

## **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.

<b>SI No</b>	<b>Description</b>	<b>Bidder's Response</b>
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)	
10	GST No.	

**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.

**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.

**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>



NIT No.: TPCODL/P&S/SUPPLY&SERVICE CABLE JOINTKIT/91/20-21

## **OPEN TENDER NOTIFICATION**

**FOR**

**RATE CONTRACT FOR SUPPLY AND SERVICES (INSTALLATION  
AND REPAIR) OF CABLE JOINT KITS FOR THE PERIOD OF 2  
YEARS**

**Tender Enquiry No.:**

**TPCODL/P&S/SUPPLY&SERVICECABLEJOINTKIT/91/20-21**

**Due Date for Bid Submission: 30.09.2020 [15:00 Hrs.]**

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

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**CONTENTS OF THE ENQUIRY**

S. NO.	PARTICULARS
1.	Event Information
2.	Evaluation Criteria
3.	Submission of Bid Documents
4.	Bid Opening & Evaluation process
5.	Award Decision
6.	Order of Preference/Contradiction
7.	Post Award Contract Administration
8.	Specifications and Standards
9.	General Conditions of Contract
10.	Safety
<b>Annexures</b>	
I.	Annexure I – Schedule of Items
II.	Annexure II – Technical Specifications
III.	Annexure III – Schedule of Deviations
IV.	Annexure IV – Schedule of Commercial Specifications
V.	Annexure V – Document Check List
VI.	Annexure VI – Acceptance Form for Participation in Reverse Auction Event
VII.	Annexure VII – Scope of Work & Service Level Agreement
VIII.	Annexure VIII – Check List
IX.	Annexure IX – General Condition of Contract
X.	Annexure X – Format for Bid BG



## 1.0 Event Information

### 1.1 Scope of work

Open Tenders are invited in E-Tender Bidding Process from interested Bidders for entering into a Rate Contracts valid for a period of **2 (Two) Year** as defined below :

S. No.	Description	EMD Amount (Rs.)	Tender Fee Including GST (Rs.)
1	SUPPLY AND SERVICES (INSTALLATION AND REPAIR) OF CABLE JOINT KITS FOR THE PERIOD OF 2 YEARS	4,39,000.00	5,000.00

### 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  
2<sup>nd</sup> Floor, IDCOTowers, Janpath, Bhubaneswar-751022

Tender documents may be downloaded by interested eligible bidders from TPCODL website [www.tpcentralodisha.com](http://www.tpcentralodisha.com) with effect from 04.09.2020. 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](http://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 04.09.2020
(b)	Last date and time of payment of Tender fees through RTGS/NEFT to get link for participation in E-Tender portal	14.09.2020 up to 15:00 Hours
(c)	Last Date of receipt of Pre-Bid queries in <b>MS – Excel</b> format through e-mail, (if any) <b>after which no queries will be entertained</b>	15.09.2020 up to 13:00 Hours, <b>after which no queries will be entertained</b>
(d)	Last Date of Posting Consolidated replies to all the Pre-Bid queries as received in the TPCODL website	25.09.2020
(e)	Last date and time of receipt of Bids through ARIBA E-Tender portal	30.09.2020 up to 15:00 Hours
(f)	Date & Time of opening of Price of qualified bids	Will be notified to the successful bidders through our website / e-mail.

**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 along with a sample of the following sizes as specified at Annexure I (as applicable)

1	JT. KIT ST.TH.1.1KV XLPE 4X400 HS
2	JT.KIT ST.TH.11KV XLPE 3X400 XLPE HS
3	JT. KIT ST.TH.33KV XLPE 3X 400 HS

- 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

- a) The average annual turnover of the bidder shall be a minimum of Rs. 15 crores for last two financial years. Copy of audited Balance Sheet and P&L Account to be submitted in this regard.
- b) The bidder should have its own manufacturing facility to manufacture cable joints of same or higher voltage level. 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.
- c) 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 works. The work

against these issued certificates should be completed in last seven years from the date of bid submission. In case the bidder has a previous association with TPCODL 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.

- d) The bidder should have executed 100% of the tender quantity or a single order for 50% of tender quantity or 2 orders each for 30% tender quantity or 3 orders each for 25% tender quantity during last 3 years. Order copies /completion certificates to be submitted
- e) Bidder should have the In-house testing facilities for acceptance test as per TPCODL specifications. 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.

### 1.8 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 complete 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.
- Bidder has to mandatorily quote against each item of Schedule of Items [Annexure I]. Failing to do so, TPCODL may reject the bids.

**NOTE:** In case 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*)
- 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 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](http://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](http://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.**

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**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**

**“RATE CONTRACT FOR SUPPLY AND SERVICES (INSTALLATION AND REPAIR) OF CABLE JOINT KITS FOR THE PERIOD OF 2 YEARS”**

Please mention our Enquiry Number:- **TPCODL/P&S/SUPPLY&SERVICECABLEJOINTKIT/91/20-21** on the Tender and drop the same at Tata Power Central Odisha Distribution Limited, 2<sup>nd</sup> Floor, IDCO Towers, Janpath, Bhubaneswar-751022.

The envelope shall be addressed to:

Chief (Procurement & Stores)  
Tata Power Central Odisha Distribution Limited  
2<sup>nd</sup> 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:

Name : Mr. Satyajit Sadangi, AGM(EI)  
Contact No- 8249964994  
E-Mail ID: satyajit.sadangi@cescoorissa.com  
Name: Mr. D.P.Das, Sr.GM  
Contact No: 9438297571  
E-Mail ID: debaprasad.das@cescoorissa.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 for each item & total price with taxes, duties & freight up to destination at various sites of TPCODL. The all-inclusive prices offered shall be inclusive of all costs as well as Duties, Taxes and Levies paid or payable during the execution of the supply work, breakup of price constituents.

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 favor of "TP Central Odisha Distribution Limited", payable at Bhubaneswar.
- Online transfer of requisite amount through NEFT/ RTGS.
- Bank Guarantee valid for 210 days after due date of submission.

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

- Rate Contract shall be valid for the period of 2 years. The rate shall remain FIRM during the period.
- Release Order shall be placed as per the requirement of TPCODL.
- **Bidder needs to quote mandatorily for each line item of the BoQ.**



- 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.
- Delivery period shall be within 45 days from date of receipt of release order.
- MDCC clause shall be applicable.
- PBG @ 5% shall be applicable on the Rate Contract Value.
- TPCODL appreciates and welcomes the engagement/employment of persons from SC/ST community or any other deprived section of society by their BAs.
- 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.
- All the terms and conditions of TPCODL GCC – Composite 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 7 days 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 4 days of such request.

## 7.3 Delivery Terms

1) **Supply** of Jointing Kits to be completed within 45 days from the placement of RO as per special condition of contract mentioned in point no. 7.1 .

2) **Installation** of Kits to be completed within the timelines as per the Service SLA from the placement of Release Order / On-call request whichever is earlier.

## 7.4 Warranty Period

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

The warranty period shall be 5 years from the date of commissioning.

## 7.5 Payment Terms

**Supply Part:-** 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 Tata Power Central Odisha Distribution Limited to Invoice Desk. The payment shall be released **within 30 days** from the date of submission of certified bills/ invoices

**Service Part:** - 100% Payment for Installation shall be done within 30 days after successful Installation and certification from TPCODL-In- Charge.

## 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

- 1 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.
- 2 TPCODL work practices are governed by the Tata Code of Conduct which emphasizes on the following:
  - 3 We shall select our suppliers and service providers fairly and transparently.
  - 4 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.
  - 5 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.
  - 6 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.
  - 7 We respect our obligations on the use of third party intellectual property and data.
- Bidder is advised to refer GCC attached at Annexure IX for more information.

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

[purchase@cescoorissa.com&pkjain@tatapower.com](mailto:purchase@cescoorissa.com&pkjain@tatapower.com)

## 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 IX.

## 10.0 Safety

Safety related requirements as mentioned in our safety Manual put in the Company's website which can be accessed by:

<http://www.tatapower-ddl.com>

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

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

SUPPLY							
1.1 Kv							
S.No	Item Description	UNIT	Qty.	Unit Price Excluding GST in (Rs.)	GST in (Rs.)	All inclusive Unit Price in (Rs.)	Total Amount inclusive of all Taxes (Rs.)
				A	B	C=A+B	D=C X A
1	JT. KIT ST.TH 1.1KV XLPE 4X95 HS	NOS	40				
2	JT. KIT ST.TH.1.1KV XLPE 4X150 HS	NOS	30				
3	JT. KIT ST.TH.1.1KV XLPE 4X240 HS	NOS	100				
4	JT. KIT ST.TH.1.1KV XLPE 4X300 HS	NOS	100				
5	JT. KIT ST.TH.1.1KV XLPE 4X400 HS	NOS	100				
6	JT. KIT ST.TH.1.1KV LT ABC XLPE 1X150 HS	NOS	20				
7	JT. KIT O/D 1.1KV XLPE 4X300 SQ.MM HS	NOS	3250				
8	JT. KIT O/D 1.1KV XLPE 4X400 SQ.MM HS	NOS	300				
11 Kv							
S.No	Item Description	UNIT	Qty.	Unit Price Excluding GST in (Rs.)	GST in (Rs.)	All inclusive Unit Price in (Rs.)	Total Amount inclusive of all Taxes (Rs.)
1	JT. KIT O/D HT ABC 1Cx55 HS 11KV	NOS	100				
2	JT. KIT ST.TH FOR HT ABC 1CX55 HS	NOS	100				
3	JT. KIT O/D HT ABC 1Cx95 HS 11KV	NOS	50				
4	JT. KIT O/D HT ABC 1CX150 HS 11KV	NOS	50				
5	JT. KIT ST.TH FOR HT ABC 1CX95 HS	NOS	50				
6	JT. KIT ST.TH FOR HT ABC 1CX150 HS	NOS	50				
7	JT. KIT ST.TH. 11KV XLPE 3 X95 HS	NOS	40				
8	JT. KIT O/D 11KV XLPE 3X95 HS	NOS	20				
9	JT. KIT I/D 11KV XLPE 3X95 HS	NOS	20				
10	JT. KIT ST.TH. 11KV XLPE 3 X120 HS	NOS	80				
11	JT. KIT O/D 11KV XLPE 3X120 HS	NOS	20				
12	JT. KIT I/D 11KV XLPE 3X120 HS	NOS	15				
13	JT. KIT ST.TH. 11KV XLPE 3 X150 HS	NOS	40				
14	JT. KIT O/D 11KV XLPE 3X150 HS	NOS	10				

15	JT. KIT I/D 11KV XLPE 3X150 HS	NOS	10				
16	JT. KIT ST.TH.11KV XLPE 3X300 HS	NOS	200				
17	JT. KIT O/D 11KV XLPE 3X300 HS	NOS	70				
18	JT. KIT I/D 11KV XLPE 3X300 HS	NOS	30				
19	JT. KIT I/D 11KV XLPE 3CX400 HS	NOS	50				
20	JT. KIT O/D 11KV XLPE 3CX400 HS	NOS	300				
21	JT. KIT ST.TH.11KV XLPE 3CX400 HS	NOS	150				
22	JT. KIT ST.TH.11KV XLPE 1X1000 HS	NOS	5				
23	JT. KIT I/D 11KV XLPE 1X1000 HS	NOS	5				
24	JT. KIT O/D 11KV XLPE 1X1000 HS	NOS	5				
25	JT. KIT ST.TH.11KV XLPE 1X400 HS	NOS	30				
26	JT. KIT I/D 11KV XLPE 1X400 HS	NOS	10				
27	JT. KIT O/D 11KV XLPE 1X400 HS	NOS	10				
28	JT.KIT ST.TH.11KV XLPE 3X300 TO 3X150 HS	NOS	10				
29	JT.KIT ST.TH.11KV XLPE 3X240/300/400 TO 3X240/300/400 XLPE HS	NOS	10				
30	JT. KIT I/D 11KV XLPE 1CX630 HS	NOS	10				
31	JT. KIT ST.TH. 11KV XLPE 1X630 HS	NOS	10				
32	JT. KIT I/D 11KV XLPE 1CX630 HS (RMU)	NOS	5				
33	JT. KIT I/D 11KV XLPE 3CX300/400 HS (RMU)	NOS	300				

33 Kv

S.No	Item Description	UNIT	Qty.	Unit Price Excluding GST in (Rs.)	GST in (Rs.)	All inclusive Unit Price in (Rs.)	Total Amount inclusive of all Taxes (Rs.)
1	JT. KIT O/D 33KV XLPE 3X300 HS	NOS	20				
2	JT. KIT I/D 33KV XLPE 3X300 HS	NOS	10				
3	JT. KIT ST.TH.33KV XLPE 3X 300 HS	NOS	50				
4	JT. KIT ST.TH.33KV XLPE 3X 400 HS	NOS	200				
5	JT. KIT O/D 33KV XLPE 3X400 HS	NOS	30				
6	JT. KIT I/D 33 KV XLPE 3X400 HS	NOS	10				
7	JT. KIT TRM. GIS F/33KV 400 SQMM XLPE	NOS	10				
8	JT. KIT TRM.AIS I/D 33KV XLPE 3X400 RSTI	NOS	20				
9	JT. KIT I/D Screened 33 KV XLPE 1CX630 HS (RMU)	NOS	10				
10	JT. KIT O/D 33KV XLPE 1X400 HS(Suitable for both type)	NOS	20				
11	JT. KIT I/D 33KV XLPE 1X400 HS(Suitable for both type)	NOS	20				

12	JT. KIT ST.TH.33KV XLPE 1X 400 HS(Suitable for both type))	NOS	40				
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**Services**

1.1 Kv

S.No	REPAIR SERVICES	UNIT	Qty. SERVICES	Unit Price Excluding GST in (Rs.)	GST in (Rs.)	All inclusive Unit Price in (Rs.)	Total Amount inclusive of all Taxes (Rs.)
1	TERMINATION	NOS	300				
2	SINGLE STRAIGHT THROUGH	NOS	110				
3	TWO STRAIGHT THROUGH	NOS	130				
4	CABLE LAYING IN EXCESS OF 10 METREIN OPEN	MTR	500				
5	CABLE LAYING IN EXCESS OF 10 METRE(CLOSED)	MTR	500				

**Services**

S.No	INSTALLATION SERVICES	UNIT	Qty.	Unit Price Excluding GST in (Rs.)	GST in (Rs.)	All inclusive Unit Price in (Rs.)	Total Amount inclusive of all Taxes (Rs.)
1	JT. KIT ST.TH 1.1KV XLPE 4X95 HS	NOS	40				
2	JT. KIT ST.TH.1.1KV XLPE 4X150 HS	NOS	30				
3	JT. KIT ST.TH.1.1KV XLPE 4X240 HS	NOS	100				
4	JT. KIT ST.TH.1.1KV XLPE 4X300 HS	NOS	100				
5	JT. KIT ST.TH.1.1KV XLPE 4X400 HS	NOS	100				
6	JT. KIT ST.TH.1.1KV LT ABC XLPE 1X150 HS	NOS	20				
7	JT. KIT O/D 1.1KV XLPE 4X300 SQ.MM HS	NOS	3250				
8	JT. KIT O/D 1.1KV XLPE 4X400 SQ.MM HS	NOS	300				

**Services**

11 kv

S.No	REPAIR SERVICES	UNIT	Qty. SERVICES	Unit Price Excluding GST in (Rs.)	GST in (Rs.)	All inclusive Unit Price in (Rs.)	Total Amount inclusive of all Taxes (Rs.)
1	TERMINATION	NOS	280				
2	SINGLE STRAIGHT THROUGH	NOS	115				
3	TWO STRAIGHT THROUGH	NOS	230				

