



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/1000000089/2021-22

**VERY VERY IMPORTANT FOR THE PROSPECTIVE BIDDERS TO NOTE
PRIOR TO GOING THROUGH THE TENDER DOCUMENT**

The bidders have to pay the requisite tender fees prior to submission of Pre-Bid queries (if any). The queries of the bidders who have paid the tender fees will be considered for clarification only. The queries of un-paid bidders shall not be considered for clarification. The queries are to be submitted in editable format of MS-Excel through e-mail only.

INFORMATION TO THE BIDDERS TO PARTICIPATE IN E-TENDER SYSTEM OF TPCODL

-: Steps for E-tender submission: -

Step 1:

The bidder can get primary information about the tender from the NEWSPAPER advertisement / TPCODL website (in case of open tender) / invitation through e-mail (in case of limited tenders)

Step 2:

First the prospective Bidder who intends to participate in an open tender should deposit the requisite tender fee as mentioned in the tender document through NEFT/ RTGS in the a/c of TPCODL as mentioned in the tender document. Deposit of the Tender fee should be made within the scheduled time for such deposit as indicated in the Tender document.

Step 3:

After deposit of the tender fee, the bidder should furnish the following information through e-mail to the contact person indicated in the tender document.

SI No	Description	Bidder's Response
1	Tender Enquiry No.	
2	Description of materials / Works Tendered	
3	Name of the bidding company	
4	Place & Detail Address of the Company	
5	Postal Code (PIN Code)	
6	Name of the authorized contact person of the Bidder	
7	Contact No./Mobile No. authorized person	
8	E-mail Id of the contact person	
9	Tender Fee details (Bank Name / Amount / NEFT-RTGS UTR No / Date) (E Receipt also to be furnished)	
10	GST No.	



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Step 4:

After receipt of the above information through e-mail, Vendor will get an **invitation e-mail** from ARIBA System which is the e-tendering platform of TPCODL. In this mail there will be an online link as **Click Here** to participate in the tender. The link is **valid for 48 hrs** only.

Step 5: Click **“Click Here”** to access this event.

Step 6:

If you are bidding first time for TPCODL through ARIBA site then please "Sign UP by creating User Name and password as mentioned in Sign Up page. Please follow the process, as mentioned in the Sign Up page, during creation of User Name and password. Those who are already having User Name and password for accessing TPCODL events, they can LOGIN using same User Name and password.

Step 7:

Click Continue. The simple one-page registration screen will open for first time user. **All * mark mandatory field to be filled in.**

Step 8:

You will be able to see the RFQ (i.e Detail Tender document).

Step 9:

After review and downloading of all documents click on **“Accept Review Pre-requisites”** i.e acceptance of terms and conditions.

Step 10:

Review and accept **“Bidder Agreement”**.

Step 11:

You can see attached tender document in PDF format against clause no 1.1.1 (Introduction).

Step 12:

Vendor has to attach PDF version of technical bid in clause no. 2.1 and 2.2. **(In this field do not attach any price document.)**

Step 13:

Uploading of Price Bid

- (a) Price schedule is attached in envelope.3.1 of ARIBA. Same has to be downloaded and price and tax details to be filled in as per the format given, print to be taken in vendor's letter head and signature and seal to be made by authorised person. PDF version of this price bid to be attached. For Price Bid put all the unit price and taxes and duties in provided field. Put "0" (ZERO) in not applicable field.
- (b) In addition, the bidder has to upload the editable form of the price bid in EXCEL format in envelope 3.2 of ARIBA system.



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Step 14:

After uploading successfully Techno commercial offer and price part then click on "**Submit Entire Response**"

Note: Once user ID and password created, bidder can also login to ARIBA site through the following URL:

<https://service.ariba.com/Sourcing.aw/124997008/aw?awh=r&awssk=oxt0s1BN&dard=1>



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OPEN TENDER NOTIFICATION

FOR

**ONE YEAR RATE CONTRACT FOR SUPPLY OF 11 kV &
33 kV XLPE UG CABLES**

Tender Enquiry No.: TPCODL/P&S/ 1000000089/2021-22

Due Date for Bid Submission: 11.08.2021 [15:00 Hrs.]

**The Tata Power Central Odisha Distribution Limited
2nd Floor, IDCO Towers, Janpath, Bhubaneswar-751022**

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1. Event Information

1.1 Scope of work

Open Tenders are invited in through e-tender bidding process from interested Bidders for entering in to One Year Rate Contract for **Supply of Different Size 11 kV and 33 kV XLPE UG Cable** as defined below

Lot No.	Description	Qty. in Mtr.	EMD Amount (Rs.)	Tender Fee Incl. GST (Rs.)
1	CABLE 11 KV AL 3CX400 SQMM XLPE ARM	20,000	4,00,000	5,000
	CABLE 11 KV AL 3CX300 SQMM XLPE ARM	5,000		
	CABLE 11 KV AL 3CX120 SQMM XLPE ARM	10,000		
	CABLE 11 KV AL 3CX95 SQMM XLPE ARM	10,000		
2	CABLE 33 KV AL 3CX400 SQMM XLPE ARM	20,000	5,00,000	
	CABLE 33 KV AL 3CX300 SQMM XLPE ARM	5,000		
	CABLE 33 KV AL 1CX400 SQMM XLPE ARM	40,000		
	CABLE 33 KV AL 1CX630 SQMM XLPE ARM	10,000		
Total EMD Amount for all the Lot combined			9,00,000	

***Bidder can select the Lot in which they want to participate and can deposit EMD amount accordingly**

1.2 Availability of Tender Documents

Non-transferable tender documents may be purchased by interested eligible bidders from address given below, on submission of written application to the under mentioned and upon payment of non- refundable Tender Fee of requisite amount as mentioned above towards cost of bid documents.

Chief (Procurement & Stores)

Tata Power Central Odisha Distribution Limited

2nd Floor, IDCOTowers, Janpath, Bhubaneswar-751022

Tender documents may be downloaded by interested eligible bidders from TPCODL website www.tpcentralodisha.com with effect from 21.01.2021 In the event detailed tender documents are downloaded from TPCODL website or are received through email from TPCODL, the Tender Fee shall be compulsorily submitted either online through NEFT/ RTGS or demand draft/ Banker's cheque drawn in favour of "TP Central Odisha Distribution Limited", payable at Bhubaneswar only. Any such bid submitted without this Fee shall be rejected.

Bidders are requested to visit TPCODL website www.tpcentralodisha.com regularly for any modification/ clarification to the bid documents.

1.3 Calendar of Events

(a)	Date of sale/ availability of tender documents from TPCODL Website/ARIBA E-Tender Portal	From 16.07.2021
(b)	Last date and time of payment of Tender fees through RTGS/NEFT to get link for participation in E-Tender portal	30.07.2021 up to 17:00 Hours
(c)	Last Date of receipt of Pre-Bid queries in MS – Excel format through e-mail, (if any) after which no queries will be entertained	03.08.2021 up to 13:00 Hours, after which no queries will be entertained
(d)	Last Date of Posting Consolidated replies to all the Pre-Bid queries as received in the TPCODL website	06.08.2021
(e)	Last date and time of receipt of Bids through ARIBA E-Tender portal	11.08.2021 up to 15:00 Hours
(f)	Date & Time of opening of bids	11.08.2021 up to 15:00 Hours

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

1.4 Mandatory documents required along with the Bid

- 1.4.1 EMD of requisite value and validity
- 1.4.2 Tender Fee in case the tender is downloaded from website
- 1.4.3 Requisite Documents for compliance to Qualification Criteria mentioned in Clause 1.7.
- 1.4.4 Drawing, Type Test details (as applicable)
- 1.4.5 Duly signed and stamped ‘Schedule of Deviations’ as per Annexure III on bidder’s letterhead.
- 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’)

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

1.5 Deviation from Tender

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

1.6 Right of Acceptance/Rejection

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

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

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

1.7 Qualification Criteria

- 1.7.1 The average annual turnover of the bidder shall be a minimum of Rs.100 crores for last three financial years. Copy of audited Balance Sheet and P&L Account to be submitted in this regard.
- 1.7.2 The bidder should have should have own manufacturing facility to manufacture the cable of same or higher voltage through CCV Line or VCV Line along with the following:
 - A) Bidder shall have True triple extrusion machine along with CCV / VCV line with dry curing and dry cooling in Nitrogen.
 - B) Cable eccentricity monitoring system during triple extrusion in CCV / VCV line. 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.
- 1.7.3 The bidder should have supplied atleast 100 km of cable of same or higher voltage rating during last 3 years. Order copies/completion certificates to be submitted as proof.
- 1.7.4 The bidder should have performance certificates for 2-year satisfactory performance from at least 2 reputed companies for similar or higher voltage rating of similar supply. The supply against these issued certificates should be completed in last five years from the date of bid submission. In case the bidder has a previous association with TPCODL / Tata Power & its subsidiaries for similar products and services, the performance feedback for that bidder by TPCODL's 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.

- 1.7.5 Bidder should have the In-house testing facilities for acceptance test as per TPCODL specifications (that is 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.
- 1.7.6 The Bidder should have valid ISI certification for all the sizes of the cables
- 1.7.7 The Bidders need to submit Type Test Report as mentioned in Technical Specification (Annexure-II) of the Tender document.

Complete set of Type Tests shall be conducted at certified test laboratories, which are CPRI / ERDA only. Type test report shall be submitted for the type, size and rating of the cable mentioned in the bid/ OR for any size higher (than required) of similar type and similar voltage grade. Type test should have been conducted in certified test laboratories during the period not exceeding 5 years from the date of opening the bid. In the event of any discrepancy in the test reports i.e. any test report not acceptable or any/all type tests (including additional type tests, if any) not carried out, same shall be carried out without any cost implication to TPCODL. In case the type test certificates are dated beyond 5 years and up to 10 years maintaining basic component design same then deviation should be submitted on vendor letter head. TPCODL will have the rights to accept/reject the same.

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 market place for a length of time, depending upon the seriousness of the violation. Examples of violations include, but are not limited to:

- Failure to honour 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 the overall **all-inclusive lowest cost for the individual LOT** as defined in the tender BOQ as calculated in Schedule of Items [Annexure I]. TPCODL reserves the right to split the order line item wise and / or quantity wise, among more than one Bidder. Hence all bidders are advised to quote their most competitive rates.
- TPCODL reserves the right to assign maximum number of lots to single bidder provided the annual turnover of the BA is more than the order value
- Bidder has to quote against selected Lot of Schedule of Items [Annexure I]. Failing to do so, TPCODL may reject the bids.

NOTE: In case of a new bidder not registered with TPCODL, factory inspection and evaluation shall be carried out to ascertain bidder's manufacturing capability and quality procedures. However, TPCODL reserves the right to carry out factory inspection and evaluation for any bidder prior to technical qualification. In case a bidder is found as Disqualified in the factory evaluation, their bid shall not be evaluated any further and shall be summarily rejected. The decision of TPCODL shall be final and binding on the bidder in this regard.

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

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 e-mail through TPCODL website/ e-tender portal/e-mail.

Bids shall be submitted in 3 (Three) parts:

FIRST PART: "EMD" as applicable shall be submitted. The EMD shall be valid for 210 days from the due date of bid submission in the form of BG / online NEFT/ RTGS transfer / Bank Draft / Bankers Pay Order (issued from a scheduled Bank) favoring 'TP Central Odisha Distribution Limited "only. 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/ 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

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)*

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- c) Qualified manpower 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*)

The technical bid shall be properly indexed and is to be submitted through authorized person in shape of hard copy in duplicate. (Not applicable to this tender / Hard Copy of Technical Bids need not be submitted.)

The technical bid shall be properly indexed and is to be submitted through E-Tender portal of TPCODL.

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.

FOR BIDS INVITED THROUGH E-PROCUREMENT PORTAL:

The interested bidders are requested to obtain user name and password for purpose of bid submission through e-procurement portal of TPCODL, Bhubaneswar

Bids have to be mandatorily submitted only through ARIBA e-procurement portal of TPCODL. Bids submitted through any other form/ route shall not be admissible

The interested bidders are requested to obtain user name and password for purpose of bid submission through e-procurement portal(tatapower.sourcing.ariba.com).

Bids shall be submitted in 3 (Three) parts on the assigned folder of e-procurement site. May please refer the user manual available at (tatapower.sourcing.ariba.com).

Bids have to be mandatorily submitted only through e-procurement portal of TPCODL. Bids submitted through any other form/ route shall not be admissible.

The EMD in the form of Bank Draft / BG / Bankers Pay Order shall be submitted in original hard copy and then placed in sealed envelope which shall be clearly marked as below:

EMD for Lot 1 / 2

“RC for Supply of Different Size 11 kV and 33 kV XLPE UG Cable”

Please mention our Enquiry Number: - TPCODL/P&S/1000000089/2021-22 on the Tender and drop the same at Tata Power Central Odisha Distribution Limited, 2nd Floor, IDCO Towers, Janpath, Bhubaneswar-751022.

The envelope shall be addressed to:

Chief (Procurement & Stores)

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NIT No.: TPCODL/P&S/1000000089/2021-22

Tata Power Central Odisha Distribution Limited
2nd Floor, IDCO Towers, Janpath, Bhubaneswar-751022

The envelope shall also bear the Name and Address of the Bidder along with our Tender No. and subject.

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.

The Bidder has the option of sending the Bids in person or by post. **(NOT APPLICABLE TO THIS TENDER)** However late receipt due to postal delay or any other reason will not be entertained. Bids submitted by Email/ Telex/ Telegram / Fax will be rejected. No request from any Bidder to the TPCODL to collect the proposals from Courier/ Airlines/ Cargo Agents etc. shall be entertained by the TPCODL.

SIGNING OF BID DOCUMENTS:

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

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

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

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

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

3.2 Contact Information

All the bidders are requested to send their pre-bid queries (if any) against this tender through e-mail within the stipulated timelines. The consolidated reply to all the queries received shall be posted on TPCODL website by the stipulated timelines as detailed in calendar of events.

Communication Details:

Contracts:-

Name : Vibhor Kumar Singh, Procurement

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Contact No: 8130485135

E-Mail ID: vibhor.singh@tpcentralodisha.com

Name: Mr. D.P.Das, Sr.GM, Contracts

Contact No: 9438297571

E-Mail ID: debaprasad.das@tpcentralodisha.com

Technical Team HoG:-

Name: Mr. Niranjan Khuntia, HoG, Engineering

Contact No: 9223589453

E-Mail ID : Niranjan.Khuntia@tpcentralodisha.com

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 & total price with taxes, duties, packing & freight up to destination loading unloading at central store Bhubaneswar/ Choudwar 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.

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

3.4 Bid Currencies

Prices shall be quoted in Indian Rupees Only.

3.5 Period of Validity of Bids

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

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

3.6 Alternative Bids

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

3.7 Modifications and Withdrawal of Bids

The bidder is not allowed to modify or withdraw its bid after the Bid's submission. The EMD

as submitted along with the bid shall be liable for forfeiture in such event.

3.8 Earnest Money Deposit (EMD)

The bidder shall furnish, as part of its bid, an EMD amounting as specified in the tender. The EMD is required to protect the 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 favour of "TP Central Odisha Distribution Limited", payable at Bhubaneswar.
- Online transfer of requisite amount through NEFT/ RTGS.
- Bank Guarantee valid for 210 days after due date of submission.

The EMD shall be forfeited in case of:

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

Or

- b) The case of a successful bidder, if the Bidder does not
- i) accept the purchase order, or
 - ii) furnish the required performance security BG

3.9 Type Tests (if applicable)

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

4.0 Bid Opening & Evaluation process

4.1 Process to be confidential

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

4.2 Technical Bid Opening

Bids will be opened at Corporate Office of TPCODL as per the schedule mentioned in Calendar of Events. In case of limited tenders, the bids shall be opened internally by TPCODL. In case of Open Tenders, the bids shall be opened in the presence of accredited representatives of bidders who may choose to be present at the time of tender opening. 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. The salient particulars of the techno commercial bid will be read out at the sole discretion of TPCODL.

4.3 Preliminary Examination of Bids/ Responsiveness

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

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

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

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

4.4 Techno Commercial Clarifications

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

4.5 Price Bid Opening

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

4.7 Reverse Auctions

TPCODL reserves the right to conduct the reverse auction (instead of public opening of price bids) for the products/ services being asked for in the tender. The terms and conditions for such

reverse auction events shall be as per the Acceptance Form attached as Annexure VI of this document. The bidders along with the tender document shall mandatorily submit a duly signed copy of the Acceptance Form attached as Annexure VI as a token of acceptance for the same.

5.0 Award Decision

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

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

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

6.0 Order of Preference/Contradiction:

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

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

7.0 Post Award Contract Administration

7.1 Special Conditions of Contract

1. 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.
2. BA shall submit GTP / Drawing within 2 weeks from issuance of rate contract. In case BA does not get necessary approvals for issuance of manufacturing clearances / CAT-A within mentioned / mutually agreed timelines, then TPCODL reserve the right to cancel issued rate contract / release order and also reserve the right to forfeit EMD / PBG.
3. Delivery period shall be within 60 days from date of receipt of release order / CAT-A issuance, whichever is later
4. MDCC clause shall be applicable.

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5. Business Associate (BA) shall submit applicable Performance Bank Guarantee as per GCC within 30 days of issuance of RC or RO.
PBG applicable shall be 5% of RC Value or 10% of RO value. PBG submitted, shall be released after completion of applicable guarantee period plus three months.
6. 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.
7. 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
8. Quotation in all BOM items is mandatory, and bid shall be rejected if any line of found blank in un price bid
9. All other terms and conditions of TPCODL General Conditions of Contract shall be applicable.

7.2 Drawing Submission & Approval

The relevant drawings and GTPs need to be submitted by the successful bidder to TPCODL for approval as per special condition of contract mentioned in point no. 7.1.

The relevant drawings and GTPs need to be submitted within two weeks of receipt of firm Purchase order / Release Order.

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.

7.3 Delivery Terms

As specified in Special conditions of contract clause no 7.1.

7.4 Guarantee / Warranty Period

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

7.5 Payment Terms

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

In-Case the BA fails to furnish required Performance Bank Guarantee (PBG) as per TPCODL GCC format before raising their Invoice then the PBG amount shall be deducted and retained by TPCODL from the first bill submitted by the BA and the balance amount due will be released. However, in such a case the amount retained towards PBG shall be paid to BA either

on submission of the required PBG or on expiry of the guarantee period of material supplied/services provided, whichever is earlier

7.6 Climate Change

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

7.7 Ethics

- i. 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.
- ii. TPCODL work practices are governed by the Tata Code of Conduct which emphasizes on the following:
- iii. We shall select our suppliers and service providers fairly and transparently.
- iv. 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.
- v. 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.
- vi. 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.
- vii. We respect our obligations on the use of third party intellectual property and data.
- viii. Bidder is advised to refer GCC attached at Annexure IX for more formation. Any ethical concerns with respect to this tender can be reported to the following e-mail ID:

8.0 Specification and standards

As per Annexure II.

9.0 General Condition of Contract

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

10.0 Safety

As per Annexure IX – Safety Code of Conduct

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



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ANNEXURE I

Schedule for Items

Lot No.	Item Description	Unit	Qty	Unit Price (Rs)	GST (Rs.)	All incl. Unit Price (Rs)	All incl. BOQ Price (Rs.)
1	CABLE 11 KV AL 3CX400 SQMM XLPE ARM	20,000	Mtr.				
	CABLE 11 KV AL 3CX300 SQMM XLPE ARM	5,000	Mtr.				
	CABLE 11 KV AL 3CX120 SQMM XLPE ARM	10,000	Mtr.				
	CABLE 11 KV AL 3CX95 SQMM XLPE ARM	10,000	Mtr.				
All incl. Value for Lot-1 (Rs.)							
2	CABLE 33 KV AL 3CX400 SQMM XLPE ARM	20,000	Mtr.				
	CABLE 33 KV AL 3CX300 SQMM XLPE ARM	5,000	Mtr.				
	CABLE 33 KV AL 1CX400 SQMM XLPE ARM	40,000	Mtr.				
	CABLE 33 KV AL 1CX630 SQMM XLPE ARM	10,000	Mtr.				
All incl. Value for Lot-2 (Rs.)							
HSN Code:	All incl. Value of Lot-1 and Lot-2 (Rs.)						

