of Bids	08.06.2023; 17:00 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.
(h)	Date & Time of opening of Price bid of qualified bidders	Bidders will get mail intimation from TPCODL E- tender system (Ariba) when their Price Bids are opened

*Pre-Bid Meeting Time and Venue details shall be shared later, if applicable.

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's office, the last date of submission of bids and date of opening of bids will be the day following working day at appointed times.

1.4 Mandatory documents required along with the Bid

- 1.4.1 EMD of requisite value and validity
- 1.4.2 Tender Fee of requisite amount
- 1.4.3 Requisite Documents for compliance to Qualification Criteria mentioned in Clause 1.7.

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- 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 Documents for safety bid evaluation as per Appendix 13: CSM-F-9 Safety Bid Evaluation Criteria

Please note that in absence of any of the above documents, bid submitted by the 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:-

- i. EMD of requisite value and validity
- ii. Tender fee of requisite value
- iii. Price Bid as per the Price Schedule mentioned in Annexure I (BOQ)
- iv. Necessary documents against compliance to Qualification Requirements mentioned at Clause 1.7 of this Tender Document
- v. Filled in Schedule of Deviations as per Annexure III
- vi. Filled in Schedule of Commercial Specifications as per Annexure IV
- vii. 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 Requirement / Eligibility Criteria

- a) The average annual turnover of the bidder shall be a minimum of ₹ 20 Cr. for last three financial years. (FY 2019-20, FY 2020-21, FY 2021-22) Copy of audited Balance Sheet and P&L Account to be submitted in this regard.
- b) The bidder should have own manufacturing facility to manufacture the cable of same or, higher voltage through CCV Line or, VCV Line along with the following: Self-undertaking to be submitted in this regard. TPCODL reserves the right to inspect the said manufacturing facility as a proof of compliance to this parameter.
 - Bidder shall have True triple extrusion machine along with CCV line with dry curing in Nitrogen & water cooling.
 - Cable eccentricity monitoring system during triple extrusion in CCV line.
- c) The bidder should have supplied at least 100 KM of cable during last 3 years (for 11 KV or, higher voltage rating). Order copies /completion certificates to be submitted.

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- d) The bidder should have In-house routine and acceptance testing facilities for acceptance as per relevant IS/IEC. Self-undertaking to be submitted in this regard. TPCODL reserves the right to inspect the said manufacturing facility as a proof of compliance to this parameter.
- e) Bidder should have **Performance Certificates** for at least two years' satisfactory performance from minimum 2 reputed companies of 11 KV or, higher voltage cable. Out of these, one Certificate should be of more than 10 KMs of cable. The work against these issued certificates should be completed in last seven years from the date of bid submission. In case the bidder has a previous association with Tata Power for similar products and services, the performance feedback for that bidder by TPC User Group shall only be considered irrespective of performance certificates issued by any third organization. Copy of performance certificates to be submitted in this regard.
- f) The Bidders need to submit Type Test Report as mentioned in Technical Specification (Annexure-II) of the Tender document. All the tests shall be conducted at CPRI / ERDA as per relevant IS. Tests should have been conducted during the period not exceeding 10 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 TPCODL.

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
- The bids will be evaluated commercially on all-inclusive lowest cost for overall tender BOQ as calculated in Schedule of Items [Annexure I]. TPCODL however, reserves right to split the order line item wise and/or quantity wise amongst more than one Bidder. Hence, all bidders are advised to quote their most competitive rates against each line item.
- 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.

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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.

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 <u>valid for 210 days</u> 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 favoring '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 2nd 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

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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 Etender 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 along with explicit break up of basic prices, Taxes & duties, Freight 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 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 through TPCODL E-Tender system (Ariba).

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:Manas Ranjan PatraDesignation:Procurement (Operations)Contact No.:9777454502E-Mail ID:manas.patra@tpcentralodisha.com

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Escalation Matrix

Name:Mr. Sudhakar BeheraDesignation:Sr. General Manager (Procurement)Contact No.:9437282663E-Mail ID:sudhakar.behera@tpcentralodisha.com

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

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/ SLA 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.

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- 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

4 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 rejection of the Bidder's Bid.

4.2. Technical Bid Opening

Bids will be opened at TPCODL Office, Bhubaneswar. All tender bids shall be opened internally by TPCODL. Presence of any bidder will not be allowed during bid opening process. Technical bid must not contain any cost information whatsoever.

First the envelope marked "EMD" will be opened. Bids without EMD/cost of tender (if applicable) of required amount/ validity in prescribed format, shall be rejected.

Next, the technical bid of the bidders who have furnished the requisite EMD will be opened, one by one.

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 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 with respect to the TPCODL specifications and attempt will

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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 bids will be opened internally without the presence of any bidder representative. 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.

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

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

6 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 (Annexure VII)
- 5. Technical Specifications (Annexure II)
- 6. Acceptance Form for Participation in Reverse Auction (Annexure VI)
- 7. General Conditions of Contract (Annexure VIII)

7 Post Award Contract Administration

7.1. Special Conditions of Contract

- a) Rate contract shall be valid for a period of 1 years from the placement of Contract. Release Order (RO) shall be placed as per the requirement of TPCODL. Rate shall remain FIRM till the validity of Rate Contract.
- b) Business Associate (BA) shall submit applicable Performance Bank Guarantee as per GCC within 30 days of issuance of order. PBG applicable shall be 5% of Order Value. PBG submitted, shall be released after completion of applicable guarantee period plus one month.

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- c) Any change in statutory taxes, duties and levies during the contract period shall be borne by TPCODL. However, in case of delay in work execution owing to reasons not attributable to TPCODL, any increase in total liability shall be passed on the Bidder, whereas any benefits arising owing to such statutory variation in taxes and duties shall be passed on TPCODL.
- d) Statutory Variations: Any changes in existing taxes/ Duties and levies, Introduction of new taxes and duties etc. during the period of the contract shall be paid at actuals to BA subject to BA shall submit the tax break up in details, however, where BA has quoted the all-inclusive prices and not shown the tax break-up, this clause will not be applicable. The date of issue of MDCC shall be used for this purpose.
- e) Quotation in all BOM items is mandatory, and bid shall be rejected if any line of found blank in un-price bid.
- f) In case any additional material is to be asked to supply after finalization of scope of work in the detailed Engineering, the Extra price and the extension of delivery time (if applicable) as the case may be mutually agreed between TPCODL and Successful Bidder.
- g) All other terms and conditions of TPCODL General Conditions of Contract shall be applicable.

7.2 Drawing Submission and Approval

The relevant drawings and GTPs need to be submitted by BA within two weeks of receipt of Rate Contract. In case, re-submission of drawings is required on request of TPCODL, same needs to be submitted back to TPCODL within 5 days of such request.

Wherever TPCODL specifications are not available, relevant IS/IEC to be followed. All Drawings mentioned in the Tender Specification and other required for the completeness of the tender shall be submitted. Drawing submission process shall not be deemed complete of all the requirements are not complied during the submission of the same

7.3 Delivery Timelines

Release Orders shall be placed against the awarded Rate Contract by TPCODL as and when the requirements arise & Delivery within 60 Days from date of drawing approval and manufacturing clearance.

7.4 Warranty Period

As per technical specifications.

7.5 Payment Terms

100% payment shall be made within 45 days of submission of commercially clear invoice with full details and fulfilment of statutory compliances and other requirements, if any and verified by concerned TPCODL official after completion of work against progressive monthly bills.

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. Please refer attached Environment Policy and Sustainability Policy, Annexure-XI for more details.



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 Tata Code of Conduct (TCOC) attached at Annexure X for more information.

Any ethical concerns with respect to this tender can be reported to the following e-mail ID:

1) Chief Ethics Counselor – bharat.chhabra@tpcentralodisha.com

8 Specification and standards

As per Annexure.

9 General Condition of Contract

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

10 Safety

All jobs are this tender have to be executed strictly in compliance to the Safety terms and Conditions of TP Central Odisha Distribution Limited. Please refer attached Safety terms and conditions, Annexure-IX, for details. Violation of Safety norms will result in Penalty as mentioned in the above document.



ANNEXURE I

SCHEDULE FOR ITEMS

	TP CENTRAL ODISHA DISTRIBUTION LIMITED							
	TPCODL/P&S/100000380/2023-24; Supply of 11 & 33 KV HT XLPE Cable							
S. No. (A)	Description (B)	Unit (C)	HSN Code (D)	Quantity (Nos) (E)	Unit Rate (Rs.) (F)	Applicable Taxes (Rs.) (G)	All-inclusive Unit rate (Rs.) (H=F+G)	Total all-inclusive value (Rs.) (I=ExH)
1	CABLE 11 KV AL 1CX630 SQMM XLPE ARM.	М		10,000				
2	CABLE 11 KV AL 3CX120 SQMM XLPE ARM.	М		13,000				
3	CABLE 11 KV UG 3C X 150 SQMM XLPE	М		2,000				
4	CABLE 11 KV AL 3CX300 SQMM XLPE ARM.	м		3,500				
5	CABLE 11 KV AL 3CX400 SQMM XLPE ARM.	М		57,000				
6	CABLE 11 KV AL 3CX95 SQMM XLPE ARM.	М		5,000				
7	CABLE 33 KV AL 1CX400 SQMM XLPE ARM.	М		25,000				
8	CABLE 33 KV AL 1CX630 SQMM XLPE ARM.	М		66,000				
9	CABLE 33 KV AL 3CX300 SQMM XLPE ARM.	М		2,500				
10	CABLE 33 KV AL 3CX400 SQMM XLPE ARM.	М		15,000				
11	CABLE 33KV AL 3CX95 SQMM XLPE ARMRD-UG	М		1,000				
	TOTAL			2,00,000				

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Authorized Signatory

Note:

- 1. The quantities as mentioned above are indicative and for evaluation purpose only.
- 2. The bids will be evaluated commercially on the line item wise lowest cost basis.
- 3. The unit price with GST in column no. (H), is landed price FOR TPCODL Bhubaneswar / Cuttack Locations. Exact delivery location shall be specified in the Release Order.
- 4. The bidders are advised to quote prices strictly in the above format. Failing to do so, bids are liable for rejection.
- 5. 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.*
- 6. No cutting/ overwriting in the prices is permissible.

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ANNEXURE II TECHNICAL SPECIFICATIONS

Technical Specification Attached: Refer to Page no. 109 & onwards of this document.

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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 <u>specifically</u> mentioned in this schedule, the tender shall be deemed to confirm the TPCODL's specifications:

S. No.	Clause No.	Tender Clause Details	Details of deviation with justifications

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.)

S. No. **Particulars** Remarks Firm / Variable 1. Prices firm or subject to variation (If variable indicate the price variation clause with the ceiling if applicable) If variable price variation on clause given 1a. Yes / No ----- % 1b. Ceilina 1c. Inclusive of GST Yes / No (If Yes, indicate % rate) Inclusive of transit insurance Yes / No 1d. 2. Weeks / months Delivery 3. Yes / No Guarantee clause acceptable Yes / No 4. Terms of payment acceptable 5. Performance Bank Guarantee acceptable Yes / No 6. Liquidated damages clause acceptable Yes / No 7. Validity (180 days) Yes / No (From the date of opening of bid) 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 Yes / No Industrial Undertaking Act 1992 (If Yes, indicate, SSI Reg'n No.)

Seal of the Bidder:

Signature: Name:

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ANNEXURE V

CHECKLIST OF ALL THE DOCUMENTS TO BE SUBMITTED WITH THE BID

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

2 7 3 9 5 [6 9	EMD of required value Tender Fee as mentioned in this tender Signed copy of this tender as an unconditional acceptance Duly filled schedule of commercial specifications (Annexure IV)	
3 5 5 [6 5	Signed copy of this tender as an unconditional acceptance	
5 [6 \$		
6 5	Duly filled schedule of commercial specifications (Annexure IV)	
- -		
_ F	Sheet of commercial/technical deviation if any (Annexure III)	
/ r	Balance sheet for the last completed three financial years; mandatorily enclosing Profit & loss account statement	
0 (Acknowledgement for Testing facilities if available (duly mentioned on bidder letter head)	
u i	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	
	Details of Type Tests if applicable (duly mentioned on bidder letter head)	
	All the relevant Type test certificates as per relevant IS/IEC (CPRI/ERDA/other certified agency) if applicable	
14 F	Project/supply Completion certificates	
15 F	Performance certificates	
16 (Client Testimonial/Performance Certificates	
17 (Credit rating/solvency certificate	
18 l	Undertaking regarding non blacklisting (On company letter head)	
19 L	List of trained/untrained Manpower	

Seal of the Bidder:

Signature:

Name



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 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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ANNEXURE VII

SCOPE OF WORK AND SERVICE LEVEL AGREEMENT

N/A

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ANNEXURE VIIa

PREFERENTIAL NORMS FOR PROCUREMENT FROM MSMES REGISTERED IN THE STATE OF ODISHA

1. Tender Fees

To participate in the tender, MSMEs registered in the State of Odisha shall pay Rs.1,000/- including GST towards cost of tender paper.

2. Earnest Money Deposit (EMD)

EMD shall be exempted for MSME registered in the State of Odisha. However, Bidder shall be barred to participate in the tendering process for a period of 2 years in case it backs out post award of the contract.

3. Qualification Requirement for Open Tenders

Qualification Requirement of Financial Turnover for MSME registered in the State of Odisha shall be reduced to 20% of the existing criteria.

For past experience, instead of relying on the volumes / value of earlier Supplies / Projects, assessment of the Bidder shall be done on the basis of feedback from Customers. Past performance experience at Tata Power and its Group Companies shall supersede feedback from other Customers.

4. Reservation for MSME

It shall be mandatory to procure at least 20% of the total volume of the procurement from MSME registered in the State of Odisha (however, it shall not apply where goods/services are not available with the MSME), subject to matching L1 discovered prices and meeting technical specifications including quality requirements.

5. Performance Bank Guarantees

Performance Bank Guarantee for MSME registered in the State of Odisha shall be 25% of the value normally prescribed.

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ANNEXURE VIII GENERAL CONDITIONS OF CONTRACT

GENERAL CONDITIONS OF CONTRACT FOR SUPPLY ORDERS

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9.0	STATUTORY COMPLIANCE					
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TPCODL TPCODL (A Tata Power & Odisha Govt. joint venture) 2nd Floor, IDCO Tower, Janpath Bhubaneshwar, Odisha 751022 NIT No.: TPCODL/P&S/100000380/2023-24

1.0 ORGANIZATIONAL VALUES

The TPCODL 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 <u>www.tpcentralodisha.com</u>

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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. 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.



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- NIT No.: TPCODL/P&S/100000380/2023-24
- 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.

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. The bidders along with the tender document shall mandatorily submit a duly signed copy of the Acceptance Form as mentioned in the Annexure J as a token of acceptance for the same.

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.

<u>Completeness</u>: 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.

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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.

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.

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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 "The 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 Catalog.
- Guarantee/Warranty 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

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.

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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

As TPCODL is SA 8000 compliant, it 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

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**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).

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

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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.

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 participation 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.

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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

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.

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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



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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



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12.5 Dispatch and Delivery Instructions

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

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of the guarantee period in standard specifications or SCC Guarantee Period will be 60 Months from the Date of Commissioning or 72 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 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.

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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 at least 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.

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 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.

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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.

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

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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 infringement of patent, trade mark, registered design, copy rights and/or industrial property rights by manufacture, sale or use of the equipment

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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 TDCODL for the fulfillment of the provisione of the Contract.

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.

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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 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 executed by Associate under the contract by providing to the Associate atleast two business days written notice for contracts having contract completion period less than sixty days and atleast seven business days' notice for all other contracts.

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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.
- 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.

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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.
- 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.

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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.
- 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.

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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 endeavor 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 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.



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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/repaired 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-I.* You can also log on to our website <u>www.tpcentralodisha.com</u> 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.

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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 <u>www.tpcentralodisha.com</u>

30.0 LIST OF ANNEXURES

S. No.	Subject	Annexure
1.	Performa for Bid Security Bank Guarantee	A
2.	Performa for Performance Bank Guarantee (CP cum EP)	В
3.	Performa for No Demand Certificate by Associate	С
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	Н
9.	Manufacturer Authorization Form	1

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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").
KNOW ALL men by these presents we (Name of the Nationalized 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, Nan	ne & Address) (At le	ast 2 witnesses)	

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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._____ 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

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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 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).
- 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

ANNEXURE-C

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(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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PROFORMA FOR APPLICATION FOR ISSUANCE OF CONSOLIDATED TDS CERTIFICATE

To be printed on the Letter Head

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

TPCODL TPCODL (A Tata Power & Odisha Govt. joint venture) 2nd Floor, IDCO Tower, Janpath Bhubaneshwar, Odisha 751022 NIT No.: TPCODL/P&S/100000380/2023-24 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 Additional Information □ More than 1 Cr.

Your Name	
Your Designation	
Your Organization	
Contact Nos.	
Email	



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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)

SECTION - A

(Please $\sqrt{}$ mark in the relevant box and give your remarks / suggestions / information for our improvement).