4	CABLE LAYING IN EXCESS OF 10 METRE IN OPEN	MTR	500				
5	CABLE LAYING IN EXCESS OF 10 METRE (CLOSED)	MTR	500				
6	TRENCHLESS DIGGING WITH 160 MM DIA HDPE PIPE USING HDD MACHINE (INCLUDING SUPPLY OF HDPE PIPE AS PER IS 4894, PN4 CLASS PE 80	MTR	300				
7	TRENCHLESS DIGGING WITH 160 MM DIA HDPE PIPE MANUALLY (INCLUDING SUPPLY OF HDPE PIPE AS PER IS 4894, PN4 CLASS PE 80	MTR	200				
8	CABLE LAYING IN EXCESS OF 20 METRE	MTR	200				
S.No	INSTALLATION SERVICES	UNIT	Qty.	Unit Price Excluding GST in (Rs.)	GST in (Rs.)	All inclusive Unit Price in (Rs.)	Total Amount inclusive of all Taxes (Rs.)
1	JT. KIT O/D HT ABC 1Cx55 HS 11KV	NOS	100				
2	JT. KIT ST.TH FOR HT ABC 1CX55 HS	NOS	100				
3	JT. KIT O/D HT ABC 1Cx95 HS 11KV	NOS	50				
4	JT. KIT O/D HT ABC 1Cx150 HS 11KV	NOS	50				
5	JT. KIT ST.TH FOR HT ABC 1CX95 HS	NOS	50				
6	JT. KIT ST.TH FOR HT ABC 1CX150 HS	NOS	50				
7	JT. KIT ST.TH. 11KV XLPE 3 X95 HS	NOS	40				
8	JT. KIT O/D 11KV XLPE 3X95 HS	NOS	20				
9	JT. KIT I/D 11KV XLPE 3X95 HS	NOS	20				
10	JT. KIT ST.TH. 11KV XLPE 3 X120 HS	NOS	80				
11	JT. KIT O/D 11KV XLPE 3X120 HS	NOS	20				
12	JT. KIT I/D 11KV XLPE 3X120 HS	NOS	15				
13	JT. KIT ST.TH. 11KV XLPE 3 X150 HS	NOS	40				
14	JT. KIT O/D 11KV XLPE 3X150 HS	NOS	10				
15	JT. KIT I/D 11KV XLPE 3X150 HS	NOS	10				
16	JT. KIT ST.TH.11KV XLPE 3X300 HS	NOS	200				
17	JT. KIT O/D 11KV XLPE 3X300 HS	NOS	70				
18	JT. KIT I/D 11KV XLPE 3X300 HS	NOS	30				
19	JT. KIT I/D 11KV XLPE 3CX400 HS	NOS	50				
20	JT. KIT O/D 11KV XLPE 3CX400 HS	NOS	300				
21	JT. KIT ST.TH.11KV XLPE 3 CX400 HS	NOS	150				
22	JT. KIT ST.TH.11KV XLPE 1X1000 HS	NOS	5				
23	JT. KIT I/D 11KV XLPE 1X1000 HS	NOS	5				
24	JT. KIT O/D 11KV XLPE 1X1000 HS	NOS	5				

25	JT. KIT ST.TH.11KV XLPE 1X400 HS	NOS	30				
26	JT. KIT I/D 11KV XLPE 1X400 HS	NOS	10				
27	JT. KIT O/D 11KV XLPE 1X400 HS	NOS	10				
28	JT.KIT ST.TH.11KV XLPE 3X300 TO 3X150 HS	NOS	10				
29	JT.KIT ST.TH.11KV XLPE 3X240/300/400 TO 3X240/300/400 XLPE HS	NOS	10				
30	JT. KIT I/D 11KV XLPE 1CX630 HS	NOS	10				
31	JT. KIT ST.TH. 11KV XLPE 1X630 HS	NOS	10				
32	JT. KIT I/D 11KV XLPE 1CX630 HS (RMU)	NOS	5				
33	JT. KIT I/D 11KV XLPE 3CX300/400 HS (RMU)	NOS	300				

**Services**

33 kV

S.No	REPAIR SERVICES	UNIT	Qty. SERVICES	Unit Price Excluding GST in (Rs.)	GST in (Rs.)	All inclusive Unit Price in (Rs.)	Total Amount inclusive of all Taxes (Rs.)
1	TERMINATION (AIS)	NOS	55				
2	TERMINATION (GIS)	NOS	40				
3	SINGLE STRAIGHT THROUGH	NOS	50				
4	TWO STRAIGHT THROUGH	NOS	120				
5	CABLE LAYING IN EXCESS OF 10 METRE IN OPEN	MTR	200				
6	CABLE LAYING IN EXCESS OF 10 METRE (CLOSED)	MTR	200				
7	TRENCHLESS DIGGING WITH 200 MM DIA HDPE PIPE USING HDD MACHINE (INCLUDING SUPPLY OF HDPE PIPE AS PER IS 4894, PN4 CLASS PE 80	MTR	200				
8	TRENCHLESS DIGGING WITH 200 MM DIA HDPE PIPE MANUALLY (INCLUDING SUPPLY OF HDPE PIPE AS PER IS 4894, PN4 CLASS PE 80	MTR	200				
9	CABLE LAYING IN EXCESS OF 20 METRE	MTR	200				
10	33 KV GIS Termination Plug in/Plug Out Services (3x400 sq.mm)	NOS	20				
S.No	INSTALLATION SERVICE	UNIT	Qty.	Unit Price Excluding GST in (Rs.)	GST in (Rs.)	All inclusive Unit Price in (Rs.)	Total Amount inclusive of all Taxes in (Rs.)

1	JT. KIT O/D 33KV XLPE 3X300 HS	NOS	20				
2	JT. KIT I/D 33KV XLPE 3X300 HS	NOS	10				
3	JT. KIT ST.TH.33KV XLPE 3X 300 HS	NOS	50				
4	JT. KIT ST.TH.33KV XLPE 3X 400 HS	NOS	200				
5	JT. KIT O/D 33KV XLPE 3X400 HS	NOS	30				
6	JT. KIT I/D 33 KV XLPE 3X400 HS	NOS	10				
7	JT. KIT TRM. GIS F/33KV 400 SQMM XLPE	NOS	10				
8	JT. KIT TRM.AIS I/D 33KV XLPE 3X400 RSTI	NOS	20				
9	JT. KIT I/D Screened 33 KV XLPE 1CX630 HS (RMU)	NOS	10				
10	JT. KIT O/D 33KV XLPE 1X400 HS(Suitable for both type)	NOS	20				
11	JT. KIT I/D 33KV XLPE 1X400 HS(Suitable for both type)	NOS	20				
12	JT. KIT ST.TH.33KV XLPE 1X 400 HS(Suitable for both type))	NOS	40				

**Services**

S.No	ADDITIONAL REPAIR SERVICES	UNIT	Qty.	Unit Price Excluding GST in (Rs.)	GST in (Rs.)	All inclusive Unit Price in (Rs.)	Total Amount inclusive of all Taxes (Rs.)
1	USE OF JCB	NOS	250				
2	SERVICE OF PNEUMATIC HAMMER FOR OPENING OF CONCRETE SERVICES	NOS	200				
3	Usage of Dewatering Pump (for eight hours)	NOS	40				
Total Amount of BoQ inclusive of applicable tax (Rs.)							

**NOTE:**

- 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 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 prices shall be FOR TPCODL Locations inside Odisha.



**Annexurell**

**Technical Specifications**

**ATTACHED AS ANNEXURE TO THIS  
DOCUMENT**

**ENG-EHV-1003**

**ENG-HV-2002**

**ENG-LV-3001**

## 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:**

**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 including GST	Yes / No
2.	Delivery	Weeks / months
3.	Guarantee clause acceptable	Yes / No
4.	Terms of payment acceptable	Yes / No
5.	Performance Bank Guarantee acceptable	Yes / No
6.	Liquidated damages clause acceptable	Yes / No
7.	Validity (180 days) (From the date of opening of technical bid)	Yes / No
8.	Inspection during stage of manufacture	Yes / No
9.	Rebate for increased quantity	Yes / No (If Yes, indicate value)
10.	Change in price for reduced quantity	Yes / No (If Yes, indicate value)
11.	Covered under Small Scale and Ancillary Industrial Undertaking Act 1992	Yes / No (If Yes, indicate, SSI Reg'n No.)

**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/organ gram	
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	

**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 internet 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 discount to offer and the initial bid 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 outrightly rejected by TPCODL.
8. The bidder shall be prepared with competitive price quotes on the day of the bidding event.
9. The prices as quoted by the bidder during the auction event shall be inclusive of all the applicable taxes, duties and levies and shall be FOR at TPCODL site.
10. The prices submitted by a bidder during the auction event shall be binding on the bidder.
11. No requests for time extension of the auction event shall be considered by TPCODL.
12. The original price bids of the bidders shall be reduced on pro-rata basis against each line item based on the final all-inclusive prices offered during conclusion of the auction event for arriving at Contract amount.

**Signature & Seal of the Bidder**

## Annexure VII

### Scope of Work &

### Service Level Agreement

#### **(A) Scope of Work for supply and Installation:**

**1. BA to be a Service Provider for the purpose of providing services for Supply and Installation of cable joint kit in respect to repair of 1.1KV/11KV/33KV cables.**

Scope of work as set out hereunder:

- a) BA shall supply line items of cable accessories used in TPCODL network.
- b) BA shall provide services of Jointers for installation of cable accessories supplied to TPCODL.
- c) BA shall deploy one Supervisor/Officer to coordinate, deploy, report and monitor the Jointers requirement for installation of cable accessories supplied by BA. Telephone No's of all concerned officers pertaining to each Zone/System of TPCODL shall be made available by TPCODL to Business Associate.

#### **2. Jointing Scope of Work**

Jointing BA's detailed scope of work will include:-

- i. Call shall be made to BA designated Supervisor/Officer by concerned SDM/JM/APSM/Project Officer/FLC Manager or any other competent authority of TPCODL to facilitate FLC team and for excavation at fault location. After excavation work (wherever required) is completed and cable is ready for jointing work. BA shall deploy Joints **within 3 Hrs in town area & within 4 Hrs in rural area** with all jointing tools after receiving call from concerned TPCODL Executive/Manager. All further co-ordination related to the reported fault shall be made with the concerned TPCODL official of the area.
- ii. BA Joints shall commence installation of cable accessories only after obtaining clearance and taking Caution Order from concerned TPCODL Sub Division/System/Project Engineers for subject Aerial/Underground cable.
- iii. BA must provide quality PPE's (Personal Protective Equipment-Safety Helmet/Shoes/Gloves/Goggles/First Aid Box) to its staff for strict use before and during excavation/ Re filling and installation of Cable accessories.
- iv. BA must take safety precaution to avoid any damage to cables/material in vicinity during cable preparation & installation of cable accessories.
- v. TPCODL shall issue free of cost the required material to BA, including cable pieces and BA make cable jointing/terminating kits required to carry out the job. However all consumable items like cotton waste, cleaning cloth, kerosene, and hand tools, crimping machine, Jointing tools required for carrying out the jointing work shall be arranged by BA.
- vi. BA shall ensure that adequate resource of men and material are deployed for each job and the work is completed within the target time frame. BA shall adhere to the target period for different type of faults as detailed below:

**33 KV faults: 16 Hrs**

**11 KV faults : 12 Hrs**

**LTfaults : 6Hrs**

Timeline target will be calculated for Jointing Work as

**T1:** Time at which call is received for Jointing from concerned TPCODL Executive/Digging BA Supervisor/FLC Manager.

**T2:** Time at which Jointing is completed.

Timeline Target (**For Jointing BA**) = **(T2-T1) Hrs**

However if due to site conditions or factors beyond the control of TPCODL and BA, the job is delayed, then the target date will be revised by TPCODL. The delay may be for any of the following reasons.

- a) Excavated pit not properly ready for jointing.
- b) Job is suspended due to external interference like traffic police, PWD, Municipal Corporation or general public.
- c) Non-receipt of required material from TPCODL.
- d) Any of the consent/approvals not being granted by the relevant authorities upon application having been made or granted but ceasing to be in full force for the required period to carry out the job.

vii. Installation of all joints and terminations shall be carried out as per BA's Instruction Manual. Non- standard kits or methods shall not be adopted by BA for any such works. Crimping of lugs and ferrule shall be carried out using proper crimping tools. BA shall deploy only trained and skilled jointers with the requisite knowledge for the job. A list of the BA certified jointers to be deployed in TPCODL should be submitted by BA every quarter.

viii. BA shall issue identity cards to its employees deployed for execution and jointing for the assigned works in various Sections.

ix. A record of all the Jointing work attended shall be maintained in a computerized data base format, approved by TPCODL and shall be forwarded on daily and monthly basis and As & When required by TPCODL.

x. All the underground cable rectification works will be carried out as per the TPCODL standard work instructions Cable Fault Restoration.

xi. TPCODL concerned JM/SDM/Site Engineer/Project Officer will ensure that the feeder/cable on which jointing requirement has been reported is de-energized, discharged, isolated, PTW taken and is safe for jointing work thereafter. Switchgear on either side of cable section shall be earthed with Caution Tag.

xii. TPCODL concerned JM/SDM/Site Engineer/Project Officer will issue Caution Order to concerned Joints of BA before start of work. All equipment in the Sub-Station and Digging site, other than the one taken over, shall be treated as live by Joints.

xiii. TPCODL will issue all the required materials, including cable pieces & BA make cable Jointing/Termination kits as required for Cable accessories installation based on the requisition made by the Manager of TPCODL.

xiv. TPCODL shall provide manpower assistance only in case of Cable Termination (Outdoor/Indoor) & Aerial Cable accessory installation where Digging Agency is not involved. For all other cases only relevant and required assistance shall be provided by DiggingBA.

xv. TPCODL will provide testing facility related to cable and accessories.

xvi. Phase sequencing will be done and ensured (during jointing) by SDM/system staff.

### 3. Time/Safety/Quality compliance of BA Work

a) TimeLine Compliance: Any deviation beyond stipulated timeline will result in deduction of 10% of job value.

b) Safety Compliances: Any deviation from safety due to non-use of Personal Protective Equipment will result in deduction of 20% of job value.

c) Quality Compliance: Failure of accessory within guarantee period (GP) will result in following deduction:-

I. Deduction of all expenses incurred for excavation work carried for fault restoration.

II. Reimbursement of cable accessories failed in GP to Central Stores, Bhubaneswar within 30 days after same is informed to BA. If BA fails to reimburse within stipulated time, financial deduction for Cable accessories cost shall be deducted by TPCODL.

### 4. RECORD KEEPING

BA will maintain the following records:

- a. Details of the Cable Accessories installed as per TPCODL format (Daily/Monthly)
- b. Job cards for each cable accessory installation work.

### 5. GEOGRAPHICAL COVERAGE

BA will deploy Supervisor/Officer to execute, coordinate and report jointing work for TPCODL Operational geography (TP Central Distribution area Odisha) which will cover 5 Circles, 20 division and 65 sub-division that come under them, which are listed below. In absence of designated BA supervisor, alternate Supervisor must be available with BA for job execution.

#### EC BBSR-1 - Divisions:

- a) BCDD-I
- b) BCDD-II
- c) BED
- d) NED, Nimapada



**EC BBSR-2 - Divisions:**

- a) Puri
- b) Khordha
- c) Balugaon
- d) Nayagarh

**EC Cuttack - Divisions:**

- a) CDD-I Cuttack
- b) CDD-II Cuttack
- c) CED Cuttack
- d) Salipur
- e) AED, Athagarh

**EC Paradeep - Divisions:**

- a) Paradeep
- b) Kendrapada-1
- c) Kendrapada-2
- d) Jagatsinghpur

**EC Dhenkanal - Divisions:**

- a) Dhenkanal
- b) Angul
- c) Talcher

**6. GUARANTEES**

Guarantee/Warranty period shall be as per the Technical Specification. In case of failure of BA make joints, terminations installed by BA, within the guarantee period will result in following deduction:-

- I. Deduction of all expenses incurred for excavation work carried for faultrestoration.
- II. Reimbursement of cable accessories failed in GP to Central Stores, Bhubaneswar within 30 days after same is informed to BA. If BA fails to reimburse within stipulated time, financial deduction for Cable accessories cost shall be deducted by TPCODL.