NOTE:

- The bidder can select the Lot in which they are willing to participate. The bidder has to furnish the EMD based on their choice of participation of the Lot.
- The bidders are advised to quote prices strictly in the above format and for all the line items as mentioned above. Failing to do so, bids are liable for rejection.
- The bidder must fill each and every column of the above format. *Mentioning “extra/inclusive “in any*



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of the column may lead for rejection of the price bid.

- No cutting/ overwriting in the prices is permissible.
- **Bidder needs to quote mandatorily for each line item of the BoQ**
- The unit price to be indicated in col. No. 5 should be exclusive of GST which are to be indicated in separate column NO. 6 meant for the purpose.
- The Quantity mentioned above is tentative and for evaluation purpose. The actual quantity may vary.
- The above quoted rates includes non-returnable steel drums as per technical specification
- The prices shall be inclusive of loading, unloading & delivery at Central Store, TPCODL Bhubaneswar / Choudwar, Odisha.



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ANNEXURE II
Technical Specifications

Attached: Technical Specification



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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 **specifically** 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:



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

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:-

S. No.	Documents attached	Yes / No / Not Applicable
1	EMD of required value	
2	Tender Fee as mentioned in this RFQ	
3	Company profile/organogram	
4	Signed copy of this RFQ as an unconditional acceptance	
5	Duly filled schedule of commercial specifications (Annexure IV)	
6	Sheet of commercial/technical deviation if any (Annexure III)	
7	Balance sheet for the last completed three financial years; mandatorily enclosing Profit & loss account statement	
8	Acknowledgement for Testing facilities if available (duly mentioned on bidder letter head)	
9	List of Machine/tools with updated calibration certificates if applicable	
10	Details of order copy (duly mentioned on bidder letter head)	
11	Order copies as a proof of quantity executed	
12	Details of Type Tests if applicable (duly mentioned on bidder letter head)	
13	All the relevant Type test certificates as per relevant IS/IEC (CPRI/ERDA/other certified agency) if applicable	
14	Project/supply Completion certificates	
15	Performance certificates	
16	Client Testimonial/Performance Certificates	
17	Credit rating/solvency certificate	
18	Undertaking regarding non blacklisting (On company letter head)	
19	List of trained/untrained Manpower	
20	PAN, GST, PF, ESIC (The bidder must have all statutory compliance like valid PAN, GSTN etc. The bidder must submit the copy of all these registrations)	
21	Power of Attorney undertaking (Proper authorization letter/ Power of Attorney to sign the tender on the behalf of bidder)	



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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 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 of an auction event is restarted, the best bid as already available in the system shall become the start price for the new auction.
7. In case the bidder fails to participate in the auction event due any reason whatsoever, it shall be presumed that the bidder has no further discounts to offer and the initial bid as submitted by the bidder as a part of the tender shall be considered as the bidder's final no regret offer. Any offline price bids received from a bidder in lieu of non-participation in the auction event shall be out- rightly rejected by TPCODL.
8. The bidder shall be prepared with competitive price quotes on the day of the bidding event.
9. The prices as quoted by the bidder during the auction event shall be inclusive of all the applicable taxes, duties and levies and shall be FOR at TPCODL site.
10. The prices submitted by a bidder during the auction event shall be binding on the bidder.
11. No requests for time extension of the auction event shall be considered by TPCODL.
12. The original price bids of the bidders shall be reduced on pro-rata basis against each line item based on the final all-inclusive prices offered during conclusion of the auction event for arriving at Contract amount.

Signature & Seal of the Bidder



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ANNEXURE VII

SCOPE OF WORK

Supply of Material as per Annexure-1



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Annexure VIII

GENERAL CONDITIONS OF CONTRACT

General Conditions of Contract Attached as Annexure to this document.



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ANNEXURE IX

Contractor's Safety Code of Conduct

TPCODL Follows safety management system and safety code of conduct as per its parent company TATA Power which is as below:

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.



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- 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.
- 3.7. **Category A Vendor:** Vendor 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.



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- 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.
- 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 Safety Terms and Conditions
- 4.2.2 Undertake job as per Site Safety Management Plan CSM-F10 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 Site Safety Management Plan CSM-F10.
- 4.2.6 To follow all statutory requirements as per the laws of the land.



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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 CSM-F1-Safety Category Qualification Form.
- 4.3.2 Safety Evaluation of the bids as per evaluation format CSM-F-9 Safety Bid Evaluation Criteria
- 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 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) CSM-F1 –Safety Category Qualification Form
- 2) Safety Terms and Conditions

The document Safety Terms and Conditions provides the information about Tata Power safety System to the contractor. Contractor will submit the CSM-F1- Safety Category Qualification Form 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 CSM-F-5 Safety Potential Evaluation Criteria for Vendor Registration and will determine the category (Category A/B/C/D) for which the contractor will be registered. As mentioned in 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 Appendix 1: Process Flow Chart for Vendor Registration.

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:



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- 1) CSM-F7- Blank Safety Competency Form
- 2) CSM-F8 PPE requirements
- 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.)

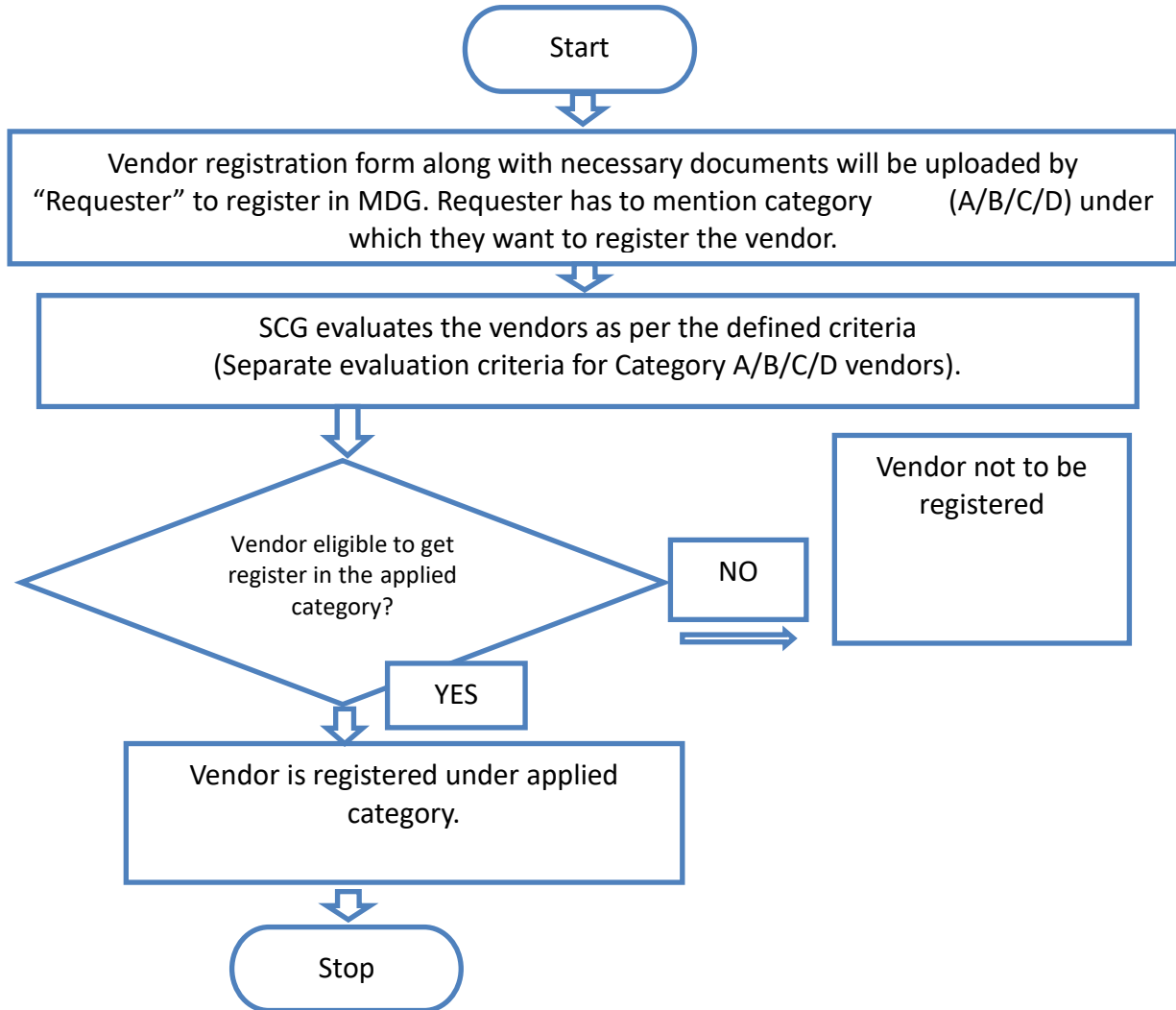
Otherwise the RFQ will be attached only with Safety Terms and Conditions. Long term and low value jobs (see definition) are exempted from the CSCC process.

Corporate Contracts will collect duly filled CSM-F7 Safety Competency Form 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 CSM-F9 Safety bid evaluation criteria. 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 Appendix 6: Process Flow Chart for issuing RFQ and PO significant health and safety risk associated with it.

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 CSM-F4 Safety Violation Penalty Criteria. Apart from this, monthly safety performance of the contractor will be evaluated based on the predetermined criteria as per CSM-F11 safety Performance Score 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 CSM- F-3- Safety Performance Evaluation Criteria. Please refer Appendix 10: Process Flow Chart for Safety Performance Evaluation. Percentage of retention amount is mentioned in safety terms and conditions.

Appendix 1: Process Flow Chart for Vendor Registration





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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 be 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 CSM-F-5.
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 / low risk

Category C Vendor: Vendors eligible for to carry out low or very low risk administrative and office jobs

Category D vendor: All Consultants, Medical Practitioners or vendors taking job from Tata Power and working from their own premises.

Name of the Vendor:			
Sr. No	Safety Information	Remarks	Attachment
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 copy of the certification



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Name of the Vendor:					
2	Safety Statistics for Last Three (3) Years - LTIFR - LTISR	Yes/No	Year 1 (Last FY)	Year 2	Year 3
			LTIFR		
			LTISR		
3	Do you have Safety Policy?	Yes/No	Attach copy of the safety policy.		
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	Attach copy of the safety organization structure.		
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 :

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.



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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.

Safety Performance Evaluation report- CSM-F-3

	<u>Lead Indicators</u>	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	%	100	15



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	Condition of tools, tackles and equipment by Order Manger. -			
	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

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:

Sr No	Description of violation	Severity	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/



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Sr No	Description of violation	Severity	Penalty
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/
37.	The HMTV/Mobile Crane operator does not have a valid HMTV 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	3	500/



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Sr No	Description of violation	Severity	Penalty
	than socket).		
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/
55.	Parking of vehicle without applying wheel choke at right front-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	500/
70.	Scotch block/wedge not provided, when the vehicle is parked.	3	500/
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/



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Sr No	Description of violation	Severity	Penalty
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.	<ul style="list-style-type: none"> • First Time 	3	Warning
101.	<ul style="list-style-type: none"> • Second Time 	4	1000/-

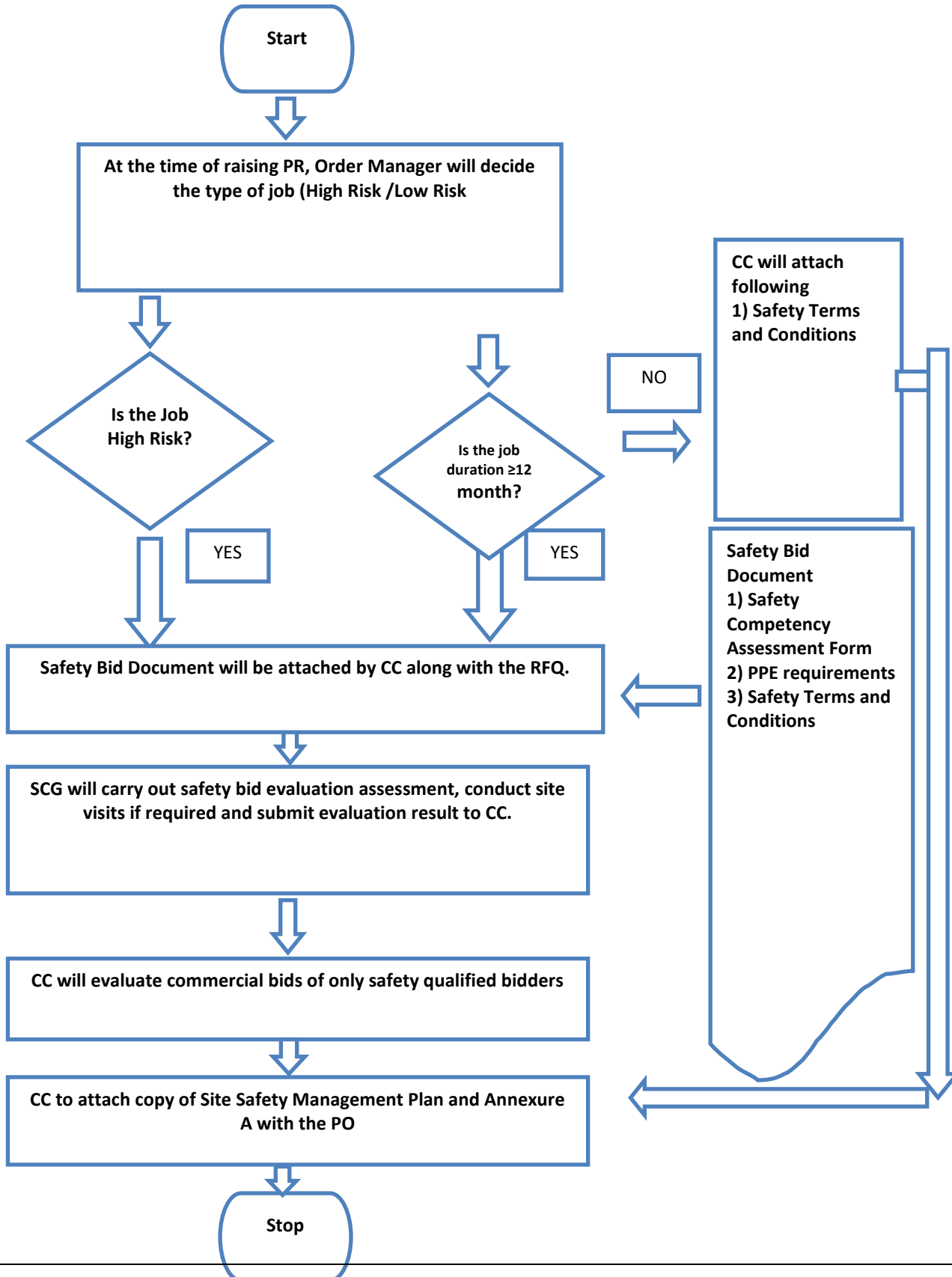


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Sr No	Description of violation	Severity	Penalty
102.	<ul style="list-style-type: none">• Third Time	5	5000/-
103.	Serious Violation of House Keeping (after 1st or 2nd warning to be decided by Project Manager depending on the severity)	5	Rs.10000/- and above
104.	Repeat Violation of same nature	5	5 X Penalty for Violation
105.	Appointment of subcontractor without his Safety Bid Evaluation and/or without the permission of engineer in charge or Order manager.	5	5% of Contract Value

TPCODL

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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.

1. Proposed Manpower Deployment Schedule : -

Category of Manpower Deployed	Minimum Qualification & Experience	Proposed Numbers against each category 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.



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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

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		
	Year 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 / No	If Yes, Year of Certification	If No, Target date for Certification
	ISO 9001			
	ISO 14001			
	OSHAS 18001 / ISO 45001			
	Any other (please specify.....)			

Note: Please attach certificates to support above. In case not accredited for above but applied for, application 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.

1	All contractor's employees at site	Safety Florescent Jacket (orange color), Safety helmet & safety shoes with Composite or steel toe cap
2	Workers mixing asphalt, cement, lime / concrete	Safety goggle & protective Hand gloves and footwear, Nose mask.
3	Welders / Grinders	Welding screen/goggles, safety shoes, leather hand gloves, aprons, leg guard
4	Stone breaker	Protective goggle, hearing protection, anti-vibration hand gloves and Protective clothing.
5	Electricians	Rubber hand gloves & Electrical resistant shoes.
6	Workers engaged in insulation using glass wool etc.	Respiratory mask & leather Hand gloves, goggles.
	Workers engaged in coal handling plant, ash handling plant and working in high dust area.	Dust mask, Hand gloves, protective goggles.
7	Workers working at a height of 1.8 Meter or above.	Double lanyard full body harness, fall arrestor 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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Appendix 9: CSM- F-10 Site Safety Management Plan / Method Statement

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: - Designation: - (e.g. Site Manager)	<u>Signature</u>	<u>Date</u>

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.)*



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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)

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)

6.0 Working/Activity Description: - *It is important that all operatives should have clear idea of those operational sequences and responsible supervisor must verify their competency prior to their engagement in operation.*

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*



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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 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
1.		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*










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checks and once those completed satisfactory, PTW (if applicable) to be closed and isolation arrangements to be restored by removing barricades/cautionary tags.