		1	2	3	4	5	
S. No.	Parameters	Do Not Agree	Slightly in Agreement	In Fair Agreement	Mostly in Agreement	Fully Agree	Remarks/ Suggestion
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)						

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NIT No.: TPCODL/P&S/100000380/2023-24

					-		
		1	2	3	4	5	
S. No.	Parameters	Do Not Agree	Slightly in Agreement	In Fair Agreement	Mostly in Agreement	Fully Agree	Remarks/ Suggestion
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						
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						

TP CENTRAL ODISHA DISTRIBUTION LIMITED

(A Tata Power & Odisha Govt. joint venture)

2nd Floor, IDCO Tower, Janpath Bhubaneshwar, Odisha 751022

NIT No.: TPCODL/P&S/100000380/2023-24

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 fairness of treatment and transparency with its Business Associates?						
3	How would you rate TPCODL in comparison to your other clients in terms of processes and systems to manage partnership with its Business Associates						
4	How would you rate TPCODL in comparison to your other clients in terms of building long term & mutually relations hip with its Business Associates						

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SECTION - C

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

S.	Parameters	Certainly	Probably	Certainly	Probably	Remarks/
No.	Parameters	No	No	Yes	Yes	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) -



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SECTION - E

<u>Please $\sqrt{\text{mark in the relevant box and give your remarks / suggestions / information for our improvement.</u>}</u></u>$

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, altitudes that you

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

We thank you for your time and courtesy!!

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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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ANNEXURE-G

Τo,

DGM (Finance) (Resource) The TP Central Odisha Distribution Limited Bhubaneswar

Sub: e-Payments through National Electronic Fund Transfer (NEFT) OR Real Time Gross Settlement System (RTGS)

Dear Sir,

We request and authorize you to affect e-payment through NEFT/RTGS to our Bank Account as per the details given below:-

Vendor Code	:												
Title of Account in the Bank	:												
Account Type	:												
		-	nent Curre						cour	nt is			
Bank Account Number	:												
Name & Address of Bank	•												
Bank Contact Person's Names	:												
Bank Tele Numbers with STD Code	:												
Bank Branch MICR Code	:												
	-									eque r che		 	
Bank Branch IFSC Code	:[
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:

:

:

:

(You can obtain this from branch where you have your account)

Email Address of accounts person: (to send payment information)

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)

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VENDOR APPRAISAL FORM

TO BE SUBMITTED BY VENDOR (To be filled as applicable)					
VEN	IDOR:				
1.0	DETAILS	OF THE FIRM			
	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	:		
2.0	PRODU	CTS MANUFACTURED	:		
3.0		ER DURING THE LAST 3 YEARS (TO BE VERIFIED WITH THE PROFIT & LOSS STATEMENT).	:		
4.0	VALUE	OF FIXED ASSETS	:		
5.0	NAME &	& ADDRESS OF THE BANKERS	:		
6.0	BANK G	GUARANTEE LIMIT	:		
7.0	CREDIT	T LIMIT	:		
8.0	TECHNIC	AL			
	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	:		

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		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 / 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	:
9.0	MANUF	ACTURE	
	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	:

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	9.9	MATERIAL IN STOCK AND VALUE	:
	9.10	TRANSPORT FACILITIES	:
	9.11	CARE IN HANDLING	:
10.0	INSPECT	ION / QC / QA / TESTING	
	10.1	NUMBER OF PERSONNEL (INDICATE NO. OF YEARS OF EXPERIENCE)	:
	10.2	INDEPENDENCE FROM PRODUCTION	:
	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	:
11.0	EXPERIE COMMIS	:	
12.0	SALES, SI	:	
13.0	CERTIFIC	:	
14.0	POWERS	:	

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15.0	LABOU	R SITUATION	:
16.0 *		ABILITY OF SC/ST RELAXATION (Y/N) SUPPORTING DOCUMENTS TO BE ATTACHED	
	ORGAN	IIZATIONAL DETAILS	
	1.	PF NO	
	2.	ESI NO	
17.0	3.	INSURANCE FOR WORK MAN COMPENSATION ACT NO	
17.0	4.	ELECTRICAL CONTRACT LIC NO	•
	5.	ITCC / PAN NO	
	6.	SALES TAX NO	
	7.	WC TAX REG. NO	
		IENTS TO BE ENCLOSED:	
	1.	FACTORY LICENSE	
		ANNUAL REPORT FOR LAST THREE YEARS	
		TYPE TEST REPORT FOR THE ITEM	
		PAST EXPERIENCE REPORTS	
		ISO CERTIFICATE –QMS, EMS, OHAS, SA	
		REGISTRATION OF SALES TAX	
		COPY OF TIN NO.	
		COPY OF SERVICE TAX NO.	
		REGISTRATION OF CENTRAL EXCISE	
18.0		COPY OF INCOME TAX CLEARANCE.	
		COPY OF PF REGISTRATION	
		COPY OF ESI REGISTRATION	
	13.	COPY OF INSURANCE FOR WORK MAN COMPENSATION ACT	
	1.4		
		COPY OF ELECTRICAL CONTRACT LIC NO	
		COPY OF PAN NO	
		COPY OF WC TAX REGISTRATION	
	1/.	DOCUMENTS IN SUPPORT OF SC/ST RELAXATION AT S.NO.16.0	
	10		
	18.	GSTN CERTIFICATE	

* 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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MANUFACTURER AUTHORIZATION FORM

(To be submitted on OEM's Letter Head)

Date:

Tender Enquiry No.:

Τo,

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

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SAFETY POLICY AND SAFETY TERMS AND CONDITIONS

1. Objective

The Tata Power engages contractor workforce to execute, run and maintain various operating sites and facilities across locations for various business verticals including Generation, Transmission, Distribution and Renewable. The activities range from project execution, operation, maintenance to facilities management.

The management of contractor safety represents a significant challenge for management. Tata Power has a responsibility to ensure that contractors are provided with enough information and support to enable them to conduct their roles safely and without endangering health and safety of their own workforce or that of our staff.

To ensure reduction in reportable injuries and achieve goal of zero accidents, first edition of contractor safety code of conduct was launched successfully in the year 2014. Since last four years after the launch of CSCC, Tata Power could achieve the objective of reduction in reportable injuries and fatalities.

Over the period, as the system was being matured, a need was felt to make second revision of the CSCC process. Objective of second revision is improve existing CSCC system and make it user friendly.

2. Scope: This procedure applies to all operating and project sites of The Tata Power Company Ltd and Group companies including new businesses like EV charging, Home Automation etc.

3. Definitions

- **3.1. Order Manager:** Order Manager is the Tata Power representative, who has the ownership of the given job.
- **3.2. Site Safety Management Plan**: It is the safety plan agreed between Contractor and Tata Power. It will contain the entire job specific safety requirement and will be signed by the contractor.
- **3.3. Contractor**: An individual or a company that provides services to Tata Power under a signed contract.
- **3.4. Emergency:** a serious, unexpected or dangerous situation requiring immediate action, which may result in loss of revenue/property, business discontinuity. In case of Emergency*, services may be procured by selecting the qualified vendor based on the vendor category without the safety bid evaluation. It must be approved by MB level and above.
- **3.5. Expert Service jobs:** Jobs which needs expert services of contractor which does not involve direct exposure to the potential risk or work which involves only supervisory work such as expert for turbine overhaul, expert for boiler overhaul, expert for pump and motor, expert for compressor overhaul.
- **3.6. Head of the Division:** Business in charge of the division who is overall custodian of the generating station or transmission division or distribution division.

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- **3.7. Category A Vendor:** Vendors eligible to carry out Very High & High risk (as per Tata Power Hazard Identification and Risk Analysis Procedure) and /or Long-Term Contract related to operation and maintenance (O&M) of plant. Vendors must fulfil the requirement specified for Category A in Appendix 12-CSMF-5 of this document.
- **3.8. Category B Vendor:** Vendors eligible to carry out technical jobs, that are classified under Medium /low risk. Vendors must fulfil the requirement specified for Category B in Appendix 12-CSMF-5 of this document.
- **3.9. Category C Vendor:** Vendors eligible for to carry out low or very low risk administrative and office jobs. For this he must fulfil the requirement specified for Category C in Appendix 12-CSMF-5 of this document.
- **3.10. Category D Vendor:** All Consultants, Medical Practitioners or vendors taking job from Tata Power and working from their own premises (e.g. motor rewinding at vendor's shop floor, equipment sent for repair to vendor's works etc.) are classified as Category D Vendor
- **3.11. High Risk Jobs:** A Job or its activities are considered as Very High or High Risk when Order manager apply the "Tata Power Hazard Identification and Risk Analysis" procedure and found safety risk associated with are under Very High or High category. Indicative lists of jobs are given in appendix 15 of this document.
- **3.12. Medium Risk Jobs:** Jobs or its activities are considered as medium risk when Order manager apply "Tata Power Hazard Identification and Risk Analysis" procedure and found the same as Medium Risk.
- **3.13. Low Risk Jobs:** Any job or its activities are considered as Low or Very low risk while Order manager, calculate it by applying "Tata Power Hazard Identification and Risk Analysis" procedure and found it under Low or Very Low category.
- **3.14. Long Duration Jobs:** When the duration of job is 12 months or more, it is considered as Long duration job
- **3.15. High Value Jobs:** When the value of the job contract is Rs. One Crore or more it will be considered as High value job.
- 4. Responsibilities
 - **4.1 Order Manager**: Order Manager is the Tata Power representative, who is responsible for:
 - 4.1.1 Finalizing the Site Safety Management Plan along with Contractor, Safety Concurrences Group, Divisional Safety Head and Expert (External or Internal) if required.
 - 4.1.2 Supervise and ensure work is carried out as per the Site Safety Management Plan including agreed Risk Assessment (HIRA/JSA) and Method Statement.
 - 4.1.3 Conduct audit and evaluate Safety Performance of contractor.
 - 4.1.4 Ensure contractors adhere to all statutory provisions.

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- NIT No.: TPCODL/P&S/100000380/2023-24
- 4.1.5 In case any deviation is needed in agreed safety management plan or in CSCC process for execution of job, Management of Change procedure will be applicable, and approval may be obtained from divisional head /Cluster head.
- **4.2 Contractor:** The person, entity or organisation who is executing the job for Tata Power under a contractual agreement and will be responsible for the following
- 4.2.1 To follow all Tata Power Critical Safety Procedure, Rules and guidelines given in <u>Safety Terms and Conditions</u>
- 4.2.2 Undertake job as per <u>Site Safety Management Plan CSM-F10</u> and method statements agreed with Tata Power.
- 4.2.3 Raise any concerns with regard to their work and its safety with the Tata Power Order Manager.
- 4.2.4 Report all injuries, near misses, unsafe acts/conditions, and occurrences to the Tata Power Order Manager immediately.
- 4.2.5 Ensure that all sub-contractors follow the Tata Power Safety Procedure and agreed <u>Site Safety Management Plan CSM-F10</u>.
- 4.2.6 To follow all statutory requirements as per the laws of the land.
- 4.2.7 All vendors applying for A category jobs or submitting quote for high risk jobs shall obtain certificates of ISO 9001, ISO14001 and ISO45001 before submitting quote for high risk Jobs.
- **4.3 Safety Concurrence Group:** It is Cross Functional Team constituted by Corporate Safety Team, which will have representatives from Execution department, Divisional safety and Corporate / Divisional contracts. SCG will be responsible for the following
- 4.3.1 Assessment of Safety Potential of new vendor before registration as per <u>CSM-F1-</u> <u>Safety Category Qualification Form.</u>
- 4.3.2 Safety Evaluation of the bids as per evaluation format <u>CSM-F-9 Safety Bid</u> <u>Evaluation Criteria</u>
- 4.3.3 Finalization of the Site Safety Management Plan CSM-F-10 submitted by the contractor.
- 4.3.4 Corporate Safety Team / Cluster Safety Head will be part of SCG during Safety Bid Evaluation for following types of jobs
 4.3.4.1 High-Risk jobs to be carried out in Annual Overhaul / Major Shutdowns and Outages.
 4.3.4.2 Capacy jobs of High Pisk Category
 - 4.3.4.2 Capex jobs of High-Risk Category

5.1 Vendor Registration

For Vendor Registration, Corporate Contract will issue following documents for evaluation of contractor's safety capability

- 1) <u>CSM-F1 Safety Category Qualification Form</u>
- 2) <u>Safety Terms and Conditions</u>

The document <u>Safety Terms and Conditions</u> provides the information about Tata Power safety System to the contractor. Contractor will submit the <u>CSM-F1- Safety Category</u> <u>Qualification Form</u> with all relevant details and documents to Vendor Registration Initiator, which will in turn forward it to Safety Concurrence Group (SCG) for evaluation. The SCG will evaluate the details submitted by the contractor based on a predetermined criteria <u>CSM-F-5 Safety Potential Evaluation Criteria</u> for Vendor Registration and will determine the category (Category A/B/C/D) for which the contractor will be registered. As mentioned in *Property of TPCODL – Not to be reproduced without prior written permission of TPCODL*

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the above criteria, a site visit may also be organized by SCG prior to registration under Category A and B. In case, the contractor does not qualify the safety criteria, the contractor will not be registered. However, he may apply afresh for registration after 6 months. Please refer <u>Appendix 1: Process Flow Chart for Vendor Registration</u>.

5.2 Bid evaluation

At the time of placing the Purchase Requisition (PR), Order Manager is required to declare the risk involved in the of the job (i.e. High Risk / Medium Risk / Low Risk jobs, based on the RPN in HIRA. If the Job is "High Risk" or "Long Duration", then RFQ will be attached with following documents:

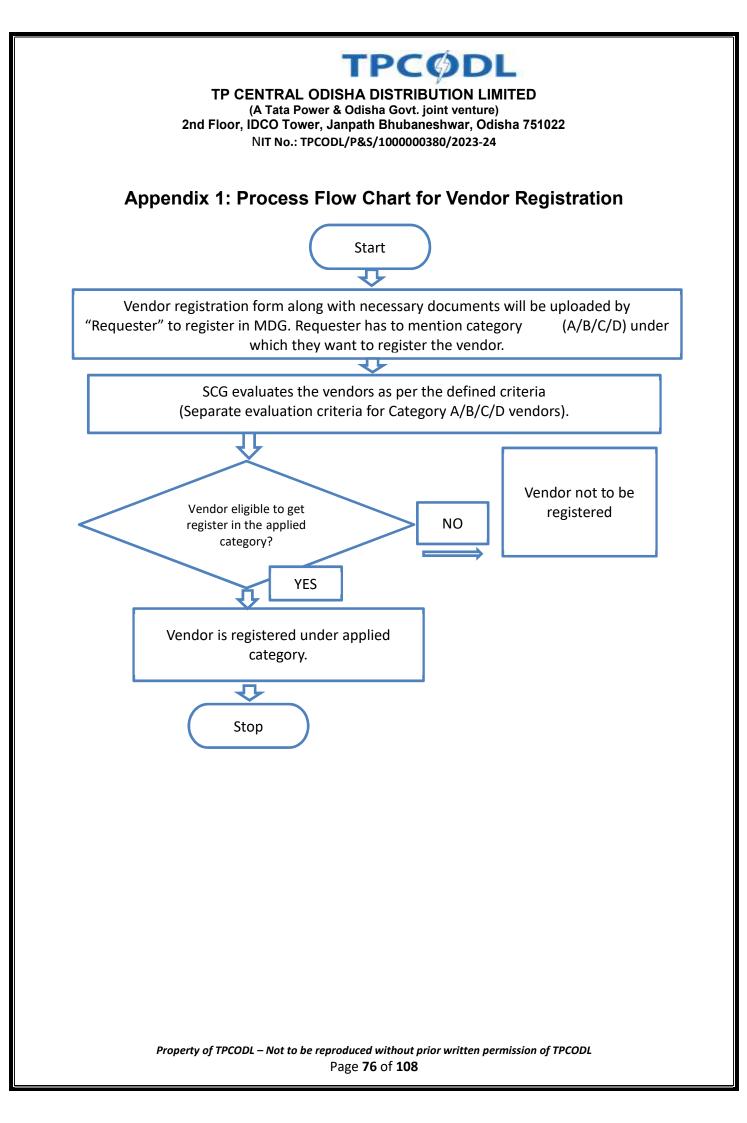
- 1) <u>CSM-F7- Blank Safety Competency Form</u>
- 2) <u>CSM-F8 PPE requirements</u>
- 3) Safety Terms and Conditions
- 4) Job Specific Safety Requirement (Educational and Professional Qualification, Skill & Experience Manpower, Tools and Tackles (e.g. man lifter, use of drone, use & availability of rescue kit), Work Methodology etc.)

Otherwise the RFQ will be attached only with <u>Safety Terms and Conditions</u>. Long term and low value jobs (see definition) are exempted from the CSCC process.

Corporate Contracts will collect duly filled <u>CSM-F7 Safety Competency Form</u> along with the bid. All other stakeholders will also put their efforts to get all relevant safety data during meeting / discussions with the vendor. SCG will evaluate the document as per the <u>CSM-F9</u> <u>Safety bid evaluation criteria</u>. If any specific condition related to Contract is required to convey to contractor, Site safety team will attach the same as Annexure for specific conditions of job and submit it to contract team along with safety bid evaluation form. Commercial bid of contractor will be considered for evaluation by contract team only if contractor is qualified in safety bid. Site Safety Management Plan, defining the complete procedure of executing the job at site will be signed by the contractor and SCG after mutual agreement. CC will attach a copy of site safety Management Plan and any specific condition of contract along with PO to the successful bidder. Please refer <u>Appendix 6: Process Flow</u> <u>Chart for issuing RFQ and PO significant health and safety risk associated with it.</u>

5.3 Safety Performance Evaluation

During the time of job execution, regular site inspection will be carried out by the Tata Power officials and violations will be dealt as per <u>CSM–F4 Safety Violation Penalty Criteria</u>. Apart from this, monthly safety performance of the contractor will be evaluated based on the predetermined criteria as per <u>CSM-F11 safety Performance Score</u> and monthly score will be maintained by the Order Manager. Certain percentage of each running bill will be retained as Safety Retention amount and will be released on the basis of Safety Performance Score at certain intervals as defined in <u>CSM-F-3-Safety Performance Evaluation Criteria</u>. Please refer <u>Appendix 10: Process Flow Chart for Safety Performance Evaluation</u>. Percentage of retention amount is mentioned in safety terms and conditions.