Monthly joints failure analysis has to be carried out the BA after collecting the failed joints and analyzing the same with the presence of TPCODL FLC Executives. Request on the same has to be submitted. Report of the previous month is to be submitted with the subsequent month bills baring which the joints would be deemed to have failed in the guarantee period.

**SCOPE OF WORK:**

- (B) For excavation, backfilling and removal of excessdebris.

BA shall arrange the following:

BA to be Service Provider for the purpose of providing services for Excavation, backfilling and removal of excess (debris) work related to repair of power cables and monitor, coordinate and report all such work, as more particularly set out hereinafter. The BA will register excavation call as per TPCODL requirement for all 24 hours a day. Work for Digging/Excavation call should commence within 2 Hrs of call received.

- i) BA shall deploy Supervisors/Officers to register, coordinate and report all calls related to digging/excavation work for cable (1.1/11/33 KV) fault restoration. The designated Supervisor/Officer will further deploy/arrange resources for execution of excavation work, backfilling and removal of excess from site for fault restoration. The telephone no. of concerned Supervisors/Officers shall be made available by BA to TPCODL. Telephone No.s of all concerned officers pertaining to each Section of TPCODL shall be made available by TPCODL to BA.
- ii) Call shall be made to Supervisor/Officer (designated by BA) by Junior Engineer (JE)/ officer (O)/Assistant Manager (AM) or any other competent authority of TPCODL informing about the occurrence of cable fault and requirement of digging work. All further co-ordination related to the reported fault shall be made with the concerned official of the area concerned.
- iii) TPCODL will ensure that the feeder/cable on which the fault has been reported is isolated and safeguarded for Fault Testing & Digging work thereafter. The cable so isolated and safeguarded shall be discharged by TPCODL in the presence of BA's representative and handed over to BA representative along with Caution Order. All equipment in the Sub-Station and Digging site, other than the one taken over, shall be treated as live.
- iv) After location of the fault is known, BA shall deploy its personnel for excavation at the site after TPCODL has taken due permission from the Municipal Corporation or Public Works Department (PWD)/Traffic/Local police and/ or such other agencies, as required in this regard. BA shall assist Sub Division/System to carry requisite documents to concerned authority.
- v) Any cable identification and puncturing shall be done by TPCODL. BA shall provide the necessary assistance and arrange for cutting/jointing of the cable in presence of zonal staff.
- vi) If, for any reason, jointing work cannot be carried on same day as the cable is cut, then the ends of the cable shall be sealed by BA to prevent moisture ingress.
- vii) After isolation of the fault by BA, the insulation resistance of the cable shall be measured by Section staff of TPCODL to verify its healthiness. The test shall be done using Hi-pot set at phase voltage. Moisture Test shall be done by Section staff for HT cables to check the presence of moisture. Equipment and material for HV Tests, meggering and moisture checking shall be arranged by concerned Section of TPCODL.
- viii) Hi-pot will be done by Sub Division staff for new cable piece to be used for restoration work to check its healthiness
- ix) Transportation of old/new material to/from Section office will be arranged/carried out by BA entrusted for digging work.
- x) BA shall issue identity cards to its employees deployed for execution of the assigned works in various zones.
- xi) A record of all the digging work attended shall be maintained in a computerized data base format, approved by TPCODL and shall be forwarded on daily and monthly basis and as and when demanded by TPCODL.
- xii) BA shall ensure that adequate resource of men and material are deployed for each job and the work is completed within the target timeframe.

## 7. DIGGING & EXCAVATION:

BA's scope of work shall also include:

- a. Carrying out the necessary excavation with safety to uncover the faulty cable portion/accessory and also uncover the required cable length for the jointing/termination installation. In case of damage to cables in vicinity during excavation/backfilling work, BA has to bear all cost (Digging/Material/Jointing) incurred for restoration of damaged cable(s).
- b. Removing the faulty section through puncturing & cutting of cable in presence of concerned TPCODL executive/staff.
- c. Preparation of cable ends after cutting for Hi-pot testing in presence of concerned TPCODL executive/staff.
- d. Assistance for testing of installation involving the cable and accessories, if necessary and applicable in presence of concerned TPCODL executive/staff.
- e. BA shall provide required nominal assistance to joiner for installation of cable accessories.
- f. Transporting the faulty section back to the Sub Divisional / Section Stores.
- g. Transporting to the site the required materials and equipment for repairing the faulty section.
- h. Before start of excavation work, safety zone has to be created from barricading, reflective caution tape, sign board. Reflective lights/board must be provided if digging work extends/carried out during night/dark hours.
- i. BA must provide quality PPE's (Personal Protective Equipment-Helmet/Shoes/Reflective Apron/Ladder) to its staff during execution of digging/back filling and related scope of work.
- j. Carrying out the installation of cable, Hume pipes, Illumination arrangement (where necessary), provide water pumps (3" or 4" Outlet Dia) for removal of the subsoil water, provide tents, wooden planks for shoring & necessary assistance for jointing & safe installation of the kits.
- k. In case of deep excavation (more than 1.5 meter), BA will do shoring with wooden plank along with jack arrangement.
- l. In all case of digging pit, BA will do shoring for safe jointing work.
- m. Burying the cable and accessories with sand bedding and docketing.
- n. Quality of tools and tackles used for excavation and backfilling work related to cable restoration.
- o. Standard depth of cable must be ensured for all jobs as per TPCODL Work Instruction for cable restoration.
- p. BA must provide JCB/Pneumatic Hammer/Trenchless Machine whenever required for excavation work on approval from HoG (FLC)/Head.
- q. Submission of report on digging work by designated Supervisor to concerned TPCODL executive as per standard format at periodic intervals on daily basis as may be mutually agreed with TPCODL.

## r. TPCODL's Responsibilities:

1. TPCODL will issue all the required materials, including cable pieces & BA make cable jointing/terminating kits, clamps, cleats, jumpers, PG clamps, hume pipes, cable end sealing caps, any additional material as may be required, based on the requisition made by the Assistant Manager of TPCODL.
2. TPCODL shall, if required, allocate storage space at various locations to store materials required for carrying out the cable repairwork.
3. TPCODL will provide testing/puncturing facility related to cable and accessories.
4. Concerned Zone/System of TPCODL will issue "Caution Order/PTW" before commencement of Digging & associated work.

(Any work which is not covered under the scope of this agreement shall be carried out only based on the specific written request of TPCODL).

## 8. Timelines:

BA shall adhere to the target period for different type of faults as detailed below:

<b>33kV faults:</b>	<b>48 Hrs (Excluding Jointing Time)</b>
<b>11 KV faults:</b>	<b>48 Hrs (Excluding Jointing Time)</b>
<b>LT faults:</b>	<b>12 Hrs (Excluding Jointing Time)</b>

Timeline target will be calculated for digging work as

**T1:** Time at which call is received by (Designated Supervisor/Officer) of BA from Zones/System/FLC

**T2:** Time at which Digging is completed, fault isolated & cable is ready for Jointing. Time at which call is made to Jointing BA.

**T3:** Time at which Jointing is completed.

**T4:** Time at which Back-filling/Removal of Debris is completed after jointing work.

Timeline Target (For Digging BA) = (T2-T1) + (T4-T3) Hrs.

Jointing Time = (T3-T2) Hrs

However if due to site conditions or factors beyond the control of TPCODL and BA, the job is delayed, then the target date will be revised by TPCODL. The delay may be for any of the following reasons.

- a) Moisture in the cable due to which the excavation has to be extended.
- b) Cable is very deep.
- c) Job is suspended due to external interference like traffic police, PWD, Municipal Corporation or general public.
- d) Non-receipt of required material from TPCODL.
- e) Any of the consent/approvals not being granted by the relevant authorities upon application having

been made or granted but ceasing to be in full force for the required period to carry out the job.

- i. All the underground cable rectification works will be carried out as per the TPCODL standard workinstructions.
- ii. BA shall make necessary arrangement of all facilities such as temporary lighting, sanitary installation, fire protection, disposal of wasteeetc.
- iii. Necessary warning lights shall be arranged by BA on trenches, which have to be kept open overnight. Electricity for lighting can be taken from any of the installation of TPCODL.

Further, TPCODL reserves the right of engaging any other agency or resorting to any other suitable means to carry out these jobs in the event of workmen of BA refusing to work, on strike or for any other reason likely to lead to loss of productivity. Differential of repair expenses, if any will be deducted from BA's bills. (All Direct expenses incurred by TPCODL, in engaging any other person, agency or restoring to any other suitable means under this clause, shall be to the account of BA's).

## 9. Time/Safety/Quality compliance of BAWork:

- a) TimeLine Compliance: Any deviation beyond stipulated timeline will result in deduction of **10%** of job value.
- b) Safety Compliances: Any deviation from safety as per clauses will result in deduction of **20%** job value.
- c) Quality Compliance: Any deviation from quality as per clauses will result in deduction of **10%** of job value.

## 10. RECORD KEEPING

BA will maintain the following records:

- a) Details of the Digging Calls/Work received/executed as per TPCODL format (Daily/Monthly).
- b) Detailed job cards for the repairsundertaken.

## 11. GEOGRAPHICALCOVERAGE

BA will independently deploy Supervisors/Officers & ample digging staff to execute, coordinate and report digging work for TPCODL Operational geography (TP Central Odisha Distribution Ltd.) which will cover 20 divisions and 65 sub-divisions that come under them, which are listed below:

### EC BBSR-1 - Divisions:

- a) BCDD-I
- b) BCDD-II
- c) BED
- d) NED, Nimapada

### EC BBSR-2 - Divisions:

- a) Puri

- b) Khordha
- c) Balugaon
- d) Nayagarh

**EC Cuttack - Divisions:**

- f) CDD-I Cuttack
- g) CDD-II Cuttack
- h) CED Cuttack
- i) Salipur
- j) AED, Athagarh

**EC Paradeep - Divisions:**

- a) Paradeep
- b) Kendrapada-1
- c) Kendrapada-2
- d) Jagatsinghpur

**EC Dhenkanal - Divisions:**

- a) Dhenkanal
- b) Angul
- c) Talcher

**12. REVOLVING FUNDS FOR EXCAVATION/RESTORATION:**

The funds for seeking permission for excavation / back filling or restoration as the case may be, will be deposited by TPCODL with the concerned local Authorities. BA's scope shall be limited to submitting the necessary permission letter to the authorities, which shall be provided by TPCODL to BA.

**13. VALIDITY**

The contract shall be valid for **2 years** from the placement of Rate Contract. The service offered shall be reviewed at the end of the contract period and may be extended or terminated at the discretion of TPCODL.

**14. GUARANTEES**

In case of crater/depression found at past digging site, re-backfilling/corrective action has to be done by BA at free of cost.

**Standard Pit Dimension (Two Straight/Transition Joints)**

- 1) Standard Cable Depth for different voltage rating of cables in TPCODL standards are given below.

These depths & length must be ensured by Digging BA for cablerepair

Digging Depth of the pit shall be:

**LT cable (1.1kv) – 0.6 m**

**HV cable (11kv) – 0.9 m**

**EHV cable (33kv) – 1.2 m**

Digging Length of the pit shall be:

**LT cable (1.1kv) – 6 m**

**HV cable (11kv) – 8 m**

**EHV cable (33kv) – 10 m**

Digging Width of the pit shall be:

**LT cable (1.1kv) – 1 m**

**HV cable (11kv) – 1 m**

**EHV cable (33kv) -1.2**

**At Joint Area, the width shall be 2m for easy access to the jointer.**

Actual Depth, length and width of the faulty cable may vary on site due to Terrain/Civic activities/Site constraint.

## Annexure VIII

Mandatory Checklist to be submitted along with bid attached as annexure to this document.

- i) Checklist of Documents
- ii) E-Payment Mandate Form

## Annexure IX

General Conditions of Contract Attached as Annexure to this document.

## Annexure X

Format of BID BG

Whereas (Name of the Contractor ), a Company incorporated under the Indian Companies Act 1956, having its Registered office at \_\_\_\_\_, (hereinafter called the "BIDDER") has in response to your Invitation to Bid against Enquiry No. \_\_\_\_\_ dated \_\_\_\_\_, for (name of work), offered to supply and/or execute the works as contained in Employers letter dated \_\_\_\_\_.

AND WHEREAS BIDDER is required to furnish to you a Bank Guarantee for the sum of Rs. \_\_\_\_\_/-(Rupees \_\_\_\_ only) as Earnest Money against Bidder's offer as aforesaid.

AND WHEREAS we, (name of the bank) having our Registered Office at \_\_\_\_\_ and Branch office at \_\_\_\_\_, have at the request of Bidder, agreed to give you this



Guarantee as hereinafter contained.

NOW THEREFORE, in lieu of earnest money deposit, we, the undersigned, hereby covenant that the aforesaid Bid of the BIDDER shall remain open for acceptance by you during the period of validity as mentioned in the Bid Document or any extension thereof as requested by you and if Bidder shall for any reason back out, whether expressly or impliedly, from this said Bid during the period of its validity or any extension thereof as aforesaid, we hereby guarantee to you the payment of the sum of Rs. \_\_\_\_\_/-(Rupees \_\_\_\_ only) on demand and without demur and notwithstanding the existence of any dispute between you and the BIDDER in this regard and we hereby further agree as follows:

- (a) You shall have the right to file/make a claim on us under the Guarantee for a further period of six months from the said date of expiry.
- (b) That this guarantee shall not be revoked during its currency without your written express consent.
- (c) That you may without affecting this guarantee grant time or other indulgence to or negotiate further with BIDDER in regard to the conditions contained in the said Bid document and thereby modify these conditions or add thereto any further conditions as may be mutually agreed upon between you and BIDDER.
- (d) That the guarantee hereinbefore contained shall not be affected by any change in the constitution of our Bank or in the constitution of BIDDER.
- (e) That any account settled between you and BIDDER shall be conclusive evidence against us of the amount due hereunder and shall not be questioned by us.
- (f) That this guarantee commences from the date hereof and shall remain in force till BIDDER, if his Bid is accepted by you, furnishes the Contract Performance Guarantee as required under the said specifications and executes formal Contract Agreement as therein provided or till \_\_\_\_Days (\_\_days) from the date of submission of the Bid by the BIDDER i.e. (expiry date), whichever is earlier.
- (g) That the expression, BIDDER and Bank, and OWNER herein used shall, unless such an interpretation is repugnant to the subject or context, include their respective successors and assignees.

- (h) 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 and shall be extended from time to time for such period or periods as may be desired by you. Unless a demand or claim under this Guarantee is received by us in writing within six months from (expiry date ), i.e. on or before (claim period date), we shall be discharged from all liabilities under this guarantee thereafter.
- (i) Any claim/extension under the guarantee can be lodgeable at issuing outstation bank 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)**

Notwithstanding anything contained hereinabove :

- a) Our liability under this Bank Guarantee shall not exceed Rs. \_\_\_\_\_/-(Rupees \_\_\_\_\_ only).
- b) This Bank Guarantee shall be valid upto ----- 20\_\_.
- c) Our Liability to make payment shall arise and we are liable to pay the guaranteed amount or any part there of under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before ----- 20\_\_.