7.0 Task Specific Hazards: - Refer to Task Specific Risk Assessment and attach in appendix

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)							
	Yes /No	Yes /No	Yes /No	Yes /No	Yes /No	Yes /No	Yes /No



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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.*


7.0 "5S issues" / Waste Disposal/ Housekeeping and Environmental issues: *-Details waste disposal processes and or housekeeping activities, Details of environmental impacts and control measures.*



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

10.0 First Aid facilities and Nearby Hospitals Details

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

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

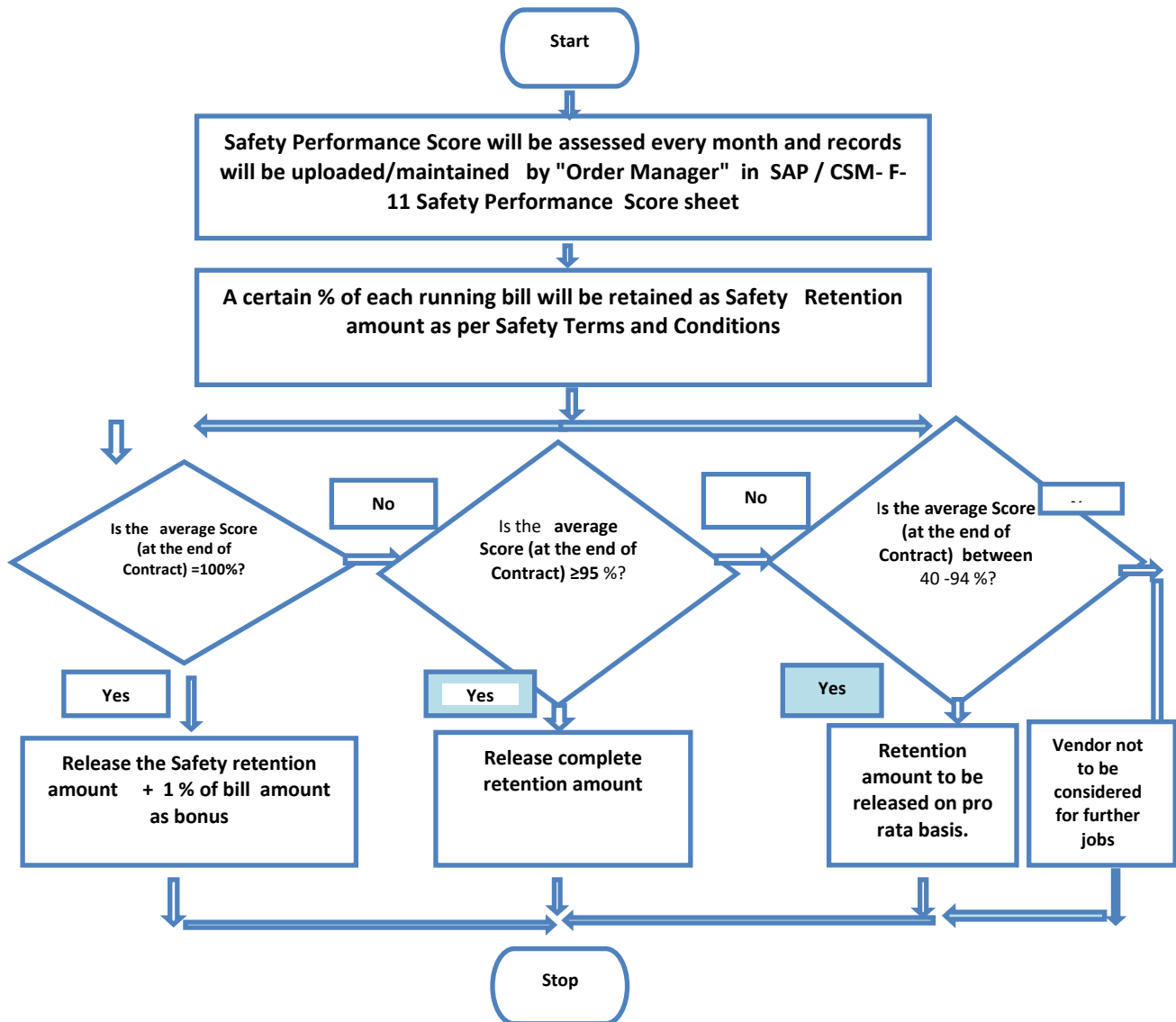
11.0 Occupational Health, Fitness and COVID-19 related Preparedness:

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 10: Process Flow Chart for Safety Performance Evaluation





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Appendix 11: CSM- F-11 Safety Performance Score

Sr.No	Parameter	Unit of Measurement	Target	Weight age	Actual Performance	Actual Score
Lead 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	

Safety Performance Evaluation Criteria

Lead Indicators

	Target
--	---------------



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% of Employee certified in TPSDI/Authorized agency	50%	100%	Less than 100%	
Score		10	5	
Target				
CFSA score	<=1.49	1.5 to 2.5	2.51 to 3.5	>=3.51
Score	20	15	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



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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
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 C

Sr. No	Description	Weight age (%)	Actual Score	Remarks
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



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Check List – Adequacy of Safety Statistics of Service Provider			Actual Marks obtained	Remarks
1	Check the safety statistics for last 3 years (LTIFR and LTISR)	Statistics available	5	
		Statistics not 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	

Annexure 12.3

Check List – Adequacy of Safety orientation & training process of Service provider			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	Marks
		≥80% of employees	5
		50 to 79 % of employee	2.5
		<50%	0
		Safety Supervisor	Marks
		≥80% of employees	10
		50 to 79 % of employee	6
		<50%	0
		Workmen	Marks
		≥80% of employees	10
		50 to 79 % of employee	6
		<50%	0
Total			25

Annexure 12.4



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Check List – Adequacy of organizational structure for safety professionals & engineers / supervisors.			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 employees		6
		Any other		0
3	Check availability of qualified workforce from government recognized institute/TPSDI.	Marks		
		100% of safety officers qualified		5
		50 – 99% of safety officers qualified		3
		<50		0
Total		15		

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
Manpower	Safety Officer (1 per 500 workers)	Qualification- Officer shall possess Advance Diploma In Industrial Safety by state technical board. Experience- Minimum 1-year	5	



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		experience in relevant field as mentioned in the job in PR.		
	Safety Supervisor (1 per work site up to max. 50 workers)	<p>Qualification- Supervisor shall possess ITI/ Diploma in relevant field.</p> <p>Experience- Minimum 2-year experience in relevant field as mentioned in the job in PR.</p> <p>Training – Trained and certified by TPSDI or equivalent institute in relevant safety procedures.</p> <p>Note: On request of the contractor/Users -TPDSI should vet & certify the skilled & experienced Technician if Technical Qualification is not adequate.</p>	5	
	Technician (Skilled workers as electrician, rigger, fitter, welder, cable jointer, line men etc)	<p>Experience- Minimum 2 year experience in relevant field as mentioned in the job in PR.</p> <p>Training – Trained and certified by TPSDI or equivalent institute in relevant safety procedures.</p>	5	
Tools & Tackles	Equipment / Machines/ Tools & Tackles(lifting and shifting tools)	<p>The list of Equipment /Machines / Tools and tackles to be used for job to be submitted by the contractor.</p> <p>Evaluation of the list will be carried out based on</p> <ol style="list-style-type: none"> 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. 	30	
Safety	Safety Records	Safety Records for last 3 years (as per	15	



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Records		vendor or as per our knowledge) – Recommendation?		
Safety Plan	HIRA/Contract Job Safety Plan	Adequacy of HIRA and Job Safety Plan with respect to relevant job. More weight age will be given to vendor for using mechanized work and advanced tools and equipment	20	
Accredited Bodies certificate	ISO-9001	ISO-9001	2	
	ISO-14001	ISO-14001	3	
	OHSAS 18001 ISO 45000	OHSAS 18001/ISO 45000	15	
		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

Annexure -13.1:

Checklist to be used: During site visit to check the adequacy Safety systems.			
		Observation	Score* (1-5)
1	Check the adequacy of safety policy and Safety Management system of the contractor.		



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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		

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
				Weather:		cloudy
		Responsible	Number Personnel Observed	Violations	Remarks	Leading Indicators
	Description					



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	Engineer	Contractors	Good Citizens	Violators	Number of Violations	Severity	Violations x Severity	4 & 5	PPE	Unsafe Act	Unsafe Condition
Area											
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											
Approximate Number of Workers Observed											
Number of People on Site											
% of Workers Observed											

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](#)

Indicative List of High-Risk Jobs -Generation Cluster											
Sl. 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										



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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

Sl. No.	Jobs				
1	Transmission Line Tower Erection on columns, near live lines, In congested areas, In creeks, In the Sea				
2	Conductor Stringing on Tower Using Tensioner & Puller in the area such 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 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				

Indicative List of High-Risk Jobs - Renewable Cluster

Sl. 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.				



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ANNEXURE X

TATA CODE OF CONDUCT

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 , Contracts & stores . e-mail ID: pkjain@tatapower.com

ANNEXURE XI 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

(Praveer Sinha)
CEO & Managing Director

Date: 15th June, 2018

TATA POWER
Lighting up Lives!



CORPORATE SUSTAINABILITY POLICY

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

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

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



(Praveer Sinha)
CEO & Managing Director

Date: 15th June, 2018





NIT No.: TPCODL/P&S/1000000089/2021-22

Annexure XII

Business Associate Registration Format

Attached as Annexure to this document

(Please Submit the duly filled in form as attached herewith and scanned copies of the relevant documents asked for in the form with scanned copy of a cancelled cheque for generation of BA code.)

	TP CENTRAL ODISHA DISTRIBUTION LIMITED		
	TECHNICAL SPECIFICATION		
Document Title	Technical Specification of 11kV Cable		
Document No.	ENG-HV-2010	Eff. Date: 01.06.2020	
Revision No.	00	Page 1 of 21	
Prepared by:	Reviewed By:	Approved By:	Issued By:

CONTENTS

- 1.0 SCOPE
- 2.0 APPLICABLE STANDARDS
- 3.0 CLIMATIC CONDITIONS OF THE INSTALLATION
- 4.0 GENERAL TECHNICAL REQUIREMENTS
- 5.0 GENERAL CONSTRUCTIONS
- 6.0 NAME PLATE AND MARKING
- 7.0 TESTS
- 8.0 TYPE TEST CERIFICATES
- 9.0 PRE-DISPATCH INSPECTION
- 10.0 INSPECTION AFTER RECEIPT AT STORE
- 11.0 GUARANTEE
- 12.0 PACKING
- 13.0 TENDER SAMPLE
- 14.0 QUALITY CONTROL
- 15.0 MINIMUM TESTING FACILITIES
- 16.0 MANUFACTURING ACTIVITIES
- 17.0 SPARES, ACCESSORIES AND TOOLS
- 18.0 DRAWING AND DOCUMENTS
- 19.0 GUARANTEED TECHNICAL PARTICULARS
- 20.0 SCHEDULE OF DEVIATIONS

+ Annexure: Inspection Test Plan

Initiator		HoG (Plant Engineering)	
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TP CENTRAL ODISHA DISTRIBUTION LIMITED	
TECHNICAL SPECIFICATION	
Document Title	Technical Specification of 11kV Cable
Document No.	ENG-HV-2010 Eff. Date: 01.06.2020
Revision No.	00 Page 2 of 21
Prepared by:	Reviewed By: Approved By: Issued By:

1.0	SCOPE	<p>This specification covers technical requirements of design, manufacture, testing at manufacturer's works, packing, forwarding, supply and unloading at stores/site, performance of 11 kV cable complete with all accessories for trouble free and efficient operations.</p> <p>Inclusive sizes:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%; text-align: center;">3 CORE CABLE</th> <th style="width: 50%; text-align: center;">1 CORE CABLE</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">3C X 95 sq.mm.</td> <td rowspan="3" style="text-align: center; vertical-align: middle;">1C X 400 sq.mm.</td> </tr> <tr> <td style="text-align: center;">3C X 120 sq.mm.</td> </tr> <tr> <td style="text-align: center;">3C X 150 sq.mm.</td> </tr> <tr> <td style="text-align: center;">3C X 300 sq.mm.</td> <td rowspan="2" style="text-align: center; vertical-align: middle;">1C X 630 sq.mm.</td> </tr> <tr> <td style="text-align: center;">3C X 400 sq.mm.</td> </tr> <tr> <td style="text-align: center;">3C X 400 sq.mm. (co-extruded cable)</td> <td style="text-align: center;">1C X 1000 sq.mm.</td> </tr> </tbody> </table>	3 CORE CABLE	1 CORE CABLE	3C X 95 sq.mm.	1C X 400 sq.mm.	3C X 120 sq.mm.	3C X 150 sq.mm.	3C X 300 sq.mm.	1C X 630 sq.mm.	3C X 400 sq.mm.	3C X 400 sq.mm. (co-extruded cable)	1C X 1000 sq.mm.																															
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2.0	APPLICABLE STANDARDS	<p>11 kV cable covered by this specification shall unless otherwise stated, be designed, manufactured and tested in accordance with latest revisions of relevant Indian Standards/ IEC/ International Standards and shall conform to the regulations of local statutory authorities.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 20%; text-align: center;">IS 7098 (Part-2)</td> <td>Specification for Cross-linked polyethylene insulated PVC sheathed Cables Part: 2 - For working voltages from 3.3 kV up to and including 33 kV</td> </tr> <tr> <td style="text-align: center;">IS 8130</td> <td>Specification for Conductor for insulated electric cables & flexible cords</td> </tr> <tr> <td style="text-align: center;">IS 3975</td> <td>Low carbon galvanized steel wires, formed wires and tapes for Armouring of cables</td> </tr> <tr> <td style="text-align: center;">IS 10418</td> <td style="text-align: center;">Specification for Drums for Electric cables</td> </tr> <tr> <td style="text-align: center;">IS 5831</td> <td style="text-align: center;">Specification for PVC insulation and sheath of electric cables</td> </tr> <tr> <td style="text-align: center;">IS: 3975</td> <td>Low carbon galvanized steel wires, formed wires and tapes for armoring of cables</td> </tr> <tr> <td style="text-align: center;">IEC-60228</td> <td style="text-align: center;">Conductor for insulated cables</td> </tr> <tr> <td style="text-align: center;">IEC-60502 (Part-2)</td> <td>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).</td> </tr> <tr> <td style="text-align: center;">IEC-60811</td> <td style="text-align: center;">Test methods for insulations and sheaths of electric cables and cords.</td> </tr> <tr> <td style="text-align: center;">ASTM D 6097</td> <td>Standard test method for relative resistance to vented water tree growth in Solid Dielectric insulating materials.</td> </tr> <tr> <td style="text-align: center;">ICEA T 31-610</td> <td>Test method for conducting longitudinal water penetration resistance tests on blocked conductors</td> </tr> <tr> <td style="text-align: center;">IS 10810</td> <td style="text-align: center;">Methods of tests for cables</td> </tr> <tr> <td style="text-align: center;">IS 4905</td> <td style="text-align: center;">Methods for random sampling</td> </tr> <tr> <td style="text-align: center;">IS 4984</td> <td style="text-align: center;">High density polyethylene pipes for water supply</td> </tr> <tr> <td style="text-align: center;">IS 2530</td> <td>Methods of test for polyethylene moulding materials and polyethylene compounds</td> </tr> <tr> <td style="text-align: center;">IS 4826</td> <td style="text-align: center;">Specification for hot dipped galvanized coatings on round steel wires</td> </tr> <tr> <td style="text-align: center;">IEC 332</td> <td style="text-align: center;">Test on electric cables on the fire conditions</td> </tr> <tr> <td style="text-align: center;">IS 5:2007</td> <td style="text-align: center;">Colours for ready mixed paints and enamels</td> </tr> <tr> <td style="text-align: center;">ASTM 2863</td> <td>Standard Test Method for Measuring the Minimum Oxygen Concentration to Support Candle-Like Combustion of Plastics (Oxygen Index)</td> </tr> <tr> <td style="text-align: center;">IEC 60754</td> <td>Apparatus and procedure for the measurement of the amount of halogens evolved during the combustion of materials taken from electric or optical fiber cable constructions</td> </tr> <tr> <td style="text-align: center;">ASTM 2843</td> <td>Standard Test Method for Density of Smoke from the Burning or Decomposition of Plastics</td> </tr> </tbody> </table> <p><i>*In case of any conflict on any technical particular in the specification, the stricter requirement mentioned in the relevant standard shall be valid.</i></p>	IS 7098 (Part-2)	Specification for Cross-linked polyethylene insulated PVC sheathed Cables Part: 2 - For working voltages from 3.3 kV up to and including 33 kV	IS 8130	Specification for Conductor for insulated electric cables & flexible cords	IS 3975	Low carbon galvanized steel wires, formed wires and tapes for Armouring of cables	IS 10418	Specification for Drums for Electric cables	IS 5831	Specification for PVC insulation and sheath of electric cables	IS: 3975	Low carbon galvanized steel wires, formed wires and tapes for armoring of cables	IEC-60228	Conductor for insulated cables	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).	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3.0	CLIMATIC CONDITIONS OF THE INSTALLATION	<p>The service conditions shall be as follows:</p> <ol style="list-style-type: none"> 1. Maximum altitude above sea level 1,000m 2. Maximum ambient air temperature 50°C 3. Maximum daily average ambient air temperature 35°C 4. Minimum ambient air temperature 0°C 5. Maximum relative humidity 95% 6. Average number of thunderstorm days per annum (isokeraunic level) 70 7. Average number of rainy days per annum 120 8. Average annual rainfall 150cm 9. Earthquakes of an intensity in horizontal direction - equivalent to seismic acceleration of 0.3g 10. Earthquakes of an intensity in vertical direction - equivalent to seismic acceleration of 0.15g (g being acceleration due to gravity) 11 .Wind velocity: 300 km/hr, 200 km/hr and 160 km/hr. <p>Environmentally, some of the regions, where the work will take place includes 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.</p>
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4.0	GENERAL TECHNICAL REQUIREMENTS	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">S.No.</th> <th style="width: 40%;">Description</th> <th style="width: 50%;">Requirement</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Voltage grade</td> <td>11 kV (Earthed system)</td> </tr> <tr> <td>2</td> <td>Max System voltage</td> <td>12 kV</td> </tr> <tr> <td>3</td> <td>Frequency</td> <td>50 Hz</td> </tr> <tr> <td>4</td> <td>Variation in frequency</td> <td>+/- 5%</td> </tr> <tr> <td rowspan="9" style="text-align: center; vertical-align: middle;">5</td> <td style="text-align: center;">Cable components</td> <td style="text-align: center;">3 CORE CABLE 1 CORE CABLE</td> </tr> <tr> <td style="text-align: center;">Conductor</td> <td colspan="2" style="text-align: center;">Watertight Stranded Aluminum (compacted circular)</td> </tr> <tr> <td style="text-align: center;">Conductor screen</td> <td colspan="2" style="text-align: center;">Semi conducting tape and screen</td> </tr> <tr> <td style="text-align: center;">Insulation</td> <td colspan="2" style="text-align: center;">XLPE</td> </tr> <tr> <td style="text-align: center;">Insulation screen</td> <td style="text-align: center;">Shall have three layers: a) Bonded Semiconducting, b) Semiconducting water swellable tape, c) Metallic copper tape</td> <td style="text-align: center;">Shall have three layers: a) Bonded Semiconducting, b) Semiconducting water swellable tape, c) Metallic copper tape d) Polyester transparent tape over copper screen</td> </tr> <tr> <td style="text-align: center;">Core identification strip</td> <td style="text-align: center;">Beneath copper screen</td> <td style="text-align: center;">NA</td> </tr> <tr> <td style="text-align: center;">Inner sheath</td> <td style="text-align: center;">Pressure Extruded PVC ST- 2 with PP fillers</td> <td style="text-align: center;">Extruded PVC ST-2</td> </tr> <tr> <td style="text-align: center;">Armour:</td> <td style="text-align: center;">GI wire round binded with rubberized cotton binding tape</td> <td style="text-align: center;">Aluminum wire binded by rubberized cotton tape</td> </tr> <tr> <td style="text-align: center;">Outer sheath</td> <td colspan="2" style="text-align: center;">PVC ST-2 FRLSH type of colour 'Crimson Red shade' code: 540 as per IS 5:2007</td> </tr> <tr> <td style="text-align: center;">Outer sheath (For co-extruded cable)</td> <td style="text-align: center;">Shall have two layers: a) Inner layer : HDPE ST-7, Crimson Red shade b) Outer sheath: HDPE ST-7, Black colour</td> <td style="text-align: center;">NA</td> </tr> </tbody> </table>	S.No.	Description	Requirement	1.	Voltage grade	11 kV (Earthed system)	2	Max System voltage	12 kV	3	Frequency	50 Hz	4	Variation in frequency	+/- 5%	5	Cable components	3 CORE CABLE 1 CORE CABLE	Conductor	Watertight Stranded Aluminum (compacted circular)		Conductor screen	Semi conducting tape and screen		Insulation	XLPE		Insulation screen	Shall have three layers: a) Bonded Semiconducting, b) Semiconducting water swellable tape, c) Metallic copper tape	Shall have three layers: a) Bonded Semiconducting, b) Semiconducting water swellable tape, c) Metallic copper tape d) Polyester transparent tape over copper screen	Core identification strip	Beneath copper screen	NA	Inner sheath	Pressure Extruded PVC ST- 2 with PP fillers	Extruded PVC ST-2	Armour:	GI wire round binded with rubberized cotton binding tape	Aluminum wire binded by rubberized cotton tape	Outer sheath	PVC ST-2 FRLSH type of colour 'Crimson Red shade' code: 540 as per IS 5:2007		Outer sheath (For co-extruded cable)	Shall have two layers: a) Inner layer : HDPE ST-7, Crimson Red shade b) Outer sheath : HDPE ST-7, Black colour	NA
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	Conductor screen	Semi conducting tape and screen																																													
	Insulation	XLPE																																													
	Insulation screen	Shall have three layers: a) Bonded Semiconducting, b) Semiconducting water swellable tape, c) Metallic copper tape	Shall have three layers: a) Bonded Semiconducting, b) Semiconducting water swellable tape, c) Metallic copper tape d) Polyester transparent tape over copper screen																																												
	Core identification strip	Beneath copper screen	NA																																												
	Inner sheath	Pressure Extruded PVC ST- 2 with PP fillers	Extruded PVC ST-2																																												
	Armour:	GI wire round binded with rubberized cotton binding tape	Aluminum wire binded by rubberized cotton tape																																												
	Outer sheath	PVC ST-2 FRLSH type of colour 'Crimson Red shade' code: 540 as per IS 5:2007																																													
Outer sheath (For co-extruded cable)	Shall have two layers: a) Inner layer : HDPE ST-7, Crimson Red shade b) Outer sheath : HDPE ST-7, Black colour	NA																																													

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5.0	GENERAL CONSTRUCTION	<p>The cross linked polyethylene insulated (XLPE) Cable (Dry cured and 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.</p> <p>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 for different laying configuration of cables shall be provided by the bidder.</p> <p>(A) Conductor:</p>					
		S.No.	Parameter	Requirement			
		1	Conductor	As per IS 8130			
		2	Class	Class II			
		3	Material	Plain Aluminium, grade H2/H4			
		4	Shape	Stranded Compacted Circular			
		5	No. of strands & electrical parameters	Nominal size of conductor mm ²	Min. number of strands	Max. DC resistance @ 20 deg C (Ohm/km)	Conductor Short circuit current rating for 1 second
				95	15	0.320	9 kA
				120	15	0.253	11.3 kA
				150	15	0.206	14.2 kA
				300	30	0.10	28.3 kA
400	53			0.0778	37.7 kA		
630	53			0.0469	59.4 kA		
1000	53	0.0291	94.3 kA				
6	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.					
7	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.					
8	Raw material supplier	Conductor raw material shall be procured from reputed suppliers viz., BALCO/ HINDALCO/ NALCO/ Vedanta only.					
9	Conductor jointing	Not acceptable in any strand or in any conductor after it is stranded.					
10	Diameter of conductor	To be specified by bidder					
11	Weight of conductor/km (approx.)	Nominal size of conductor mm ²	Min. weight of conductor (kg/km/core)				
		95	244				
		120	308				
		150	390				
		300	780				
		400	1080				
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		630	1650
		1000	2600

(B) Conductor Screen

S.No.	Parameter	Requirement
1	Material	1st layer: Semi-conducting tape 2nd layer: Semi-conducting compound
2	Configuration	1st layer: Semi-conducting tape shall be applied over conductor with nominal thickness of 0.2 mm. 2nd layer: Semi-conducting conductor screen shall be applied through triple extrusion process.
3	Min. thickness	Minimum thickness of conductor screen shall be 0.5 mm at any point of measurement.
4	Resistivity	Resistivity of semiconducting conductor screen shall not exceed 1000 Ω-m
5	Uniformity on interfacial region	Interfacial region between conductor screen and insulation shall 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 only

(C) Insulation

S.No.	Parameter	Requirement
1	Material and extrusion process	XLPE insulation shall be applied through CCV/VCV line by triple 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 only. b) Both XLPE and semi conductive compounds shall be used from same raw material supplier.
3	Thickness and Eccentricity	a) Minimum thickness of insulation shall be 3.14 mm at any point of measurement. b) Nominal thickness shall be 3.6 mm. 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.