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Appendix 2: CSM-F-1 Safety Category Qualification form

- 1. **"Safety Category Qualification Form**" is part of vendor registration form. It needs to be filled by the contractor at the time of Registration and should submitted to Requester / order manager with all relevant documents.
- 2. The same will be evaluated by Safety Concurrence Group of the Division (SCG) as per the criteria given in <u>CSM-F-5.</u>
- 3. Information provided by contractor will be verified during site visit.

Safety Category Qualification Form

Please consider my application for

Category A Vendor: Vendor eligible to carry out Very High- and High-risk O&M jobs Category B Vendor: Vendors eligible to carry out technical jobs, classified as Medium / Iow risk Category C Vendor: Vendors eligible for to carry out low or very low risk administrative and office job Category D vendor: All Consultants, Medical Practitioners or vendors taking job from Tata Power and working from their own premises.

Na	Name of the Vendor:					
Sr. No	Safety Information	Remarks	Attachm	ent		
1	Certified for i. OHSAS 18001/ ISO 45001, ii. ISO: 14001 iii. ISO: 9001 (ISO certificates to be issued from reputed accreditation agencies specified by Tata Power)	i. Y/ N ii. Y/ N iii. Y/ N	Attach c	copy of the	ecertific	cation
2	Safety Statistics for Last Three (3) Years - LTIFR - LTISR	Yes/No	LTIFR	Year 1 (Last FY)	Year 2	Year 3
	Do you have Safety Policy?			copy of th	e safet	V
3		Yes/No	Attach copy of the safety policy.		y	
4	Do you have Safety training process?	Yes/No	Attach safety training process.			
5	Do you have Safety organization structure e.g. Safety Officers and Safety Committees?	Yes/No		copy of th ization str		у
6	Name and address of sites where work is in progress or worked earlier	Yes/No		Site details to be attached for inspection by Officials.		

Signature : Name and Designation : Stamp of Organization :

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TPCODL TPCODL TPCENTRAL ODISHA DISTRIBUTION LIMITED (A Tata Power & Odisha Govt. joint venture) 2nd Floor, IDCO Tower, Janpath Bhubaneshwar, Odisha 751022 NIT No.: TPCODL/P&S/100000380/2023-24

Appendix 3: Safety Terms and Conditions

Please refer the attached document Safety Terms and Conditions.

Appendix 4: CSM- F-3- Safety Performance Evaluation Criteria

1. A certain percentage of the bill value will be retained against every running bill as safety performance retention. The amount will be released with the last invoice or every six-month based on Safety Performance Score of contractors. The retention amount will be calculated based on contract value as below.

Contract Value	Retention Amount (%)
Up to 10 Lakhs	2.5
10 – 50 lakhs	2
0.5 to 10 Cr	1.5
>10 Cr	1

- 2. The evaluation criteria include Lead Indicators such as CFSA (Contractor Field safety Audit) score, percentage of workers trained in TPSDI, inspection of critical equipment. Lag indicators such as Fatalities, LWDC and man days lost.
- 3. The retention amount saved will go to a separate Safety Improvement Fund.
- 4. For the contract value of more than Rs 1 Cr or contract duration more than 12 months, the retention amount shall be released half yearly based on safety performance. For all remaining contracts, the retention amount will be released with the final bill.
- 5. Long term jobs with low value (Less than Rs. 1 Cr.) are exempted from the safety retention. Invoice of these type of jobs can be cleared without safety retention.
- 6. In case of job stoppage due to safety violations / unsafe observations at the site, no time extension shall be given to the contractor, if such delays are attributable to contractor.
- 7. In case of fatality, limb loss or loss of property, vendor must pay for liability, legal, statutory and additional mutually agreed settlement charges imposed by the appointed committee. This charge is over and above the retention amount.
- 8. The committee will finalize an amount between 5 -50 lakhs based on factors such as advise by statutory authorities, contract value and impact of accident etc.
- 9. Safety performance bonus 1% (limiting to 50 lakhs) of the invoice value will be considered at the end of the job if the contractual safety performance score 100%.
- 10. During the progress of the work, concerned Supervisor/Engineer will visit and inspect the work site regularly and evaluate the safety performance of the contractor based on matrix attached herewith and apply the Consequence management policy as applicable.
- 11. Order Manager, divisional chief and SBU head have the authority to terminate the contract in case of three consecutive serious violations.

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Safety Performance Evaluation report- CSM-F-3

	Lead Indicators	Unit Of measurement Target		weight age
1	% of Employee certified in TPSDI/Authorized agency	%	50%	10
2	CFSA score (Annexure 6.1)	Average Severity of Violations	1.49	20
3	Monthly inspection completed by contractor for Critical Equipment, lifting Tools & Tackles and hand tools used at site as per Tata Power Checklist	%	80	5
4	Revalidation of Condition of tools, tackles and equipment by Order Manger.	%	100	15
	Lag Indicators			
1	Number of Fatalities	No.	0	30
2	Number of Lost workday case (LWDC)	No.	0	10
3	Man-days Lost	No.	0	10

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Appendix 5: CSM- F-4 Safety Violation Penalty Criteria

Penalty shall be imposed on the contractors under the following circumstances for breaching the contractual agreements:

S No	Description of violation	Severit	Penalty
1.	Working without Permit	5	5000/-
2.	Untrained (TPSDI) worker on high-risk jobs.	5	5000/-
3.	Unhygienic/Bad condition of PPE	2	250/-
4.	Not following Tata Power Procedure & Standard	4	2000/-
5.	Unsafe Act/Condition of Severity 4	4	2000/-
6.	Unsafe Act/Condition of Severity 5	5	5000/-
7.	No Earthling of Electrical equipment	5	5000/-
8.	Damaged welding cable	5	5000/
9.	Violation of Positive Isolation Procedure (LOTO Not followed)	5	5000/
10.	ELCB of more than 30 mA/ELCB not working	5	5000/
11.	On/Off switch of welding m/c not working	5	5000/
12.	Electric cable tied with metal wire	5	5000/
13.	Leakage found DA hose / cylinder	5	5000/
14.	Use of LPG	5	5000/
15.	Use of IC engine based Three-wheeler at the work site.	5	5000/
16.	Starting the job without Toolbox Talk	5	5000/
17.	Spatter falling on DA hose / Gas-line/ pathways / Equipment	5	5000/
18.	No safety latch in crane hook	5	5000/
19.	Load raised or swung over people or occupied areas of buildings	5	5000/
20.	Persons standing in swing area of construction equipment.	5	5000/
21.	Using damaged slings.	5	5000/
22.	Unstable scaffolding/nonstandard Scaffolding in use	5	5000/
23.	Handrails and mid-rails are missing	5	5000/
24.	Safety Harness not anchored with lifeline/fixed structure	5	5000/
25.	Fall arrestor not provided/ Not being used.	5	5000/
26.	Double lifeline not used for working at height	5	5000/
27.	No rubber mat in Electrical Distribution (DB) room	4	2000/-
28.	Water found accumulated in Electrical Distribution room/near welding machine.	4	2000/
29.	Inserting electric cables into socket, without using plug.	4	2000/
30.	Use of damaged electrical cable/two core cables.	4	2000/
31.	Inflammable material found in Distribution Room / welding areas.	4	2000/
32.	Loose material falling into excavated pit	4	2000/
33.	Water logging into excavated pit /trenches	4	2000/
34.	No / inadequate Barricade	4	2000/
35.	Undercut / cave-in found on sides of excavated pits	4	2000/
36.	Grinding wheel/ Coupling/ Piling winch/other rotating parts without guard	4	2000/

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37.	The HMV/Mobile Crane operator does not have a valid HMV driving license.	4	2000/
38.	The loading area is not leveled properly.	4	2000/
39.	Ladder not anchored at top	4	2000/
40.	Opening found in working platform of scaffolding/floor	4	2000/
41.	Inadequate illumination at the working area	4	2000/
42.	Loose material lying on Gantry, platform	4	2000/
43.	Cleaning with Compressed Air.	3	500/-
44.	Gas Cylinders using without cap.	3	500/
45.	Gas Cylinders stored without securing	3	500/
46.	Bringing inside any other chemicals, apart from approved by Safety dept.	3	500/
47.	Using drum for sitting or accessing height.	3	500/
48.	Misusing emergency facilities like fire hydrant line/ hose box/ spray system/ eye wash etc.	3	500/
49.	No provision of Safety net where falling materials or tools may occurs	3	500/
50.	Taking electrical supply from non-designated outlet (other than socket).	3	500/
51.	Restricted gangways due to unwanted materials.	3	500/
52.	Not reporting incident.	3	500/
53.	Entering into restricted area like switch yard/ hazardous storage	3	500/
54.	Work without supervision	3	500/
	Parking of vehicle without applying wheel choke at right front-	3	500/
55.	front and left rear-rear wheels other than passenger cars.	3	500/
56.	Heavy Vehicle without helper or co-driver.	3	500/
57.	Not wearing florescent safety jacket at site.	3	500/
58.	People travelling in load body of vehicle.	3	500/
59.	Parking of vehicles at non designated area.	3	500/
60.	Shifting heavy materials without guide ropes.	3	500/
61.	Using other than 24V lamp inside the confined space/Use of other than 24V lamps.	3	500/
62.	Angular loading/ lifting with Crane or hoist.	3	500/
63.	By passing the limit switch/ Safety Interlock.	3	500/
64.	Housekeeping activities on road without proper barricade.	3	500/
65.	Trying to board or alit from running vehicle.	3	500/
66.	Cylinder Valves of Gas cylinders not closed when not in use.	3	500/
67.	Flash-back arrester not used.	3	500/
68.	Hand Trolley wheel found damaged.	3	500/
69.	Guy ropes of required length on both sides of object are not used during movement with load.	3	5/ 00/
70.	Scotch block/wedge not provided, when the vehicle is parked.	3	500/

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	NIT No.: TPCODL/P&S/1000000380/2023-24		
71.	Suitable Trolley not provided to hold the cylinders.	3	500/
72.	Locked First Aid box	3	500/
73.	Caution boards, danger signs (luminescent /red) along with emergency contact number are not found displayed.	3	500/
74.	Person found jumping barricading tape	3	500/
75.	Stacking of pipes, pile casing, drums without chock blocks/wedges	3	500/
76.	The terrain on which Heavy Equipment/Machinery moves is not reasonably hard.	3	500/
77.	Without Safety Helmet at working sites	4	250/-
78.	Without Crash Helmet (on bikes)	4	500/-
79.	Without Full body double lanyard Safety Harness (for work at height)	5	5000/-
80.	Without Hand gloves - Material Handling, Welding, Cutting,	4	100/-
81.	Without Safety goggles/ face shield - Welding/Cutting /Grinding	5	5000/-
82.	Handling Chemical without PVC Apron	5	5000/-
83.	Smoking in prohibited area (Closed Go-downs, Storage of flammable material, Storage of Gas cylinders)	5	1000/-
84.	Sleeping at Workplace	3	100/-
85.	Driving beyond speed limit	3	1000/-
86.	Seat Belt While Driving (for front seat passengers and driver)	3	500/-
87.	Driving without license	4	1000/-
88.	Heavy Commercial vehicles without reverse horn	3	500/-
89.	Nonfunctional Head light/ taillight and side indicators	3	100/-
90.	Using Mobile Phone During Driving	5	5000/-
91.	Poor visibility of registration number/ without registration number	3	100/-
92.	Broken/ without Side view mirror	3	100/-
93.	Over speeding above specified limit	3	500/-
94.	Broken/ Without Pressure gauge on Oxygen/ LPG / Acetylene cylinder.	3	500/-
95.	Without Flash back arrestor on Industrial Acetylene & Oxygen cylinders.	5	5000/-
96.	Spillage of hazardous material/chemicals during transportation	4	2000/-
97.	Electrical equipment without Earthing/ ELCB/ Double Insulation Cable.	5	5000/-
98.	Lifting Tools & Tackles used without/ expired Test Certificates.	5	5000/-
99.	Housekeeping repeatedly not maintained		
100.	First Time	3	Warning
101.	Second Time	4	1000/-
102.	Third Time	5	5000/-

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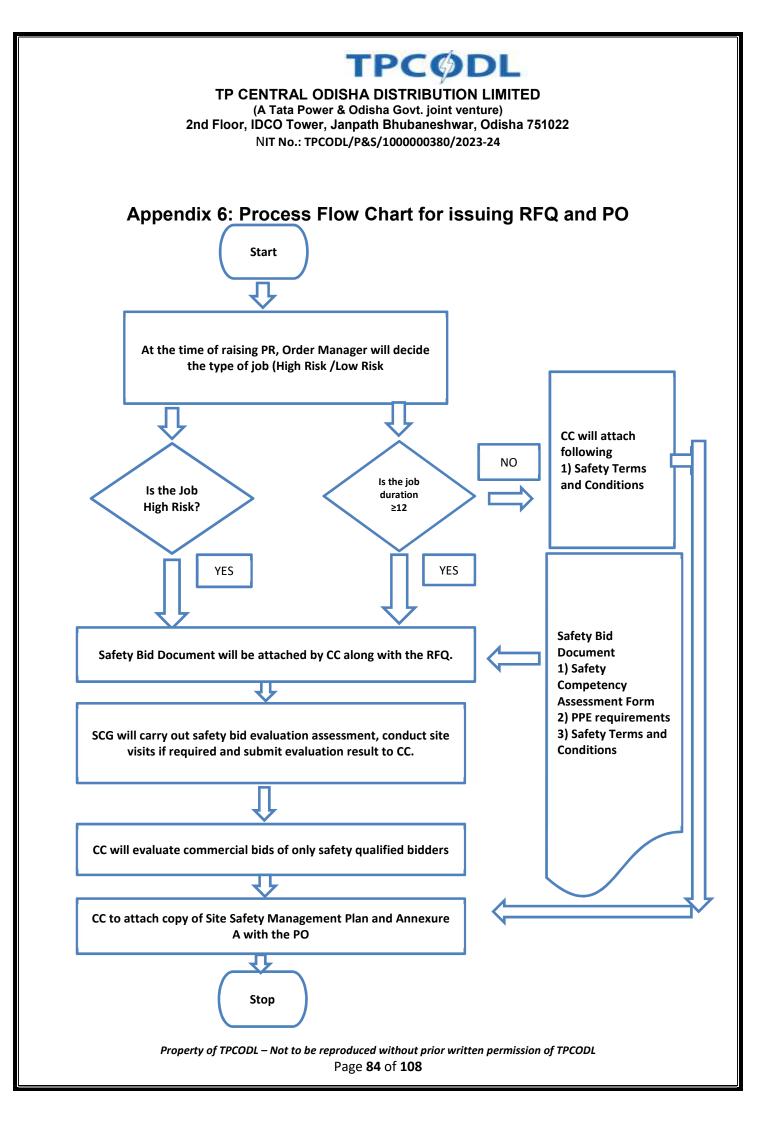
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102	Serious Violation of House Keeping (after 1st or 2nd warning to	5	Rs.10000/-
103.	be decided by Project Manager depending on the severity)	5	and above
	Repeat Violation of same nature		5 X Penalty
104.		5	for
			Violation
	Appointment of subcontractor without his Safety Bid Evaluation		5% of
105.	and/or without the permission of engineer in charge or Order	5	Contract
	manager.		Value



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Appendix 7: CSM-F-7 Safety Competency Form (Template)

Name of the Vendor/Bidder : -

Name of the Sub Vendor (If job is given to Sub Vendor) :

Description of the Job : -

Request for Quotation (RFQ) No.

Vendor/Bidder to mandatorily provide the below safety competency related information.

3-

1. Proposed Manpower Deployment Schedule: -

Category of Manpower Deployed	Minimum Qualification &	Proposed	Proposed Numbers against each category			
	Experience	month-wise				
	-	Month 1	Month 2		Month n	
Project Manager						
Site-In-Charge (Site Manager)						
Shift-in-Charge						
Safety Officers						
Supervisors						
Technicians						
a						
b						
Highly Skilled Workmen						
a						
b						
Skilled Workmen						
Semi-Skilled Workmen						
Unskilled Workmen						
Total Manpower						

Instructions to Bidder to fill:

1. Bidder to provide the overall site manpower deployment schedule as above.

2. Bidder to indicate (through colour code mentioned below) their direct and sub-contracted employees

Direct bidder employee

Partly Direct / Partly sub-contracted

Sub-Contracted

3. Against each of the category, bidder to indicate the minimum qualification and experience of the proposed manpower.

4. Rows can be added to also identify other specialised manpower e.g. specific details to be included for high risk activities operators 5. Columns can be extended to the actual duration of Site activities.

6. Bidder to note that if operations is in shifts, then Shift-in-charge / safety officers are required for each shift of operation.

2. List of Tools, Tackles, Machines and Equipment: -

Bidder/ Vendor to provide the list of tools, tackles, equipment **to be used during the job** / **project execution**. Bidder/Vendor to ensure that all the lifting tools and tackles, pressure vessels are duly certified by the competent person authorised by the Chief Inspector of Factories of the respective state prior to start of the job

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Sr. No.	Description of Tools / Tackles	Capacity / Rating	Quantity	Make	Remarks
1					
2					
3					
4					
5					
6					
7					

3. Safety Records:

Bidder to provide the details of fatalities and lost workday cases (LWDC), occurred in last three years (data to be provided for the last completed FY and preceding 2 years).