	<b>TP CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBANESWAR</b>		
	<b>TECHNICAL SPECIFICATION</b>		
<b>Document Title</b>	Technical Specification – Heat Shrinkable Straight Through Joint and Termination for 33 kV Power Cable		
<b>Document No.</b>	ENG-EHV-1003	<b>Eff. Date:</b>	
<b>Revision No.</b>	00	<b>Page 1 of 15</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

## CONTENTS

1. SCOPE
2. APPLICABLE STANDARDS
3. CLIMATIC CONDITIONS OF INSTALLATION
4. GENERAL TECHNICAL REQUIREMENTS
5. GENERAL CONSTRUCTION
6. NAME PLATE AND MARKING
7. TESTS
8. TYPE TEST CERTIFICATES
9. PRE-DISPATCH INSPECTION
10. INSPECTION AFTER RECEIPT AT STORES
11. GUARANTEE
12. PACKING
13. TENDER SAMPLE
14. TRAINING
15. QUALITY CONTROL
16. MINIMUM TESTING FACILITIES
17. MANUFACTURING ACTIVITIES
18. SPARES, ACCESSORIES AND TOOLS
19. DRAWINGS AND DOCUMENTS
20. GUARANTEED TECHNICAL PARTICULARS
21. SCHEDULE OF DEVIATIONS

1.0	Scope	<p>Technical Specification – covering requirements wrt Design, Manufacturing, Material, Testing at manufacturer's work/CPRI/ERDA lab, Packaging, Supply and Delivery, Unloading at site/store of 33 kV Heat Shrink Cable Straight through Joints and Terminations with all accessories for contributing to trouble free and efficient network operation.</p> <p>The equipment shall conform in all respects to high standards of Engineering, Design and Workmanship and be capable of performance in continuous operation.</p>
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<b>TP CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBANESWAR</b>			
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<b>Document No.</b>	ENG-EHV-1003	<b>Eff. Date:</b>	
<b>Revision No.</b>	00	<b>Page 2 of 15</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

2.0	Applicable Standards	The equipment covered in the Specification shall unless otherwise stated, be designed, manufactured and tested in accordance with the latest editions of the following Indian, International standards / IEC and shall conform to the regulations of the local authorities.	
		<b>S. No.</b>	<b>Standards</b>
		1	IS-13573(part2): 2011
		2	IS 7098(part2):2011
		3	IS 692 : 1994
		4	IEC 60502 : 2009
		5	ASTM D-2303
		6	ASTM D-2671
		7	ENA TS 09-13:1981
		8	IEC 61238(part1) : 2003
		9	IS 2633:1986
		10	IS 4826 : 1979
		11	IS 12444:1988
		12	IS 191
		13	IS 10810
		3.0	Climate conditions of the installation
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.			
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.			

Initiator	HoG(Plant Engineering)
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<b>TP CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBANESWAR</b>			
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<b>Revision No.</b>	00	<b>Page 3 of 15</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

		<p>Therefore, Outdoor material and equipment shall be designed and protected for use in exposed, heavily polluted, salty, corrosive and humid coastal atmosphere</p> <p>The design of equipment and accessories shall be suitable to withstand seismic forces corresponding to an acceleration of 0.1 g.</p>
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4.0	General Technical Requirements	<p>4.1. General design and sizes of 33 kV XLPE / PILC insulated cables operated in TPCODL network are as mentioned below:</p> <p><b>A. XLPE Insulated Underground Cables as per IS 7098 – 2: 33 kV(E)</b>  A2XCWY- (Aluminum stranded compacted conductor, XLPE insulation, copper tape screen, wire GI armour, PVC sheath)</p> <p>A2XCFY- (Aluminum stranded compacted conductor, XLPE insulation, copper tape screen, Flat wire GI armour, PVC sheath)</p> <p>A2XCWaY (Aluminum conductor, XLPE insulation, copper tape screen, wire Aluminum armour, PVC sheath)</p> <p>i) 3CX300 sq.mm. A2XCWY/A2XCFY  ii) 3CX400 sq.mm. A2XCWY/A2XCFY  iii) 1CX400 sq.mm. A2XCWaY  iv) 1CX630 sq.mm. A2XCWaY  v) 1CX1000 sq.mm. A2XCWaY</p> <p><b>B. PILCA Insulated Cables as per IS 692: 33 kV('E)</b>  Screened APLST (Al stranded sector shaped, paper insulated, lead sheath, steel tape sheath  3CX300 sq.mm.</p> <p>4.2. According to standard sizes of cables, following types of cable joints and terminations shall be required.  Tinned coated Mechanical Lugs and mechanical connectors are applicable for all sizes of 33 kV cable terminations and straight through joints respectively.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Type &amp; size of cable</th> <th style="text-align: center;">Type of Joint</th> </tr> </thead> <tbody> <tr> <td rowspan="3" style="text-align: center;">3CX300 and 400 sq.mm. XLPE insulated cable</td> <td>Indoor termination with tinned coated 300-400mm2 mechanical lugs</td> </tr> <tr> <td>Indoor termination joint GIS</td> </tr> <tr> <td>Outdoor termination with tinned coated 300-400mm2 mechanical lugs</td> </tr> <tr> <td style="text-align: center;">3CX300 / 400 sq.mm. XLPE insulated cable</td> <td>Straight through joint 300-400 sq.mm. with mechanical connector</td> </tr> <tr> <td rowspan="4" style="text-align: center;">1CX400 &amp; 1CX630 sq.mm. XLPE insulated cable</td> <td>Indoor termination joint GIS</td> </tr> <tr> <td>Indoor termination screen type (for RMU) with tinned coated mechanical lugs</td> </tr> <tr> <td>Outdoor termination with tinned coated mechanical lugs</td> </tr> <tr> <td>Straight through joint with mechanical connector</td> </tr> <tr> <td rowspan="3" style="text-align: center;">1CX1000 sq.mm. XLPE insulated cable</td> <td>Indoor termination joint GIS</td> </tr> <tr> <td>Outdoor termination with tinned coated mechanical lugs</td> </tr> <tr> <td>Straight through joint with mechanical connector</td> </tr> <tr> <td style="text-align: center;">PILCA to XLPE transition joints</td> <td>Screened Transition joint 3CX300/400 sq.mm. XLPE insulated cable WITH 3CX300/400 sq.mm PILCA cable</td> </tr> </tbody> </table>	Type & size of cable	Type of Joint	3CX300 and 400 sq.mm. XLPE insulated cable	Indoor termination with tinned coated 300-400mm2 mechanical lugs	Indoor termination joint GIS	Outdoor termination with tinned coated 300-400mm2 mechanical lugs	3CX300 / 400 sq.mm. XLPE insulated cable	Straight through joint 300-400 sq.mm. with mechanical connector	1CX400 & 1CX630 sq.mm. XLPE insulated cable	Indoor termination joint GIS	Indoor termination screen type (for RMU) with tinned coated mechanical lugs	Outdoor termination with tinned coated mechanical lugs	Straight through joint with mechanical connector	1CX1000 sq.mm. XLPE insulated cable	Indoor termination joint GIS	Outdoor termination with tinned coated mechanical lugs	Straight through joint with mechanical connector	PILCA to XLPE transition joints	Screened Transition joint 3CX300/400 sq.mm. XLPE insulated cable WITH 3CX300/400 sq.mm PILCA cable
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3CX300 and 400 sq.mm. XLPE insulated cable	Indoor termination with tinned coated 300-400mm2 mechanical lugs																				
	Indoor termination joint GIS																				
	Outdoor termination with tinned coated 300-400mm2 mechanical lugs																				
3CX300 / 400 sq.mm. XLPE insulated cable	Straight through joint 300-400 sq.mm. with mechanical connector																				
1CX400 & 1CX630 sq.mm. XLPE insulated cable	Indoor termination joint GIS																				
	Indoor termination screen type (for RMU) with tinned coated mechanical lugs																				
	Outdoor termination with tinned coated mechanical lugs																				
	Straight through joint with mechanical connector																				
1CX1000 sq.mm. XLPE insulated cable	Indoor termination joint GIS																				
	Outdoor termination with tinned coated mechanical lugs																				
	Straight through joint with mechanical connector																				
PILCA to XLPE transition joints	Screened Transition joint 3CX300/400 sq.mm. XLPE insulated cable WITH 3CX300/400 sq.mm PILCA cable																				

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<b>Document No.</b>	ENG-EHV-1003	<b>Eff. Date:</b>	
<b>Revision No.</b>	00	<b>Page 4 of 15</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

		(with mechanical connector)																																						
<p>4.3 General requirement for Heat Shrinkable Jointing and Termination kit:</p> <ul style="list-style-type: none"> <li>The jointing kit containing heat shrinkable tubing, mastics and other accessories for making a complete joint and termination shall be designed to meet TPCODL specification, ENA TS 09-13, IEC 60502 and IS 13573, part-2 and other relevant standards.</li> <li>Cable joint and termination material shall not be adversely affected in any manner even after contact with material used in cable construction and material used as accessories in the construction of cable joints and terminations and there will be no chance of corrosion developing on any metal surface.</li> <li>Assembled jointing kit components shall perform without distress in system with parameters(mentioned below):</li> </ul>																																								
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<b>Document No.</b>	ENG-EHV-1003	<b>Eff. Date:</b>	
<b>Revision No.</b>	00	<b>Page 5 of 15</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

		10	Tracking resistance	No tracking, erosion to top surface or flame failure after 1hr @ 2.5KV 1hr @2.7KV 1Hr@ 3.0 KV 20 min@ 3.25KV																																				
		11	Volume Resistivity	1x 1010 Ohm- meter (Minimum) (For stress control tube VR: 1x 107 Ohm- meter Min.)																																				
		12	Flame Retardant (Applicable only for Anti tracking Tubes/ sleeves)	After 1 minute burn: Burnt or charred length 250mm Max.																																				
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5.0	<b>General Construction</b>	<b>5.1. Termination Joints:</b> a) Termination kit shall be designed based on heat shrink technology and shall be suitable for installation for 33 kV, three core and single core aluminum conductor, XLPE insulated (in line with TPCODL Specification for underground IS 7098-part 2, IS 13573 Part 2 &3). a.1 Length of 33 KV terminations (from bottom of breakout to center of lug hole) shall be: i) 1core cable I/D & O/D and 3 core cable (I/D)Indoor terminations - 1500 mm ii) 3 core cable O/D (Outdoor terminations) - 3000 mm																																						

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<b>Document No.</b>	ENG-EHV-1003	<b>Eff. Date:</b>	
<b>Revision No.</b>	00	<b>Page 6 of 15</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

S. No.	Components	Requirement
1	Tinned coated Mechanical Lugs	Mechanical Lugs: <ul style="list-style-type: none"> <li>- Tinned coated Aluminium 300-400 mm<sup>2</sup>/630mm<sup>2</sup>/1000mm<sup>2</sup></li> <li>- As per IEC 61238(part1): 2003.</li> <li>- Dimensions shall be as annexure-I of this specification.</li> </ul>
2	Lug Seal, Anti-tracking tube, weather sheds, Stress control tube	<ul style="list-style-type: none"> <li>- Heat Shrinkable</li> <li>- Fire resistant and weather resistant as per ENA TS 09-13 – for lug seals, weather sheds and Anti-tracking tubes</li> </ul>
3	Mastic tape	<ul style="list-style-type: none"> <li>- Mastic tape shall be electrically insulating, non-tracking and water/humidity resistant.</li> <li>- Volume resistivity of mastic shall not be less than volume resistivity of insulating tube as specified in ENA TS 09-13.</li> </ul>
4	Heat Shrink Breakout	<ul style="list-style-type: none"> <li>- Fire resistant and weather resistant as per ENA TS 09-13.</li> <li>- Adhesive coated Breakouts shall be provided on outer sheath of the cable to prevent water ingress.</li> </ul>
5	Tinned coated copper braid	<ul style="list-style-type: none"> <li>- Shall be completely insulated by adhesive coated fire retardant and weather resistant HS tube/sleeve up to copper lug.</li> <li>- Fire resistant and weather resistant as per ENA TS 09-13.</li> <li>- Size and length is as follows: For 3C cables: 70 mm<sup>2</sup> X 750 mm X 1 Run for 300/ 400 mm<sup>2</sup> cables. For 1C cables: 50 mm<sup>2</sup> X 750 mm X 1 Run for 400 mm<sup>2</sup>, 630 mm<sup>2</sup> &amp; 1000 mm<sup>2</sup> cables. Additionally 3 nos. X 150 mm<sup>2</sup> Al lugs with sealing sleeves/ mastic for armor back fold for earth bonding.</li> </ul>
6	Tinned coated copper braid as a Leakage Current Collector	<ul style="list-style-type: none"> <li>- Leakage current collector tinned copper braid</li> <li>- 1R X 7 mm<sup>2</sup> X 150 mm per core shall be provided for terminations.</li> </ul>
7	Tinned copper wire mesh	<ul style="list-style-type: none"> <li>- Minimum 2.5mm<sup>2</sup> tinned copper mesh shall be provided on armour circumference beneath the copper braid.</li> <li>- Length of copper wire mesh shall be provided in BOM submission.</li> </ul>
8	Sub-kit components	<ul style="list-style-type: none"> <li>- Tapes, Mastic, GI back-up rings, Worm Drive clip/ Jubilee clip of stainless steel, adhesive cloth, cleaning solvents and other necessary items.</li> <li>- Compatible Supporting ring with SS jubilee clips shall be provided to connect tinned copper braids.</li> <li>- Soldering on copper screen is not acceptable.</li> <li>- Roll spring shall be provided for screen connections.</li> <li>- Plumb earthing on PILCA side is unacceptable. Constant pressure roll spring should be used for same.</li> </ul>
9	Submission of BOM and instruction sheet	<ul style="list-style-type: none"> <li>- Participating bidder shall submit BOM (during pre-bid) with dimensions of each size and quantity of HS joint and termination. Also instruction sheet shall be provided in each kit.</li> <li>- *Note: BOM shall be approved by TPCODL authorized official at the time of pre-bid.</li> </ul>

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<b>Document No.</b>	ENG-EHV-1003	<b>Eff. Date:</b>	
<b>Revision No.</b>	00	<b>Page 7 of 15</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

		<b>5.2. Components of Straight Through jointing kit:</b>	
		<b>S. No.</b>	<b>Components</b>
			<b>Requirement</b>
		1	Heat Shrinkable insulating tube/ Sleeve
			<ul style="list-style-type: none"> <li>- Surface of material: shall be smooth and free from protrusion, voids and nicks.</li> <li>- Recovered thickness: Recovered thickness of insulation tubes over ferrule or connector circumference shall not be less than 10.56 mm at any point of measurement.</li> <li>- Wall thickness ratio (before recovery) of all sleeves/ tubes shall not be less than 60% at any two points of measurement.</li> </ul>
		2	Mechanical Connectors
			<ul style="list-style-type: none"> <li>- Aluminum Mechanical connectors 300-400 m<sup>2</sup>/630mm<sup>2</sup>/1000mm<sup>2</sup> as per IEC 61238.</li> <li>- Dimensions as per <b>Annexure-I</b> of this Specification</li> <li>- Conductivity of ferrules/mechanical connectors shall be as per IEC 61238(part1).</li> </ul>
		3	Mastic Tape
			<ul style="list-style-type: none"> <li>- Mastic tape shall be electrically insulating, non-tracking and water/humidity resistant.</li> <li>- Volume resistivity of mastic shall not be less than volume resistivity of insulating tube as specified in ENA TS 09-13.</li> </ul>
		4	Tinned coated copper braid for GI armour continuity / Ferrules for Aluminium armour continuity
			<p><b>Tinned coated copper braid for GI armour continuity:</b></p> <p>Uniformly tinned coated copper braid shall be provided for armour continuity.</p> <ul style="list-style-type: none"> <li>- Wrap tinned copper wire mesh with 50% overlap around the joint area and continue 25 mm over the copper screen on both sides. Bind the copper wire mesh on copper screen.</li> <li>- Uniformly tinned coated copper braid shall be provided for armor continuity.</li> <li>- Tinned copper braid shall be provided for wrapping over armour circumference beneath the copper braid and size shall be:</li> </ul> <p>For 3C Cables: 70 mm<sup>2</sup> X1 Run for 300/ 400mm<sup>2</sup> cables. Length of copper braid shall be submitted in the BOM.  For 1C Cables: In single core cables, 1CX400,1CX630 and 1CX1000 sq.mm. cables,  Aluminium armor continuity shall be done using 2 nos. each size of 150 sq.mm. and 185 sq.mm. ferrules respectively.</p>
		5	Tinned copper wire mesh
			<ul style="list-style-type: none"> <li>- Uniformly tinned coated copper mesh shall be provided for screen continuity.</li> <li>- Minimum 2.5mm<sup>2</sup> tinned copper mesh shall be provided on both sides of armour circumference beneath the copper braid.</li> <li>- Length of copper wire mesh shall be provided in BOM submission.</li> </ul>
		6	GI wire mesh/ Copper wire mesh
			<ul style="list-style-type: none"> <li>- Mechanical protection shall be provided in GI armored cables by means of heavily zinc coated GI mesh as per IS 4826.</li> <li>- In 1C Aluminium armored cables, for mechanical protection, copper wire mesh shall be provided.</li> </ul>
		7	Breakouts
			<ul style="list-style-type: none"> <li>- Adhesive coated Breakouts shall be provided on outer sheath at both sides on the cable to prevent water ingress.</li> </ul>