(D) 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
2	Configuration	a) 1st 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/

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		<p>nicks/scratches/ other visible defects. Min. thickness shall be 0.3 mm at any point of measurement.</p> <p>b) 2nd 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%.</p> <p>Core identification strip:</p> <table border="1"> <thead> <tr> <th style="text-align: center;">3 CORE CABLE</th> <th style="text-align: center;">1 CORE CABLE</th> </tr> </thead> <tbody> <tr> <td>Each of the three core identification strips shall be applied longitudinally beneath copper screen. Width of the coloured strip shall be 7-10 mm.</td> <td style="text-align: center;">NA</td> </tr> </tbody> </table> <p>c) 3rd 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.</p>	3 CORE CABLE	1 CORE CABLE	Each of the three core identification strips shall be applied longitudinally beneath copper screen. Width of the coloured strip shall be 7-10 mm.	NA
3 CORE CABLE	1 CORE CABLE					
Each of the three core identification strips shall be applied longitudinally beneath copper screen. Width of the coloured strip shall be 7-10 mm.	NA					
3	Raw material supplier	Semiconducting compound shall be procured from reputed raw material suppliers viz., Dow/Borealis/Hanwa only				
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				

(E) Fillers

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

(F) Inner Sheath:

S.No.	Parameter	Requirement	
		3 CORE CABLE	1 CORE CABLE
1	Material	Black coloured Polyvinyl chloride (PVC) type ST-2 compound	
2	Configuration	The laid up cores shall be provided with <i>pressure extruded</i> 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.	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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		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.			
3	Raw material supplier	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.			
4	Min. thickness At any point of measurement	3 CORE CABLE		1 CORE CABLE	
		3CX95 sq.mm.	0.6 mm	1CX400 sq.mm.	0.4 mm
		3CX120 sq.mm.	0.6 mm		
		3CX150 sq.mm.	0.6 mm	1CX630 sq.mm.	0.5 mm
		3CX300 sq.mm.	0.7 mm		
		3CX400 sq.mm.	0.7 mm	1CX1000 sq.mm.	0.6 mm

(G) Armour:

S.No.	Parameter	Requirement			
		3 CORE CABLE		1 CORE CABLE	
1	Material	Low carbon annealed hot dipped galvanized round steel wires		H4 Grade Aluminium wires	
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 heavily coated as per IS 4826:1979.		It shall comply with the requirements of IS 8130 along with latest amendments.	
3	Nominal Dimensions	3 CORE CABLE		1 CORE CABLE	
		3CX95 sq.mm.	2.5 mm (GI wire)	1CX400 sq.mm.	2.0 mm (Aluminum wire)
		3CX120 sq.mm.	2.5 mm (GI wire)		
		3CX150 sq.mm.	2.5 mm (GI wire)	1CX630 sq.mm.	2.0 mm (Aluminum wire)
		3CX300 sq.mm.	3.15 mm (GI Wire)		
		3CX400 sq.mm.	4.00 mm (GI wire)	1CX1000 sq.mm.	2.5 mm (Aluminum wire)
4	Approx. Armour Short circuit rating of armour for 1 sec (kA)	3 CORE CABLE			
		3CX95 sq.mm.	12	1CX400 sq.mm.	15
		3CX120 sq.mm.	13		
		3CX150 sq.mm.	14	1CX630 sq.mm.	19

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			<table border="1"> <tr> <td>3CX300 sq.mm.</td> <td>23</td> <td>1CX1000 sq.mm.</td> <td>28</td> </tr> <tr> <td>3CX400 sq.mm.</td> <td>31</td> <td></td> <td></td> </tr> </table>	3CX300 sq.mm.	23	1CX1000 sq.mm.	28	3CX400 sq.mm.	31		
3CX300 sq.mm.	23	1CX1000 sq.mm.	28								
3CX400 sq.mm.	31										
5	Joining 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 such that 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 only.	Aluminium armour shall be procured from reputed raw material suppliers viz., BALCO/ HINDALCO/ NALCO/ Vedanta only.								

(H) Outer Sheath (for normal cable)

S.No.	Parameter	Requirement			
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	Min. Thickness at any point of measurement	3 CORE CABLE		1 CORE CABLE	
		3CX95 sq.mm.	2.2 mm	1CX400 sq.mm.	1.72 mm
		3CX120 sq.mm.	2.2 mm	1CX630 sq.mm.	1.88 mm
		3CX150 sq.mm.	2.36 mm	1CX1000 sq.mm.	2.2 mm
		3CX300 sq.mm.	2.84 mm		
		3CX400 sq.mm.	3.00 mm		
4	Colour	Crimson Red, colour code: 540 as per IS 5:2007.			
5	Surface uniformity	Surface of outer sheath shall be free from cavity/ nicks/ other visible defects.			
6	Raw material supplier	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.			
7	Weight of outer sheath/km	To be provided by bidder			

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		<p>(I) Outer Sheath (for co-extruded 3 core cable)</p> <table border="1"> <thead> <tr> <th>S.No.</th> <th>Parameter</th> <th>Requirement</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Inner layer</td> <td>HDPE ST-7, Crimson red of colour code 540, Minimum thickness at any point of measurement – 3 mm</td> </tr> <tr> <td>2</td> <td>Outermost layer</td> <td>HDPE ST-7, Black colour, Nominal Thickness at any point of measurement – 2 mm. Carbon content shall be as per IS 7098</td> </tr> <tr> <td>3</td> <td>Surface uniformity</td> <td>Surface of outer sheath shall be free from cavity/ nicks/ other visible defects.</td> </tr> <tr> <td>4</td> <td>Raw material supplier</td> <td>HDPE shall be procured from reputed raw material suppliers viz., Shakun, Kalpana, KLJ, SCJ Plastics, and Borealis only.</td> </tr> <tr> <td>5</td> <td>Weight of outer sheath/km</td> <td>To be provided by bidder</td> </tr> <tr> <td>6</td> <td>Weight of total HDPE/km</td> <td>To be provided by bidder</td> </tr> </tbody> </table> <p>(J) Sealing end cap:</p> <table border="1"> <thead> <tr> <th>S.No.</th> <th>Parameter</th> <th>Requirement</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Material</td> <td>Adhesive coated polyolefin heat shrinkable</td> </tr> <tr> <td>2</td> <td>Configuration</td> <td>Adhesive coated polyolefin heat shrinkable end cap shall be provided at both ends of the cable.</td> </tr> <tr> <td>3</td> <td>Additional requirements</td> <td>2 nos. additional cable end caps shall be provided with each drum and placed in the drum.</td> </tr> </tbody> </table> <p>(K) Other requirements</p> <table border="1"> <thead> <tr> <th>S.No.</th> <th>Parameter</th> <th>Requirement</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Overall diameter of cable</td> <td>To be provided by bidder</td> </tr> <tr> <td>2</td> <td>Weight of Overall cable</td> <td>To be provided by bidder</td> </tr> </tbody> </table>	S.No.	Parameter	Requirement	1	Inner layer	HDPE ST-7, Crimson red of colour code 540, Minimum thickness at any point of measurement – 3 mm	2	Outermost layer	HDPE ST-7, Black colour, 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 visible defects.	4	Raw material supplier	HDPE shall be procured from reputed raw material suppliers viz., Shakun, Kalpana, KLJ, SCJ Plastics, and Borealis only.	5	Weight of outer sheath/km	To be provided by bidder	6	Weight of total HDPE/km	To be provided by bidder	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.	S.No.	Parameter	Requirement	1	Overall diameter of cable	To be provided by bidder	2	Weight of Overall cable	To be provided by bidder
S.No.	Parameter	Requirement																																										
1	Inner layer	HDPE ST-7, Crimson red of colour code 540, Minimum thickness at any point of measurement – 3 mm																																										
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5	Weight of outer sheath/km	To be provided by bidder																																										
6	Weight of total HDPE/km	To be provided by bidder																																										
S.No.	Parameter	Requirement																																										
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6.0	NAME PLATE AND MARKING ON DRUM AND CABLE OUTER SHEATH	<p>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%.</p> <p>i. Following details shall be provided on flanges of drum:</p> <ol style="list-style-type: none"> 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. <p>ii. Following details shall be embossed on the outer PVC Jacket (for normal cable) & HDPE layer (for co-extruded cable): Embossing shall be clearly visible. At interval of every 1 meter, following details to be embossed:</p> <ol style="list-style-type: none"> a) Sequential meter marking (<i>shall be marked through printing</i>) b) Property of TPCODL c) Manufacturer name d) Month & Year of Manufacture e) Voltage grade f) Size of the cable g) Purchase Order no. h) Cable code
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7.0	TESTS	<p>All routine, acceptance & type tests shall be carried out in accordance with the relevant IS/IEC. All routine/acceptance tests shall be witnessed by the purchaser/his authorized representative. All the components should also be type tested as per the relevant standards. Following tests shall be necessarily conducted on the 11 kV cables in additions to others specified in IS/IEC standards.</p> <p><i>*In case of any conflict on any technical particular in the specification, the stricter requirement mentioned in the relevant standard shall be valid.</i></p>
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(A) Type Tests

S.No.	Test	Specific value		Test method	
		Clause No.	Reference Standard	Clause No.	Reference Standard
Tests on Conductor					
1	Conductor resistance test	Table 2	IS 8130	10	IS 10810 part 5
2	Conductor water penetration test	IEC 60502/ ICEA T-	IEC 60502/ ICEA T-31-610	Annexure F	IEC 60502/ ICEA T-31-610

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Tests on Insulation					
3	Tensile strength & Elongation at break (before ageing)	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 7
4	Ageing in air oven	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 11
5	Tensile strength & Elongation at break	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 7
6	Tests for thickness of insulation	Table 4	IS 7098 part 2	8	IS 10810 part 6
7	Eccentricity and Ovality of insulation	12.4	IS 7098 part 2	Annexure A	IS 7098 part 2
8	Hot set test	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 30
9	Shrinkage test	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 12
10	Gravimetric test (Water absorption)	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 33
11	Volume resistivity/ Insulation Resistance	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 43
Tests on Inner Sheath					
12	PVC thickness	Table 5	IS 7098 part 2	8	IS 10810 part 6
Tests on Extruded semi-conducting screen					
13	Volume resistivity test of conductor screen	Table 2	IS 7098 part 2	Annexure E	IS 7098 part 2
14	Volume resistivity test of core screen	Table 2	IS 7098 part 2	Annexure E	IS 7098 part 2
Tests on Outer Sheath (PVC)					
15	Flammability test for outer sheath	As per IEC 332 part 1			
16	Thickness	Table 7	IS 7098 part 2		
17	Tensile strength and Elongation at break (before ageing)	Table 2	IS 5831	8	IS 10810 part 7
18	Tensile strength and Elongation at break (after ageing)	Table 2	IS 5831	8	IS 10810 part 7
19	Variation due to ageing	Table 2	IS 5831	8	IS 10810 part 7
20	Loss of mass test	Table 2	IS 5831	8	IS 10810 part 10
21	Shrinkage test	Table 2	IS 5831	8	IS 10810 part 12
22	Hot deformation test	Table 2	IS 5831	8	IS 10810 part 15
23	Heat shock test	Table 2	IS 5831	8	IS 10810 part 14
24	Thermal stability test	Table 2	IS 5831	Appendix B	IS 5831:1984
25	Oxygen index	As per ASTM 2863			
26	Temperature index	ASTM 2863			
27	Acid gas generation	IEC 60754			

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28	Smoke density	ASTM 2843			
Tests on Outer Sheath – HDPE ST 7 (For co-extruded cable)					
29	Thickness	As per Specification			
30	Tensile strength & Elongation at break (before ageing)	Table 7	IS 7098 part 2	Annexure G	IS 7098 part 2
31	Tensile strength & Elongation at break (after ageing)	Table 7	IS 7098 part 2	12.4.4.3	IS 7098 part 2
32	Shrinkage test	Table 8	IS 7098 part 2	12.4.1.4	IS 7098 part 2
33	Carbon black content	12.4.12.2	IS 7098 part 2	12.4.1.2	IS 7098 part 2
Tests on Armour for 3 Core Cable					
34	Tensile test	8	IS 3975	6	IS 1608
35	Torsion test	8	IS 3975	7	IS 1717
36	Wrapping test	8	IS 3975	5	IS 1755
37	Resistance test	8	IS 3975	8	IS 10810 Part 42
38	Mass of zinc coating	Table 1	IS 4826	6	IS 6745
39	Uniformity of zinc coating	9	IS 3975	4	IS 2633
40	Adhesion test	9	IS 3975	9.3	IS 3975
Tests on Armour for 1 Core Cable					
41	Tensile test	8	IS 8130	6	IS 1608
42	Torsion test	8	IS 8130	7	IS 1717
43	Wrapping test	8	IS 8130	5	IS 1755
44	Resistance test	8	IS 8130	8	IS 10810 Part 42
Tests on complete cable					
45	Partial discharge test	20.2	IS 7098 part 2	8	IS 10810 Part 46
46	Thermal ageing test	20.9	IS 7098 part 2	20.9	IS 7098 part 2
47	Bending test	20.3	IS 7098 part 2	20.3	IS 7098 part 2
48	Dielectric power factor test	20.4	IS 7098 part 2	20.4	IS 7098 part 2
49	High voltage test	21 kV for 5 minutes As per Clause no. 20.7.2	IS 7098 part 2	20.7	IS 7098 part 2
50	Heat cycle test	20.5	IS 7098 part 2	20.5	IS 7098 part 2
51	Impulse withstand test	20.6	IS 7098 part 2	20.6	IS 7098 part 2
(B) Routine Tests					
Test		Clause No.		Reference Standard	
Conductor resistance test		19.3		IS 7098 part 2	
Partial discharge		19.3		IS 7098 part 2	
High voltage test with power frequency		19.3		IS 7098 part 2	
Resistance test for Aluminium armour		19.3		IS 7098 part 2	

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(C) Acceptance Tests:					
All acceptance tests mentioned below shall be witnessed by TPCODL's representative during inspection stage.					
S.No.	Test name	Specific value		Test method	
		Clause No.	Reference Standard	Clause No.	Reference Standard
(I) Test on Conductor					
1	Conductor resistance test	Clause No. 5(A.5)	ENG-HV-2010	10	IS 10810 part 5
2	Test for non-conductivity of water swellable tape/yarn of conductor	Clause No. 5(A.6)	ENG-HV-2010	Through multimeter	
3	Visual inspection for conductor cleanliness	Clause No. 5(A.7)	ENG-HV-2010	Check for presence of any Aluminium dust	
4	Conductor water penetration test	ICEA T-31-610			
(II) Test on Conductor Screen					
5	Thickness of semi-conducting tape over conductor	Clause No. 5(B.2)	ENG-HV-2010	Value to be noted by inspector	
6	Test for conductivity of semi-conducting tape over conductor	Clause No. 5(B.2)	ENG-HV-2010	Through multimeter	
7	Resistivity of extruded semi-conducting conductor screen	Clause No. 5(B.4)	ENG-HV-2010	Annexure E	IS 7098 part 2
8	Thickness of extruded semi-conducting conductor screen	Clause No. 5(B.3)	ENG-HV-2010	Value to be noted by inspector	
(III) Test on Insulation					
9	Tensile strength & Elongation at break (before ageing)	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 7
10	Insulation thickness	Clause No. 5(C.3)	ENG-HV-2010	8	IS 10810 part 6
11	Eccentricity and Ovality of insulation	Clause No. 5(C.3)	ENG-HV-2010	Annexure A	IS 7098 part 2
12	Hot set test	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 30
13	Volume resistivity	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 43

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14	Void & contamination test on core (by silicon dip method)	Clause No. 5(C.5)	ENG-HV-2010	20.1	IS 7098 part 3
15	Surface smoothness of insulation	Clause No. 5(C.5)	ENG-HV-2010	To be checked by inspector	
(IV) Test on Insulation Screen					
16	Resistivity of insulation screen	Clause No. 5(D.2.a)	ENG-HV-2010	Annexure E	IS 7098 part 2
17	Thickness of insulation screen	Clause No. 5(D.2)	ENG-HV-2010	Value to be noted by inspector	
18	Visual inspection for any convolution/ protrusion between conductor screen and XLPE insulation, XLPE insulation and insulation screen	Clause no. 5(C.5)	ENG-HV-2010	To be checked by inspector	
19	Thickness & % Overlapping of semi-conducting water swellable tape	Clause no. 5(D.2.b)	ENG-HV-2010	Value to be noted by inspector	
20	Thickness & % Overlapping of copper tape	Clause No. 5(D.2.c)	ENG-HV-2010	Value to be noted by inspector	
(V) Test on Inner sheath					
21	PVC thickness	Clause No. 5(F.4)	ENG-HV-2010	8	IS 10810 part 6
22	Colour of inner sheath	Clause No. 5(F.1)	ENG-HV-2010	To be checked by inspector	
(VI) Test on Armour					
For 3 core cable					
23	Tensile test	8	IS 3975	IS 1608	
24	Mass of zinc coating	Table 1	IS 4826	IS 6745	
25	Uniformity of zinc coating	9	IS 3975	IS 2633	
26	Adhesion test	9	IS 3975	IS 3975	
27	Diameter and no. of wires	Clause No. 5(G.3)	ENG-HV-2010	Value to be noted by inspector	
28	Coverage %	Clause No. 5(G.6)	ENG-HV-2010	Value to be noted by inspector	
For 1 core cable					
29	Tensile test	8	IS 8130	6	IS 1608
30	Wrapping test	8	IS 8130	5	IS 1755
31	Resistance test	8	IS 8130	8	IS 10810 Part 42