Description	Safety Data for Last 3 Years		
	ar 1 (Last FY)	Year 2	Year 3
	20	20	20
Fatalities (Nos.)			
Lost Workday Cases (Nos.)			

In case of no fatalities, LWDC during any year, the form may be filled stating NIL against the respective year. Bidders are encouraged to also submit the RCA / incident investigation reports and the learning's implemented out of the above reported incidents

4. Job Safety Plan/ Method Statement:

Bidder to provide / enclose a detailed Site/Job Safety Plan along with a Method statement detailing the execution philosophy (how the bidder intends to execute the Job/Project), identifying all key activities which are required to be performed by the contractor at Site. Bidder to also list down all high-risk activities and provide the Hazard Identification and Risk Assessment (HIRA) for all such high-risk activities involved in the site work.

(Use Method Statement template attached as annexure A and sample as attachment B)

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5. Management System Certification: -

Sr.	Certification	Yes /	lf Yes,	lf No,
		No	ar of Certification	et date for Certification
	ISO 9001			
	ISO 14001			
	OSHAS 18001 / ISO 45001			
	Any other (please			
	specify)			
Note:	Please attach certificates to su	upport abo	ove. In case not accredi	ted for above but applied for,
applic	ation letters may be attached.			

Appendix 8: CSM-F-8 PPE requirements

The Contractor shall ensure that the following PPE of Approved standards shall be available at all time and shall be used by his employees with no exception whatsoever.

	All contractor's employees at site	Safety Florescent Jacket (orange color), Safety
1		helmet & safety shoes with Composite or steel
		toe cap
	Workers mixing asphalt, cement,	Safety goggle & protective
2	lime / concrete	Hand gloves and footwear,
		Nose mask.
	Welders / Grinders	Welding screen/goggles, safety shoes,
3		leather hand gloves, aprons,
		leg guard
4	Stone breaker	Protective goggle, hearing protection, anti-
4		vibration hand gloves and Protective clothing.
5	Electricians	Rubber hand gloves &
		Electrical resistant shoes.
6	Workers engaged in insulation	Respiratory mask & leather
0	using glass wool etc.	Hand gloves, goggles.
	Workers engaged in coal handling plant,	Dust mask, Hand gloves, protective goggles.
7	ash handling plant and working in high	
	dust area.	
	Workers working at a height of 1.8	Double lanyard full body harness, fall arrestor
8	Meter or above.	and safety net made of reinforced nylon fiber
		ropes firmly supported with steel structures

• PPE shall be conforming to BIS/DGMS/DIN specifications, in good condition and shall be comfortable to his employees, when used.

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Site Safety Plan / Method Statement (Template)

This Method Statement describes the specific safe working methods which will be used to carry out the described work. It gives details of work procedure with control measures to counter health and safety issues related to this work. The listed content of this Method Statement can be changed/modified subjected to job scope / specifications, but task specific method statement once finalized & approved, that should not be modified during work execution without permission from the approving authority.

Project/Job Name			
Scope of work: -			
Drawing References: -			
Detail of Sub contractors			
involved: -			
Method Statement Prepared By	/: -	<u>Signature</u>	Date
Designation: - (e.g. Site Manag	er)		

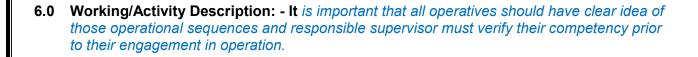
1.0 Introduction (*Describe purpose of the work, give details of type and scope of work being carried out);*

2.0 Location of Work (*Give site address and precise location on site where work is to be carried out.*)

3.0 Safety Document /Specific Approval Required (Details of any safety documents or specific approval i.e. Client specific approval required to undertake the work)

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5.0 Role & Responsibilities of Personnel/Parties Involved in activities: -Clearly define role and responsibilities of all personnel involved in activity i.e. Site management staff including subcontractors' parties- Main contractor Project/Site Manager, Sub Contractor Site Manager, Project Engineer, Safety officer, Competent Supervisory Staff)



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6.1 Pre-Working Checks

6.2 Resources (Equipment, tools including manpower) Details *i.e.* Equipment and Tools, specific operational equipment, test kits, lifting resources, Details of materials to be used in operation, including any reference to COSHH assessments in case of use of any chemicals, Details of the manpower allocated to the task, e.g. titles, qualifications, competences, direct manpower, contractors. Details of plant, tools and equipment to be used for the work, including the availability of relevant statutory documents, checks or inspections etc. Details of fencing, barriers, cones, chains, dangers notices, warning signs etc.

Tools red	Tools required for work:							
Sr.No	Tools /Equipment /Machine	UOM	Required Qty.	Remark				
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

6.4 Operational Sequence of work: - Full description of the work, setting out the methodology in a sequential manner, including any reference to any identified operational restraints. Also refer here sec. 5.0 responsibilities part for every step of work sequence).

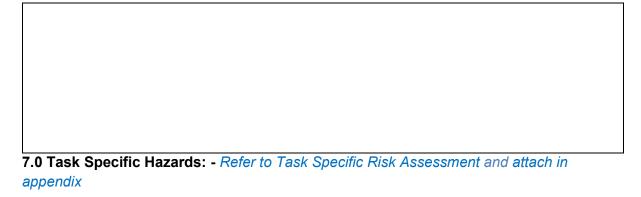
Sr.No	Activity	Details of job sequence	Risk Involved	Control Checks		
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1.		
2.		
3		
4		
5.		

6.7 Final Checks & restoration of work area after completion of work :- *Those checks to be carried out by responsible supervisor in witness of his line hierarchy by use of specific checklist of certain operational checks and once those completed satisfactory, PTW (if applicable) to be closed and isolation arrangements to be restored by removing barricades/cautionary tags.*



Attachment: - Specific Risk Assessment

In addition, please provide below control measures in risk assessment (as applicable).

Fall Protection Measures: (Where Work at height cannot be							
avoided)							
Control Measures for							
Electrical Hazards							
Others Hazard if any							
(please provide details)							
Hazardous Substances to be used in job : (Attach MSDS if required)	Acute Toxic	Health Hazard	Corrosive	Dangerous For the environment	Oxidising	Highly	Explosives
、 · · /	Yes /No	Yes /No	Yes /No	Yes /No	Yes /No	Yes /No	Ýes /No

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7.0 Emergency Provisions: -*Relevant operational possibility of a programme in the case of emergency situation i.e. electrical supply restoration. In addition emergency response provisions i.e. first aiders, fire fighting, and first aid arrangements, nearest onsite/offsite emergency response also to be considered during emergency planning.*

8.0 "5S issues" / Waste Disposal/ Housekeeping and Environmental issues: -Details waste disposal processes and or housekeeping activities, Details of environmental impacts and control measures.

9.0 Personal Protective Equipment (PPE):- (*Tick on PPE requirements for the task/Job*

Required Personnel	A	0	E.	0	0	9	Other:
Protective Equipment:				U			1. Hi-Viz
	Safety Boots	Hard Hats	Safety Gloves	Hearing	Eye Protection	Respiratory Protection	2. Coveralls
				Protection		Protection	3.

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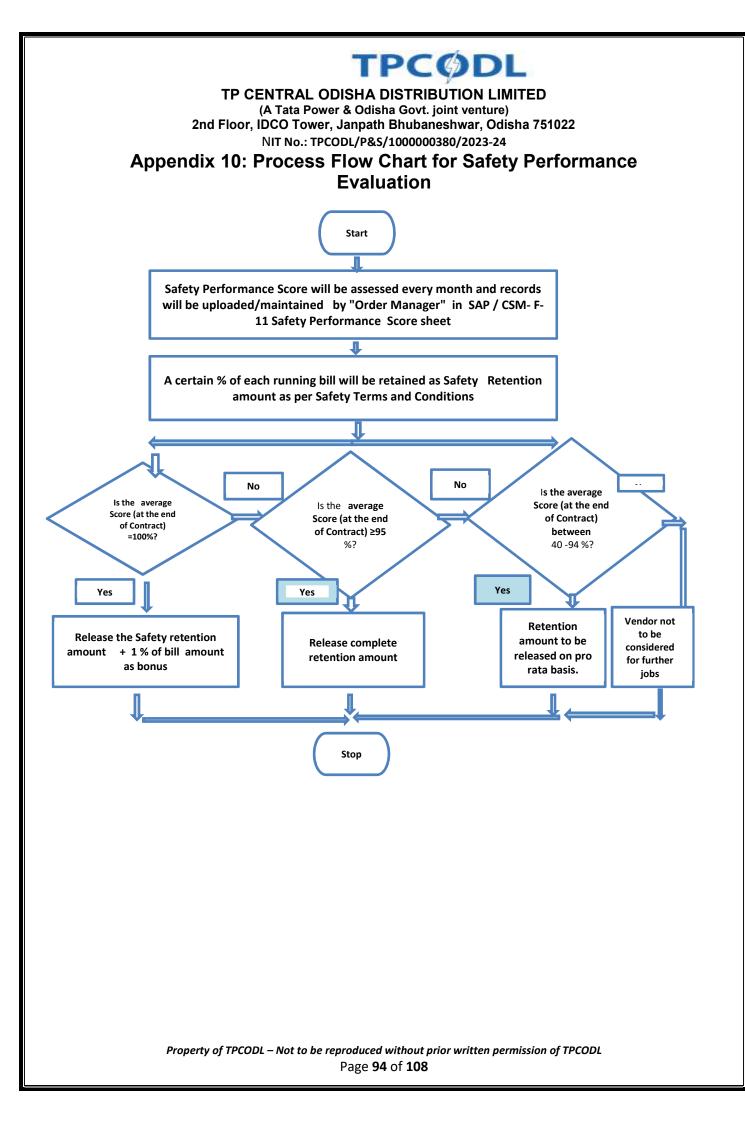
10.0 First Aid facilities and Nearby Hospitals Details

		Name of On-Site First Aider:	
	First Aid Facilities:	First Aid Box Location:	
First Aid		Location of Nearest Hospital:	

11.0 Occupational Health, Fitness and COVID-19 related Preparedness:

1. Please give a brief writeup / methodology of your organization planned to avoid impact of the COVID-19 pandemic at Tata Power working site.

2. Please give brief details of occupational health and hygiene related interventions planned by your organisation to ensure good health and fitness of workforce at Tata Power site.



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Appendix 11: CSM- F-11 Safety Performance Score

S. No	Parameter	Unit of Measurement	Target	Weight age	Actual Performanc e	Actual Score
Lead	l Indicator					
1	% of Employee certified in TPSDI/Authorized agency	Number	50%	10		
2	CFSA score (Annexure 6.1)	Average Severity of Violations	1.49	20		
3	Monthly inspection completed for Critical Equipment, lifting Tools & Tackles and hand tools used at site	Number	80%	10		
4	Condition of critical tools, tackles and equipment	Number	100%	10		
Lag	Indicator					
1	Number of Fatalities	No	0	30		
2	Number of Lost workday case (LWDC) (reportable)	No	0	10		
3	Man-days Lost	Man-days	0	10		
					Final Score	
					Invoice Value	
					Amount to be released	

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Safety Performance Evaluation Criteria

Lead Indicators

	Target						
% of Employee certified in TPSDI/Authorized agency	50%	100%		Less tha	an 100	1%	
Score		10		5			
	Target						
CFSA score	<=1.49			.5 to 2.5	2.51 3.5	to	>=3.51
Score	20		1	5	10		0
	Target						
Monthly inspection completed for Critical Equipment, lifting Tools & Tackles and hand tools used at site	>=80%		79	to 50%		<50	%
Score	10		7			0	
	Target						
Condition of critical tools, tackles and equipment	100%			<100%			
Score	10			0			

Lag Indicators

Number of			
Fatalities	0	>0	
Score	30	0	
Number of LWDC			
(reportable)	0	>0	
Score	10	0	
Number of man			
days lost	0	1 to 5	>5
Score	10	5	0

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Appendix 12: CSM-F-5 Safety Potential Evaluation Criteria for Vendor Registration

At the time of vendor registration, vendor will be registered under 3 categories

- 1) Category A- Vendors eligible to carry out High risk Jobs
- 2) Category B- Vendors eligible to carry out technical jobs that are low risk
- 3) Category C- Vendors eligible to carry out administrative and office jobs
- 4) Category D- Outsourced Jobs / Consultants /Medical Practitioners / Suppliers etc

For vendors to be registered under **Category A**, a safety potential evaluation will be carried out based on following parameters.

Sr. No	Description	Weight age (%)	Actual Score	Remarks
1	Does the contractor have a valid ISO 45001/ OHSAS 18001/ Certification?	30		
2	During site visit check for safety adequacy at site	30		Annexure - 12.1
3	Check the Safety statistics of Contractor	10		Annexure - 12.2
4	Check the Safety orientation & training process of Contractor	15		Annexure 12.3
5	Check the organizational structure for safety professionals & engineers / supervisors.	10		Annexure - 12.4
6	Certified/skilled workers as a percentage of overall workforce	5		
	Total	100		

Evaluation Criteria for Category B

Sr. No	Description	Weight age (%)	Actual Score	Remarks
1	Does the contractor have a valid ISO 9001 certification?	30		
2	During site visit check for safety adequacy at site	30		Annexure -12.1
3	Check the Safety statistics of Contractor	10		Annexure -12.2

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4	Check the Safety orientation &	15		Annexure -12.3			
	training process of Contractor						
5	Check the organizational structure for safety professionals & engineers / supervisors.	10		Annexure -12.4			
6	Certified/skilled workers as a percentage of overall workforce	5					
	Total	100					

Evaluation Criteria for Category C

Sr. No	Description	Weight age (%)	Actual Score	Remarks
1	Does the contractor have a valid ISO 9001 certification?	40		
2	Check the Safety statistics of Contractor	40		Annexure - 12.2
3	Check the Safety orientation & training process of Contractor	20		Annexure - 12.3
	Total	100		

Annexure 12.1: Evaluation Criteria for Category D:

Category D does not require any evaluation as it is for outsourced job outside the Tata Power company premise.

Annexure 12.2

	Check List – Adequacy of Safety Statistics of	of Service Provider	Actual Marks obtained	Remarks
1	Check the safety statistics for last 3 years (LTIFR and LTISR)	Marks Statistics 5 available 5 Statistics not 0 available 0		
2	Check the trend LTIFR for last 3 years	LTIFR value Marks 0 to 0.2 5 0.21 to 0.3 2.5 >0.3 0		
3	Check the trend of LTISR last 3 years	LTISR value Marks 0 to 2 5 2 to 3 2.5 >3 0		
4	Has there been any Prosecution/Conviction for any contravention with regard to Safety & Health provisions under the Factories Act /Electricity Act/ BOCW Act and Rules framed there under?	Marks No Prosecution 10 Prosecution 0 To be provided in written on letter head		
	Total	25		

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Annexure 12.3

Che	ck List – Adequacy of Safety orientation & train provider	ervice	Actual Marks obtained	
1	Records of safety trainings provided to safety officer/supervisor/workmen during last 1 year as percentage(%) of total employed by service provider	Safety Officer ≥80% of employees 30 to 79 % of employee <50% Safety Supervisor ≥80% of employees 50 to 79 % of employee <50% Workmen ≥80% of employees 50 to 79 % of employees 50 to 79 % of employee <50%	Marks 5 2.5 0 0 0 Marks 10 6 0 10 6 0 0	
	Total	25		1

Annexure 12.4

Che	ck List – Adequacy of organizational structure fo engineers / supervisors.	or safety professionals &	Actual Marks obtained
1	Check availability of number of safety officers from government recognized institute as per workforce strength.	Marks 1 in 50 employees 10 1 in 100 employee 6 Any other 0	
3	Check availability of qualified workforce from government recognized institute/TPSDI.	Marks 100% of safety 5 officers qualified 50 – 99% of 3 safety officers qualified <50 0	
	Total	15	

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Appendix 13: CSM-F-9 Safety Bid Evaluation Criteria

The User has to select whether the job is high risk/ long duration at time of raising the PR.

- 1) The decision whether job is "**high risk** "or not has to be made by order manager on the basis of Risk involved (Risk Priority Number in HIRA) of the Jobs. An indicative list of high-risk jobs is attached as annexure
- 2) If a technical job is of low risk with estimated duration of the contract is 1 year or more the job should be treated as "**long duration**".
- 3) All Safety bids will be evaluated by Safety Concurrence Group. Structure of SCG will be declared by Corporate safety. Corporate safety team will audit bid evaluation process of a few selected jobs and Quality of evaluated safety Bids.
- 4) Records of jobs sent by for Safety Bid evaluation shall be maintained by Corporate Contract team in existing tracing sheet along with other jobs.
- 5) For Safety Bid Evaluation will be based on following parameters.