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<b>Document No.</b>	ENG-EHV-1003	<b>Eff. Date:</b>	
<b>Revision No.</b>	00	<b>Page 8 of 15</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

		8	Wrap around insulating tube/Sleeve as outer most tube	<ul style="list-style-type: none"> <li>- Material: cross-linked polyolefin (Heat Shrinkable) as a waterproof seal.</li> <li>- Shape: Wrap around form with hot-melt adhesive liner on the inner surface of the sleeve (Upon heating, the sleeve shrinks and the adhesive melts, creating a water-tight bond between the sleeve and the cable).</li> <li>- Stainless steel channel shall be provided along the wrap around to close the sleeve during installation.</li> <li>- Excellent mechanical and corrosion protection, and atmospheric sealing.</li> <li>- High split resistance.</li> <li>- *Note: Overlapping of wrap around sleeve is not acceptable.</li> <li>- Additionally, adhesive coated sleeve approx. 300 mm length shall be provided at ferrule joint area beneath the wrap around sleeve.</li> </ul>
		9	Sub-kit Components	<ul style="list-style-type: none"> <li>- Tapes, Mastic, GI back-up rings, Worm Drive clip/ Jubilee clip of stainless steel, adhesive cloth, cleaning solvents and other necessary items.</li> <li>- Compatible support rings (Aluminium for single core and GI for three core cables) with four nos. SS jubli clips shall be provided to connect tinned copper braid.</li> <li>- For copper screen bonding, roll spring shall be provided.</li> <li>- Plumb earthing on PILCA side is unacceptable. Constant pressure roll spring shall be provided for earthing continuity.</li> </ul>
		10	Submission of BOM and instruction sheet	<ul style="list-style-type: none"> <li>- Participating bidder shall submit BOM (during pre-bid) with dimensions of each size and quantity of HS joint and termination. Also instruction sheet shall be provided in each kit.</li> </ul> <p>*Note: BOM shall be approved by TPCODL authorized official at the time of pre-bid.</p>

<b>6.0</b>	<b>Name plate and Marking</b>	<p>Following details shall be printed on the box:</p> <ol style="list-style-type: none"> <li>a) Manufacturer's name</li> <li>b) Month &amp; Year of manufacturing</li> <li>c) Voltage Grade</li> <li>d) Property of TPCODL</li> <li>e) Material code</li> <li>f) PO No.</li> </ol> <p>HS Sleeves/ tubes and breakout components shall be embossed with:</p> <ol style="list-style-type: none"> <li>a) Month and year of manufacturing</li> <li>b) Manufacturer name</li> <li>c) Batch no. / Lot no.</li> <li>d) Shrink ratio</li> <li>e) Size</li> <li>f) Type</li> </ol>
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<b>7.0</b>	<b>Tests</b>	<p>All Routine, Acceptance &amp; Type tests shall be carried out in accordance with the Relevant IS/IEC/ ENA TS 09-13.</p> <p>Acceptance tests shall be witnessed by TPCODL authorized representative.</p> <p>All the components shall also be type tested as per the relevant standards mentioned below.</p> <p>Following tests shall be necessarily conducted on the Joint and Termination Kits in addition to others specified in IS/IEC/ ENA-TS 09-13 standards:-</p> <p><b>A. Type Tests:</b></p> <p><b>(I) Terminations &amp; Straight Through joints</b></p>
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<b>Document No.</b>	ENG-EHV-1003	<b>Eff. Date:</b>	
<b>Revision No.</b>	00	<b>Page 9 of 15</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

Test	Clause No.	Reference Standard
Conductor resistance with Ferrule/Lugs/Mechanical connectors	4.1	IS 13573(Part-2)
AC Voltage withstand Test (Air)	4.2	IS 13573(Part-2)
AC Voltage withstand test (under wet conditions) (for outdoor termination only)	4.2	IS 13573(Part-2)
Partial Discharge	7.0	IS 13573(Part-2)
Impulse voltage test	6	IS 13573(Part-2)
Heat Cycle test in air and water	9.1 and 9.2	IS 13573(Part-2)
Thermal Short Circuit Test for Screen	10	IS 13573(Part-2)
Thermal Short Circuit Test for Conductor	11	IS 13573(Part-2)
DC Voltage Withstand	5	IS 13573(Part-2)
Dynamic short circuit test	12	IS 13573(Part-2)
Thermal Endurance test	IEC 60216 part 2 & 8	
Salt fog test (Only for Outdoor terminations only)	13	IS 13573(Part-2)
<b>(II) Kit Components</b>		
<b>a) For Tubing and Moulded Components</b>		
Test	Clause No.	Reference Standard
Corrosion Resistance	3.1	ENA -TS 09-13
Density	3.2	ENA -TS 09-13
Dimensions	3.3	ENA -TS 09-13
Electric Strength	3.4	ENA -TS 09-13
Flame Retardance	3.5	ENA -TS 09-13
Heat Shock	3.7	ENA -TS 09-13
Low temperature flexibility	3.8	ENA -TS 09-13
Relative Permittivity	3.9	ENA -TS 09-13
Tensile strength and Ultimate elongation	3.12	ENA -TS 09-13
Thermal Ageing	3.13	ENA -TS 09-13
Tracking Resistance	3.14	ENA -TS 09-13
Visual Examination	3.15	ENA -TS 09-13
Volume Resistivity	3.16	ENA -TS 09-13
Water Absorption	3.17	ENA -TS 09-13
<b>b) For Mechanical lugs and connectors</b>		
Test	Clause No.	Reference Standard
Conductivity test	as per IEC 61238, part - 1	
<b>B. Routine Tests:</b>		
Test	Clause No.	Reference Standard
Visual inspection of tubing and moulded components for free from pin holes, cracks, nicks, protrusion and other defects	3.15	ENA -TS 09-13
Dimension check	As per TPCODL approved BOM	
Electric Strength	3.4	ENA -TS 09-13
Ultimate Elongation	3.12	ENA -TS 09-13

Initiator		HoG(Plant Engineering)	
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**TP CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBANESWAR**

**TECHNICAL SPECIFICATION**

<b>Document Title</b>	Technical Specification – Heat Shrinkable Straight Through Joint and Termination for 33 kV Power Cable		
<b>Document No.</b>	ENG-EHV-1003	<b>Eff. Date:</b>	
<b>Revision No.</b>	00	<b>Page 10 of 15</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

		<table border="1"> <tr> <td>Tensile Strength</td> <td>3.12</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Volume Resistivity</td> <td>3.16</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Wall thickness ratio</td> <td>3.3</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Expanded and recovered diameters of tubes</td> <td>3.3</td> <td>ENA -TS 09-13</td> </tr> </table> <p><b>C. Acceptance tests:</b></p> <table border="1"> <thead> <tr> <th>Test</th> <th>Clause No.</th> <th>Reference Standard</th> </tr> </thead> <tbody> <tr> <td>Visual inspection</td> <td>3.15</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Physical verification of kit contents and dimensions</td> <td colspan="2">As per TPCODL approved BOM</td> </tr> <tr> <td>Electric Strength test</td> <td>3.4</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Ultimate Elongation tests</td> <td>3.12</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Tensile Strength</td> <td>3.12</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Volume Resistivity</td> <td>3.16</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Wall thickness ratio</td> <td>3.3</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Expanded and recovered diameters</td> <td>3.3</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Longitudinal change after recovery</td> <td>3.3</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Heat shock test</td> <td>3.7.1/3.7.2</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Low temperature flexibility</td> <td>4.5</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Insulation build up thickness after shrink on Ferrule</td> <td>8.1</td> <td>IS 10810 -6</td> </tr> <tr> <td>Flame retardant test on anti-tracking tubes and anti-tracking moulded components and earth braid protective tube after shrink on mandrill for terminations</td> <td>3.5.1/ 3.5.2</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Area measurement of tinned copper braids (Area of one wire x no. of wires x no. of carriers)</td> <td colspan="2">As per TPCODL specification/ approved BOM</td> </tr> <tr> <td>Conductivity test on ferrules/ connectors/ lugs</td> <td>8.3</td> <td>IS 8309</td> </tr> <tr> <td>Uniformity of zinc coating on GI mesh</td> <td>4.1</td> <td>IS 2633</td> </tr> </tbody> </table>	Tensile Strength	3.12	ENA -TS 09-13	Volume Resistivity	3.16	ENA -TS 09-13	Wall thickness ratio	3.3	ENA -TS 09-13	Expanded and recovered diameters of tubes	3.3	ENA -TS 09-13	Test	Clause No.	Reference Standard	Visual inspection	3.15	ENA -TS 09-13	Physical verification of kit contents and dimensions	As per TPCODL approved BOM		Electric Strength test	3.4	ENA -TS 09-13	Ultimate Elongation tests	3.12	ENA -TS 09-13	Tensile Strength	3.12	ENA -TS 09-13	Volume Resistivity	3.16	ENA -TS 09-13	Wall thickness ratio	3.3	ENA -TS 09-13	Expanded and recovered diameters	3.3	ENA -TS 09-13	Longitudinal change after recovery	3.3	ENA -TS 09-13	Heat shock test	3.7.1/3.7.2	ENA -TS 09-13	Low temperature flexibility	4.5	ENA -TS 09-13	Insulation build up thickness after shrink on Ferrule	8.1	IS 10810 -6	Flame retardant test on anti-tracking tubes and anti-tracking moulded components and earth braid protective tube after shrink on mandrill for terminations	3.5.1/ 3.5.2	ENA -TS 09-13	Area measurement of tinned copper braids (Area of one wire x no. of wires x no. of carriers)	As per TPCODL specification/ approved BOM		Conductivity test on ferrules/ connectors/ lugs	8.3	IS 8309	Uniformity of zinc coating on GI mesh	4.1	IS 2633
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<b>8.0</b>	<b>Type Test Certificate</b>	<p>The bidder shall furnish the type test certificates for the tests as mentioned above as per the corresponding standards.</p> <p>All the tests shall be conducted at CPRI/ERDA as per the relevant standards not exceeding 5 years from the date of opening of bid.</p> <p>In the event of any discrepancy in the test reports, i.e. any test report not acceptable, same shall be carried out without any cost implication to TPCODL.</p> <p>TPCODL has rights for Surveillance test of random selected samples from third party lab for quality checks of item.</p> <p>TPCODL shall be intimated in case revision is done by manufacturer in product design/ dimension/ material during execution of contract. Subsequently Type test certificate shall be produced.</p>																																																															
<b>9.0</b>	<b>Pre-dispatch inspection</b>	<p>Equipment shall be subject to inspection by a duly authorized representative of TPCODL. Inspection may be made at any stage of manufacturing at the option of TPCODL and the equipment if found unsatisfactory as to workmanship or material, the same is liable to rejection.</p> <p>Bidder shall grant free access to the places of manufacture TPCODL's representatives at all times when the work is in progress. Inspection by TPCODL's authorized representatives shall not relieve the supplier of his obligation of furnishing equipment in accordance with the specifications. Material shall be dispatched after specific MDCC (Material Dispatch Clearance Certificate) is issued by TPCODL. The pre-dispatch inspection shall be carried out as per annexure-II. Following documents shall be sent along with material:</p> <ol style="list-style-type: none"> <li>Test reports</li> <li>MDCC issued by TPCODL</li> <li>Invoice in duplicate</li> </ol>																																																															

<b>Initiator</b>		<b>HoG(Plant Engineering)</b>	
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<b>TP CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBANESWAR</b>			
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<b>Document Title</b>	<b>Technical Specification – Heat Shrinkable Straight Through Joint and Termination for 33 kV Power Cable</b>		
<b>Document No.</b>	ENG-EHV-1003	<b>Eff. Date:</b>	
<b>Revision No.</b>	00	<b>Page 11 of 15</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

		<ul style="list-style-type: none"> <li>d) Packing list</li> <li>e) Drawings &amp; catalogue</li> <li>f) Guarantee / Warrantee card</li> <li>g) Delivery Challan</li> <li>h) Other Documents (as applicable)</li> </ul>																				
<b>10.0</b>	<b>Inspection after receipt at Stores</b>	Material received at TPCODL's, 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 Engineering department.																				
<b>11.0</b>	<b>Guarantee</b>	<p>Bidder shall stand guarantee towards design, materials, workmanship &amp; quality of process / manufacturing of items under this contract for due and intended performance of the same, as an integrated product delivered under this contract. In the event any defect is found by TPCODL up to a period of at least 60 months from the date of commissioning or 66 months from the date of last supplies made under the contract whichever is later.</p> <p>Further Bidder shall also stand guarantee towards poor workmanship in installation of straight through joint and terminations installed by bidder's jointer up to 60 months from the date of installation.</p> <p>Bidder shall be liable to undertake to replace/rectify such defects at own costs, within mutually agreed time frame, and to the entire satisfaction of TPCODL, failing which TPCODL shall be at liberty to get it replaced/rectified at bidder's risks and costs and recover all such expenses plus the Company's own charges (@ 20% of expenses incurred), from the bidder or from the "Security cum Performance Deposit" as the case may be. Bidder shall further be responsible for free replacement for another period of THREE years from the end of the guarantee period for any 'Latent Defects' if noticed and reported by TPCODL.</p>																				
<b>12.0</b>	<b>Packaging</b>	<p>Bidder shall ensure that all the equipment covered under this specification shall be prepared for rail/road transport in a manner so as to protect the equipment from damage in transit. The material used for packing shall be environmentally friendly.</p> <p>Each components shall be supplied in a single package as a complete kit for one termination/joint.</p>																				
<b>13.0</b>	<b>Tender Sample</b>	Bidder shall be submit the sample of material during tender evaluation process with the offer (in case of first supply to TPCODL).																				
<b>14.0</b>	<b>Training</b>	<p>Detailed Installation instruction with drawings for all joints and termination shall be provided by Bidder with tender documents in English and Hindi &amp; Odia Language.</p> <p>Updated installation manual shall be provided in the kit.</p> <p>Hands-on-training shall be conducted annually at our site location for BA and TPCODL jointers.</p> <p>Bidder shall provide installation/operational services at site.</p>																				
<b>15.0</b>	<b>Quality Control</b>	<p>The bidder shall submit with the offer, 'Quality Assurance Plan' indicating the various stages of inspection, the tests and checks which shall be carried out on the material of construction, components and bought out items.</p> <p>TPCODL's engineer or its nominated representative shall have free access to the manufacturer's/sub-supplier's works to carry out inspections.</p>																				
<b>16.0</b>	<b>Minimum Testing facilities</b>	Bidder shall have adequate in house testing facilities for carrying out all routine tests, acceptance tests as per Indian /International standards.																				
<b>17.0</b>	<b>Manufacturing activities</b>	The successful bidder shall submit bar chart for various manufacturing activities clearly elaborating each stage, with quantity. This bar chart should be in line with the Quality assurance plan submitted with the offer. This bar chart shall be submitted within 15 days from the release of the order.																				
<b>18.0</b>	<b>Spares, Accessories and Tools</b>	Not applicable.																				
<b>19.0</b>	<b>Drawings and Documents</b>	<p>After the award of the contract four (4) copies of following drawings, drawn to scale, describing the equipment in detail shall be forwarded for approval.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">S. No.</th> <th style="width: 50%;">Description</th> <th style="width: 15%;">For Approval</th> <th style="width: 15%;">For Review Information</th> <th style="width: 10%;">Final Submission</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Technical Parameters</td> <td style="text-align: center;">√</td> <td></td> <td style="text-align: center;">√</td> </tr> <tr> <td>2</td> <td>BOM ( at the time of pre-bid)</td> <td style="text-align: center;">√</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>Drawing showing Joints Details</td> <td style="text-align: center;">√</td> <td></td> <td style="text-align: center;">√</td> </tr> </tbody> </table>	S. No.	Description	For Approval	For Review Information	Final Submission	1	Technical Parameters	√		√	2	BOM ( at the time of pre-bid)	√			3	Drawing showing Joints Details	√		√
S. No.	Description	For Approval	For Review Information	Final Submission																		
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<b>Document No.</b>	ENG-EHV-1003	<b>Eff. Date:</b>	
<b>Revision No.</b>	00	<b>Page 12 of 15</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

		5	Termination drawings	√		
		6	Manual/Catalogues		√	√
		7	Transport/ Shipping dimension drawing		√	√
		8	QA & QC Plan	√	√	√
		9	Routine, Acceptance and Type Test Certificates	√	√	√

All the documents & drawings shall be in English language.