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32	Diameter and no. of wires	Clause No. 5(G.3)	ENG-HV-2010	Value to be noted by inspector	
33	Coverage %	Clause No. 5(G.6)	ENG-HV-2010	Value to be noted by inspector	
(VII) Test on Outer Sheath					
PVC Outer Sheath for normal cable					
34	Thickness	Clause No. 5(H.3)	ENG-HV-2010	Value to be noted by inspector	
35	Tensile strength and Elongation at break (before ageing)	Table 2	IS 5831	8	IS 10810 part 7
36	Colour of outer sheath	Clause No. 5(H.4)	ENG-HV-2010	To be checked by inspector	
37	Surface uniformity of outer sheath (on full drum)/ shall be free from any damage-void, nick, cavity.	Clause No. 5(H.5)	ENG-HV-2010	Through rewinding of drum (As per TPCODL specification)	
38	Presence of lead naphenate in PVC outer sheath	Chemical test Clause no. 5(H.1)	ENG-HV-2010	To be checked by inspector	
39	Flammability test	As per IEC 332 part 1			
40	Oxygen index	As per ASTM 2863			
41	Temperature index	ASTM 2863			
42	Acid gas generation	IEC 60754			
43	Smoke density	ASTM 2843			
HDPE Outer Sheath for 3 core co-extruded cable					
(a) Inner layer					
44	Thickness	Clause No. 5(I.1)	ENG-HV-2010	Value to be noted by inspector	
45	Tensile strength and Elongation at break (before ageing)	Table 3	IS 7098 part 2	8	IS 10810 part 7
46	Colour	Clause No. 5(I.1)	ENG-HV-2010	To be checked by inspector	
(b) Outer layer					
47	Thickness	Clause No. 5(I.2)	ENG-HV-2010	Value to be noted by inspector	
48	Tensile strength and Elongation at break (before ageing)	Table 3	IS 7098 part 2	8	IS 10810 part 7
49	Carbon content	12.4.12.2	IS 7098 part 2	10	IS 2530
50	Colour	Clause No. 5(I.2)	ENG-HV-2010	To be checked by inspector	
51	Surface uniformity of outer sheath (on full drum)/ shall be free from any damage-void, nick, cavity	Clause No. 5(I.3)	ENG-HV-2010	Through rewinding of drum (As per TPCODL specification)	

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(VIII) Tests for complete cable					
52	Partial discharge test	5 pC	As per type test	8	IS 10810 part 46
53	High voltage test	21 kV for 5 minutes As per Clause no. 20.7.2	IS 7098 part 2	8	IS 10810 part 45
(IX) Additional tests					
54	Raw material consumption	Document verification as proof to be submitted			
Invoice to be shown from procurement to consumption					
55	Colour coding identification over copper screen (for 3C cable)	Clause no. 5(D.2)	ENG-HV-2010	To be checked by inspector	
56	Sequential marking check	Clause no. 6.ii	ENG-HV-2010	To be checked by inspector	
57	Cable drum length verification	Clause no. 6	ENG-HV-2010	To be checked by inspector	
58	Packaging of cable on cable drum	By recyclable PVC sheet- As per Clause no.12	ENG-HV-2010	To be checked by inspector	
59	Diameter over outermost sheath of co-extruded cable	Clause No. 5(K.1)	ENG-HV-2010	Value to be noted by inspector	
60	Weight of outer sheath of co-extruded cable/ km	Clause No. 5(I.5)	ENG-HV-2010	Value to be noted by inspector	
61	Weight of total HDPE of co-extruded cable/ km	Clause No. 5(I.6)	ENG-HV-2010	Value to be noted by inspector	

8.0	TYPE TEST CERTIFICATES	<p>Requirement: Bidder shall furnish the type test report of 11 kV cable for the tests as mentioned in Clause no. 7 of this specification and as per reference standards. Complete set of Type Tests shall be conducted at certified test laboratories, which are CPRI / ERDA only. Type test report shall be submitted for the type, size and rating of the cable mentioned in the bid/ OR for any size higher (than required) of similar type and similar voltage grade. Type test should have been conducted in certified test laboratories during the period not exceeding 5 years from the date of opening the bid. In the event of any discrepancy in the test reports i.e. any test report not acceptable or any/all type tests (including additional type tests, if any) not carried out, same shall be carried out without any cost implication to TPCODL. In case the type test certificates are dated beyond 5 years and up to 10 years maintaining basic component design same then deviation should be submitted on vendor letter head. TPCODL will have the rights to accept/reject the same.</p>
9.0	PRE-DISPATCH INSPECTION	<p>Inspection shall be carried out by duly authorized representative of TPCODL. Bidder shall grant free access to the places of manufacture to TPCODL's representatives at all times when the work is in progress. Inspection may be made at any stage of manufacturing at</p>

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		<p>the discretion of TPCODL and the equipment, if found unsatisfactory as to workmanship or material, the same is liable to rejection. Inspection by TPCODL or its authorized representatives shall not relieve the bidder of his obligation of furnishing equipment in accordance with the specifications.</p> <p>Dispatch of material: Material shall be dispatched after specific MDCC (Material Dispatch Clearance Certificate) is issued by TPCODL.</p> <p>Following documents shall be sent along with the supplied material:</p> <ol style="list-style-type: none"> a) Test reports b) MDCC issued by TPCODL c) Invoice in duplicate d) Packing list e) Delivery Challan
10.0	INSPECTION AFTER RECEIPT AT STORES	The material received at TPCODL, Odisha store shall be inspected for acceptance and shall be liable for rejection, if found different from the reports of the pre-dispatch inspection and one copy of the report shall be sent to Contracts & Engineering department.
11.0	GUARANTEE	<p>Requirement: Bidder shall confirm for guarantee towards design, material, workmanship & quality of process / manufacturing for integrated product delivered under the contract. In the event any defect is found by TPCODL, up to a period of at least 60 months from the date of commissioning or 72 months from the date of last supplies made under the contract whichever is later, bidder shall be liable to undertake to replace/rectify such defects at its own costs, within mutually agreed time frame, and to the entire satisfaction of TPCODL, failing which TPCODL will be at liberty to get it replaced/rectified at Bidder's risks and costs and recover all such expenses plus the TPCODL's own charges (@ 20% of expenses incurred), from the Bidder or from 'Security cum Performance Deposit' as the case may be.</p> <p>Free replacement: 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 TPCODL.</p>
12.0	PACKAGING	<ol style="list-style-type: none"> 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 TPCODL 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.

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		<p>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.</p> <p>i) Packaging shall be as per climate change perspective. Cable wound on cable drum shall be covered by recyclable PVC sheet for dust proof. TPCODL encourages to use environment friendly packaging.</p>
13.0	TENDER SAMPLE	NA
14.0	QUALITY CONTROL	The bidder shall submit ' Quality Assurance Plan ' followed by him in respect of bought out items, items manufactured by him, Raw materials in process, Final inspection Packaging & Marking. As part of the plan, a schedule for stage and final inspection within the parameters of the delivery schedule shall be furnished. TPCODL reserves the sole rights for the type test of random sample from the lot and in case of any discrepancy or deviation from the Type test certificates submitted along with the bid, the complete Lot shall be rejected. TPCODL's nominated representative shall have free access to the bidder's works to carry out inspections.
15.0	MINIMUM TESTING FACILITIES	Bidder shall have adequate in house testing facilities for carrying out all routine and acceptance tests as per relevant International / Indian standards.
16.0	MANUFACTURING ACTIVITIES	The successful bidder will have to submit (after placement of RC) technical compliance document and drawing of cable as per RC line items for getting approval before mass manufacturing. Manufacturing mass quantity to start only after getting CAT-A approved drawings or as per intimation from TPCODL.
17.0	SPARES, ACCESSORIES AND TOOLS	Not Applicable
18.0	DRAWINGS AND DOCUMENTS	<p>Following documents shall be submitted along with the bid for approval after award of RC/PO:</p> <ol style="list-style-type: none"> Completely filled–in clause wise compliance of the specification. General description of the equipment and all components including brochures Type test Certificates for each specified test Experience List. Cross sectional drawing of the cable. Rating factors for variation in ground and air temperature, depth of laying, thermal resistivity of soil and different laying configuration of cables. A detailed list of bought out items which got into the manufacture of cables should be furnished indicating the name of the firms from whom these items are procured. <p>All the Documents and Drawings shall be in English Language.</p>
19.0	GUARANTEED TECHNICAL PARTICULARS	Bidder to submit clause wise compliance.

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20.0	SCHEDULE OF DEVIATIONS	<u>(TO BE ENCLOSED WITH TECHNICAL BID)</u>					
		<p>All deviations from this specification shall be set out by the Bidders, clause by Clause in this schedule. Unless specifically mentioned in this Schedule, the tender shall be deemed to confirm the purchaser's specifications.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 10%;">S.No.</th> <th style="width: 20%;">Clause No.</th> <th style="width: 70%;">Details of deviation with justifications</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p>We confirm that there are no deviations apart from those detailed above.</p> <p style="text-align: center;">Seal of the Company Signature :</p> <p style="text-align: right; margin-right: 50px;">Designation</p>		S.No.	Clause No.	Details of deviation with justifications	
S.No.	Clause No.	Details of deviation with justifications					

ANNEXURE – 1
INSPECTION TEST PLAN

S.No.	Test name	Specific value		Test method	
		Clause No.	Reference Standard	Clause No.	Reference Standard
(I) Test on Conductor					
1	Conductor resistance test	Clause No. 5(A.5)	ENG-HV-2010	10	IS 10810 part 5
2	Test for non-conductivity of water swellable tape/yarn of conductor	Clause No. 5(A.6)	ENG-HV-2010	Through multimeter	
3	Visual inspection for conductor cleanliness	Clause No. 5(A.7)	ENG-HV-2010	Check for presence of any Aluminium dust	
4	Conductor water penetration test	ICEA T-31-610			
(II) Test on Conductor Screen					
5	Thickness of semi-conducting tape over conductor	Clause No. 5(B.2)	ENG-HV-2010	Value to be noted by inspector	
6	Test for conductivity of semi-conducting tape over conductor	Clause No. 5(B.2)	ENG-HV-2010	Through multimeter	
7	Resistivity of extruded semi-conducting conductor screen	Clause No. 5(B.4)	ENG-HV-2010	Annexure E	IS 7098 part 2
8	Thickness of extruded semi-conducting conductor screen	Clause No. 5(B.3)	ENG-HV-2010	Value to be noted by inspector	
(III) Test on Insulation					
9	Tensile strength & Elongation at break (before ageing)	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 7
10	Insulation thickness	Clause No. 5(C.3)	ENG-HV-2010	8	IS 10810 part 6
11	Eccentricity and Ovality of insulation	Clause No. 5(C.3)	ENG-HV-2010	Annexure A	IS 7098 part 2
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12	Hot set test	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 30
13	Volume resistivity	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 43
14	Void & contamination test on core (by silicon dip method)	Clause No. 5(C.5)	ENG-HV-2010	20.1	IS 7098 part 3
15	Surface smoothness of insulation	Clause No. 5(C.5)	ENG-HV-2010	To be checked by inspector	
(IV) Test on Insulation Screen					
16	Resistivity of insulation screen	Clause No. 5(D.2.a)	ENG-HV-2010	Annexure E	IS 7098 part 2
17	Thickness of insulation screen	Clause No. 5(D.2)	ENG-HV-2010	Value to be noted by inspector	
18	Visual inspection for any convolution/ protrusion between conductor screen and XLPE insulation, XLPE insulation and insulation screen	Clause no. 5(C.5)	ENG-HV-2010	To be checked by inspector	
19	Thickness & % Overlapping of semi-conducting water swellable tape	Clause no. 5(D.2.b)	ENG-HV-2010	Value to be noted by inspector	
20	Thickness & % Overlapping of copper tape	Clause No. 5(D.2.c)	ENG-HV-2010	Value to be noted by inspector	
(V) Test on Inner sheath					
21	PVC thickness	Clause No. 5(F.4)	ENG-HV-2010	8	IS 10810 part 6
22	Colour of inner sheath	Clause No. 5(F.1)	ENG-HV-2010	To be checked by inspector	
(VI) Test on Armour					
For 3 core cable					
23	Tensile test	8	IS 3975	IS 1608	
24	Mass of zinc coating	Table 1	IS 4826	IS 6745	
25	Uniformity of zinc coating	9	IS 3975	IS 2633	
26	Adhesion test	9	IS 3975	IS 3975	
27	Diameter and no. of wires	Clause No. 5(G.3)	ENG-HV-2010	Value to be noted by inspector	
28	Coverage %	Clause No. 5(G.6)	ENG-HV-2010	Value to be noted by inspector	
For 1 core cable					
29	Tensile test	8	IS 8130	6	IS 1608
30	Wrapping test	8	IS 8130	5	IS 1755
31	Resistance test	8	IS 8130	8	IS 10810 Part 42
32	Diameter and no. of wires	Clause No. 5(G.3)	ENG-HV-2010	Value to be noted by inspector	
33	Coverage %	Clause No. 5(G.6)	ENG-HV-2010	Value to be noted by inspector	
(VII) Test on Outer Sheath					
PVC Outer Sheath for normal cable					
34	Thickness	Clause No. 5(H.3)	ENG-HV-2010	Value to be noted by inspector	
35	Tensile strength and Elongation at break (before ageing)	Table 2	IS 5831	8	IS 10810 part 7
36	Colour of outer sheath	Clause No. 5(H.4)	ENG-HV-2010	To be checked by inspector	
37	Surface uniformity of outer sheath (on full drum)/ shall be free from any	Clause No. 5(H.5)	ENG-HV-2010	Through rewinding of drum (As per TPCODL specification)	

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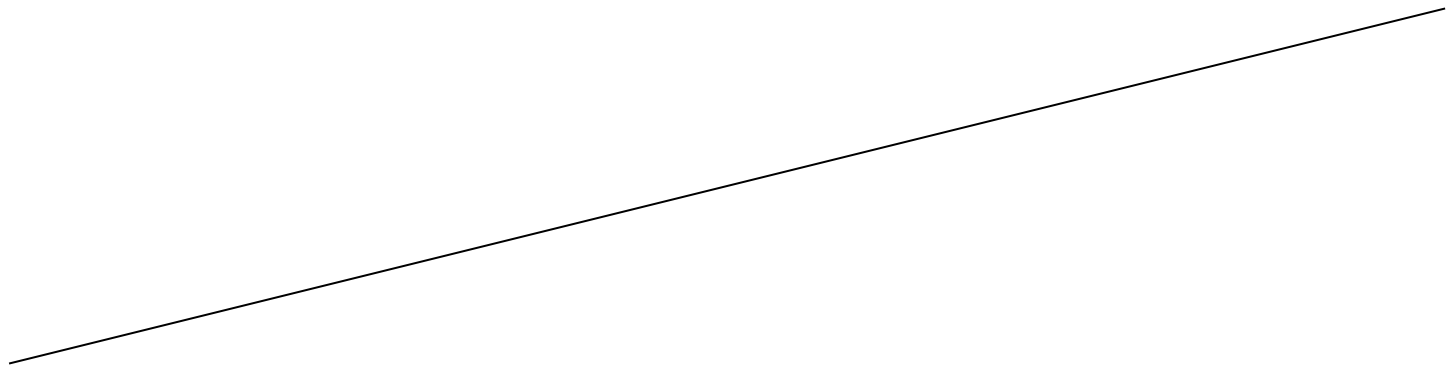
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	damage- void, nick, cavity.			
38	Presence of lead naphthenate in PVC outer sheath	Chemical test Clause no. 5(H.1)	ENG-HV-2010	To be checked by inspector
39	Flammability test	As per IEC 332 part 1		
40	Oxygen index	As per ASTM 2863		
41	Temperature index	ASTM 2863		
42	Acid gas generation	IEC 60754		
43	Smoke density	ASTM 2843		
HDPE Outer Sheath for 3 core co-extruded cable				
(a) Inner layer				
44	Thickness	Clause No. 5(I.1)	ENG-HV-2010	Value to be noted by inspector
45	Tensile strength and Elongation at break (before ageing)	Table 2	IS 7098 part 2	8 IS 10810 part 7
46	Colour	Clause No. 5(I.1)	ENG-HV-2010	To be checked by inspector
(b) Outer layer				
47	Thickness	Clause No. 5(I.2)	ENG-HV-2010	Value to be noted by inspector
48	Tensile strength and Elongation at break (before ageing)	Table 2	IS 7098 part 2	8 IS 10810 part 7
49	Carbon content	12.4.12.2	IS 7098 part 2	10 IS 2530
50	Colour	Clause No. 5(I.2)	ENG-HV-2010	To be checked by inspector
51	Surface uniformity of outer sheath (on full drum)/ shall be free from any damage- void, nick, cavity	Clause No. 5(I.3)	ENG-HV-2010	Through rewinding of drum (As per TPCODL specification)
(VIII) Tests for complete cable				
52	Partial discharge test	5 pC	As per type test	8 IS 10810 part 46
53	High voltage test	21 kV for 5 minutes As per Clause no. 20.7.2	IS 7098 part 2	8 IS 10810 part 45
(IX) Additional tests				
54	Raw material consumption	Document verification as proof to be submitted		
		Invoice to be shown from procurement to consumption		
55	Colour coding identification over copper screen (for 3C cable)	Clause no. 5(D.2)	ENG-HV-2010	To be checked by inspector
56	Sequential marking check	Clause no. 6.ii	ENG-HV-2010	To be checked by inspector
57	Cable drum length verification	Clause no. 6	ENG-HV-2010	To be checked by inspector
58	Packaging of cable on cable drum	By recyclable PVC sheet- As per Clause no.12	ENG-HV-2010	To be checked by inspector
59	Diameter over outermost sheath of co-extruded cable	Clause No. 5(K.1)	ENG-HV-2010	Value to be noted by inspector
60	Weight of outer sheath of co-extruded cable/ km	Clause No. 5(I.5)	ENG-HV-2010	Value to be noted by inspector

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61	Weight of total HDPE of co-extruded cable/ km	Clause No. 5(1.6)	ENG-HV-2010	Value to be noted by inspector
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+ Annexure: Inspection Test Plan