		Minimum Requirement	Weight age (%)	Score Obtained
	Safety Officer (1 per 500 workers)	 Qualification- Officer shall possess Advance Diploma In Industrial Safety by state technical board. Experience- Minimum 1-year experience in relevant field as mentioned in the job in PR. 	5	
Manpower	Safety Supervisor (1 per work site up to max. 50 workers)	Qualification- Supervisor shall possess ITI/ Diploma in relevant field.	5	
	Technician (Skilled workers as electrician, rigger, fitter, welder, cable jointer, line men etc)	Experience - Minimum 2 year experience in relevant field as mentioned in the job in PR. Training – Trained and certified by TPSDI or equivalent institute in relevant safety procedures.	5	

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Equipment/The list of Equipment /Machines / Tools and tackles to be used for job to be submitted by the contractor.Tools & andSafety RecordsSafety RecordsSafety Records for last 3 years (as per vendor or as per our knowledge) – Recommendation?15HIRA/Contract Job Safety PlanHIRA and Job Safety PlanMore weightAdequacy of HIRA and Job Safety Plan15	
Tools & and Tackles& Tackles(lifting and shifting tools)submitted by the contractor. Evaluation of the list will be carried out based on 1) Suitability as per the relevant job 2) Make and age of the tools from authorized agencies defined by the user. 3) Certification by the competent authority of respective state.30Safety RecordsSafety RecordsSafety RecordsSafety Records for last 3 years (as per vendor or as per our knowledge) – Recommendation?15	
Tools & Tacklesand tools)shifting tools)Evaluation of the list will be carried out based on 1) Suitability as per the relevant job 2) Make and age of the tools from authorized agencies defined by the user. 3) Certification by the competent authority of respective state.30Safety RecordsSafety RecordsSafety Records for last 3 years (as per vendor or as per our knowledge) – Recommendation?15	
Tools & Tacklestools)based on 1) Suitability as per the relevant job 2) Make and age of the tools from authorized agencies defined by the user.30Safety RecordsSafety RecordsSafety Records for last 3 years (as per vendor or as per our knowledge) – Recommendation?15	
Tackles 1) Suitability as per the relevant job 30 2) Make and age of the tools from authorized agencies defined by the user. 3) Certification by the competent authority of respective state. 3) Certification by the competent authority of respective state. Safety Records Safety Records for last 3 years (as per vendor or as per our knowledge) – Recommendation? 15 HIRA/Contract Adequacy of HIRA and Job Safety Plan with respect to relevant job. More weight 15	
Safety Safety Records Safety Records Safety Records for last 3 years (as per vendor or as per our knowledge) – 15 HIRA/Contract Adequacy of HIRA and Job Safety Plan with respect to relevant job. More weight More weight	
the user. 3) Certification by the competent authority of respective state. Safety Records Safety Records Safety Records Safety Records for last 3 years (as per vendor or as per our knowledge) – Recommendation? HIRA/Contract Adequacy of HIRA and Job Safety Plan with respect to relevant job. More weight	
3) Certification by the competent authority of respective state. Safety Records Safety Records for last 3 years (as per vendor or as per our knowledge) – 15 Records HIRA/Contract Adequacy of HIRA and Job Safety Plan Job Safety Plan with respect to relevant job. More weight	
Safety Safety Records Safety Records for last 3 years (as per vendor or as per our knowledge) – 15 Records HIRA/Contract Adequacy of HIRA and Job Safety Plan with respect to relevant job. More weight	
Sarety Records vendor or as per our knowledge) – Recommendation? 15 HIRA/Contract Adequacy of HIRA and Job Safety Plan Job Safety Plan with respect to relevant job. More weight	
Records Vendor or as per our knowledge) – Recommendation? 15 HIRA/Contract Adequacy of HIRA and Job Safety Plan Job Safety Plan with respect to relevant job. More weight	
HIRA/Contract Adequacy of HIRA and Job Safety Plan	
Job Safety Plan with respect to relevant job. More weight	
Job Safety Plan with respect to relevant job. More weight	
Satety	
Plan age will be given to vendor for using 20	
mechanized work and advanced tools	
and equipment	
Accredited ISO-9001 ISO-9001 2	
Bodies ISO-14001 ISO-14001 3	
certificate OHSAS 18001 OHSAS 18001/ISO 45000 15	
ISO 45000	
Total Score	

6) Vendor entitled to carry out the job only when qualified for the safety evaluation as follows:

Contractor is qualified in safety bid only if his total score is more than 70% in all category 1 jobs such as high risk/long duration.

- 7) The Corporate Contract has to ensure that the vendor provides the filled "Safety Competency Form" along with the quotation.
- 8) Corporate Contract will forward the Safety Competency Form received from the contractor to the Safety Concurrence Group for evaluation.
- 9) In case SCG wants to visit the site, the Safety Competency will be based on evaluation at the time of site visit Annexure 13.1

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Annexure -13.1:

Che	cklist to be used: During site visit to check the adequacy Sa	fety systems.				
		Observation	Score*			
			(1-5)			
1	Check the adequacy of safety policy and Safety					
	Management system of the contractor.					
2	Does the contractor have written down safety procedures?					
3	Check the records of Near miss, unsafe act, unsafe					
	conditions and incidents.					
4	Check the organization setup to implement the safety					
	systems at site (safety officer, safety supervisor)					
5	Check whether safety meeting and toolbox talk carried out					
	regularly and records maintained or not.					
6	Is the process of incident investigation adequate or not?					
7	Verify incident reporting and recording system					
8	Check the usage of equipment/tools and tackles.					
9	Check for housekeeping at site					
10	Check the use of PPEs and general behavior of workforce					
	towards safety					
	Total Score					
	Site Visit Score					
looro?	rating on the scale of 1.5 to be given based on the observations or	aita Saara of 1 i	a tha lawa			

Score*- rating on the scale of 1-5 to be given based on the observations on site. Score of 1 is the lowest and core of 5 is the highest.

Appendix 14: CSM-F-11.1 CFSA Format

CONTRACTOR FIELD SAFETY AUDIT					
Project Name :					
Date:					
Description of Severity rating:	Audit Team:				
1 = Untidy area, minor issues, sets poor example					
2 = Restricted access, unacceptable trash, disorderly					
3 = Rule or procedure violation, potential injury					
4 = Unsafe condition, serious injury potential					
5 = Immediate serious injury potential, stop activity immediately and correct	Audit Time:	10:00hrs -11:30 hrs			

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				Weath		52/1 03	/10000	003807	2023-24	cloudy			
	Responsibl e			Number Personnel Violations Observed			s	Remark s	Leading Indicators				
	Descriptio n	Engineer	Contractors	Good Citizens	Violators	Number of Violations	Severity	Violations x Severity		4 & 5	BPE	Unsafe Act	Unsafe Condition
Are a													
1													
	Sub Totals			0	0	0	0	0		0	0	0	0
	% of Observed People Working Safely												
	Number of Violations												
	Average Severity of Violations												
	Number of Severity 4 & 5 Violations												
	% of 4 & 5 Violations												
	Approxima te Number of Workers Observed												
	Number of People on Site												
	% of Workers Observed												

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Appendix 15: Indicative List of High-Risk Jobs

To access the exhaustive list of High-risk jobs, please refer the following documents

- 1) High Risk Jobs- Generation
- 2) High Risk Jobs- T&D
- 3) High Risk Jobs- Renewable

Indi	Indicative List of High-Risk Jobs -Generation Cluster					
SI. No.	Jobs					
1	Demolition / Painting of Chimney					
2	Survey Sounding Jobs in Sea					
3	Dredging at Coal Birth Jetty					
4	Maintenance / Testing and Replacement of Extra High Voltage (132 KV etc.) Switchyard equipment					
5	Maintenance of EOT Cranes					
6	Deep excavation (5 feet or more) near existing buildings /Structure s					
7	Working inside confined spaces (entry through manhole)					
8	Operation Maintenance of elevators					
9	Working on Live control Circuits for identification of faults					
10	Cable laying and termination Jobs					

	Indicative List of High-Risk Jobs - T&D Cluster	-	
SI. No.	Jobs		
1	Transmission Line Tower Erection on columns, near live lines, In		
	congested areas, In creeks, In the Sea		
	Conductor Stringing on Tower Using Tensioner & Puller in the area such		
2	as Line Crossing, Near Live lines, Congested Areas, Road Crossing,		
	Bridge Crossing, Railway line Crossing, In creeks ,In the Sea		
3	Cable Pulling by Using winch Machine in City and Rural Areas		
4	Hot Washing of HT and Extra HT lines, Towers and switchyards		
4	equipment		
5	Installation of Lifts		
6	Installation of EOT Cranes		
7	Tower Dismantling		
8	Working on H Frame /Pole mounted Transformers		
9	Excavation in operational Area heaving power cables in receiving station		
10	Identification and spiking of cable / disconnection of cables from poles		

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Indicative List of High-Risk Jobs - Renewable Cluster				
SI. No.	Jobs			
1	Working on Electrical Panels			
2	Hi Potting of Equipment			
3	Battery commissioning and maintenance			
4	Working on the nasal of Wind Turbine			
5	Working on live electrical switchyard, material Handling and Equipment installation			
6	Roof Top Solar Panels Installation and maintenance			
7	Working in live Electrical Switchyard, Material Handling, equipment installation			
8	All maintenance activities that requires climbing on Towers /Structures / Transformer/ GODs			
9	Loading and Unloading of Solar Panels on trucks			
10	Structural Repair /Dismantling work at height.			

TPCODL TP CENTRAL ODISHA DISTRIBUTION LIMITED (A Tata Power & Odisha Govt. joint venture) 2nd Floor, IDCO Tower, Janpath Bhubaneshwar, Odisha 751022 NIT No.: TPCODL/P&S/100000380/2023-24 <u>ANNEXURE X</u> <u>TATA CODE OF CONDUCT</u>

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: pravin.jain@tpcentralodisha.com.

TPCODL TP CENTRAL ODISHA DISTRIBUTION LIMITED (A Tata Power & Odisha Govt. joint venture) 2nd Floor, IDCO Tower, Janpath Bhubaneshwar, Odisha 751022 NIT No.: TPCODL/P&S/1000000380/2023-24 <u>ANNEXURE XI</u> ENVIRONMENT & SUSTAINABILITY POLICY



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

Prinz

(Praveer Sinha) CEO & Managing Director

TATA POWER Lighting up Lives!

Date: 15th June, 2018

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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: 15th June, 2018

TATA POWER

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STANDARD TECHNICAL SPECIFICATION COVER SHEET

Specification No. : ENG-HV-2007

Specification Name : ENG-ELC-006- TECHNICAL SPECIFICATION FOR 11KV XLPE ARMOURED CABLE- R1

JYOTIPRAKASH MOHANTY	SHANTAPRIYA JENA	SATYA PRASAD NAYAK	Ranjan Kumar Sahoo	VARUN BHATNAGAR	VARUN BHATNAGAR
Prepared by	Reviewed by	Reviewed by	Reviewed by	Approved by	Released by
TPWODL	TPNODL	TPCODL	TPSODL	TPWODL	TPWODL
10-12-2022	10-12-2022	12-12-2022	12-12-2022	13-12-2022	13-12-2022

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Specification Name: TECHNICAL SPECIFICATION FOR 11 kV XLPE ARMOURED CABLE

CONTENTS

- 1. SCOPE
- 2. APPLICABLE STANDARDS
- 3. CLIMATIC CONDITIONS OF THE INSTALLATION

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- 4. GENERAL TECHNICAL REQUIREMENTS
- 5. GENERAL CONSTRUCTIONS
- 6. MARKING
- 7. TESTS
- 8. TYPE TEST CERTIFICATES
- 9. PRE-DISPATCH INSPECTION
- 10. INSPECTION AFTER RECEIPT AT STORES
- 11. GUARANTEE
- 12. PACKING
- 13. TENDER SAMPLE
- 14. QUALITY CONTROL
- **15.** TESTING FACILITIES
- 16. MANUFACTURING ACTIVITIES
- 17. SPARES, ACCESSORIES AND TOOLS
- 18. DRAWINGS AND DOCUMENTS
- 19. SCHEDULE "A" GUARANTEED TECHNICAL PARTICULARS
- **20.** SCHEDULE "B" DEVIATIONS





Specification Name: TECHNICAL SPECIFICATION FOR 11 kV XLPE ARMOURED CABLE

1. SCOPE:

This specification covers technical requirements of design, manufacture, testing at manufacturer's works, packing, forwarding, supply and unloading at site/store, performance of 11 kV XLPE ARMOURED cable, for trouble free and efficient operations.

Inclusive sizes: -

3 CORE CABLE	1 CORE CABLE	
3C X 95 sq.mm.	1C X 300 sq.mm.	
3C X 120 sq.mm.	10 X 400 co mm	
3C X 185 sq.mm.	1C X 400 sq.mm.	
3C X 150 sq.mm.	- 1C X 630 sq.mm.	
3C X 300 sq.mm.		
3C X 400 sq.mm.	10 X 1000 as mm	
3C X 400 sq.mm. (co-extruded cable)	1C X 1000 sq.mm.	

2. APPLICABLE STANDARDS:

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 authorities:

IS 7098 (Part 2)	Cross-linked Polyethylene (XLPE) insulation for Cables
IS 8130	Conductors for insulated electrical cables and flexible cords
IS 10418	Specification for Drums for Electric cables
IEC 60228	Conductor for insulated cables
IS 3975	Low carbon galvanized steel wires, formed wires and tapes for armoring of cables
IS 5831	Specification for PVC insulation sheath for electric cables
IEC-60811	Test methods for insulations and sheaths of electric cables and cords.
ASTM D 6097	Standard test method for relative resistance to vented water tree growth in Solid Dielectric insulating materials
ICEA T 31-610	Test method for conducting longitudinal water penetration resistance tests on blocked conductors
IS 10810	Methods of tests for cables
IS 4905	Methods for random sampling
IS 4984	High density polyethylene pipes for water supply
IS 2530	Methods of test for polyethylene moulding materials and polyethylene compounds

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TPCØDL TPWØDL	TPNØDL TPSØDL	Specification No: ENG-HV-2007 Specification Name: TECHNICAL SPECIFICATION FOR 11 kV XLPE ARMOURED CABLE
IS 4826	Specification for hot dippe	d galvanized coatings on round steel wires
IS 5:2007	Colors for ready mixed pa	ints and enamels
ASTM 2863		Measuring the Minimum Oxygen Candle-Like Combustion of Plastics
IEC 60754		for the measurement of the amount of he combustion of materials taken from ole constructions
IEC-60502 (Part-2)	Power cables with extruded insulation and their accessories for rated voltages from 1 kV (Um = 1.2 kV) up to 30 kV (Um = 36 kV) - Part 2: 22 kV Cables for rated voltages from 6 kV (Um = 7.2 kV) up to 30 kV (Um = 36 kV).	
IEC 332	Test on electric cables on the fire conditions	
ASTM 2843	Standard Test Method for Density of Smoke from the Burning or Decomposition of Plastics	

3. CLIMATIC CONDITIONS OF THE INSTALLATION:

SL.NO.	CONDTIONS	VALUES
1	Max. altitude above sea level	1200m
2	Max. Ambient Temperature	50 °C
3	Max. Daily average ambient temp	35 ℃
4	Min Ambient Temp	0°C
5	Maximum temperature attainable by an object exposed to sun	60 °C
6	Maximum Humidity	95%
7	Minimum Humidity	10%
8	Average No. of thunderstorm days per annum	70
9	Average Annual Rainfall	150 cm
10	Average No. of rainy days per annum	120
11	Thermal Resistivity of soil	150 Deg. Ccm/W
12	Wind Pressure	126 kg/sq. m up to an elevation of 10 meter.



TPNØDL Speci TECHN ABMC

Specification Name: TECHNICAL SPECIFICATION FOR 11 kV XLPE ARMOURED CABLE

14	Earthquakes of intensity in horizontal direction	equivalent to seismic acceleration of 0.3g
15	Earthquakes of intensity in vertical direction	equivalent to seismic acceleration of 0.15g
16	Wind velocity	300 km/hr.

Environmentally, some of the regions, where the work will take place include coastal areas, subject to high relative humidity, which can give rise to condensation. Onshore winds will frequently be salt laden. On occasions, the combination of salt and condensation may create pollution conditions for outdoor insulators. Some places are in heavily industrial polluted areas. Therefore, Outdoor material and equipment shall be designed and protected for use in exposed, heavily polluted, salty, corrosive and humid coastal atmosphere.

The atmosphere is generally laden with mild acid and dust in suspension during thedry 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 0.1 g.

4. GENERAL TECHNICAL REQUIREMENTS:

S. No.	Description	Requirement			
0.110.	Description	3 CORE CABLE	1 CORE CABLE		
1	Voltage grade	11 kV (Earthed system)			
2	Max System voltage	12 k	V		
3	Frequency	50 H	lz		
4	Variation in frequency	+/- 3	%		
5	Conductor	Watertight Stranded Alumin	um (compacted circular)		
6	Conductor screen	Semi conducting ta	ape and screen		
7	Insulation	XLP	E		
8		Shall have three layers:	Shall have three layers:		
9	Insulation screen	a) Bonded Semiconducting, b) Semiconducting water swellable tape, c) Metallic copper tape	 a) Bonded Semiconducting, b) Semiconducting water swellable tape, c) Metallic copper tape d) Polyester transparent tape over copper screen 		
10	Core identification strip	Beneath copper screen	NA		
11	Inner sheath	Pressure Extruded PVC ST- 2 with PP fillers Extruded PVC ST-2			
S. No.	Description	Require	ement		
J. NU.	Description	3 CORE CABLE	1 CORE CABLE		

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Specification Name:

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12	Armour	GI wire round binded with rubberized cotton binding tape	Aluminum wire binded by rubberized cotton tape
13	Outer sheath	PVC ST-2 FRLSH type of color ' as per IS 5:2	
14	Outer sheath (for co-extruded cable)	 a) Inner layer: HDPE ST-7, Crimson Red shade b) Outer sheath: HDPE ST-7, Black color 	NA
15	Guarantee	up to a period of 60 months from 72 months from the date of last s contract whichever is earlier.	

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5. GENERAL CONSTRUCTION:

The cross-linked polyethylene insulated (XLPE) 11 kV Cable (Dry cured & water cooled) shall be manufactured and tested strictly in accordance with the Indian Standard IS 7098 (Part – 2)/ Relevant IEC/International standards and its latest amendments.

All material used in the manufacturing of cables shall be new and shall be selected as the best available for the intended use.

The rating factors for variation in ground and air temperature, depth of laying, thermal resistivity of soil and different laying configuration of cables shall be provided by the Bidder.