<b>20.0</b>	<b>Guaranteed Technical Particulars</b>	Bidder to comply all above clauses as per specification.
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<b>21.0</b>	<b>Schedule of Deviations</b>	<p>The bidders shall set out all deviations from this specification, Clause by Clause in this schedule. Unless specifically mentioned in this schedule, the tender shall be deemed to confirm the purchaser's specifications.</p> <p style="text-align: center;">(TO BE ENCLOSED WITH THE BID)</p> <p>All deviations from this specification shall be set out by the Bidders, clause by Clause in this schedule. Unless specifically mentioned in this Schedule, the tender shall be deemed to confirm the purchaser's specifications:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">S.No.</th> <th style="text-align: center;">Clause No.</th> <th style="text-align: center;">Details of deviation with justifications</th> </tr> </thead> <tbody> <tr> <td style="height: 100px;"></td> <td></td> <td></td> </tr> </tbody> </table> <p>We confirm that there are no deviations apart from those detailed above.</p> <p>Seal of the Company: _____</p> <p style="text-align: right;">Signature: _____</p> <p style="text-align: right;">Designation: _____</p>	S.No.	Clause No.	Details of deviation with justifications			
S.No.	Clause No.	Details of deviation with justifications						

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<b>Document No.</b>	ENG-EHV-1003	<b>Eff. Date:</b>	
<b>Revision No.</b>	00	<b>Page 13 of 15</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

### Annexure-I

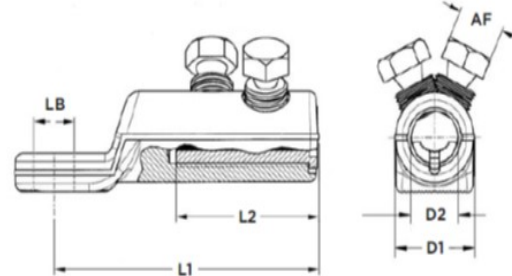
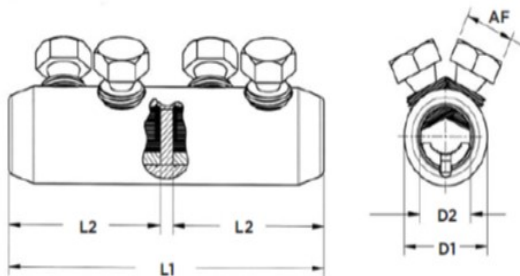
#### Annexure- Dimensions Mechanical connectors & Mechanical Lugs

Aluminium Mechanical connectors

Cable Size in MM <sup>2</sup>	φD1 (mm)	φD2 (mm)	L (mm)
185-400	42	25.5-26	170-200
500- 630	50	33- 33.5	180-230
1000	60	40	180-230

Tinned Aluminium Mechanical Lugs

Cable Size in MM <sup>2</sup>	φLB (mm)	φD1 (mm)	φD2 (mm)	L (mm)
185-400	17	42	25.5-26	137-150
500- 630	17	50	33- 33.5	150-180
1000	2x17	60	40- 40.5	180- 240



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<b>Document No.</b>	ENG-EHV-1003	<b>Eff. Date:</b>	
<b>Revision No.</b>	00	<b>Page 14 of 15</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

### Annexure- II

Inspection Test Plan for HS Jointing kit components

S. No.	Name of test	Specified value(Range)	Reference documents	Test Result	Pass/Fail
1	Visual inspection	Free from pin holes, cracks, nicks, protrusion and other visible defects.	ENA-TS-09-13 Clause No. 3.15 & TPCODL specification		
2	Physical verification of kit contents and dimensions	Dimensions as per TPCODL approved BOM			
3	Electric Strength test	10 KV /mm (Minimum)	ENA-TS-09-13 Clause No. 3.4		
4	Ultimate Elongation tests	200% (Minimum)	ENA-TS-09-13 Clause No. 3.12		
5	Tensile Strength	10 N/mm <sup>2</sup> (Minimum) For anti-track tube-8 N/mm <sup>2</sup>	ENA-TS-09-13 Clause No. 3.12		
6	Tracking resistance test(Anti-tracking Tube)	NO Tracing erosion to top surface /flash failure after 1 hr 2.5 KV 1hr 2.75KV 20 min 3.5 KV	ENA-TS-09-13 Clause No. 3.14		
7	Volume Resistivity	1x10 <sup>10</sup> Ohm- meter (Minimum)	ENA-TS-09-13 Clause No. 3.16		
8	Wall thickness ratio	0.6 or 60% (Minimum at any two points of measurements)	ENA-TS-09-13 Clause No. 3.3		
9	Expanded and recovered diameters	As per TPCODL approved BOM	ENA-TS-09-13 Clause No. 3.3(i)		
10	Longitudinal change after recovery	10% max	ENA-TS-09-13 Clause No. 3.3(ii)		
11	Heat shock test	No splitting, cracking, dripping or flowing after 30 min @200°C min	ENA-TS-09-13 Clause No. 3.7.1/ 3.7.2		
12	Low temperature flexibility	No cracking after 4 Hrs @ Minus 20°C max	ENA-TS-09-13 Clause No. 4.5		
13	Insulation build up thickness after shrink on Ferrule as per IS 10810 -6	Not less than as specified in specification	as per IS 10810 -6 Clause No. 8.1		

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<b>Document No.</b>	ENG-EHV-1003	<b>Eff. Date:</b>	
<b>Revision No.</b>	00	<b>Page 15 of 15</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

14	Flame retardant test	After one min burn: burnt or charred length 250 mm max.	ENA-TS-09-13 Clause No. 3.5.1/ 3.5.2			
15	Area measurement of tinned copper braids (Area of one wire x no. of wires x no. of carriers)	As per TPCODL specification/ approved BOM				
16	Ferrules/ connectors/ lugs dimension and conductivity test	As per annexure-I in this specification	as per IS 8309 Clause 8.3 and IEC 61238			
17	Uniformity of zinc coating on GI mesh as per IS 2633	No reddish color after one dip for ½ minute in CuSO4 solution	as per IS 2633 Clause 4.1			

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<b>Document No.</b>	ENG-HV-2002	<b>Eff. Date:</b>	
<b>Revision No.</b>	00	<b>Page 1 of 16</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

### CONTENTS

1. SCOPE
2. APPLICABLE STANDARDS
3. CLIMATIC CONDITIONS OF INSTALLATION
4. GENERAL TECHNICAL REQUIREMENTS
5. GENERAL CONSTRUCTION
6. NAME PLATE AND MARKING
7. TESTS
8. TYPE TEST CERTIFICATES
9. PRE-DISPATCH INSPECTION
10. INSPECTION AFTER RECEIPT AT STORES
11. GUARANTEE
12. PACKING
13. TENDER SAMPLE
14. TRAINING
15. QUALITY CONTROL
16. MINIMUM TESTING FACILITIES
17. MANUFACTURING ACTIVITIES
18. SPARES, ACCESSORIES AND TOOLS
19. DRAWINGS AND DOCUMENTS
20. GUARANTEED TECHNICAL PARTICULARS
21. SCHEDULE OF DEVIATIONS

1.0	Scope	<p>Technical Specification – covering requirements wrt Design, Manufacturing, Material, Testing at manufacturer's work/CPRI/ERDA lab, Packaging, Supply and Delivery, Unloading at site/store of 11 kV Heat Shrink Cable Straight through Joints and Terminations with all accessories for contributing to trouble free and efficient network operation.</p> <p>The equipment shall conform in all respects to high standards of Engineering, Design and Workmanship and be capable of performance in continuous operation.</p>
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<b>Document No.</b>	ENG-HV-2002	<b>Eff. Date:</b> 20/Aug/19	
<b>Revision No.</b>	00	<b>Page 2 of 16</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

2.0	Applicable Standards	The equipment covered in the Specification shall unless otherwise stated, be designed, manufactured and tested in accordance with the latest editions of the following Indian, International standards / IEC and shall conform to the regulations of the local authorities.	
		<b>S. No.</b>	<b>Standards</b>
		1	IS-13573(part2): 2011
		2	IS 7098(part2):2011
		3	IS 692 : 1994
		4	IEC 60502 : 2009
		5	ASTM D-2303
		6	ASTM D-2671
		7	ENA TS 09-13:1981
		8	IEC 61238(part1) : 2003
		9	IS 8308 : 2003
		10	IS 8309 : 2003
		11	IS 2633:1986
		12	IS 4826 : 1979
		13	IS 12444:1988
		14	IS 191
		15	IS 10810
		16	IEC 60216 part 2
17	IEC 60216 part 8		
3.0	Climate conditions of the installation	<p>The service conditions shall be as follows:</p> <ol style="list-style-type: none"> <li>1. Maximum altitude above sea level 1,000m</li> <li>2. Maximum ambient air temperature 50°C</li> <li>3. Maximum daily average ambient air temperature 35°C</li> <li>4. Minimum ambient air temperature 0°C</li> <li>5. Maximum relative humidity 95%</li> <li>6. Average number of thunderstorm days per annum (isokeraunic level) 70</li> <li>7. Average number of rainy days per annum 120</li> <li>8. Average annual rainfall 150cm</li> <li>9. Earthquakes of an intensity in horizontal direction-equivalent to seismic acceleration of 0.3g</li> <li>10. Earthquakes of an intensity in vertical direction-equivalent to seismic acceleration of 0.15g (g being acceleration due to gravity)</li> <li>11. Wind velocity: 300 km/hr, 200 km/hr and 160 km/hr.</li> </ol> <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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<b>TP CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBANESWAR</b>			
<b>TECHNICAL SPECIFICATION</b>			
<b>Document Title</b>	<b>Technical Specification – Heat Shrinkable Straight Through Joint and Termination for 11 kV Power Cable</b>		
<b>Document No.</b>	ENG-HV-2002	<b>Eff. Date:</b> 20/Aug/19	
<b>Revision No.</b>	00	<b>Page 3 of 16</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

4.0	General Technical Requirements	<p><b>4.1</b> General design and sizes of 11 kV XLPE / PILCA insulated cables with Aluminium conductor operated in TPCODL network are as mentioned below:</p> <p><b>A. 11 kV XLPE Insulated Underground Cables as per IS 7098 – 2: 11 kV (‘E)</b></p> <p>a) <b>A2XCWY</b>- (Aluminium stranded compacted conductor, XLPE insulation, copper tape screen, wire GI armour, PVC sheath)</p> <p>b) <b>A2XCWaY</b> -(Aluminium conductor, XLPE insulation, copper tape screen, Aluminium wire armour, PVC sheath)</p> <p>i) 3CX95 sq.mm. A2XCWY/A2XFY  ii) 3CX120 sq.mm. A2XCWY/A2XFY  iii) 3CX150 sq.mm. A2XCWY/A2XFY  iv) 3CX300 sq.mm. A2XCWY/A2XFY  v) 3CX400 sq.mm. A2XCWY/A2XFY  vi) 1CX400 sq.mm A2XCWaY  vii) 1CX630 sq.mm. A2XCWaY  viii) 1CX1000 sq.mm. A2XCWaY</p> <p><b>B. HT Aerial Bunched Cables with Aluminium alloy catenary : 11 kV (‘E)</b></p> <p>a) <b>A2XCY</b>- (Aluminium stranded compacted conductor, XLPE insulation, copper tape screen, PVC sheath)</p> <p>b) <b>A2XC2Y</b>- (Aluminium stranded compacted conductor, XLPE insulation, copper tape screen, HDPE sheath)</p> <p>c) <b>A2XWaY</b>- (Aluminium stranded compacted conductor, XLPE insulation, Aluminium wire screen, PVC sheath)</p> <p>i) 3CX95 sq.mm. A2XCY/ A2XC2Y/ A2XWaY  ii) 3CX150 sq.mm. A2XCY/ A2XC2Y/ A2XWaY  iii) 1CX55 sq.mm. A2XCY/ A2XC2Y/ A2XWaY  iv) 1CX95 sq.mm. A2XCY/ A2XC2Y/ A2XWaY  v) 1CX150 sq.mm. A2XCY/ A2XC2Y/ A2XWaY</p> <p><b>C. PILCA Insulated Cables as per IS 692: 11 kV, (‘E) Belted APLST</b> (Al stranded sector shaped, paper insulated, lead sheath, steel tape sheath).</p> <p>i) 3CX150 sq.mm. Belted APLST  ii) 3CX240 sq.mm. Belted APLST  iii) 3CX300 sq.mm. Belted APLST</p> <p><b>4.2</b> According to standard sizes of cables, following types of cable joints and terminations shall be required:</p> <p>a) Tinned coated Mechanical Lugs and Mechanical Connectors are specified corresponding to joint and terminations.</p> <p>b) For remaining joints and terminations, Aluminium compression lugs and ferrules shall be applicable.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Type &amp; size of cable</th> <th style="text-align: center;">Type of Joint</th> </tr> </thead> <tbody> <tr> <td rowspan="3" style="text-align: center;">3CX95, 3CX120 &amp; 3CX150 sq.mm. XLPE insulated cable</td> <td style="text-align: center;">Indoor termination</td> </tr> <tr> <td style="text-align: center;">Outdoor termination</td> </tr> <tr> <td style="text-align: center;">Straight through joint</td> </tr> <tr> <td rowspan="3" style="text-align: center;">3CX300 sq.mm. XLPE insulated cable</td> <td style="text-align: center;">Indoor termination</td> </tr> <tr> <td style="text-align: center;">Outdoor termination</td> </tr> <tr> <td style="text-align: center;">Straight through joint</td> </tr> <tr> <td rowspan="3" style="text-align: center;">3CX400 sq.mm. XLPE insulated cable</td> <td style="text-align: center;">Indoor termination</td> </tr> <tr> <td style="text-align: center;">Indoor termination with Tinned coated mechanical lugs 300-400mm<sup>2</sup> (for RMUs)</td> </tr> <tr> <td style="text-align: center;">Outdoor termination</td> </tr> </tbody> </table>	Type & size of cable	Type of Joint	3CX95, 3CX120 & 3CX150 sq.mm. XLPE insulated cable	Indoor termination	Outdoor termination	Straight through joint	3CX300 sq.mm. XLPE insulated cable	Indoor termination	Outdoor termination	Straight through joint	3CX400 sq.mm. XLPE insulated cable	Indoor termination	Indoor termination with Tinned coated mechanical lugs 300-400mm <sup>2</sup> (for RMUs)	Outdoor termination
Type & size of cable	Type of Joint															
3CX95, 3CX120 & 3CX150 sq.mm. XLPE insulated cable	Indoor termination															
	Outdoor termination															
	Straight through joint															
3CX300 sq.mm. XLPE insulated cable	Indoor termination															
	Outdoor termination															
	Straight through joint															
3CX400 sq.mm. XLPE insulated cable	Indoor termination															
	Indoor termination with Tinned coated mechanical lugs 300-400mm <sup>2</sup> (for RMUs)															
	Outdoor termination															