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TP CENTRAL ODISHA DISTRIBUTION LIMITED			
TECHNICAL SPECIFICATION			
Document Title	Technical Specification – 33 kV Cable		
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1.0	SCOPE	<p>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 cable for trouble free and efficient operations.</p> <p>Inclusive sizes:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">3 CORE CABLE</th> <th style="text-align: center;">1 CORE CABLE</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">3C X 300 sq.mm.</td> <td style="text-align: center;">1C X 400 sq.mm. , 1C X 630 sq.mm.</td> </tr> <tr> <td style="text-align: center;">3C X 400 sq.mm.</td> <td style="text-align: center;">1C X 1000 sq.mm.</td> </tr> </tbody> </table>	3 CORE CABLE	1 CORE CABLE	3C X 300 sq.mm.	1C X 400 sq.mm. , 1C X 630 sq.mm.	3C X 400 sq.mm.	1C X 1000 sq.mm.																																				
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2.0	APPLICABLE STANDARDS	<p>33 kV Cable covered by this specification shall unless otherwise stated, be designed, manufactured and tested in accordance with latest revisions of relevant Indian Standards /IEC/ International Standards and shall conform to the regulations of local statutory authorities.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="text-align: center;">IS 7098 (Part-2)</td> <td>Specification for Cross-linked polyethylene insulated PVC sheathed Cables Part: 2 - For working voltages from 3.3 kV up to and including 33 kV</td> </tr> <tr> <td style="text-align: center;">IS 8130</td> <td>Specification for Conductor for insulated electric cables & flexible cords</td> </tr> <tr> <td style="text-align: center;">IS 3975</td> <td>Low carbon galvanized steel wires, formed wires and tapes for Armouring of cables</td> </tr> <tr> <td style="text-align: center;">IS 10418</td> <td>Specification for Drums for Electric cables</td> </tr> <tr> <td style="text-align: center;">IS 5831</td> <td>Specification for PVC insulation and sheath of electric cables</td> </tr> <tr> <td style="text-align: center;">IS: 3975</td> <td>Low carbon galvanized steel wires, formed wires and tapes for armoring of cables</td> </tr> <tr> <td style="text-align: center;">IEC-60228</td> <td>Conductor for insulated cables</td> </tr> <tr> <td style="text-align: center;">IEC-60502 (Part-2)</td> <td>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).</td> </tr> <tr> <td style="text-align: center;">IEC-60811</td> <td>Test methods for insulations and sheaths of electric cables and cords.</td> </tr> <tr> <td style="text-align: center;">ASTM D 6097</td> <td>Standard test method for relative resistance to vented water tree growth in Solid Dielectric insulating materials.</td> </tr> <tr> <td style="text-align: center;">ICEA T 31-610</td> <td>Test method for conducting longitudinal water penetration resistance tests on blocked conductors</td> </tr> <tr> <td style="text-align: center;">IS 10810</td> <td>Methods of tests for cables</td> </tr> <tr> <td style="text-align: center;">IS 4905</td> <td>Methods for random sampling</td> </tr> <tr> <td style="text-align: center;">IS 4984</td> <td>High density polyethylene pipes for water supply</td> </tr> <tr> <td style="text-align: center;">IS 2530</td> <td>Methods of test for polyethylene moulding materials and polyethylene compounds</td> </tr> <tr> <td style="text-align: center;">IS 4826</td> <td>Specification for hot dipped galvanized coatings on round steel wires</td> </tr> <tr> <td style="text-align: center;">IEC 332</td> <td>Test on electric cables on the fire conditions</td> </tr> <tr> <td style="text-align: center;">IS 5:2007</td> <td>Colours for ready mixed paints and enamels</td> </tr> <tr> <td style="text-align: center;">ASTM 2863</td> <td>Standard Test Method for Measuring the Minimum Oxygen Concentration to Support Candle-Like Combustion of Plastics (Oxygen Index)</td> </tr> <tr> <td style="text-align: center;">IEC 60754</td> <td>Apparatus and procedure for the measurement of the amount of halogens evolved during the combustion of materials taken from electric or optical fiber cable constructions</td> </tr> <tr> <td style="text-align: center;">ASTM 2843</td> <td>Standard Test Method for Density of Smoke from the Burning or Decomposition of Plastics</td> </tr> </tbody> </table> <p><i>*In case of any conflict on any technical particular in the specification, the stricter requirement mentioned in the relevant standard shall be valid.</i></p>	IS 7098 (Part-2)	Specification for Cross-linked polyethylene insulated PVC sheathed Cables Part: 2 - For working voltages from 3.3 kV up to and including 33 kV	IS 8130	Specification for Conductor for insulated electric cables & flexible cords	IS 3975	Low carbon galvanized steel wires, formed wires and tapes for Armouring of cables	IS 10418	Specification for Drums for Electric cables	IS 5831	Specification for PVC insulation and sheath of electric cables	IS: 3975	Low carbon galvanized steel wires, formed wires and tapes for armoring of cables	IEC-60228	Conductor for insulated cables	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).	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3.0	CLIMATIC CONDITIONS OF	<p>The service conditions shall be as follows:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">Initiator</td> <td style="width: 33%; text-align: center;">HoG (Plant Engineering)</td> <td style="width: 33%;"></td> </tr> </table>	Initiator	HoG (Plant Engineering)																																								
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	THE INSTALLATION	<p>1. Maximum altitude above sea level 1,000m 2. Maximum ambient air temperature 50°C 3. Maximum daily average ambient air temperature 45°C 4. Minimum ambient air temperature 0°C 5. Maximum relative humidity 95% 6. Average number of thunderstorm days per annum (isokeraunic level) 70 7. Average number of rainy days per annum 120 8. Average annual rainfall 2800mm 9. Earthquakes of an intensity in horizontal direction - equivalent to seismic acceleration of 0.3g 10. Earthquakes of an intensity in vertical direction - equivalent to seismic acceleration of 0.15g (g being acceleration due to gravity) 11 .Wind velocity: 300 km/hr, 200 km/hr and 160 km/hr. Environmentally, some of the regions, where the work will take place includes 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.</p>				
4.0	GENERAL TECHNICAL REQUIREMENTS	S.No.	Description	Requirement		
		1.	Voltage grade	33 kV (Earthed system)		
		2	Max System voltage	36 kV		
		3	Frequency	50 Hz		
		4	Variation in frequency	+/- 5%		
			Cable components	3 CORE CABLE 1 CORE CABLE		
			Conductor	Watertight Stranded Aluminum (compacted circular)		
			Conductor screen	Semi conducting tape and screen		
			Insulation	XLPE		
		5	Insulation screen	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> Shall have three layers: a) Bonded Semiconducting, b) Semiconducting water swellable tape, c) Metallic copper tape </td> <td style="width: 50%; vertical-align: top;"> Shall have three layers: a) Bonded Semiconducting, b) Semiconducting water swellable tape, c) Metallic copper tape d) Polyester transparent tape over copper screen </td> </tr> </table>	Shall have three layers: a) Bonded Semiconducting, b) Semiconducting water swellable tape, c) Metallic copper tape	Shall have three layers: a) Bonded Semiconducting, b) Semiconducting water swellable tape, c) Metallic copper tape d) Polyester transparent tape over copper screen
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			Core identification strip	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Beneath copper screen</td> <td style="width: 50%; text-align: center;">NA</td> </tr> </table>	Beneath copper screen	NA
Beneath copper screen	NA					
			Inner sheath	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Pressure Extruded PVC ST- 2 with PP fillers</td> <td style="width: 50%; text-align: center;">Extruded PVC ST-2</td> </tr> </table>	Pressure Extruded PVC ST- 2 with PP fillers	Extruded PVC ST-2
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			Armour	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">GI wire round binded with rubberized cotton binding tape</td> <td style="width: 50%; text-align: center;">Aluminum wire binded by rubberized cotton tape</td> </tr> </table>	GI wire round binded with rubberized cotton binding tape	Aluminum wire binded by rubberized cotton tape
GI wire round binded with rubberized cotton binding tape	Aluminum wire binded by rubberized cotton tape					
			Outer sheath	PVC ST-2 FRLSH type of colour 'yellow lemon shade' code: 355 as per IS 5:2007		

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5.0	GENERAL CONSTRUCTION	<p>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.</p> <p>All material used in the manufacturing of cables shall be new and shall be selected as the best available for the intended use.</p> <p>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.</p> <p>(A) Conductor:</p>																						
		S.No.	Parameter	Requirement																				
		1	Conductor	As per IS 8130																				
		2	Class	Class II																				
		3	Material	Plain Aluminium, grade H2/H4																				
		4	Shape	Stranded Compacted Circular																				
		5	No. of strands & electrical parameters	<table border="1"> <thead> <tr> <th>Nominal size of conductor mm²</th> <th>Min. number of strands</th> <th>Max. DC resistance @ 20 deg C (Ohm/km)</th> <th>Conductor Short circuit current rating for 1 second</th> </tr> </thead> <tbody> <tr> <td>300</td> <td>30</td> <td>0.10</td> <td>28.3 kA</td> </tr> <tr> <td>400</td> <td>53</td> <td>0.0778</td> <td>37.7 kA</td> </tr> <tr> <td>630</td> <td>53</td> <td>0.0469</td> <td>59.4 kA</td> </tr> <tr> <td>1000</td> <td>53</td> <td>0.0291</td> <td>94.3 kA</td> </tr> </tbody> </table>	Nominal size of conductor mm ²	Min. number of strands	Max. DC resistance @ 20 deg C (Ohm/km)	Conductor Short circuit current rating for 1 second	300	30	0.10	28.3 kA	400	53	0.0778	37.7 kA	630	53	0.0469	59.4 kA	1000	53	0.0291	94.3 kA
		Nominal size of conductor mm ²	Min. number of strands	Max. DC resistance @ 20 deg C (Ohm/km)	Conductor Short circuit current rating for 1 second																			
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6	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.																						
7	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.																						
8	Conductor jointing	Not acceptable in any strand or in any conductor after it is stranded.																						
9	Raw material supplier	Conductor raw material shall be procured from reputed suppliers viz., BALCO/ HINDALCO/ NALCO/ Vedanta only.																						
10	Diameter of conductor	To be specified by bidder																						
11	Min. weight of conductor (kg/km/core)	<table border="1"> <thead> <tr> <th>Nominal size of conductor mm²</th> <th>Min. weight of conductor (kg/km/core)</th> </tr> </thead> <tbody> <tr> <td>300</td> <td>780</td> </tr> <tr> <td>400</td> <td>1080</td> </tr> <tr> <td>630</td> <td>1650</td> </tr> </tbody> </table>	Nominal size of conductor mm ²	Min. weight of conductor (kg/km/core)	300	780	400	1080	630	1650														
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		1000	2600
(B) Conductor Screen			
S.No.	Parameter	Requirement	
1	Material	1st layer: Semi-conducting tape 2nd layer: Semi-conducting compound	
2	Configuration	1st layer: Semi-conducting tape shall be applied over conductor with nominal thickness of 0.2 mm. 2nd layer: Semi-conducting compound screen shall be applied through triple extrusion process.	
3	Min. thickness	Minimum thickness of semi-conducting compound screen shall be 0.5 mm at any point of measurement.	
4	Resistivity	Resistivity of semiconducting conductor screen shall not exceed 1000 Ω -m	
5	Uniformity on interfacial region	Interfacial region between conductor screen and insulation shall 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 only	
(C) Insulation			
S.No.	Parameter	Requirement	
1	Material and extrusion process	XLPE insulation shall be applied through CCV/VCV line by triple 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 only. 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.	
(D) 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	
2	Configuration	a) 1st layer: Non-Metallic Part: Extruded Insulation semiconducting screen shall be bonded type.	

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			<p>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 0.5 mm at any point of measurement.</p> <p>b) 2nd 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%.</p> <p>Core identification strip:</p> <table border="1"> <thead> <tr> <th>3 CORE CABLE</th> <th>1 CORE CABLE</th> </tr> </thead> <tbody> <tr> <td>Each of the three core identification strips shall be applied longitudinally beneath copper screen. Width of the coloured strip shall be 7-10 mm.</td> <td>NA</td> </tr> </tbody> </table> <p>c) 3rd 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.</p>	3 CORE CABLE	1 CORE CABLE	Each of the three core identification strips shall be applied longitudinally beneath copper screen. Width of the coloured strip shall be 7-10 mm.	NA
3 CORE CABLE	1 CORE CABLE						
Each of the three core identification strips shall be applied longitudinally beneath copper screen. Width of the coloured strip shall be 7-10 mm.	NA						
3	Raw material supplier	Semiconducting compound shall be procured from reputed raw material suppliers viz., Dow/Borealis/Hanwa only					
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					
(E) Fillers							
S.No.	Parameter	Requirement					
		3 CORE CABLE	1 CORE CABLE				
1	Material	Virgin Polypropylene fibers of natural colour	NA				
2	Configuration	Virgin Polypropylene fibers shall be tightly filled in empty space as fillers.					
(F) Inner Sheath:							
S.No.	Parameter	Requirement					
		3 CORE CABLE	1 CORE CABLE				
1	Material	Black coloured Polyvinyl chloride (PVC) type ST-2 compound					
2	Configuration	The laid up cores shall be provided with <i>pressure extruded</i> 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	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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			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.		
3	Raw material supplier	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.			
4	Min. thickness At any point of measurement	3 CORE CABLE		1 CORE CABLE	
		3CX300 sq.mm.	0.7 mm	1CX400 sq.mm.	0.5 mm
		3CX400 sq.mm.	0.7 mm	1CX630 sq.mm.	0.6 mm
				1CX1000 sq.mm.	0.7 mm
(G) Armour:					
S.No.	Parameter	Requirement			
		3 CORE CABLE		1 CORE CABLE	
1	Material	Low carbon annealed hot dipped galvanized round steel wires		H4 Grade Aluminium wires	
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/m ² as per IS 4826:1979.		It shall comply with the requirements of IS 8130 along with latest amendments.	
3	Nominal Dimensions	3 CORE CABLE		1 CORE CABLE	
				1CX400	2 mm (Aluminum wire)
		3CX300 sq.mm.	4.0 mm (GI Wire)	1CX630 sq.mm.	2.5 mm (Aluminum wire)
		3CX400 sq.mm.	4.00 mm (GI wire)	1CX1000 sq.mm.	3.15 mm (Aluminum wire)
4	Approx. Short circuit rating in kA for 1 sec	3 CORE CABLE		1 CORE CABLE	
				1CX400 sq.mm.	20
		3CX300 sq.mm.	40	1CX630 sq.mm.	28
		3CX400 sq.mm.	42	1CX1000 sq.mm.	42
5	Joining 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.			

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7	Binding	The rubberized cotton binding tape shall be applied to bind the armor wires such that 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	Armour shall be procured from reputed raw material suppliers viz., TATA Steel, Jindal Steel, SAIL only.

(H) Outer Sheath

S.No.	Parameter	Requirement
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	Min. Thickness at any point of measurement	3 CORE CABLE
		3CX300 sq.mm. 3.0 mm
		3CX400 sq.mm. 3.0 mm
		1 CORE CABLE
		1CX400 sq.mm. 2.04 mm
		1CX630 sq.mm. 2.36 mm
		1CX1000 sq.mm. 2.52 mm
4	Colour	Yellow Lemon color, colour code: 355 as per IS 5:2007.
5	Surface uniformity	Surface of outer sheath shall be free from cavity/ nicks/ other visible defects.
6	Raw material supplier	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.
7	Weight of outer sheath/km	To be provided by bidder

(I) 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.

(J) Other requirements

S.No.	Parameter	Requirement
1	Overall diameter of cable	To be provided by bidder
2	Weight of Overall cable	To be provided by bidder

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6.0	NAME PLATE AND MARKING ON DRUM AND CABLE OUTER SHEATH	<p>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%.</p> <p>i. Following details shall be provided on flanges of drum:</p> <ul style="list-style-type: none"> 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. <p>ii. Following details shall be embossed on the outer sheath:</p> <ul style="list-style-type: none"> a) Sequential meter marking shall be printed. <p>All other details mentioned below shall be embossed. Embossing shall be clearly visible. At interval of every 1 meter, following details to be embossed:</p> <ul style="list-style-type: none"> b) Property of TPCODL c) Manufacturer name d) Month & Year of Manufacture e) Voltage grade f) Size of the cable g) Purchase Order no. h) Cable code
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7.0	TESTS	<p>Routine, Acceptance & Type tests shall be carried out in accordance with the relevant IS/IEC/ International standard.</p> <p>Acceptance tests shall be witnessed by TPCODL's authorized representative.</p> <p>Following tests shall be necessarily conducted on the 33 kV underground cable in additions to others specified in IS/IEC/ANSI standards. Type tests shall be conducted from CPRI/ERDA only.</p> <p><i>*In case of any conflict on any technical particular in the specification, the stricter requirement mentioned in the relevant standard shall be valid.</i></p>					
		(A) Type Tests					
		S.No.	Test	Specific value		Test method	
				Clause No.	Reference Standard	Clause No.	Reference Standard
		Tests on Conductor					
		1	Conductor resistance test	Table 2	IS 8130	10	IS 10810 part 5
		2	Conductor water penetration test	IEC 60502/ ICEA T-31-610	IEC 60502/ ICEA T-31-610	Annexure F	IEC 60502/ ICEA T-31-610
		Tests on Insulation					
		3	Tensile strength & Elongation at break (before ageing)	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 7
		4	Ageing in air oven	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 11
		5	Tensile strength & Elongation at break	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 7
		6	Tests for thickness of insulation	Table 4	IS 7098 part 2	8	IS 10810 part 6
		7	Eccentricity and Ovality of insulation	12.4	IS 7098 part 2	Annexure A	IS 7098 part 2
		8	Hot set test	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 30
		9	Shrinkage test	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 12
		10	Gravimetric test (Water absorption)	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 33
		11	Volume resistivity/ Insulation Resistance	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 43
		Tests on Inner Sheath					
12	PVC thickness	Table 5	IS 7098 part 2	8	IS 10810 part 6		
Tests on Extruded semi-conducting screen							

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	13	Volume resistivity test of conductor screen	Table 2	IS 7098 part 2	Annexure E	IS 7098 part 2
	14	Volume resistivity test of core screen	Table 2	IS 7098 part 2	Annexure E	IS 7098 part 2
	Tests on Outer Sheath (PVC)					
	15	Flammability test for outer sheath	Clause no. 20.8	IS 7098 part 2	8	IS 10810 part 53
	16	Thickness	Table 7	IS 7098 part 2		
	17	Tensile strength and Elongation at break (before ageing)	Table 2	IS 5831	8	IS 10810 part 7
	18	Tensile strength and Elongation at break (after ageing)	Table 2	IS 5831	8	IS 10810 part 7
	19	Variation due to ageing	Table 2	IS 5831	8	IS 10810 part 7
	20	Loss of mass test	Table 2	IS 5831	8	IS 10810 part 10
	21	Shrinkage test	Table 2	IS 5831	8	IS 10810 part 12
	22	Hot deformation test	Table 2	IS 5831	8	IS 10810 part 15
	23	Heat shock test	Table 2	IS 5831	8	IS 10810 part 14
	24	Thermal stability test	Table 2	IS 5831	Appendix B	IS 5831:1984
	25	Flammability test	As per IEC 332 part 1			
	26	Oxygen index	As per ASTM 2863			
	27	Temperature index	ASTM 2863			
	28	Acid gas generation	IEC 60754			
	29	Smoke density	ASTM 2843			
	Tests on Armour for 3 Core Cable					
	30	Tensile test	8	IS 3975	6	IS 1608
	31	Torsion test	8	IS 3975	7	IS 1717
	32	Wrapping test	8	IS 3975	5	IS 1755
	33	Resistance test	8	IS 3975	8	IS 10810 Part 42
	34	Mass of zinc coating	9	IS 4826	6	IS 6745
	35	Uniformity of zinc coating	9	IS 3975	4	IS 2633
	36	Adhesion test	9	IS 3975	9.3	IS 3975
	Tests on Armour for 1 Core Cable					
	37	Tensile test	8	IS 8130	6	IS 1608
	38	Torsion test	8	IS 8130	7	IS 1717
	39	Wrapping test	8	IS 8130	5	IS 1755
	40	Resistance test	8	IS 8130	8	IS 10810 Part 42
	Tests on complete cable					
	41	Partial discharge test	20.2	IS 7098 part 2	8	IS 10810 Part 46

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42	Thermal ageing test	20.9	IS 7098 part 2	20.9	IS 7098 part 2
43	Bending test	20.3	IS 7098 part 2	20.3	IS 7098 part 2
44	Dielectric power factor test	20.4	IS 7098 part 2	20.4	IS 7098 part 2
45	High voltage test	63 kV for 5 minutes As per Clause no. 20.7.2	IS 7098 part 2	20.7	IS 7098 part 2
46	Heat cycle test	20.5	IS 7098 part 2	20.5	IS 7098 part 2
47	Impulse withstand test	20.6	IS 7098 part 2	20.6	IS 7098 part 2

(B) Routine Tests

Test	Clause No.	Reference Standard
Conductor resistance test	19.3	IS 7098 part 2
Partial discharge	19.3	IS 7098 part 2
High voltage test with power frequency	19.3	IS 7098 part 2
Resistance test for Aluminium armour	19.3	IS 7098 part 2

(C) Acceptance Tests:

All acceptance tests mentioned below shall be witnessed by TPCODL's representative during inspection stage.