S. No.	Parameter				Require	ement			
1	Conductor				As per I	S 8130			
2	Class				Clas	s II			
3	Material			Plain	Aluminium	n, grade	H2/H4		
4	Shape			Stran	ded Comp	acted C	Circular		
5	Nominal size ofconductor mm2	95	120	150	185	300	400	630	1000
6	Min. number ofstrands	15	15	15	30	30	53	53	53
7	Max. DC resistance@ 20 deg C (Ohm/km)	0.32	0.25	0.206	0.164	0.1	0.08	0.047	0.03
8	Conductor Short circuit current ratingfor 1 second	9 kA	11.3 kA	14.2 kA	17.5 kA	28.3 kA	37.7 kA	59.4 kA	94.3 kA
9	Min. weight ofconductor (kg/km/core)	24 4	308	390	480	780	1080	1650	2600

5.1 Conductor



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10	Longitudinal water sealing of conductor	 a) Non-conductive water swellable yarn/ tape/ combination of both shall be provided in between interstices of the conductor. b) Also, this water swellable tape and yarn shall be compatible to withstand conductor continuous temperature of 90 deg C and short circuit temperature of 250 deg C without any decay. c) It shall not affect the electrical conductivity of the conductor.
11	Cleanliness anduniformity	 a) Before stranding, the cross-section of the Aluminium conductor shall be circular, and shall have uniform smooth surface, free from sharp edges and free from any defects. b) Stranded Conductor shall be free from oil traces & aluminum dust. Conductor (after stranding) shall be super cleaned c) Traces of aluminum dust on conductor or conductor screen shall not be acceptable.
12	Conductor jointing	Not acceptable in any strand or in any conductor after it is stranded.
13	Raw material supplier ,	Conductor raw material shall be procured from reputed suppliers viz., BALCO/ HINDALCO/ NALCO/ Vedanta / Equivalent (in-line with TS)
14	Diameter of conductor	To be specified by bidder

5.2 Conductor Screen:

S. No.	Parameter	Requirement
1	Material	1 st layer: Semi-conducting tape
1	Material	2 nd layer: Semi-conducting compound
		1 st layer: Semi-conducting tape shall be applied over conductor
2	Configuration	with nominal thickness of 0.2 mm.
2	Configuration	2 nd layer: Semi-conducting compound screen shall be applied
		through triple extrusion process.
3	Min. thickness	Minimum thickness of semi-conducting compound screen shall
3		be 0.5 mm at any point of measurement.
4	Resistivity	Resistivity of semiconducting conductor screen shall not exceed
4		1000 Ω-m
	I Iniformity on interfacial	Interfacial region between conductor screen and insulation shall
5	Uniformity on interfacial region	be uniform. Protrusion/ convolution/ other defects are not
		acceptable in the region.
6	Raw material supplier	Semiconducting compound shall be procured from reputed raw material suppliers viz. Dow/ Borealis/ Hanwa/ Equivalent (in-line with TS)



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5.3 Insulation:

S. No.	Parameter	Requirement
1	Material and extrusion	XLPE insulation shall be applied through CCV/VCV line by triple
I	process	extrusion process with 'Dry Curing' and 'Water Cooling'.
2	Raw material supplier	 a) XLPE compound shall be super cleaned and procured from reputed raw material suppliers viz. Dow/Borealis/Hanwa/ Equivalent (in-line with TS) b) Both XLPE and semi conductive compounds shall be used from same raw material supplier.
3	Thickness and Eccentricity	 a) Nominal thickness shall be 3.6 mm. b) Minimum thickness shall be 3.14 mm at any point of measurement. c) Eccentricity of insulation shall not exceed 10%.
4	Thermal stability	The insulation properties shall be stable under thermal conditions arising out of continuous operation at conductor temperature of 90 deg. C rising momentarily to 250 deg. C under short circuit conditions.
5	Cleanliness and uniformity	Interfacial region between insulation and insulation screen shall be uniform. Protrusion/convolution/ other defects are not acceptable. Core shall be free from void and contamination.

5.4 Insulation Screen & Core identification strip:

S. No.	Parameter	Requirement
		a) 1 st layer: Semi-conducting compound
1	Material	b) 2nd layer : Semi-conducting water swellable tape
		c) 3rd layer: Annealed copper tape
		a) 1 st layer: Non-Metallic Part:
		Extruded Insulation semiconducting screen shall be bonded
		type.
		Resistivity shall not exceed 500 Ω -meter.
		Surface of insulation screen shall be smooth, free from cavity/
		nicks/scratches/ other visible defects.
		Min. thickness shall be 0.3 mm at any point of measurement.
2	Configuration	b) 2 nd layer: Water Swellable tape:
		Semi-conducting water swellable tapes shall be applied over non-metallic screen.
		Minimum thickness of water swellable shall be 0.3 mm and
		minimum overlapping shall be 15%.
		Core identification strip:
		<u>3 CORE CABLE:</u> Each of the three core identification strips shall



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S. No.	Parameter	Requirement
		be applied longitudinally beneath copper screen. Width of the colored strip shall be 7-10 mm. R, Y, B.
		<u>1 Core cable: - NA</u>
		c) 3 rd layer: Metallic Part:
		Annealed copper tape, helically wound over the water swellable tape with minimum 15% overlap.
		Minimum thickness shall be 0.045 mm at any point of measurement.
3	Raw material supplier	Semiconducting compound shall be procured from reputed raw material suppliers viz.,Dow/Borealis/Hanwa / Equivalent (in-line with TS)
4	Diameter of cores	To be specified by bidder
5	Weight of cores/km (approx.)	To be specified by bidder
6	Weight of copper tape/km (approx.)	To be specified by bidder

5.5 Fillers:

S.	Parameter	Requirement		
No.	Falainetei	3 CORE CABLE	1 CORE CABLE	
1	Material	Virgin Polypropylene fibers of natural color	ΝΔ	
2	Configuration Virgin Polypropylene fibers shall be tightly filled in empty space as fillers. NA		INA	

5.6 Inner Sheath:

S.	Parameter	Requirement			
No.	Farameter	3 CORE CABLE	1 CORE CABLE		
1	Material	Black colored Polyvinyl chloride (PVC) type ST-2 compound			
2	Configuration	The laid-up cores shall be provided with pressure extruded Polyvinyl chloride (PVC) type ST-2 compound conforming to IS: 5831 with latest amendments. Pressurized extrusion is required to remove any gaps remaining in between the fillers and to make the cable as circular as possible. It shall be applied to fit closely on to the laid-up cores and shall be possible to remove easily without causing any damage to the underlying insulated cores and screens.	Extruded PVC ST-2 type conforming to IS: 5831. It shall be applied to fit closely and shall be possible to remove easily without causing any damage to the underlying insulated cores and screens.		

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3	Raw material	PVC compound shall be procured from reputed suppliers viz, Sha Kalpana, KLJ, DCM ShriRam/ Equivalent (in line with TS).					s viz, Shakun,
	supplier	PVC compound from cable manufacturer shall be considered only after					
		factory evaluatio	n for the s	ame.			
	Min. thickness at anypoint of	3 CORE CABLE					
		95 sq.mm.	120 sq.mm.	150 sq.mm.	185 sq.mm.	300 sq.mm.	400 sq.mm.
4		0.6 mm	0.6 mm	0.6 mm	0.7mm	0.7 mm	0.7 mm
	measurement	1 CORE CABLE					
		300 sq. 400	6	30 sq.mm		1000 sq.mr	n.
		mm. sq.mm.					
		0.4 0.4 mm(min) mm		0.5 mm		0.6 mm	

5.7 Armour:

S.				Reg	uirement		
No.	Parameter	3	CORE CABLE			1	CORE CABLE
1	Material	Low carbon annealed hot dippedgalvanized round steel wires				4 Grade Aluminum ires	
2	Compliance to Standard	It shall comply with the requirements of IS 3975 along withlatest amendments. Hot dipped galvanizing layer shall be uniform on low carbon annealed steel wires. Zinc coating shall be 290g/m2 as per IS 4826:1979.			require along v	mply with the ements of IS8130 with latest Iments.	
				3 C	ore cable		
	Nominal Dimensions	95 sq.mm	120 sq.mm	150 sq.mm	185 sq. mm.	300 sq.mm	400 sq.mm.
3		2.5 (GI Wire)	2.5 (Gl Wire)	2.5 (GI Wire)	3.15(GI WIRE)	3.15 (GI Wire)	4.00 (GI Wire)
				1 CC	RE CABLE		
		300 sq. mm.	400 sq.mm	63) sq.mm		1000 sq.mm
		2 mm (Aluminum wire)	2 mm (Aluminum wire)		2 mm ninum wire)		3.15 mm (Aluminum wire)
				3 C	ore cable		
	Approx.	95 sq.mm	120 sq.mm	150 :	sq.mm	300 sq.mm	400 sq.mm.
	Armor	9	12		15	15	15
4	Short				RE CABLE		(000
	circuitrating in kAfor 1	300 sq. mm	400 sq.mm	63) sq.mm		1000 sq.mm
	Sec	15	15		15		15
		Fault current	for the armour	with minimu	ım 90 % cove	erage.	

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5	Jointing in the armour wires	Not acceptable in any armour wire		
6	Laying of armour	The armor wires shall be applied as closely as practicable. Shall not be less than 90% of total circumference.		
7	Binding	The rubberized cotton binding tape shall be applied to bind the armor wires suchthat it shall not affect the electrical properties of the armor wires and the overall cable.		
8	Weight of armor	To be furnished by Bidder		
9	Raw material supplier	Steel armour shall be procured from reputed raw material suppliers viz., TATA Steel, Jindal Steel, SAIL/ Equivalent (in-line with TS)	Aluminium armour shall be procuredfrom reputed raw material suppliers viz TATA/ BALCO/HINDALCO/NALCO/Vedanta Only/ Equivalent (in-line with TS)	

5.8 Outer Sheath (for Normal cable)

S. No.	Parameter			Require	ement		
1	Material	Polyvinyl chloride (PVC) ST-2 FRLSH type compound with 'lead naphthenate' additive					
2	Configuration	Polyvinyl chloride (PVC) ST-2 FRLSH type compound with 'lead naphthenate' additive as 'termite & rodent repellent' applied by extrusion process.					
		3 CORE CABLE					
3	3 Min. Thickness at any point of measurement		120 sq.mm	150 sq. mm	185 sq. mm.	300 sq.m m	400 sq.mm.
		2.2 mm	2.2 mm		2.52 mm	2.84 mm	3.0 mm
				1 CORE	CABLE		
		300 sq. mm.	400 sq.mm	(630 sq.ı	mm	1000 sq.mm
		1.56 mm	1.72 mm		1.88 m	Im	2.2 mm
4	Color	Crimson Re	d color, color	code: 54	l0 as pe	er IS 5:200)7.
5	Surface uniformity	Surface of o visible defect	uter sheath s cts.	hall be fr	ee from	n cavity/ ni	cks/ other
6	Raw material supplier	PVC compound shall be procured from reputed raw material suppliers viz., Shakun, Kalpana, KLJ, DCM ShriRam. Equivalent (in-line with TS) PVC compound from cable manufacturer shall be considered only after factory evaluation for the same.					
7	Weight of outer sheath/km		led by bidder				

5.9 Outer Sheath (for Co extruded 3C Cable)

S. No.	o. Parameter Requirement	
-	Innerlever	HDPE ST-7, Crimson red of color code 540, Minimum thickness at
1 Inner layer		any point of measurement - 3 mm

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2	Outermost layer	HDPE ST-7, Black color, Nominal Thickness at any point of measurement - 2 mm. Carbon content shall be as per IS 7098
3	Surface uniformity Surface of outer sheath shall be free from cavity/ nicks/ other vis defects.	
4	Raw material supplier	HDPE shall be procured from reputed raw material suppliers viz., Shakun, Kalpana, KLJ, SCJ Plastics, and Borealis, Equivalent (in-line with TS)
5	Weight of outer sheath/km	To be provided by bidder
6	Weight of HDPE/km	To be provided by bidder

5.10 Sealing End Cap:

S. No.	Parameter	Requirement		
1	Material	Iaterial Adhesive coated polyolefin heat shrinkable		
2	Configuration Adhesive coated polyolefin heat shrinkable end cap shall be provided at both ends of the cable.			
3	Additional requirements	2 nos. additional cable end caps shall be provided with each drum and placed in the drum.		

5.11 Other Requirements:

S. No.	Parameter	Requirem ent
1	Overall diameter of cable in mm	To be provided by bidder
2	Weight of Overall cable in kg/km	To be provided by bidder

6 MARKING:

Steel drums shall be provided. Drum shall be free from sharp edges and visual defect. Stencil plate on one flange side of the drum and laminated paper sheet on other side flange of drum.

Cable length on one drum shall be 250 meters max. +/- 5%. (As per PO Terms.)

I. Following details shall be provided on flanges of drum:

- a) Manufacturer's name
- b) Type of Cable
- c) Size of Cable
- d) Voltage Grade
- e) Length of the cable on the drum
- f) Direction of the rotation of the drum
- g) Gross mass
- h) Country of manufacture
- i) Year and month of manufacture



- j) Purchase Order no.
- k) Drum No.
- II. Following details shall be embossed on the outer PVC Jacket (For normal Cable) & HDPE layer (for co-extruded cable):

Embossing may be clearly visible. At interval of every 1 meter, following details to be embossed:

- i) TPWODL/ TPCODL/ TPNODL/ TPSODL
- ii) Manufacturer's name
- iii) Month & Year of Manufacturing
- iv) Voltage grade
- v) Size of the cable
- vi) Purchase Order no.
- vii) Cable code

Note: - Sequential meter marking shall be printed.

7 TESTS:

The bidder shall be required to submit complete set of the following test reports along with the offer: -

7.1 ACCEPTANCE TESTS

Test on Conductor

- 7.1.1 Conductor resistance test
- 7.1.2 Test for non-conductivity of water swellable tape/yarn of conductor
- 7.1.3 Visual inspection for conductor cleanliness
- 7.1.4 Conductor water penetration test

Test on Conductor Screen

- 7.1.5 Thickness of semi-conducting tape over conductor
- 7.1.6 Test for conductivity of semi-conducting tape over conductor
- 7.1.7 Resistivity of extruded semi-conducting conductor screen
- 7.1.8 Thickness of extruded semi-conducting conductor screen

Test on Insulation

- 7.1.9 Tensile strength & Elongation at break (before ageing)
- 7.1.10 Insulation thickness
- 7.1.11 Eccentricity and Ovality of insulation
- 7.1.12 Hot set test

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- 7.1.13 Volume resistivity
- 7.1.14 Void & contamination test on core (by silicon oil dip method)
- 7.1.15 Surface smoothness of insulation

Test on Insulation Screen

- 7.1.16 Resistivity of insulation screen
- 7.1.17 Thickness of insulation screen
- 7.1.18 Visual inspection for any convolution/ protrusion between conductor screen and XLPE insulation, XLPE insulation and insulation screen
- 7.1.19 Thickness & % Overlapping of semi-conducting water swellable tape
- 7.1.20 Thickness & % Overlapping of copper tape

Test on Inner Sheath

- 7.1.21 PVC thickness
- 7.1.22 Color of inner sheath

Test on Armour (For 3 Core)

- 7.1.23 Tensile test
- 7.1.24 Mass of zinc coating
- 7.1.25 Uniformity of zinc coating
- 7.1.26 Adhesion test
- 7.1.27 Diameter and no. of wires
- 7.1.28 Coverage %

Test on Armour (For 1 Core)

- 7.1.29 Tensile test
- 7.1.30 Wrapping test
- 7.1.31 Resistance test
- 7.1.32 Diameter and no. of wires
- 7.1.33 Coverage %

Test on Outer sheath (for Normal cable)

- 7.1.34 Thickness
- 7.1.35 Tensile strength and Elongation at break (before ageing)
- 7.1.36 Color of outer sheath
- 7.1.37 Surface uniformity of outer sheath (on full drum)/ shall be free from any damage- void, nick, cavity



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7.1.38 Presence of lead naphthenate in PVC outer sheath

- 7.1.39 Flammability test
- 7.1.40 Oxygen index
- 7.1.41 Temperature index
- 7.1.42 Acid gas generation
- 7.1.43 Smoke density

Test on Outer sheath (for 3 Core extruded cable)

INNER LAYER

- 7.1.44 Thickness
- 7.1.45 Tensile strength and Elongation at Break (before ageing)
- 7.1.46 Color

OUTER LAYER

- 7.1.47 Thickness
- 7.1.48 Tensile strength and Elongation at Break (before ageing)
- 7.1.49 Carbon Content
- 7.1.50 Color
- 7.1.51 Surface uniformity of outer sheath (on full drum)/ shall be free from any damage- void,nick, cavity

Test on Complete Cable

- 7.1.52 Partial discharge test
- 7.1.53 High voltage test

7.2 ROUTINE TESTS

- i) Conductor resistance test
- ii) Partial discharge
- iii) High voltage test with power frequency
- iv) Resistance test for Aluminium armour



7.3 TYPE TESTS

Tests on Conductor

- 7.3.1 Conductor resistance test
- 7.3.2 Conductor water penetration test

Tests on Insulation

- 7.3.3 Tensile strength & Elongation at break (before ageing)
- 7.3.4 Ageing in air oven
- 7.3.5 Tensile strength & Elongation at break
- 7.3.6 Tests for thickness of insulation
- 7.3.7 Eccentricity and Ovality of insulation
- 7.3.8 Hot set test
- 7.3.9 Shrinkage test
- 7.3.10 Gravimetric test (Water absorption)
- 7.3.11 Volume resistivity/ Insulation Resistance

Tests on Inner Sheath

7.3.12 PVC thickness

Tests on Extruded semi-conducting screen

- 7.3.13 Volume resistivity test of conductor screen
- 7.3.14 Volume resistivity test of core screen

Tests on Outer Sheath (PVC)

- 7.3.15 Flammability test for outer sheath
- 7.3.16 Thickness
- 7.3.17 Tensile strength and Elongation at break (before ageing)
- 7.3.18 Tensile strength and Elongation at break (after ageing)
- 7.3.19 Variation due to ageing
- 7.3.20 Loss of mass test
- 7.3.21 Shrinkage test
- 7.3.22 Hot deformation test
- 7.3.23 Heat shock test
- 7.3.24 Thermal stability test



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7.3.25 Flammability test

- 7.3.26 Oxygen index
- 7.3.27 Temperature index
- 7.3.28 Acid gas generation
- 7.3.29 Smoke density

Tests on Outer Sheath - HDPE ST 7 (for Co-extruded cable)

- 7.3.30 Thickness
- 7.3.31 Tensile strength and Elongation at break (before ageing)
- 7.3.32 Tensile strength and Elongation at break (after ageing)
- 7.3.33 Shrinkage test
- 7.3.34 Carbon Black Content

Tests on Armour for 3 Core Cable

- 7.3.35 Tensile test
- 7.3.36 Torsion test
- 7.3.37 Wrapping test
- 7.3.38 Resistance test
- 7.3.39 Mass of zinc coating
- 7.3.40 Uniformity of zinc coating
- 7.3.41 Adhesion test

Tests on Armour for 1 Core Cable

- 7.3.42 Tensile test
- 7.3.43 Torsion test
- 7.3.44 Wrapping test
- 7.3.45 Resistance test

Tests on complete cable

- 7.3.46 Partial discharge test
- 7.3.47 Thermal ageing test
- 7.3.48 Bending test
- 7.3.49 Dielectric power factor test
- 7.3.50 High voltage test



7.3.51 Heat cycle test

7.3.52 Impulse withstand test

Additional Test (To be checked by Inspector)

- 7.3.53 Raw material consumption
- 7.3.54 Color coding identification over copper screen (for 3C cable)
- 7.3.55 Sequential marking check
- 7.3.56 Cable drum length verification
- 7.3.57 Packaging of cable on cable drum
- 7.3.58 Diameter over outermost sheath of co-extruded cable
- 7.3.59 Weight of outer sheath of co-extruded cable/ km
- 7.3.60 Weight of total HDPE of co-extruded cable/ km.