Initiator		HoG(Plant Engineering)	
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<b>TP CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBANESWAR</b>			
<b>TECHNICAL SPECIFICATION</b>			
<b>Document Title</b>	<b>Technical Specification – Heat Shrinkable Straight Through Joint and Termination for 11 kV Power Cable</b>		
<b>Document No.</b>	ENG-HV-2002	<b>Eff. Date:</b> 20/Aug/19	
<b>Revision No.</b>	00	<b>Page 4 of 16</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

			Straight through joint with 300-400mm <sup>2</sup> mechanical connector
			Indoor termination
	1CX400 & 1CX630 sq.mm. XLPE insulated cable		Indoor termination with tinned coated mechanical lug(for RMUs)
			Straight through joint
	1CX1000 sq.mm. XLPE insulated cable		Indoor termination
			Outdoor termination joint
			Straight through joint
	1CX55 sq.mm. XLPE insulated cable		Outdoor termination joint
			Straight through joint
	1CX95 sq.mm. XLPE insulated cable		Outdoor termination joint
			Straight through joint
	1CX150 sq.mm. XLPE insulated cable		Outdoor termination joint
			Straight through joint
	PILCA to XLPE transition joints		Screened Transition joint 3CX185-400 sq.mm. XLPE insulated cable WITH 3CX150-300 sq.mm. PILCA insulated cable sector shaped (with mechanical connector)
	Straight through joints between XLPE insulated cables		i) 3CX185 – 400 sq.mm. XLPE (with mechanical connector) ii) 3CX150-300 sq.mm. XLPE insulated cable ( with compression reducer ferrule)
	3CX300 sq.mm. PILCA insulated cable		Indoor termination
	HS Joint 11KV single phase XLPE (One Phase Repair joint)		Straight through single phase repair joint in 3Cx 300 - 400mm <sup>2</sup> with extra-large (440 – 450 mm length) aluminium mechanical connector.

#### 4.3 General requirement for Heat Shrinkable Jointing and Termination kit:

- The jointing kit containing heat shrinkable tubing, mastics and other accessories for making a complete joint and termination shall be designed to meet TPCODL specification, ENA TS 09-13, IEC 60502 and IS 13573, part-2 and other relevant standards.
- Cable joint and termination material shall not be adversely affected in any manner even after contact with material used in cable construction and material used as accessories in the construction of cable joints and terminations and there will be no chance of corrosion developing on any metal surface.
- Assembled jointing kit components shall perform without distress in system with parameters(mentioned below):

S. No.	Parameter	Units	Requirement
1	Max. Withstand System Voltage	kV	12
2	Partial Discharge at 1.73 U <sub>0</sub>	pC	<10
3	Impulse Peak Withstand	kV	75 kV
4	Continuous operation withstand Temperature Short Circuit withstand temperature	°C	90
		°C	250
5	Withstand short circuit current	kA/1Sec	a) 3CX95 Sq.mm Cable : 8.93 kA b) 3CX120 Sq.mm Cable : 11.28 kA c) 3CX150 Sq.mm Cable : 14.1 kA d) 3CX300 Sq.mm Cable : 28.2 kA

Initiator		HoG(Plant Engineering)	
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<b>TP CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBANESWAR</b>			
<b>TECHNICAL SPECIFICATION</b>			
<b>Document Title</b>	<b>Technical Specification – Heat Shrinkable Straight Through Joint and Termination for 11 kV Power Cable</b>		
<b>Document No.</b>	ENG-HV-2002	<b>Eff. Date:</b> 20/Aug/19	
<b>Revision No.</b>	00	<b>Page 5 of 16</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

			e) 3CX400 sq.mm Cable : 37.7 kA f) 1CX1000 Sq.mm Cable : 94.0 kA g) 1CX630 Sq.mm Cable :59.4 kA h) 1CX400 Sq.mm Cable :37.7 kA h) 1CX150 sq.mm. HT ABC: 14.2 kA i) 1CX95 sq.mm. HT ABC: 9 kA j) 1CX55 sq.mm. HT ABC: 5.17 kA
6	Storage Temperature Range	°C	-10°C to + 45°C
7	Shelf life of kit components excluding mastic and solution	Years	Min. 5
8	Shelf life of mastic and solution	Years	Min. 2

**4.4 General Technical Particulars for Heat Shrinkable Insulation Tubing/ Sleeves/ Wrap Around Sleeve:**

S.No.	Parameter	Requirement
1	Visual Examination	Free from protrusions, pin holes, cracks, nicks and other visible defects.
2	Wall thickness Ratio	0.6 or 60% (Minimum at any two points of measurements)
3.	Density	
3	Internal diameter of tube after full recovery	Shall not be higher than as specified in approved BOM / GTP
4	Longitudinal change	10% Max.
5	Electric Strength	10 KV /mm (Minimum)
6	Tensile Strength	10 N/mm <sup>2</sup> (Minimum) and (8 N/mm <sup>2</sup> for anti-tracking)
7	Ultimate Elongation	200% (Minimum)
8	Heat Shock	No splitting, cracking, dripping or flowing after 30 minutes at 200°C Min. (For stress control tube: 30 Minutes at 250°C Min.)
9	Low Temperature Flexibility	No cracking after 4 hrs. at minus -20°C Max.
10	Volume Resistivity	1x 1010 Ohm- meter (Minimum) (For stress control tube VR: 1x 10 7 Ohm- meter min.)
11	Tracking resistance	No tracking, erosion to top surface or flame failure after 1hr @ 2.5KV 1hr @2.7KV 1Hr@ 3.0 KV 20 min@ 3.25KV
12	Flame Retardant (Applicable only for Anti tracking Tubes/ sleeves)	After 1 minute burn: Burnt or charred length 250 mm max.

**4.5 General Technical Particulars for Heat Shrinkable moulded components/ Breakouts/Weather sheds:**

S.No.	Parameter	Specified limit
1	Visual Examination	Free from protrusions, pin holes, cracks, nicks and other visible defects.
2	Wall thickness Ratio	0.6 or 60% (Minimum at any two points of measurements)
3	Internal diameter of tube after full recovery	Shall not be higher than as specified in approved BOM / GTP.

Initiator		HoG(Plant Engineering)	
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<b>TP CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBANESWAR</b>			
<b>TECHNICAL SPECIFICATION</b>			
<b>Document Title</b>	<b>Technical Specification – Heat Shrinkable Straight Through Joint and Termination for 11 kV Power Cable</b>		
<b>Document No.</b>	ENG-HV-2002	<b>Eff. Date:</b> 20/Aug/19	
<b>Revision No.</b>	00	<b>Page 6 of 16</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

4	Longitudinal change	25% Max.
5	Dielectric Strength	10 KV /mm (Minimum)
6	Tensile Strength	8 N/mm <sup>2</sup> (Minimum)
7	Ultimate Elongation	200% (Minimum)
8	Heat Shock	No splitting, cracking, dripping or flowing after 30 minutes at 250°C Min.
9	Low Temperature Flexibility	No cracking after 4 hrs. at minus -20°C Max.
10	Volume Resistivity	1x 10 <sup>10</sup> Ohm- meter (Minimum)
11	Flame Retardant (For anti-tracking moulded components)	After 1 minute burn: Burnt or charred length 250 mm max.

#### 4.6. Service Support

Bidder shall have own setup in Odisha for jointing and termination services along with supervision and other necessary allied services for ensuring quality of installed jointing and terminations.

#### 5.1. Components of Indoor/ Outdoor Termination Kit:

- Termination kit shall be designed based on heat shrink technology and shall be suitable for installation for 11 kV, three core and single core aluminum conductor, XLPE insulated (in line with TPCODL Specification for underground and AB cable, IS 7098-part 2, and IS 13573 Part 2 &3).

- Length of 11KV terminations (from bottom of breakout to center of lug hole) shall be:

- |                             |          |
|-----------------------------|----------|
| i) HT ABC                   | - 450mm  |
| ii) 1core cable I/D & O/D   | - 550 mm |
| iii) 3 core cable I/D & O/D | - 800 mm |

<b>5.0</b>	<b>General Construction</b>	<b>S. No.</b>	<b>Components</b>	<b>Requirement</b>
		1	Compression Lugs/ Tinned coated Mechanical Lugs	Compression Lugs: <ul style="list-style-type: none"> <li>- Material: Aluminium</li> <li>- All Aluminum lugs with anti-corrosive paste shall be long barrel type as per IS 8309: 2003.</li> <li>- Dimensions shall be as annexure-I of this specification.</li> <li>- 1000mm<sup>2</sup> Aluminum lugs shall be without palm hole.</li> </ul> Mechanical Lugs: <ul style="list-style-type: none"> <li>- Tinned coated Aluminium</li> <li>- As per IEC 61238(part1): 2003.</li> <li>- Dimensions shall be as annexure-I of this specification.</li> </ul>
		2	Lug Seal, Anti-tracking tube, weather sheds, Stress control tube	<ul style="list-style-type: none"> <li>- Heat Shrinkable</li> <li>- Fire resistant and weather resistant as per ENA TS 09-13 – for lug seals, weather sheds and Anti-tracking tubes</li> </ul>
		3	Mastic tape	<ul style="list-style-type: none"> <li>- Mastic tape shall be electrically insulating, non-tracking and water/humidity resistant.</li> <li>- Volume resistivity of mastic shall not be less than volume resistivity of insulating tube as specified in ENA TS 09-13.</li> </ul>
		4	Heat Shrink Breakout	<ul style="list-style-type: none"> <li>- Fire resistant and weather resistant as per ENA</li> </ul>

Initiator	HoG(Plant Engineering)
-----------	------------------------

<b>TP CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBANESWAR</b>			
<b>TECHNICAL SPECIFICATION</b>			
<b>Document Title</b>	<b>Technical Specification – Heat Shrinkable Straight Through Joint and Termination for 11 kV Power Cable</b>		
<b>Document No.</b>	ENG-HV-2002	<b>Eff. Date:</b> 20/Aug/19	
<b>Revision No.</b>	00	<b>Page 7 of 16</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

			<p>TS 09-13.</p> <ul style="list-style-type: none"> <li>- Adhesive coated Breakouts shall be provided on outer sheath of the cable to prevent water ingress.</li> </ul>
5	Tinned coated copper braid		<ul style="list-style-type: none"> <li>- Shall be completely insulated by adhesive coated fire retardant and weather resistant HS tube/sleeve up to copper lug.</li> <li>- Fire resistant and weather resistant as per ENA TS 09-13.</li> <li>- Size and length is as follows:</li> <li>- 25 mm<sup>2</sup> x 500 mm x 1 Run for 95, 120 &amp; 150 mm<sup>2</sup> cables.</li> </ul> <p>Additionally 1 no. 95 mm<sup>2</sup> Al long barrel lugs with sealing sleeves/ mastic shall be provided for armor back fold earth bonding in Aluminum armored 150 mm<sup>2</sup> HT ABC.</p> <ul style="list-style-type: none"> <li>- 50 mm<sup>2</sup> X 600 mm X 1 Run for above 150 mm<sup>2</sup> &amp; up to 400 mm<sup>2</sup> cables.</li> <li>- 70 mm<sup>2</sup> X 500 mm X 1 Run for 630 mm<sup>2</sup> &amp; 1000mm<sup>2</sup> cables.</li> </ul> <p>Additionally 3 nos. X 150mm<sup>2</sup> Al lugs with sealing sleeves/ mastic for armor back fold earth bonding.</p>
6	Tinned coated copper braid as a Leakage Current Collector		<ul style="list-style-type: none"> <li>- Leakage current collector tinned copper braid</li> <li>- 1R X 7 mm<sup>2</sup> X 150 mm per core shall be provided for terminations.</li> </ul>
7	Tinned copper wire mesh		<ul style="list-style-type: none"> <li>- Minimum 2.5mm<sup>2</sup> tinned copper mesh shall be provided on armour circumference beneath the copper braid.</li> <li>- Length of copper wire mesh shall be provided in BOM submission.</li> </ul>
8	Sub-kit components		<ul style="list-style-type: none"> <li>- Tapes, Mastic, GI back-up rings, Worm Drive clip/ Jubilee clip of stainless steel, adhesive cloth, cleaning solvents and other necessary items.</li> <li>- Compatible Supporting ring with SS jubilee clips shall be provided to connect tinned copper braids.</li> <li>- Soldering on copper screen is not acceptable.</li> <li>- Roll spring shall be provided for screen connections.</li> <li>- Plumb earthing on PILCA side is unacceptable. Constant pressure roll spring should be used for same.</li> </ul>
9	Submission of BOM and instruction sheet		<ul style="list-style-type: none"> <li>- Participating bidder shall submit BOM (during pre-bid) with dimensions of each size and quantity of HS joint and termination. Also instruction sheet shall be provided in each kit.</li> <li>- *Note: BOM shall be approved by TPCODL authorized official at the time of pre-bid.</li> </ul>

**5.2. Components of Straight Through jointing kit:**

S. No.	Components	Requirement
1	Heat Shrinkable insulating tube/ Sleeve	<ul style="list-style-type: none"> <li>- Surface of material: shall be smooth and free from protrusion, voids and nicks.</li> <li>- Recovered thickness: Recovered thickness of insulation tubes over ferrule or connector circumference shall not</li> </ul>

Initiator		HoG(Plant Engineering)	
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<b>TP CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBANESWAR</b>			
<b>TECHNICAL SPECIFICATION</b>			
<b>Document Title</b>	<b>Technical Specification – Heat Shrinkable Straight Through Joint and Termination for 11 kV Power Cable</b>		
<b>Document No.</b>	ENG-HV-2002	<b>Eff. Date:</b> 20/Aug/19	
<b>Revision No.</b>	00	<b>Page 8 of 16</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