S.No.	Test name	Specific value		Test method	
		Clause No.	Reference Standard	Clause No.	Reference Standard
(I) Test on Conductor					
1	Conductor resistance test	Clause No. 5(A.5)	ENG-EHV-1012	10	IS 10810 part 5
2	Test for non-conductivity of water swellable tape/yarn of conductor	Clause No. 5(A.6)	ENG-EHV-1012	Through multimeter	
3	Visual inspection for conductor cleanliness	Clause No. 5(A.7)	ENG-EHV-1012	Check for presence of any Aluminium dust	
4	Conductor water penetration test	ICEA T-31-610			
(II) Test on Conductor Screen					
5	Thickness of semi-conducting tape over conductor	Clause No. 5(B.2)	ENG-EHV-1012	Value to be noted by inspector	

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		6	Test for conductivity of semi-conducting tape over conductor	Clause No. 5(B.2)	ENG-EHV-1012	Through multimeter			
		7	Resistivity of extruded semi-conducting conductor screen	Clause No. 5(B.4)	ENG-EHV-1012	Annexure E	IS 7098 part 2		
		8	Thickness of extruded semi-conducting conductor screen	Clause No. 5(B.3)	ENG-EHV-1012	Value to be noted by inspector			
		(III) Test on Insulation							
		9	Tensile strength & Elongation at break (before ageing)	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 7		
		10	Insulation thickness	Clause No. 5(C.3)	ENG-EHV-1012	8	IS 10810 part 6		
		11	Eccentricity and Ovality of insulation	Clause No. 5(C.3)	ENG-EHV-1012	Annexure A	IS 7098 part 2		
		12	Hot set test	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 30		
		13	Volume resistivity	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 43		
		14	Void & contamination test on core (by silicon oil dip method)	Clause No. 5(C.5)	ENG-EHV-1012	20.1	IS 7098 part 3		
		15	Surface smoothness of insulation	Clause No. 5(C.5)	ENG-EHV-1012	To be checked by inspector			
		(IV) Test on Insulation Screen							
		16	Resistivity of insulation screen	Clause No. 5(D.2.a)	ENG-EHV-1012	Annexure E	IS 7098 part 2		
		17	Thickness of insulation screen	Clause No. 5(D.2)	ENG-EHV-1012	Value to be noted by inspector			
		18	Visual inspection for any convolution/ protrusion between conductor screen and XLPE insulation, XLPE insulation and insulation screen	Clause no. 5(C.5)	ENG-EHV-1012	To be checked by inspector			
		19	Thickness & % Overlapping of semi-conducting water swellable tape	Clause no. 5(D.2.b)	ENG-EHV-1012	Value to be noted by inspector			
		20	Thickness & % Overlapping of copper tape	Clause No. 5(D.2.c)	ENG-EHV-1012	Value to be noted by inspector			
		(V) Test on Inner sheath							

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21	PVC thickness	Clause No. 5(F.4)	ENG-EHV-1012	8	IS 10810 part 6
22	Colour of inner sheath	Clause No. 5(F.1)	ENG-EHV-1012	To be checked by inspector	
(VI) Test on Armour					
For 3 core cable					
23	Tensile test	8	IS 3975	IS 1608	
24	Mass of zinc coating	Table 1	IS 4826	IS 6745	
25	Uniformity of zinc coating	9	IS 3975	IS 2633	
26	Adhesion test	9	IS 3975	IS 3975	
27	Diameter and no. of wires	Clause No. 5(G.3)	ENG-EHV-1012	Value to be noted by inspector	
28	Coverage %	Clause No. 5(G.6)	ENG-EHV-1012	Value to be noted by inspector	
For 1 core cable					
29	Tensile test	8	IS 8130	6	IS 1608
30	Wrapping test	8	IS 8130	5	IS 1755
31	Resistance test	8	IS 8130	8	IS 10810 Part 42
32	Diameter and no. of wires	Clause No. 5(G.3)	ENG-EHV-1012	Value to be noted by inspector	
33	Coverage %	Clause No. 5(G.6)	ENG-EHV-1012	Value to be noted by inspector	
(VII) Test on Outer Sheath					
34	Thickness	Clause No. 5(H.3)	ENG-EHV-1012	Value to be noted by inspector	
35	Tensile strength and Elongation at break (before ageing)	Table 2	IS 5831	8	IS 10810 part 7
36	Colour of outer sheath	Clause No. 5(H.4)	ENG-EHV-1012	To be checked by inspector	
37	Surface uniformity of outer sheath (on full drum)/ shall be free from any damage- void, nick, cavity.	Clause No. 5(H.5)	ENG-EHV-1012	Through rewinding of drum (As per TPCODL specification)	
38	Presence of lead naphthenate in PVC outer sheath	Chemical test Clause no. 5(H.1)	ENG-EHV-1012	To be checked by inspector	
39	Flammability test	As per IEC 332 part 1			
40	Oxygen index	As per ASTM 2863			
41	Temperature index	ASTM 2863			

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	42	Acid gas generation	IEC 60754			
	43	Smoke density	ASTM 2843			
	(VIII) Tests for complete cable					
	44	Partial discharge test	5 pC	As per type test	8	IS 10810 part 46
	45	High voltage test	63 kV for 5 minutes As per Clause no. 20.7.2	IS 7098 part 2	8	IS 10810 part 45
	46	Raw material consumption verification	Document verification as proof to be submitted			
			Invoice to be shown from procurement to consumption			
	(IX) Additional tests					
	47	Colour coding identification over copper screen (for 3C cable)	Clause no. 5(D.2)	ENG-EHV-1012	To be checked by inspector	
	48	Sequential marking check	Clause no. 6.ii	ENG-EHV-1012	To be checked by inspector	
	49	Cable drum length verification	Clause no. 6	ENG-EHV-1012	To be checked by inspector	
	50	Packaging of cable on cable drum	By recyclable PVC sheet- As per Clause no.12	ENG-EHV-1012	To be checked by inspector	
	51	Weight of conductor/km	Clause No. 5(A.11)	ENG-EHV-1012	Value to be noted by inspector	
	52	Diameter of conductor	Clause No. 5(A.10)	ENG-EHV-1012	Value to be noted by inspector	
	53	Weight of XLPE insulation plus semiconducting screen (of conductor & insulation)/ km	Value to be noted by inspector			
54	Diameter over core	Clause no. 5(D.4)	ENG-EHV-1012	Value to be noted by inspector		
55	Weight of core	Clause no. 5(D.5)	ENG-EHV-1012	Value to be noted by inspector		

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		56	Weight of copper tape/km	Clause No. 5(D.6)	ENG-EHV-1012	Value to be noted by inspector
		57	Diameter over inner sheath	Value to be noted by inspector		
		58	Weight of armour/ km	Clause No. 5(G.6)	ENG-EHV-1012	Value to be noted by inspector
		59	Cable sealing end caps	Clause No. I	ENG-EHV-1012	Provision to be checked by inspector
		60	Weight of outer sheath/ km	Clause No. 5(H.7)	ENG-EHV-1012	Value to be noted by inspector
		61	Diameter of complete cable	Clause No. 5(J.1)	ENG-EHV-1012	Value to be noted by inspector
8.0	TYPE TEST CERTIFICATES	<p>Requirement: Bidder shall furnish the type test report of 33 kV cable for the tests as mentioned in Clause no. 7 of this specification and as per reference standards.</p> <p>Test Laboratories: Complete set of Type Tests shall be conducted at certified test laboratories, which are CPRI / ERDA only.</p> <p>Type test report shall be submitted for the type, size and rating of the cable mentioned in the bid/ OR for any size higher (than required) of similar type and similar voltage grade.</p> <p>Type test should have been conducted in certified test laboratories during the period not exceeding 5 years from the date of opening the bid.</p> <p>In the event of any discrepancy in the test reports i.e. any test report not acceptable or any/all type tests (including additional type tests, if any) not carried out, same shall be carried out without any cost implication to TPCODL.</p> <p>In case the type test certificates are dated beyond 5 years and up to 10 years maintaining basic component design same then deviation should be submitted on vendor letter head. TPCODL will have the rights to accept/reject the same.</p>				
9.0	PRE-DISPATCH INSPECTION	<p>Inspection shall be carried out by duly authorized representative of TPCODL. Bidder shall grant free access to the places of manufacture to TPCODL's representatives at all times when the work is in progress.</p> <p>Inspection may be made at any stage of manufacturing at the discretion of TPCODL and the equipment, if found unsatisfactory as to workmanship or material, the same is liable to rejection. Inspection by TPCODL or its authorized representatives shall not relieve the bidder of his obligation of furnishing equipment in accordance with the specifications.</p> <p>Dispatch of material: Material shall be dispatched after specific MDCC (Material Dispatch Clearance Certificate) is issued by TPCODL.</p> <p>Following documents shall be sent along with the supplied material:</p> <ol style="list-style-type: none"> Test reports MDCC issued by TPCODL Invoice in duplicate Packing list Delivery Challan 				

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10.	INSPECTION AFTER RECEIPT AT STORES	The material received at TPCODL, Odisha store shall be inspected for acceptance and shall be liable for rejection, if found different from the reports of the pre-dispatch inspection and one copy of the report shall be sent to Contracts & Engineering department.
11.0	GUARANTEE	<p>Requirement: Bidder shall confirm for guarantee towards design, material, workmanship & quality of process / manufacturing for integrated product delivered under the contract. In the event any defect is found by TPCODL, up to a period of at least 60 months from the date of commissioning or 72 months from the date of last supplies made under the contract whichever is later, bidder shall be liable to undertake to replace/rectify such defects at its own costs, within mutually agreed time frame, and to the entire satisfaction of TPCODL, failing which TPCODL will be at liberty to get it replaced/rectified at Bidder's risks and costs and recover all such expenses plus the TPCODL's own charges (@ 20% of expenses incurred), from the Bidder or from 'Security cum Performance Deposit' as the case may be.</p> <p>Free replacement: 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 TPCODL.</p>
12.0	PACKAGING	<p>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.</p> <p>b) Filling condition: Drum shall not be overfilled.</p> <p>c) Cable drum: The cable shall be wound on non-returnable steel drums without any extra cost to TPCODL as per IS 10418 and its latest amendments.</p> <p>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.</p> <p>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.</p> <p>f) Bottom end of cable should be clamped on drum by jute or nylon rope.</p> <p>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.</p> <p>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.</p> <p>i) Packaging shall be as per climate change perspective. Cable wound on cable drum shall be covered by recyclable PVC sheet for dust proof. TPCODL encourages to use environment friendly packaging.</p>
13.0	TENDER SAMPLE	NA
14.0	QUALITY CONTROL	<p>The bidder shall submit 'Quality Assurance Plan' followed by him in respect of: Bought out items Items manufactured by him Raw materials in process Final inspection Packaging & Marking.</p> <p>As part of the plan, a schedule for stage and final inspection within the parameters of the delivery schedule shall be furnished. TPCODL reserves the sole rights for the type test of random sample from the lot and in case of any discrepancy or deviation from the Type test certificates submitted along with the bid, the complete Lot shall be rejected.</p> <p>TPCODL's nominated representative shall have free access to the bidder's works to carry out inspections.</p>
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15.0	MINIMUM TESTING FACILITIES	Bidder shall have adequate in house testing facilities for carrying out all routine and acceptance tests as per relevant International / Indian standards.
16.0	MANUFACTURING ACTIVITIES	The successful bidder will have to submit (after placement of RC) technical compliance document and drawing of cable as per RC line items for getting approval before mass manufacturing. Manufacturing mass quantity to start only after getting CAT-A approved drawings or as per intimation from TPCODL.
17.0	SPARES, ACCESSORIES AND TOOLS	Not Applicable
18.0	DRAWINGS AND DOCUMENTS	<p>Following documents shall be submitted along with the bid for approval after award of RC/PO:</p> <ul style="list-style-type: none"> a) Completely filled-in clause wise compliance of the specification. b) General description of the equipment and all components including brochures c) Type test Certificates for each specified test d) Experience List. e) Cross sectional drawing of the cable. f) Rating factors for variation in ground and air temperature, depth of laying, thermal resistivity of soil and different laying configuration of cables. g) A detailed list of bought out items which got into the manufacture of cables should be furnished indicating the name of the firms from whom these items are procured. <p>All the Documents and Drawings shall be in English Language.</p>
19.0	GUARANTEED TECHNICAL PARTICULARS	Bidder to submit clause wise compliance.

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(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.

S.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

20.0

SCHEDULE OF DEVIATIONS

ANNEXURE – 1

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INSPECTION TEST PLAN

S.No.	Test name	Specific value		Test method	
		Clause No.	Reference Standard	Clause No.	Reference Standard
(I) Test on Conductor					
1	Conductor resistance test	Clause No. 5(A.5)	ENG-EHV-1012	10	IS 10810 part 5
2	Test for non-conductivity of water swellable tape/yarn of conductor	Clause No. 5(A.6)	ENG-EHV-1012	Through multimeter	
3	Visual inspection for conductor cleanliness	Clause No. 5(A.7)	ENG-EHV-1012	Check for presence of any Aluminium dust	
4	Conductor water penetration test	ICEA T-31-610			
(II) Test on Conductor Screen					
5	Thickness of semi-conducting tape over conductor	Clause No. 5(B.2)	ENG-EHV-1012	Value to be noted by inspector	
6	Test for conductivity of semi-conducting tape over conductor	Clause No. 5(B.2)	ENG-EHV-1012	Through multimeter	
7	Resistivity of extruded semi-conducting conductor screen	Clause No. 5(B.4)	ENG-EHV-1012	Annexure E	IS 7098 part 2
8	Thickness of extruded semi-conducting conductor screen	Clause No. 5(B.3)	ENG-EHV-1012	Value to be noted by inspector	
(III) Test on Insulation					
9	Tensile strength & Elongation at break (before ageing)	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 7
10	Insulation thickness	Clause No. 5(C.3)	ENG-EHV-1012	8	IS 10810 part 6
11	Eccentricity and Ovality of insulation	Clause No. 5(C.3)	ENG-EHV-1012	Annexure A	IS 7098 part 2
12	Hot set test	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 30
13	Volume resistivity	Table 1 of Clause No.5	IS 7098 part 2	8	IS 10810 part 43
14	Void & contamination test on core (by silicon dip method)	Clause No. 5(C.5)	ENG-EHV-1012	20.1	IS 7098 part 3

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15	Surface smoothness of insulation	Clause No. 5(C.5)	ENG-EHV-1012	To be checked by inspector	
(IV) Test on Insulation Screen					
16	Resistivity of insulation screen	Clause No. 5(D.2.a)	ENG-EHV-1012	Annexure E	IS 7098 part 2
17	Thickness of insulation screen	Clause No. 5(D.2)	ENG-EHV-1012	Value to be noted by inspector	
18	Visual inspection for any convolution/ protrusion between conductor screen and XLPE insulation, XLPE insulation and insulation screen	Clause no. 5(C.5)	ENG-EHV-1012	To be checked by inspector	
19	Thickness & % Overlapping of semi-conducting water swellable tape	Clause no. 5(D.2.b)	ENG-EHV-1012	Value to be noted by inspector	
20	Thickness & % Overlapping of copper tape	Clause No. 5(D.2.c)	ENG-EHV-1012	Value to be noted by inspector	
(V) Test on Inner sheath					
21	PVC thickness	Clause No. 5(F.4)	ENG-EHV-1012	8	IS 10810 part 6
22	Colour of inner sheath	Clause No. 5(F.1)	ENG-EHV-1012	To be checked by inspector	
(VI) Test on Armour					
For 3 core cable					
23	Tensile test	8	IS 3975	IS 1608	
24	Mass of zinc coating	Table 1	IS 4826	IS 6745	
25	Uniformity of zinc coating	9	IS 3975	IS 2633	
26	Adhesion test	9	IS 3975	IS 3975	
27	Diameter and no. of wires	Clause No. 5(G.3)	ENG-EHV-1012	Value to be noted by inspector	
28	Coverage %	Clause No. 5(G.7)	ENG-EHV-1012	Value to be noted by inspector	
For 1 core cable					
29	Tensile test	8	IS 8130	6	IS 1608
30	Wrapping test	8	IS 8130	5	IS 1755
31	Resistance test	8	IS 8130	8	IS 10810 Part 42
32	Diameter and no. of wires	Clause No. 5(G.3)	ENG-EHV-1012	Value to be noted by inspector	
33	Coverage %	Clause No. 5(G.7)	ENG-EHV-1012	Value to be noted by inspector	
(VII) Test on Outer Sheath					

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34	Thickness	Clause No. 5(H.3)	ENG-EHV-1012	Value to be noted by inspector	
35	Tensile strength and Elongation at break (before ageing)	Table 2	IS 5831	8	IS 10810 part 7
36	Colour of outer sheath	Clause No. 5(H.4)	ENG-EHV-1012	To be checked by inspector	
37	Surface uniformity of outer sheath (on full drum)/ shall be free from any damage- void, nick, cavity.	Clause No. 5(H.5)	ENG-EHV-1012	Through rewinding of drum (As per TPCODL specification)	
38	Presence of lead naphthenate in PVC outer sheath	Chemical test Clause no. 5(H.1)	ENG-EHV-1012	To be checked by inspector	
39	Flammability test	As per IEC 332 part 1			
40	Oxygen index	As per ASTM 2863			
41	Temperature index	As per ASTM 2863			
42	Acid gas generation	As per IEC 60754			
43	Smoke density	As per ASTM 2843			
(VIII) Tests for complete cable					
44	Partial discharge test	5 pC	As per type test	8	IS 10810 part 46
45	High voltage test	63 kV for 5 minutes As per Clause no. 20.7.2	IS 7098 part 2	8	IS 10810 part 45
46	Raw material consumption verification	Document verification as proof to be submitted Invoice to be shown from procurement to consumption			
(IX) Additional tests					
47	Colour coding identification over copper screen (for 3C cable)	Clause no. 5(D.2)	ENG-EHV-1012	To be checked by inspector	
48	Sequential marking check	Clause no. 6.ii	ENG-EHV-1012	To be checked by inspector	
49	Cable drum length verification	Clause no. 6	ENG-EHV-1012	To be checked by inspector	
50	Packaging of cable on cable drum	By recyclable PVC sheet- As per Clause no.12	ENG-EHV-1012	To be checked by inspector	
51	Weight of conductor/km	Clause No. 5(A.11)	ENG-EHV-1012	Value to be noted by inspector	
52	Diameter of conductor	Clause No. 5(A.10)	ENG-EHV-1012	Value to be noted by inspector	
53	Weight of XLPE insulation plus semiconducting screen (of conductor &	Value to be noted by inspector			
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	insulation)/ km			
54	Diameter over core	Clause no. 5(D.4)	ENG-EHV-1012	Value to be noted by inspector
55	Weight of core	Clause no. 5(D.5)	ENG-EHV-1012	Value to be noted by inspector
56	Weight of copper tape/km	Clause No. 5(D.6)	ENG-EHV-1012	Value to be noted by inspector
57	Diameter over inner sheath	Value to be noted by inspector		
58	Weight of armour/ km	Clause No. 5(G.6)	ENG-EHV-1012	Value to be noted by inspector
59	Cable sealing end caps	Clause No. I	ENG-EHV-1012	Provision to be checked by inspector
60	Weight of outer sheath/ km	Clause No. 5(H.7)	ENG-EHV-1012	Value to be noted by inspector
61	Diameter of complete cable	Clause No. 5(J.1)	ENG-EHV-1012	Value to be noted by inspector

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1.0 ORGANIZATIONAL VALUES

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

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

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

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

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

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

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

2.0 ETHICS

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

The main objective of the Ethics Management Team is to:

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

All Associates and Stakeholders are requested to register any grievance on ethics violation on our website www.tpccentralodisha.com.

3.0 CONTRACT PARAMETERS

3.1 Issue/Award of Contract

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

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

3.2 Contract Commencement Date

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

3.3 Contract Completion Date

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

3.4 Contract Period/Time

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

3.5 Contract Execution Completion Date

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

3.6 Contract Price /Value

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

3.7 Contract Document

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

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

3.8 Contract Language

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

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

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

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3.9 Reverse Auction

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

4.0 SCOPE OF WORK

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

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

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

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

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

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

5.0 PRICES/RATES/TAXES

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

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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.