8 TYPE TEST CERTIFICATES:

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 as per relevant IS. However, TPWODL/ TPCODL/ TPNODL/ TPSODL/ TATA-POWER reserves the right to allow any other NABL accredited/ Govt. lab report under exceptional circumstances after due diligence/ scrutiny by DISCOM. Tests should have been conducted during the period not exceeding 10 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 TPWODL/ TPCODL/ TPSODL.

9 PRE-DISPATCH INSPECTION:

The material shall be subject to inspection by a duly authorized representative of the TPWODL/ TPCODL/ TPNODL/ TPSODL.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. Bidder shall grant free access to the places of manufacture to TPWODL/ TPCODL/ TPNODL/ TPSODL's representatives at alltimes when the work is in progress. Inspection by the TPWODL/ TPCODL/ TPNODL/ TPSODL 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 TPWODL/ TPCODL/ TPNODL/ TPSODL.

Following documents shall be sent along with material.

- a) Test reports
- b) MDCC issued by TPWODL/ TPCODL/ TPNODL/ TPSODL



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c) TPWODL/ TPCODL/ TPNODL/ TPSODL Invoice in duplicate

- d) Packing list
- e) Drawings & catalogue.
- f) Guarantee / Warrantee card
- g) Delivery Challan
- h) Other Documents (as applicable).

10 INSPECTION AFTER RECEIPT AT STORE:

The material received at TPWODL/ TPCODL/ TPNODL/ TPSODL, Odisha store will be inspected for acceptance and shall be liable for rejection, if found different from the reports of the pre-dispatch inspection and one copyof the report shall be sent to Engineering department.

11 GUARANTEE:

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 Company up to a period of 60 months from the date of commissioning or 72 months from the date of last supplies made under the contract, whichever is earlier, supplier shall be liable to undertake to replace/rectify such defects at his own costs. within mutually agreed timeframe, and to the entire satisfaction of the Company, failing which the Company will be at liberty to get it replaced/rectified at supplier's risks and costs and recover all such expenses plus the Company's own charges (@ 20% of expenses incurred), from the supplier or from the "Security cum Performance Deposit" as the case may be.

12 PACKING:

- a) Standard length of Cable: The cable shall be supplied in continuous standard length of 250 (3 cores) & 500 (Single core) running meters with +/- 5% tolerance.
- b) Filling condition: Drum shall not be overfilled.
- c) **Cable drum:** The cable shall be wound on non-returnable steel drums without any extra cost to TPWODL/ TPCODL/ TPNODL/ TPSODL as per IS 10418 and its latest amendments.
- d) **Sealing of cable ends:** The ends of the cable shall be sealed by means of heat shrinkable polyolefin end caps. Additional 2 nos. end caps shall be provided with each drum.
- e) **Requirements for Cable drums:** Cable drums shall be so constructed as to have required mechanical strength so that the drum flanges and other components do not break during transport, in actual use or in storage. The flanges and the outside surface of the barrel shall be free from protruding materials/projections/ unevenness/ sharp edges that can damage the cable

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A metal preservation shall be applied to the entire drum.

- f) Bottom end of cable should be clamped on drum by jute or nylon rope.
- g) All ferrous metal parts used shall be treated with a suitable rust-free finish or coating to avoid rusting during transit or storage. The drums shall withstand normal handling and transport.
- h) **Rail/ Road transportation:** The bidder shall ensure that 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.
- i) Packaging shall be as per climate change perspective. Cable wound on cable drum shall be covered by recyclable PVC sheet for dust proof.

13 TENDER SAMPLE:

Not Applicable

14 QUALITY CONTROL:

The bidder shall submit QAP 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 **TESTING FACILITIES**:

Supplier/ Manufacturer shall have adequate in-house testing facilities for carrying out all routine tests & acceptance tests as per relevant Indian standards.

16 MANUFACTURING FACILITIES:

The successful bidder shall 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.

17 SPARES, ACCESSORIES AND TOOLS

Not applicable.

18 DRAWINGS AND DOCUMENTS:

Following drawings and documents shall be submitted in line with the requirement of Tender specifications:

a) Completely filled in Schedule "A" Guaranteed Technical Particulars & Schedule "B"



Specification Name: TECHNICAL SPECIFICATION FOR 11 kV XLPE ARMOURED CABLE

Deviations

- b) Work Experience details
- c) Type test certificates.
- d) Drawing 1 set of Hard Copy & Soft copy PDF File containing complete information about manufacturing.

19 SCHEDULE- "A" GUARANTEED TECHNICAL PARTICULARS:

Bidder to submit clause wise compliance.

20 SCHEDULE "B" DEVIATIONS:

(TO BE ENCLOSED WITH TECHNICAL 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:

SL. No	Clause No.	Details of deviation with justifications

We confirm that there are no deviations apart from those detailed above.

Seal of the Company:

Signature

Designation

STANDARD TECHNICAL SPECIFICATION COVER SHEET

Specification No. : ENG-EHV-1010

Specification Name : ENG-ELC-005- SPECIFICATION FOR 33kV XLPE ARMOURED CABLE- R1

JYOTIPRAKASH MOHANTY	SHANTAPRIYA JENA	SATYA PRASAD NAYAK	Ranjan Kumar Sahoo	VARUN BHATNAGAR	VARUN BHATNAGAR
Prepared by Reviewed by Reviewed by		Reviewed by	Approved by	Released by	
TPWODL TPNODL TPCODL		TPSODL	TPWODL	TPWODL	
10-12-2022	10-12-2022	12-12-2022	12-12-2022	13-12-2022	13-12-2022

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Specification Name: TECHNICAL SPECIFICATION FOR 33 kV XLPE ARMOURED CABLE

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Specification Name: TECHNICAL SPECIFICATION FOR 33 kV XLPE ARMOURED CABLE

1. SCOPE:

This specification covers technical requirements of design, manufacture, testing at manufacturer's works, packing, forwarding, supply and unloading at site/store, performance of 33 kV XLPE armoured cable for trouble free and efficient operations.

Inclusive Sizes: -

3 CORE CABLE	1 CORE CABLE
3CX 35 sq.mm	1C X 300 sq.mm
3CX 50 sq.mm	1C X 400 sq.mm
3CX 70 sq.mm	1C X 630 sq.mm.
3CX 95 sq.mm	1C X 1000 sq.mm.
3C X 300 sq.mm	
3C X 185 sq.mm	
3C X 240 sq.mm	
3C X 400 sq.mm	

2. APPLICABLE STANDARDS:

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 authorities:

·		
IS 7098 (Part 2)	Cross-linked Polyethylene (XLPE) insulation for Cables	
IS 8130 Conductors for insulated electrical cables and flexible cords		
IS 10418	Specification for Drums for Electric cables	
IEC 60228	Conductor for insulated cables	
IS 3975	Low carbon galvanized steel wires, formed wires and tapes forarmoring of cables	
IS 5831	Specification for PVC insulation sheath for electric cables	
IEC-60811	Test methods for insulations and sheaths of electric cables andcords.	
ASTM D 6097	Standard test method for relative resistance to vented water treegrowth in Solid Dielectric insulating materials	
ICEA T 31-610	Test method for conducting longitudinal water penetrationresistance tests on blocked conductors	
IS 10810	Methods of tests for cables	
IS 4905	Methods for random sampling	
IS 4984	High density polyethylene pipes for water supply	
IS 2530	Methods of test for polyethylene moulding materials and	
	polyethylene compounds	
IS 4826	Specification for hot dipped galvanized coatings on round steel wires	
IS 5:2007	Colors for ready mixed paints and enamels	

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ASTM 2863	Standard Test Method for Mea Concentration to Support Cano (Oxygen Index)	suring the Minimum Oxygen Ile-Like Combustion of Plastics	
IEC 60754 Apparatus and procedure for the measurement of the halogens evolved during the combustion of materials optical fiber cable constructions		ombustion of materials taken fromelectric or	
IEC-60502 (Part- 2)	Power cables with extruded insulation and their accessories for rated voltages from 1 kV (Um = 1.2 kV) up to 30 kV (Um = 36 kV) - Part 2: 22kV Cables for rat voltages from 6 kV (Um = 7.2 kV) up to 30 kV (Um= 36 kV).		
IEC 332 Test on electric cables on the fire conditions		ire conditions	

Standard Test Method for Density of Smoke from the Burning or

3. CLIMATIC CONDITIONS OF THE INSTALLATION:

Decomposition of Plastics

ASTM 2843

SL.NO.	CONDTIONS	VALUES
1	Max. altitude above sea level	1200m
2	Max. Ambient Temperature	50 °C
3	Max. Daily average ambient temp	35 °C
4	Min Ambient Temp	0 °C
5	Maximum temperature attainable by an object exposed to sun	60 °C
6	Maximum Humidity	95%
7	Minimum Humidity	10%
8	Average No. of thunderstorm days per annum	70
9	Average Annual Rainfall	150 cm
10	Average No. of rainy days per annum	120
11	Thermal Resistivity of soil	150 Deg. Ccm/W
12	Wind Pressure	126 kg/sq. m up to an elevation of 10 meter.
14	Earthquakes of intensity in horizontal direction	equivalent to seismic acceleration of 0.3g
15	Earthquakes of intensity in vertical direction	equivalent to seismic acceleration of 0.15g
16	Wind velocity	300 km/hr.

Specification Name: TECHNICAL SPECIFICATION FOR 33 kV XLPE ARMOURED CABLE

Environmentally, some of the regions, where the work will take place include coastal areas, subject to high relative humidity, which can give rise to condensation. Onshore winds will frequently be salt laden. On occasions, the combination of salt and condensation may create pollution conditions for outdoor insulators. Some places are in heavily industrial polluted areas. Therefore, outdoor material and equipment shall be designed and protected for use in exposed, heavily polluted, salty, corrosive and humid coastal atmosphere.

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The atmosphere is generally laden with mild acid and dust in suspension during thedry months and is subjected to fog in cold months. The design of equipment and accessories shall be suitable to withstand seismic forces as mentioned above.

S. No.	Description	Requirement			
5. NO.		3 CORE CABLE	1 CORE CABLE		
1	Voltage grade	33 kV (Earthed system)			
2	Max System voltage	36 kV	,		
3	Frequency	50 Hz	·		
4	Variation in frequency	+/- 3%	D		
5	Conductor	Watertight Strande (compacted o			
6	Conductor screen	Semi conducting ta	pe and screen		
7	Insulation	XLPE			
8		Shall have three layers:	Shall have three layers:		
9	Insulation screen	 a) Bonded Semiconducting, b) Semiconducting water swellable tape, c) Metallic copper tape 	 a) Bonded Semiconducting b)Semiconducting water swellable tape, c) Metallic copper tape d) Polyester transparent tape over copper screen 		
10	Core identification strip	Beneath copper screen	NA		
11	Inner sheath	Pressure Extruded PVC ST- 2 with PP fillers	Extruded PVC ST-2		
12	Armour	GI wire round binded with rubberized cotton binding tape Aluminum wire binded by rubberized cotton tape			
13	Outer sheath	PVC ST-2 FRLSH type of color 'Yellow Lemon shade' code: 355 asper IS 5:2007			

4. GENERAL TECHNICAL REQUIREMENTS:

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Specification Name: TECHNICAL SPECIFICATION FOR 33 kV XLPE ARMOURED CABLE

5. GENERAL CONSTRUCTION:

The cross-linked polyethylene insulated (XLPE) 33 kV Cable Dry cured & water cooled shall be manufactured and tested strictly in accordance with the Indian Standard IS 7098 (Part – 2)/ Relevant IEC/ International standards and its latest amendments.

All material used in the manufacturing of cables shall be new and shall be selected as the best available for the intended use.

The rating factors for variation in ground and air temperature, depth of laying, thermal resistivity of soil and different laying configuration of cables shall be provided by the Bidder.

5.1 Conductor

S.No.	Parameter	Requirement						
1	Conductor		As per IS 8130					
2	Class		Class II					
3	Material			Plain Alu	iminium	i, grade H2	2/H4	
4	Shape			Strandeo	d Comp	acted Circ	ular	
5	Nominal size of conductormm2	95	185	240	300	400	630	1000
6	Min. number of strands	15	30	30	30	53	53	30
7	Max. DC resistance @ 20deg C (Ohm/km)	0.32	0.164	0.125	0.1	0.0778	0.0469	0.0291
8	Conductor Short circuit current rating for 1 second (KA)	9	17.4	22.6	28.3	37.7	59.4	94.3
9	Min. weight of conductor(kg/km/core)	244	481	624	780	1080	1650	2600
10	Longitudinal water sealing ofconductor	 a) Non-conductive water swellable yarn/ tape/ combination of both shall be provided in between interstices of the conductor. b) Also, this water swellable tape and yarn shall be compatible to withstand conductor continuous temperature of 90 deg C and short circuit temperature of 250 deg C without any decay. c) It shall not affect the electrical conductivity of the conductor. 						



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Specification Name: TECHNICAL SPECIFICATION FOR 33 kV XLPE ARMOURED CABLE

S.No.	Parameter	Requirement
11	Cleanliness and uniformity	 a) Before stranding, the cross-section of the Aluminium conductor shall be circular, and shall have uniform smooth surface, free from sharp edges and free from any defects. b) Stranded Conductor shall be free from oil traces & aluminum dust. Conductor (after stranding) shall be super cleaned c) Traces of aluminum dust on conductor or conductor screen shall not be acceptable.
12	Conductor jointing Not acceptable in any strand or in any conductor after it i stranded.	
13	Raw material supplier	Conductor raw material shall be procured from reputed suppliers viz., BALCO/ HINDALCO/ NALCO/ Vedanta
14	Diameter of conductor	To be specified by bidder

5.2 Conductor Screen:

S. No.	Parameter	Requirement
1	Material	1 st layer: Semi-conducting tape
I	Wateria	2 nd layer: Semi-conducting compound
		1 st layer: Semi-conducting tape shall be applied over
2	Configuration	conductor with nominal thickness of 0.2 mm.
2	Configuration	2 nd layer: Semi-conducting compound screen shall
		be applied through triple extrusion process.
3	Min. thickness	Minimum thickness of semi-conducting compound
3		screen shall be 0.5 mm at any point of measurement.
4	Resistivity	Resistivity of semiconducting conductor screen shall
4	Resistivity	not exceed 1000 Ω-m
	Liniformity on	Interfacial region between conductor screen and insulation shall
5	Uniformity on	be uniform. Protrusion/ convolution/
	interfacial region	other defects are not acceptable in the region.
		Semiconducting compound shall be procured from reputed
6	Raw material supplier	raw material suppliers viz., Dow/Borealis/Hanwa

5.3 Insulation:

S. No.	Parameter	Requirement
1	Material and extrusion process	XLPE insulation shall be applied through CCV/VCVline by triple extrusion process with 'Dry Curing' and 'Water Cooling'.



2	Raw material supplier	 a) XLPE compound shall be procured from reputed raw material suppliers viz., Dow/Borealis/Hanwa b) Both XLPE and semi conductive compounds shall be used from same raw material supplier.
3	Thickness and Eccentricity	 a) Nominal thickness shall be 8.8 mm. b) Minimum thickness shall be 7.82 mm at any point of measurement. c) Eccentricity of insulation shall not exceed 10%.
4	Thermal stability	The insulation properties shall be stable under thermal conditions arising out of continuous operation at conductor temperature of 90 deg. C rising momentarily to 250 deg. C under short circuit conditions.
5	Cleanliness and uniformity	Interfacial region between insulation and insulation screen shall be uniform. Protrusion/convolution/ other defects are not acceptable. Core shall be free from void and contamination.

5.4 Insulation Screen & Core identification strip:

S. No.	Parameter	Requirement
1	Material	 a) 1st layer: Semi-conducting compound b) 2nd layer: Semi-conducting water swellable tape c) 3rd layer: Annealed copper tape

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	Configuration	Extruded Insu bonded type. Resistivity sha Surface of insu cavity/ nicks/su Min. thickness measurement. b) 2nd layer: W Semi-conducti applied over n Minimum thick and minimum Core identific <u>For 3 Core C</u> Each of the t applied longitu Width of the co	Vater Swellable tape: ing water swellable tapes shall be on-metallic screen. these of water swellable shall be 0.3 mm overlapping shall be 15%. Exation strip: able hree core identification strips shall be idinally beneath copper screen. blored strip shall be 7-10 mm. R, Y, B	
		swellable tap Minimum thic measurement	Metallic Part : oper tape, helically wound over the water e with minimum 15% overlap. kness shall be 0.045 mm at any point of	
3	Raw material supplier		naterial suppliers viz., Dow/ Borealis/	
4	Diameter of cores	To be specifie	ed by bidder	
5	Weight of cores/km (approx.)	To be specifie	ed by bidder	
6	Weight of copper tape/km (approx.)	To be specifie	ed by bidder	



5.5 Fillers:

S.	Parameter	Requirement					
No.	Parameter	3 CORE CABLE	1 CORE CABLE				
1	Material	Virgin Polypropylene fibers of natural color					
2	Configuration	Virgin Polypropylene fibers shall be tightly filled in empty space asfillers.	NA				

5.6 Inner Sheath:

S.	Parameter		Requirement							
No.	Farameter	3 CORE CABLE			1 C	1 CORE CABLE				
1	Material	Black co	lored Poly	yvinyl chlo	oride (PVC	C) type ST	-2 com	pound		
2	Configuration	pressure type ST- with lates is require between circular a closely o possible	The laid-up cores shall be provided with pressure extruded Polyvinyl chloride (PVC) type ST- 2 compound conforming to IS: 5831 with latest amendments. Pressurized extrusion is required to remove any gaps remaining in between the fillers and to make the cable as circular as possible. It shall be applied to fit closely on to the laid-up cores and shall be possible to remove easily without causing any damage to the underlying insulated cores and screens. Extruded PVC ST-2 type conforming to IS: 5831. It shall be applied to fit closely and shall be possible to remove easily without causing any damage to the underlying insulated cores and screens.							
3	Raw material supplier	viz., Sha	PVC compound shall be procured from reputed raw material suppliers viz., Shakun, Kalpana, KLJ, DCM ShriRam. PVC compound from cable manufacturer shall be considered only after factory evaluation for the same.							
					3 Core	CABLE				
		35 sq. mm.	50 sq. mm	70 sq. Mm.	95 sq.mm.	185 sq.mm	240 sq.mr		300 .mm.	400 sq.mm.
4	Min. thickness at	0.7mm	0.7mm	0.7mm	0.7 mm	0.7mm	0.7mr	ⁿ 0.	7 mm	0.7 mm
	any point of measurement	1 CORE CABLE								
		300 s	q.mm.		400 sq	.mm.		63 sq.m		1000 sq.mm.
		0.	5mm		0.5 m	im		0.6 n	nm	0.7 mm

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5.7 Armour:

S.	Parameter		Requirement								
No.	i didilotoi		3 CORE CABLE 1 CORE CABLE								
1	Material		Low carbon annealed hot dippedgalvanized round steel wires					de Alur	ninium		
2	Compliance to Standard	It shall comply with the requirements of IS 3975 along with latest amendments. Hot dipped galvanizing layer shall be uniform on low carbon annealed steel wires. Zinc coating shall be 290 g/m2 as per IS 4826:1979.									
	Nominal	3 Core cable									
3	Dimensions	35	50	70	95 sq.mm	185	240	300	400		
		sq.mm	sq.mm	sq.mm		sq.mm	sqmm	sq.mm	sq.mm		
		3.15 (GIWire	3.15 (GI	3.15 (GI Wire)	3.15 (GI	4.00 (GI	4.00 (GI		4.00 (Gl		
		Givile	Wire)	vviie)	Wire)	Wire)	Wire)	(GI Wire)	Wire)		

S.	_		Re	quirement					
No.	Parameter	;	1 CORE CABLE						
			1 (Core cable	•				
		300 sq.mm	300 sq.mm 400 sq.mm 630 sq.mm			1000 so	q.mm		
		2 mm (Aluminum wire)	2 mm (Aluminum wire)	2.5 mm (Aluminum wire)	3.15 mm (Alumine wire)		ıminum		
	Approx. Armor Short circuit	3 Core cable							
		95 sq.mm		185 sq.mm	240 sq.mm	300 sq.mm.	400 sq.mm		
4		9		20	20	20	20		
4	rating in kA for 1	1 Core cable							
	sec	400	400 sq.mm		100	00 sq.mm			
			20	20		20			
		Fault current	for the armour with	minimum 90 %	coverage	overage.			

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5	Jointing in the armour wires	Not acceptable in any armour wire			
6	Laying of armour	The armor wires shall be applied as closely as pless than 90% of total circumference.	practicable. Shall not be		
7	Binding	The rubberized cotton binding tape shall be applied to bind the armo wires such that it shall not affect the electrical properties of the armo wires and the overall cable.			
8	Weight of armor	To be furnished by Bidder			
9	Raw material supplier	Steel armour shall be procured fromreputed raw material suppliers viz., TATA Steel, Jindal Steel, SAIL	Aluminium armour shall be procured from reputed raw material suppliers viz., TATA/ BALCO/ HINDALCO/ NALCO/ Vedanta		

5.8 Outer Sheath

S.No.	Parameter				Require	ment			
1	Material		Polyvinyl chloride (PVC) ST-2 FRLSH type compound with ' lead naphthenate' additive						
2	Configuration	naphthe	Polyvinyl chloride (PVC) ST-2 FRLSH type compound with ' lead naphthenate ' additive as 'termite & rodent repellent' applied by extrusion process.						
3				,	3 CORE	CABLE			
	Min. Thickness at any point of	35 sq.mm 2.52 mm	50 sq.mm 2.52 mm	70 sq.mm 2.68 mm	95 sq.mm 2.68 mm	185 sq.mm 3.0 mm		300 sq.mm 3.0 mm	400 sq.mm 3.0 mm
	measurement	1 CORE CABLE							
		300 sq. mm.		400 sq.mm		630 sq.mm		1000 sq.mm	
		2.04	mm	2.04 mm		2.36 mm		2.52 mm	
4	Color	Yellow L	emon colo	or, color c	ode: 358	5 as per	IS 5:200)7.	
5	Surface uniformity	Surface of outer sheath shall be free from cavity/ nicks/ other visible defects.							
6	Raw material supplier	viz., Sha cable ma	PVC compound shall be procured from reputed raw materialsuppliers viz., Shakun, Kalpana, KLJ, DCM ShriRam. PVC compound from cable manufacturer shall be considered onlyafter factory evaluation for the same.						



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	7	Weight of outer sheath/km	To be provided by bidder	
--	---	---------------------------	--------------------------	--

5.9 Sealing End Cap:

S.No.	Parameter	Requirement
1	Material	Adhesive coated polyolefin heat shrinkable
2	Configuration	Adhesive coated polyolefin heat shrinkable end cap shall be provided at both ends of the cable.
3	Additional requirements	2 nos. additional cable end caps shall be provided with each drum and placed in the drum.

5.10 Other Requirements:

S.No.	Parameter	Requirement
1	Overall diameter of cable in mm	To be provided by bidder
2	Weight of Overall cable in kg/km	To be provided by bidder

6. MARKING:

Steel drums shall be provided. Drum shall be free from sharp edges and visual defect.

Stencil plate on one flange side of the drum and laminated paper sheet on other side flange of drum.

Cable length on one drum shall be 250 meters max. +/- 5%. As per PO terms

I. Following details shall be provided on flanges of drum:

- a) Manufacturer's name
- b) Type of Cable
- c) Size of Cable
- d) Voltage Grade
- e) Length of the cable on the drum
- f) Direction of the rotation of the drum
- g) Gross mass
- h) Country of manufacture
- i) Year and month of manufacture
- j) Purchase Order no.
- k) Drum No.

II. Following details shall be embossed on the outer sheath:

At interval of every 1 meter, following details to be embossed:

i) TPWODL/ TPCODL/ TPNODL/ TPSODL

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- ii) Manufacturer name
- iii) Month & Year of Manufacture
- iv) Voltage grade
- v) Size of the cable
- vi) Purchase Order no.
- vii) Cable code

Note: - Sequential meter marking shall be printed.

7. TESTS:

The bidder shall be required to submit complete set of the following test reports along with the offer:

7.1 ACCEPTANCE TESTS

Test on Conductor

- Conductor resistance test
- Test for non-conductivity of water swellable tape/yarn of conductor
- Visual inspection for conductor cleanliness
- Conductor water penetration test

Test on Conductor Screen

- Thickness of semi-conducting tape over conductor
- Test for conductivity of semi-conducting tape over conductor
- Resistivity of extruded semi-conducting conductor screen
- Thickness of extruded semi-conducting conductor screen

Test on Insulation

- Tensile strength & Elongation at break (before ageing)
- Insulation thickness
- Eccentricity and Ovality of insulation
- Hot set test
- Volume resistivity
- Void & contamination test on core (by silicon oil dip method)
- Surface smoothness of insulation

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Test on Insulation Screen

- Resistivity of insulation screen
- Thickness of insulation screen
- Visual inspection for any convolution/ protrusion between conductor screen and XLPE insulation, XLPE insulation and insulation screen
- Thickness & % Overlapping of semi-conducting water swellable tape
- Thickness & % Overlapping of copper tape

Test on Inner Sheath

- PVC thickness
- Color of inner sheath

Test on Armour (For 3 Core)

- Tensile test
- Mass of zinc coating
- Uniformity of zinc coating
- Adhesion test
- Diameter and no. of wires
- Coverage %

Test on Armour (For 1 Core)

- Tensile test
- Wrapping test
- Resistance test
- Diameter and no. of wires
- Coverage %

Test on Outer sheath

- Thickness
- Tensile strength and Elongation at break (before ageing)
- Color of outer sheath
- Surface uniformity of outer sheath (on full drum)/ shall be free from any damage- void, nick, cavity

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- Presence of lead naphthenate in PVC outer sheath
- Flammability test
- Oxygen index
- Temperature index
- Acid gas generation
- Smoke density

Test on Complete Cable

- Partial discharge test
- High voltage test
- Raw material consumption verification

7.2 ROUTINE TESTS

- Conductor resistance test
- Partial discharge
- High voltage test with power frequency
- Resistance test for Aluminium armour

7.3 TYPE TESTS

Tests on Conductor

- Conductor resistance test
- Conductor water penetration test

Tests on Insulation

- Tensile strength & Elongation at break (before ageing)
- Ageing in air oven
- Tensile strength & Elongation at break
- Tests for thickness of insulation
- Eccentricity and Ovality of insulation
- Hot set test
- Shrinkage test
- Gravimetric test (Water absorption)
- Volume resistivity/ Insulation Resistance



Tests on Inner Sheath

• PVC thickness

Tests on Extruded semi-conducting screen

- Volume resistivity test of conductor screen
- Volume resistivity test of core screen

Tests on Outer Sheath (PVC)

- Flammability test for outer sheath
- Thickness
- Tensile strength and Elongation at break (before ageing)
- Tensile strength and Elongation at break (after ageing)
- Variation due to ageing
- Loss of mass test
- Shrinkage test
- Hot deformation test
- Heat shock test
- Thermal stability test
- Flammability test
- Oxygen index
- Temperature index
- Acid gas generation
- Smoke density

Tests on Armour for 3 Core Cable

- Tensile test
- Torsion test
- Wrapping test
- Resistance test
- Mass of zinc coating
- Uniformity of zinc coating
- Adhesion test

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Specification Name: TECHNICAL SPECIFICATION FOR 33 kV XLPE ARMOURED CABLE

Tests on Armour for 1 Core Cable

- Tensile test
- Torsion test
- Wrapping test
- Resistance test

Tests on complete cable

- Partial discharge test
- Thermal ageing test
- Bending test
- Dielectric power factor test
- High voltage test
- Heat cycle test
- Impulse withstand test

Additional Tests

- Raw material consumption
- Color coding identification over copper screen (for 3C cable)
- Sequential marking check
- Cable drum length verification
- Packaging of cable on cable drum
- Weight of conductor/km
- Diameter of Conductor
- Weight of XLPE insulation plus semiconducting screen (of conductor & insulation)/ km
- Diameter over core
- Weight of core
- Weight of copper tape/km
- Diameter over inner sheath
- Weight of armour/ km
- Cable sealing end caps
- Weight of outer sheath/ km
- Diameter of complete cable

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8. TYPE TEST CERTIFICATES:

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 as per relevant IS. Type tests should have been conducted during the period not exceeding 10 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 TPWODL/ TPCODL/ TPNODL/ TPSODL.

9. PRE-DISPATCH INSPECTION:

The material shall be subject to inspection by a duly authorized representative of the TPWODL/ TPCODL/ TPNODL/ TPSODL.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. Bidder shall grant free access to the places of manufacture to TPWODL/ TPCODL/ TPNODL/ TPSODL's representatives at alltimes when the work is in progress. Inspection by the TPWODL/ TPCODL/ TPNODL/ TPSODL 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 TPWODL/ TPCODL/ TPNODL/ TPSODL.

Following documents shall be sent along with material.

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

10. INSPECTION AFTER RECEIPT AT STORE:

The material received at TPWODL/ TPCODL/ TPNODL/ TPSODL, Odisha store will be inspected for acceptance and shall be liable for rejection, if found different from the reports of the pre-dispatch inspection and one copyof the report shall be sent to Engineering department.

11. GUARANTEE:

Bidder shall stand guarantee towards design, materials, workmanship & quality of process/

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integrated product delivered under this contract. In the event any defect is found by the Company up to a period of 60 months from the date of commissioning or 72 months from the date of last supplies made under the contract, whichever is earlier, supplier shall be liable to undertake to replace/rectify such defects at his own costs. within mutually agreed timeframe, and to the entire satisfaction of the Company, failing which the Company will be at liberty to get it replaced/rectified at supplier's risks and costs and recover all such expenses plus the Company's own charges (@ 20% of expenses incurred), from the supplier or from the "Security cum Performance Deposit" as the case may be.

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 TATA utilities.

12. PACKING:

- a) **Standard length of Cable:** The cable shall be supplied in continuous standard length of 250 (3 cores) & 500 (Single core) running meters with +/- 5% tolerance.
- b) **Filling condition:** Drum shall not be overfilled.
- c) **Cable drum:** The cable shall be wound on non-returnable steel drums without any extra cost to TPWODL/ TPCODL/ TPNODL/ TPSODL as per IS 10418 and its latest amendments.
- d) **Sealing of cable ends:** The ends of the cable shall be sealed by means of heat shrinkable polyolefin end caps. Additional 2 nos. end caps shall be provided with each drum.
- e) **Requirements for Cable drums:** Cable drums shall be so constructed as to have required mechanical strength so that the drum flanges and other components do not break during transport, in actual use or in storage. The flanges and the outside surface of the barrel shall be free from protruding materials/projections/ unevenness/ sharp edges that can damage the cable or hands of the operator during rotation of drums.

A metal preservation shall be applied to the entire drum.

- f) Bottom end of cable should be clamped on drum by jute or nylon rope.
- g) All ferrous metal parts used shall be treated with a suitable rust-free finish or coating to avoid rusting during transit or storage. The drums shall withstand normal handling and transport.
- h) Rail/ Road transportation: The bidder shall ensure that 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.
- i) Packaging shall be as per climate change perspective. Cable wound on cable drum shall be covered by recyclable PVC sheet for dust proof.

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Specification Name: TECHNICAL SPECIFICATION FOR 33 kV XLPE ARMOURED CABLE

13. TENDER SAMPLE:

Not Applicable

14. QUALITY CONTROL:

The bidder shall submit QAP 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. TESTING FACILITIES:

Supplier/ Manufacturer shall have adequate in-house testing facilities for carrying out all routine tests & acceptance tests as per relevant Indian standards.

16. MANUFACTURING FACILITIES:

The successful bidder shall 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.

17. SPARES, ACCESSORIES AND TOOLS

Not applicable.

18. DRAWINGS AND DOCUMENTS:

Following drawings and documents shall be submitted in line with the requirement of Tender specifications:

- a) Completely filled in Schedule "A" Guaranteed Technical Particulars & Schedule "B" Deviations
- b) Work Experience details
- c) Type test certificates.
- d) Drawing 1 set of Hard Copy & Soft copy PDF File containing complete information about manufacturing.

19. SCHEDULE- "A" GUARANTEED TECHNICAL PARTICULARS:

Bidder to submit clause wise compliance.



20. SCHEDULE "B" DEVIATIONS:

(TO BE ENCLOSED WITH TECHNICAL 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:

SL. No	Clause No.	Details of deviation with justifications

We confirm that there are no deviations apart from those detailed above.

Seal of the Company:

Signature

Designation