6.0 TERMS OF PAYMENT

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

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

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

6.1 Quantity Variation

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

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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.

8.0 SECURITY CUM PERFORMANCE DEPOSIT

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

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

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

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

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

9.0 STATUTORY COMPLIANCE

9.1 Compliance to Various Acts

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

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9.2 SA 8000

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

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

9.3 Affirmative Action

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

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

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

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

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

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

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

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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 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

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

11.2 Facilitating Inspection

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

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

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

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

The Associate and TPCODL shall jointly document all the observations, comments and action points after completion of inspection and it shall be binding on the Associate to provide

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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.

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.

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

- i) Identify and obtain the correct type of trucks/trailers, keeping in view the nature of consignments to be dispatched.
- ii) Take such actions as may be necessary to avoid all possible chances of damages during transit and to ensure that all packages are firmly secured.

Timelines for inspection and MDCC is as below:

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

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

12.2 Right to Rejection on Receipt

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

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

12.3 Consignee

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

12.4 Submission of mandatory documents on Delivery

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

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

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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 of the guarantee period in standard specifications or SCC Guarantee Period will be 12 Months from the Date of Commissioning or 24 months from the date of delivery of final lot of supplies made, whichever is earlier.

13.3 Failure in Guarantee Period (GP)

If the equipment and material supplied under the contract fails to perform its due, rated & intended quality performance, during the Guarantee period, the associate is liable to undertake repair/rectify/replace the equipment and material supplied within time frame specified in the SCC or elsewhere in the contract documents at associate’s cost to make the equipment and material supplied/service or work rendered under the contract of performing its due, rated and

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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.

13.6 Latent Defect

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

13.7 Support beyond the Guarantee Period

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

14.0 LIQUIDATED DAMAGES

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

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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 value. Deduction of LD shall be on landed cost i.e contract value inclusive of taxes and in pursuant statutory compliance GST would be applicable at the stipulated rate and the same shall be borne by Business Associate. In case of LD deduction, a GST invoice shall be issued by TPCODL as a proof of deduction/ recovery.

14.1 LD Waiver Request

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

15.0 UNLAWFUL ACTIVITIES

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

16.0 CONFIDENTIALITY

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

16.1 Documents

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

16.2 Geographical Data

Maps, layouts and photographs of the unit/plant including its surrounding regions showing vital installation for national security of country or those of TPCODL shall not be published or

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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 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.

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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 supplied by the Associate whether or not the TPCODL is held liable for by any court judgement. In this connection, the TPCODL shall pass on all claims made against him to the Associate for settlement.

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

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

19.0 LIABILITY & LIMITATIONS

19.1 Liability

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

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

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

19.2 Limitation of Liability

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

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

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

- Immediately discontinue further supply of material/goods specified in the suspension notice for supply contracts

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- 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.

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.

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- 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.

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.

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- 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. 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.

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23.0 DISPUTE RESOLUTION & ARBITRATION

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

23.1 Governing Laws and Jurisdiction

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

24.0 ATTRIBUTES OF GCC

24.1 Cancellation

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

24.2 Severability

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

24.3 Order of Priority

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

25.0 ERRORS AND OMISSIONS

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

26.0 TRANSFER OF TITLES

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

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

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

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

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

28.0 SUGGESTIONS & FEEDBACK

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

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

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

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- Any issues with TPCODL.

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

29.0 CONTACT POINTS

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

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)	B
3.	Performa for No Demand Certificate by Associate	C
4.	Performa For Application For Issuance of Consolidated TDS Certificate	D
5.	Business Associate Feedback Form	E
6.	Acceptance Form For Participation In Reverse Auction Event	F
7.	Form for RTGS Payment	G
8.	Vendor Appraisal Form	H
9.	Manufacturer Authorization Form	I

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ANNEXURE-A

PROFORMA FOR BID SECURITY BANK GUARANTEE

**The TP Central Odisha Distribution Limited
Bhubaneswar**

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

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

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

The CONDITIONS of this obligation are:

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


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

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

DATE **SIGNATURE OF THE BANK**

WITNESS **SEAL**

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

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

PROFORMA FOR PERFORMANCE BANK GUARANTEE (CP cum EP)

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

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

The TP Central Odisha Distribution Limited

Bhubaneswar

CP cum EP BG No.....

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

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

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

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

Dated at _____ this _____ day of _____ 20__

Bank's rubber stamp

1. Banks full address

Designation of Signatory

2. Bank official number

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ANNEXURE-C

PROFORMA FOR “NO DEMAND CERTIFICATE” BY ASSOCIATE

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

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

(Certificate No. CCP/002)

Name of the Project Order/

Contract No.

Dated

Name of the Associate Scheme

No. / Job No.

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

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

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

Place

Name

(Company Seal)

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ANNEXURE-D

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

To be printed on the letterhead

To,

The TP Central Odisha Distribution Limited,

Bhubaneswar

Sub: Application for issuance of Consolidated TDS Certificate for the FY _____

Dear Sir,

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

Signature

Name

Address

Contact No. (Land Line)

(Mobile)

PAN #

Assessing authority

ATTACH THE COPY OF PAN CARD

ANNEXURE-E

BUSINESS ASSOCIATE FEEDBACK FORM

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

You are associated with us as

- OEMs Service Contractor Material Suppliers Material & Manpower Supplier

You are associated with us for

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

Your office is located at

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

Your nearly turnover with TPCODL

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

Additional Information

Your Name	
Your Designation	
Your Organization	
Contact Nos.	
Email	

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

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

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

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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 relationship with its Business Associates						

SECTION – C

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

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

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

SECTION - D

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

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

SECTION - E

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

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

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

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

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

ANNEXURE-F

ACCEPTANCE FORM FOR PARTICIPATION IN REVERSE AUCTION EVENT

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

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

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

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

Signature & Seal of the Bidder

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ANNEXURE-G

To,
DGM (Finance)
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 :

(Please mention here whether account is Savings/Current/Cash Credit)

Bank Account Number :

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Name & Address of Bank :

Bank Contact Person's Names :

Bank Tele Numbers with STD Code :

Bank Branch MICR Code :

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

(Please enclose a Xerox a copy of a cheque. This cheque should not be a payable at par cheque)

Bank Branch IFSC Code :

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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

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

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Name of the Authorized Signatory: _____ :

Contact Person's Name:

Official Correspondence Address:

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

Thanking you,

For _____

(Authorised Signatory)

(Signature with Rubber Stamp)

Certification from Bank:

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

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

(Manager's/ Officers Signature under Bank Stamp)

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ANNEXURE-H
VENDOR APPRAISAL FORM

TO BE SUBMITTED BY VENDOR (To be filled as applicable)			
VENDOR:			
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	PRODUCTS MANUFACTURED		
3.0	TURNOVER DURING THE LAST 3 YEARS (TO BE VERIFIED WITH THE LATEST PROFIT & LOSS STATEMENT).		
4.0	VALUE OF FIXED ASSETS		
5.0	NAME & ADDRESS OF THE BANKERS		
6.0	BANK GUARANTEE LIMIT		
7.0	CREDIT LIMIT		
8.0	TECHNICAL		
	8.1	NO. OF DESIGN ENGINEERS (INDICATE NO. OF YEARS EXPERIENCE IN RELATED FIELDS)	:
	8.2	NO. OF DRAUGHTS MEN	:
	8.3	COLLABORATION DETAILS (IF ANY)	:
		8.3.1 DATE OF COLLABORATION	:
		8.3.2 NAME OF COLLABORATOR	:
		8.3.3 RBI APPROVAL DETAILS	:
		8.3.4 EXPERIENCE LIST OF COLLABORATOR	:
		8.3.5 DURATION OF AGREEMENT	:
	8.4	AVAILABILITY OF STANDARDS / DESIGN PROCEDURES / COLLABORATOR'S /	:

		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	MANUFACTURE		
	9.1	SHOP SPACE, LAYOUT LIGHTING, VENTILATION, ETC.	:
	9.2	POWER (KVA)	:
		MAINS INSTALLED	:
		UTILIZED	:
		STANDBY POWER SOURCE	:
	9.3	MANUFACTURING FACILITIES (ATTACH LIST OF EQUIPMENT AS APPLICABLE)	:
		9.3.1 MATERIAL HANDLING	:
		9.3.2 MACHINING	:
		9.3.3 FABRICATION	:
		9.3.4 HEAT TREATMENT	:
		9.3.5 BALANCING FACILITY	:
		9.3.6 SURFACE TREATMENT PRIOR TO PAINTING/ COATING, POLISHING, PICKLING, PASSIVATION, PAINTING, ETC.	:
	9.4	SUPERVISORY STAFF	:
	9.5	ADEQUACY OF SKILLED LABOURS (MACHINISTS, WELDERS, ETC.)	:
	9.6	NO. OF SHIFTS	:
	9.7	TYPE OF MATERIAL HANDLED (SUCH AS CS, SS, ETC.)	:
	9.8	WORKMANSHIP	:
	9.9	MATERIAL IN STOCK AND VALUE	:
	9.10	TRANSPORT FACILITIES	:
	9.11	CARE IN HANDLING	:
10.0	INSPECTION / QC / QA / TESTING		
	10.1	NUMBER OF PERSONNEL (INDICATE NO. OF YEARS OF EXPERIENCE)	:
	10.2	INDEPENDENCE FROM PRODUCTION	:

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

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

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

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

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ANNEXURE-I
MANUFACTURER AUTHORIZATION FORM

(To be submitted on OEM's Letter Head)

Date:

Tender Enquiry No.:

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

Sir,

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

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

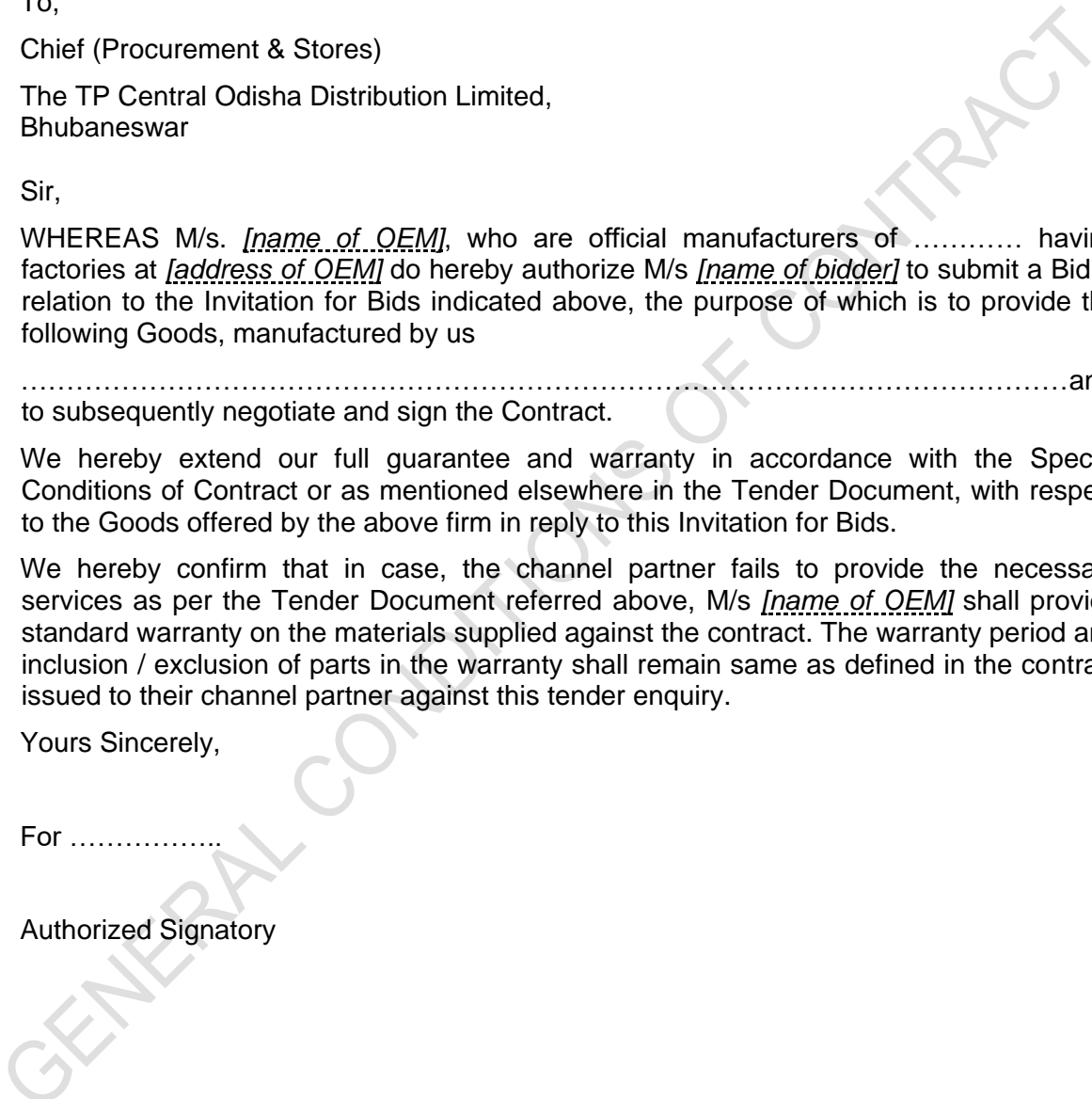
We hereby extend our full guarantee and warranty in accordance with the Special Conditions of Contract or as mentioned elsewhere in the Tender Document, with respect to the Goods offered by the above firm in reply to this Invitation for Bids.

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

Yours Sincerely,

For

Authorized Signatory





Business Associate Registration Form Corporate Contracts

To be Filled in Block letters By Associate. Note **Annexure 1 - CSM F1** is Mandatory for Service / Composite Associate Registration

MATERIAL SERVICE COMPOSITE CONSULTANT

Category: MSME / OTHERS (If MSME, please provide details as mentioned in Page No-2)

Title (M/S., Mr., Mrs., Dr.,) *							
Company Name (35 Char) *							
Country code - Mobile No *							
Country Code - Tel. No *							
Country Code - Fax No							
Email ID *							
Street / House No *							
Country *		State *		District *			
City *		Pin code *		Language			
Category		General		MOEF		SC / ST	
		Related Party		MSME / SSI		OBC/Others	
Bank Details (all details to be filled for enabling NEFT Transfer)-Cancelled cheque to be attached							
Name of Bank *							
Bank Details ID *		PAN Number *					
Account No. *		Account Holder *					
Bank Key *		Bank Country *		INDIA			
MICR Code * (Attach Cancelled Cheque)							
IFSC Code *							
IBAN *							
Payment thro RTGS/NEFT*							
Quality / Safety Systems (Mandatory for Service and Composite Associate Registration)							
OHSAS 18001 Certified		Risk Management Process					
ISO 9001 Certified		ISO 14001 / EMS Certified					
Declaration and Associate Authorized Signature							
I / We certify that the information furnished above is correct and complete to the best of my/our knowledge and belief. If at any time, I / We are found to have concealed any material information or given any false details, my/our registration shall be liable to summary termination without notice or compensation. I / We are not related to any employee of TP Central Odisha Distribution Limited.							
Name *							
Designation *							
Email *							
Signature & Company Seal *							

TP CENTRAL ODISHA DISTRIBUTION LIMITED
(A Tata Power & Odisha Govt. joint venture)
2nd Floor, IDCO Tower, Janpath Bhubaneswar, Odisha 751022



Taxation Registration Details						
GST Scheme	Normal			Composite		
GST Registration No.						
GST Classification						
GST Registration Date						
Provident Fund No.						
ESI Registration No.						
MSME / SSI Registration No.						
MSME / SSI Registration Date						
MSME / SSI Registration Valid Upto						
Mandatory For SERVICE & COMPOSITE (Material + Service) Associate Registration						
Annexure 1 - CSM F1-'Safety Category Qualification Form	YES		NO		N / A	
OSHAS 18001 Certificate	YES		NO		N / A	
ISO 9001 Certificate	YES		NO		N / A	
ISO 14001 / EMS Certificate	YES		NO		N / A	
Safety Organization Structure	YES		NO		N / A	
Safety Training Process	YES		NO		N / A	
Safety Policy	YES		NO		N / A	
Safety Statistics	YES		NO		N / A	
Address of sites where WIP	YES		NO		N / A	
Check List of Documents enclosed (To be filled by the Associate)						
PAN Card Copy	YES		NO		N / A	
GST Registration Certificate	YES		NO		N / A	
Certificate of Incorporation / Partnership Deed etc	YES		NO		N / A	
Signed Conflict of Interest Declaration	YES		NO		N / A	
MSME Industry Registration (Mandatory if applicable)	YES		NO		N / A	



Evaluation Sheet

(To be filled by **Requisitioner** - After Checking & Verifying Page 1 to 2 and Annexure 1 - CSM F1 Form)

Whether mandatory requirements are filled/attached and verified?	YES		NO		If No, explain reason for waiver in evaluation area	
If registration is for Services also, whether CSM F1 Form has been completed? Documents attached CSM F1 - Safety Category Qualification Form	YES		NO		N / A	
OHSAS 18001/ ISO 9001 / ISO 14001 Certificate	YES		NO		N / A	
Safety Organization Structure	YES		NO		N / A	
Safety Training Process	YES		NO		N / A	
Safety Policy	YES		NO		N / A	
Safety Statistics	YES		NO		N / A	
Evaluation Process Report	YES		NO		N / A	
Company Code & Description -						

Requested By		Approved by (HOD)	
Name		Name	
Signature		Signature	
Department		Department	
ERP Associate Company Codes			
Company Code *		Sort Key *	
Reconciliation A/C *		Check Double Invoice	
With Holding Tax Country		With Hold Tax	
Terms of Payment		Payment Methods	
ERP Associate Purchasing Organization			
Purchasing Organization *		Order Currency *	
Schema Group *		Sales Person *	
ABC Indicator *		Terms of Payment	
Service Based Invoice		GR Based Invoice	

**ANNEXURE – 1****CSM F1 - Safety Category Qualification Form**

Type of Associate -

Service / Composite (Material + Service)

Category -

A / B / C / D (Tick any one)

Name of the Associate -

No	Safety Information	Remarks	Attachments		
1	Organization is certified /accredited to following systems				
1A	OHSAS : 18001	Yes / No	No		
1B	ISO : 14001	Yes / No	NO		
1C	ISO : 9001	Yes / No	No		
1D	Any Other	Yes / No			
2	Safety Statistics for Last Three (03) Years		Year 1 Current Year	Year 2 Last Year	Year 3 Year Before
2A	LTIFR – Lost Time Injury Frequency Rate	NIL			
2B	LTISR – Lost Time Injury Severity Rate	NIL			
3	Safety Training Process for your Organization	Yes / No	If "Yes", kindly attach Details / Procedures		
4	Safety Organization Structure of your Organization 1. Total No of Employees 2. No of Safety Professional 3. No of Engineers /Supervisor 4. No of Skilled /unskilled work men	Yes / No			
5	Certified /Skilled workers as a percentage of overall workforce ITI Trained, TPSDI Trained, Licensed Electrician, IBR welder, etc.	Yes / No			
6	Name and Address of Sites where work are in Progress or worked earlier	Details of the Site			

Name, Signature & Company Seal

To be filled by the Tata Power Requestor

Associate to be registered for CATEGORY

 A B C D1) **Category A**- Associate eligible to carry out High risk Jobs2) **Category B**- Associate eligible to carry out technical jobs that are low risk3) **Category C**- Associate eligible to carry out administrative and office jobs4) **Category D**- Associate eligible to carry out consultant job/other than above A, B, C category

No	Description	Category A	Category B	Category C	Category D
1	Does the Contractor have OHSAS 18001 Certificate?				
2	During site visit check for safety adequacy at site				
3	Check the safety statistics of Contractor				
4	Check the safety orientation & training process of contractor				
5	Check the organization structure for safety professionals / engineers / supervisors				
6	Certified / skill workers as a percentage overall work force				
7	Does the Contractor have ISO 9001 Certificate?				