			<ul style="list-style-type: none"> <li>- be less than 4.32 mm at any point of measurement.</li> <li>- Wall thickness ratio (before recovery) of all sleeves/ tubes shall not be less than 60% at any two points of measurement.</li> </ul>
	2	Ferrules/ Mechanical Connectors	<ul style="list-style-type: none"> <li>- Material : 99% Electrolytic grade Aluminium with Anti-corrosive paste</li> <li>- Shape: As per IS 8308</li> <li>- Dimensions as per <b>Annexure-I</b> of this Specification</li> <li>- Conductivity of ferrules/mechanical connectors shall be as per IS 8309: 2003/ IEC 61238(part1).</li> <li>- Conductivity of Aluminium shall be min. 60% of IACS.</li> </ul>
	3	Mastic Tape	<ul style="list-style-type: none"> <li>- Mastic tape shall be electrically insulating, non-tracking and water/humidity resistant.</li> <li>- Volume resistivity of mastic shall not be less than volume resistivity of insulating tube as specified in ENA TS 09-13.</li> </ul>
	4	Tinned coated copper braid for GI armour continuity / Ferrules for Aluminium armour continuity	<p><b>Tinned coated copper braid for GI armour continuity:</b></p> <p>Uniformly tinned coated copper braid shall be provided for armour continuity.</p> <ul style="list-style-type: none"> <li>- Wrap tinned copper wire mesh with 50% overlap around the joint area and continue 25 mm over the copper screen on both sides. Bind the copper wire mesh on copper screen.</li> <li>- Uniformly tinned coated copper braid shall be provided for armor continuity. Length of tinned copper braid shall be as per approved BOM.</li> <li>- Size of tinned copper braid shall be: 50 mm<sup>2</sup> x 1 Run for 150-400 sq.mm. three core cables.</li> </ul> <p><b>Ferrules for Aluminium armour continuity:</b></p> <ul style="list-style-type: none"> <li>- In single core cables, 1CX400,1CX630 and 1CX1000 sq.mm., Aluminium armor continuity shall be done using 2 nos. long barrel type of size 150 sq.mm. and 185 sq.mm. ferrules respectively.</li> <li>- In Aluminium armored HT ABC, 1CX95 sq.mm. and 1CX150 sq.mm., armor continuity shall be done using 2 nos. 50 sq.mm. ferrules.</li> <li>- For Copper screened HT ABC, continuity of armour shall be through 2.5 sq.mm. copper wire mesh.</li> </ul>
	5	Tinned copper wire mesh	<ul style="list-style-type: none"> <li>- Uniformly tinned coated copper mesh shall be provided for screen continuity.</li> <li>- Minimum 2.5mm<sup>2</sup> tinned copper mesh shall be provided on both sides of armour circumference beneath the copper braid.</li> <li>- Length of copper wire mesh shall be provided in BOM submission.</li> </ul>
	6	GI wire mesh/ Copper wire mesh	<ul style="list-style-type: none"> <li>- Mechanical protection shall be provided in GI armored cables by means of heavily zinc coated GI mesh as per IS 4826.</li> <li>- In 1C Aluminium armored cables, for mechanical protection, copper wire mesh shall be provided.</li> </ul>
	7	Breakouts	<ul style="list-style-type: none"> <li>- Adhesive coated Breakouts shall be provided on outer sheath at both sides on the cable to prevent water ingress.</li> </ul>
	8	Wrap around insulating tube/Sleeve	<ul style="list-style-type: none"> <li>- Material: cross-linked polyolefin (Heat Shrinkable) as a waterproof seal.</li> </ul>

Initiator		HoG(Plant Engineering)	
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<b>TP CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBANESWAR</b>			
<b>TECHNICAL SPECIFICATION</b>			
<b>Document Title</b>	<b>Technical Specification – Heat Shrinkable Straight Through Joint and Termination for 11 kV Power Cable</b>		
<b>Document No.</b>	ENG-HV-2002	<b>Eff. Date:</b> 20/Aug/19	
<b>Revision No.</b>	00	<b>Page 9 of 16</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

		as outer most tube	<ul style="list-style-type: none"> <li>- Shape: Wrap around form with hot-melt adhesive liner on the inner surface of the sleeve (Upon heating, the sleeve shrinks and the adhesive melts, creating a water-tight bond between the sleeve and the cable).</li> <li>- Stainless steel channel shall be provided along the wrap around to close the sleeve during installation.</li> <li>- Excellent mechanical and corrosion protection, and atmospheric sealing.</li> <li>- High split resistance.</li> <li>- *Note: Overlapping of wrap around sleeve is not acceptable.</li> <li>- Additionally, adhesive coated sleeve approx. 300 mm length shall be provided at ferrule joint area beneath the wrap around sleeve.</li> </ul>
	9	Sub-kit Components	<ul style="list-style-type: none"> <li>- Tapes, Mastic, GI back-up rings, Worm Drive clip/ Jubilee clip of stainless steel, adhesive cloth, cleaning solvents and other necessary items.</li> <li>- Compatible support rings (Aluminium for single core and GI for three core cables) with four nos. SS jubli clips shall be provided to connect tinned copper braid.</li> <li>- For copper screen bonding, roll spring shall be provided.</li> <li>- Plumb earthing on PILCA side is unacceptable. Constant pressure roll spring shall be provided for earthing continuity.</li> </ul>
	10	Submission of BOM and instruction sheet	<ul style="list-style-type: none"> <li>- Participating bidder shall submit BOM (during pre-bid) with dimensions of each size and quantity of HS joint and termination. Also instruction sheet shall be provided in each kit.</li> <li>- *Note: BOM shall be approved by TPCODL authorized official at the time of pre-bid.</li> </ul>

<b>6.0</b>	<b>Name plate and Marking</b>	<p>Following details shall be printed on the box:</p> <ol style="list-style-type: none"> <li>a) Manufacturer's name</li> <li>b) Month &amp; Year of manufacturing</li> <li>c) Voltage Grade</li> <li>d) Property of TPCODL</li> <li>e) Material code</li> <li>f) PO No.</li> </ol> <p>HS Sleeves/ tubes and breakout components shall be embossed with:</p> <ol style="list-style-type: none"> <li>a) Month and year of manufacturing</li> <li>b) Manufacturer name</li> <li>c) Batch no. / Lot no.</li> <li>d) Shrink ratio</li> <li>e) Size</li> <li>f) Type</li> </ol>
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<b>7.0</b>	<b>Tests</b>	<p>All Routine, Acceptance &amp; Type tests shall be carried out in accordance with the Relevant IS/IEC/ ENA TS 09-13. Acceptance tests shall be witnessed by TPCODL authorized representative. All the components shall also be type tested as per the relevant standards mentioned below. Following tests shall be necessarily conducted on the Joint and Termination Kits in addition to others specified in IS/IEC/ ENA-TS 09-13 standards:-</p> <p><b>A. Type Tests:</b></p>
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Initiator		HoG(Plant Engineering)	
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	<b>TP CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBANESWAR</b>		
	<b>TECHNICAL SPECIFICATION</b>		
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<b>Revision No.</b>	00	<b>Page 10 of 16</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

<b>(I) Terminations &amp; Straight Through joints</b>		
<b>Test</b>	<b>Clause No.</b>	<b>Reference Standard</b>
Conductor resistance with Ferrule/Lugs/Mechanical connectors	4.1	IS 13573(Part-2)
AC Voltage withstand Test (Air)	4.2	IS 13573(Part-2)
AC Voltage withstand test (under wet conditions) (for outdoor termination only)	4.2	IS 13573(Part-2)
Partial Discharge	7.0	IS 13573(Part-2)
Impulse voltage test	6	IS 13573(Part-2)
Heat Cycle test in air and water	9.1 and 9.2	IS 13573(Part-2)
Thermal Short Circuit Test for Screen	10	IS 13573(Part-2)
Thermal Short Circuit Test for Conductor	11	IS 13573(Part-2)
DC Voltage Withstand	5	IS 13573(Part-2)
Dynamic short circuit test	12	IS 13573(Part-2)
Thermal Endurance test	IEC 60216 part 2 & 8	
Salt fog test (Only for Outdoor terminations only)	13	IS 13573(Part-2)
<b>(II) Kit Components</b>		
<b>a) For Tubing and Moulded Components</b>		
<b>Test</b>	<b>Clause No.</b>	<b>Reference Standard</b>
Corrosion Resistance	3.1	ENA -TS 09-13
Density	3.2	ENA -TS 09-13
Dimensions	3.3	ENA -TS 09-13
Electric Strength	3.4	ENA -TS 09-13
Flame Retardance	3.5	ENA -TS 09-13
Heat Shock	3.7	ENA -TS 09-13
Low temperature flexibility	3.8	ENA -TS 09-13
Relative Permittivity	3.9	ENA -TS 09-13
Tensile strength and Ultimate elongation	3.12	ENA -TS 09-13
Thermal Ageing	3.13	ENA -TS 09-13
Tracking Resistance	3.14	ENA -TS 09-13
Visual Examination	3.15	ENA -TS 09-13
Volume Resistivity	3.16	ENA -TS 09-13
Water Absorption	3.17	ENA -TS 09-13
<b>b) For Compression Lugs, Compression Ferrules and Mechanical connectors</b>		
<b>Test</b>	<b>Clause No.</b>	<b>Reference Standard</b>
Conductivity test	8.3	as per IS 8309/ IEC 61238, part - 1
<b>B. Routine Tests:</b>		
<b>Test</b>	<b>Clause No.</b>	<b>Reference Standard</b>
Visual inspection of tubing and moulded components for free from pin holes, cracks, nicks, protrusion and other defects	3.15	ENA -TS 09-13
Dimension check	As per TPCODL approved BOM	
Electric Strength	3.4	ENA -TS 09-13

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<b>Revision No.</b>	00	<b>Page 11 of 16</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

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<b>8.0</b>	<b>Type Test Certificate</b>	<p>The bidder shall furnish the type test certificates for the tests as mentioned above as per the corresponding standards.</p> <p>All the tests shall be conducted at CPRI/ERDA as per the relevant standards not exceeding 5 years from the date of opening of bid.</p> <p>In the event of any discrepancy in the test reports, i.e. any test report not acceptable, same shall be carried out without any cost implication to TPCODL.</p> <p>TPCODL has rights for Surveillance test of random selected samples from third party lab for quality checks of item.</p> <p>TPCODL shall be intimated in case revision is done by manufacturer in product design/ dimension/ material during execution of contract. Subsequently Type test certificate shall be produced.</p>																																																																		
<b>9.0</b>	<b>Pre-dispatch inspection</b>	<p>Equipment shall be subject to inspection by a duly authorized representative of TPCODL. Inspection may be made at any stage of manufacturing at the option of TPCODL and the equipment if found unsatisfactory as to workmanship or material, the same is liable to rejection.</p> <p>Bidder shall grant free access to the places of manufacture TPCODL's representatives at all times when the work is in progress. Inspection by TPCODL's authorized representatives shall not relieve the supplier of his obligation of furnishing equipment in accordance with the specifications. Material shall be dispatched after specific MDCC (Material Dispatch Clearance Certificate) is issued by TPCODL. The pre-dispatch inspection shall be carried out as per annexure-II. Following documents shall be sent along with material:</p> <ol style="list-style-type: none"> <li>Test reports</li> <li>MDCC issued by TPCODL</li> </ol>																																																																		

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<b>Document No.</b>	ENG-HV-2002	<b>Eff. Date:</b> 20/Aug/19	
<b>Revision No.</b>	00	<b>Page 12 of 16</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

		<ul style="list-style-type: none"> <li>c) Invoice in duplicate</li> <li>d) Packing list</li> <li>e) Drawings &amp; catalogue</li> <li>f) Guarantee / Warrantee card</li> <li>g) Delivery Challan</li> <li>h) Other Documents (as applicable)</li> </ul>										
<b>10.0</b>	<b>Inspection after receipt at Stores</b>	Material received at TPCODL's, 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 Engineering department.										
<b>11.0</b>	<b>Guarantee</b>	<p>Bidder shall stand guarantee towards design, materials, workmanship &amp; quality of process / manufacturing of items under this contract for due and intended performance of the same, as an integrated product delivered under this contract. In the event any defect is found by TPCODL up to a period of at least 60 months from the date of commissioning or 66 months from the date of last supplies made under the contract whichever is later.</p> <p>Further Bidder shall also stand guarantee towards poor workmanship in installation of straight through joint and terminations installed by bidder's jointer up to 60 months from the date of installation.</p> <p>Bidder shall be liable to undertake to replace/rectify such defects at own costs, within mutually agreed time frame, and to the entire satisfaction of TPCODL, failing which TPCODL shall be at liberty to get it replaced/rectified at bidder's risks and costs and recover all such expenses plus the Company's own charges (@ 20% of expenses incurred), from the bidder or from the "Security cum Performance Deposit" as the case may be. Bidder shall further be responsible for free replacement for another period of THREE years from the end of the guarantee period for any 'Latent Defects' if noticed and reported by TPCODL.</p>										
<b>12.0</b>	<b>Packaging</b>	<p>Bidder shall ensure that all the equipment covered under this specification shall be prepared for rail/road transport in a manner so as to protect the equipment from damage in transit. The material used for packing shall be environmentally friendly.</p> <p>Each components shall be supplied in a single package as a complete kit for one termination/joint.</p>										
<b>13.0</b>	<b>Tender Sample</b>	Bidder shall be submit the sample of material during tender evaluation process with the offer (in case of first supply to TPCODL).										
<b>14.0</b>	<b>Training</b>	<p>Detailed Installation instruction with drawings for all joints and termination shall be provided by Bidder with tender documents in English and Hindi Language.</p> <p>Updated installation manual shall be provided in the kit.</p> <p>Hands-on-training shall be conducted annually at our site location for BA and TPCODL jointers.</p> <p>Bidder shall provide installation/operational services at site.</p>										
<b>15.0</b>	<b>Quality Control</b>	<p>The bidder shall submit with the offer, 'Quality Assurance Plan' indicating the various stages of inspection, the tests and checks which shall be carried out on the material of construction, components and bought out items.</p> <p>TPCODL's engineer or its nominated representative shall have free access to the manufacturer's/sub-supplier's works to carry out inspections.</p>										
<b>16.0</b>	<b>Minimum Testing facilities</b>	Bidder shall have adequate in house testing facilities for carrying out all routine tests, acceptance tests as per Indian /International standards.										
<b>17.0</b>	<b>Manufacturing activities</b>	The successful bidder shall submit bar chart for various manufacturing activities clearly elaborating each stage, with quantity. This bar chart should be in line with the Quality assurance plan submitted with the offer. This bar chart shall be submitted within 15 days from the release of the order.										
<b>18.0</b>	<b>Spares, Accessories and Tools</b>	Not applicable.										
<b>19.0</b>	<b>Drawings and Documents</b>	<p>After the award of the contract four (4) copies of following drawings, drawn to scale, describing the equipment in detail shall be forwarded for approval.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">S. No.</th> <th style="width: 50%;">Description</th> <th style="width: 15%;">For Approval</th> <th style="width: 15%;">For Review Information</th> <th style="width: 10%;">Final Submission</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td>Technical Parameters</td> <td style="text-align: center;">√</td> <td></td> <td style="text-align: center;">√</td> </tr> </tbody> </table>	S. No.	Description	For Approval	For Review Information	Final Submission	1	Technical Parameters	√		√
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<b>Revision No.</b>	00	<b>Page 13 of 16</b>	
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<b>20.0</b>	<b>Guaranteed Technical Particulars</b>	Bidder to comply all above clauses as per specification.																																			
<b>21.0</b>	<b>Schedule of Deviations</b>	<p>The bidders shall set out all deviations from this specification, Clause by Clause in this schedule. Unless specifically mentioned in this schedule, the tender shall be deemed to confirm the purchaser's specifications.</p> <p style="text-align: center;">(TO BE ENCLOSED WITH THE BID)</p> <p>All deviations from this specification shall be set out by the Bidders, clause by Clause in this schedule. Unless specifically mentioned in this Schedule, the tender shall be deemed to confirm the purchaser's specifications:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>S.No.</th> <th>Clause No.</th> <th>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>Seal of the Company: _____</p> <p style="text-align: right;">Signature: _____</p> <p style="text-align: right;">Designation: _____</p>			S.No.	Clause No.	Details of deviation with justifications																														
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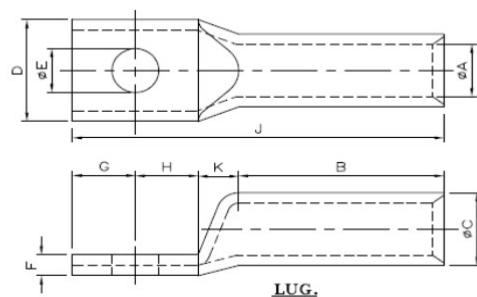
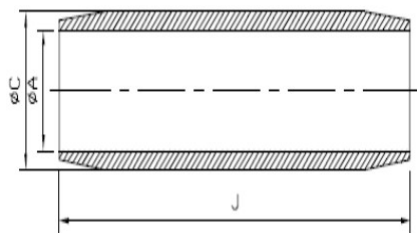
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<b>Document No.</b>	ENG-HV-2002	<b>Eff. Date: 20/Aug/19</b>	
<b>Revision No.</b>	00	<b>Page 14 of 16</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

## Annexure-I

### Annexure- Dimensions Ferrules & Lugs HT

Dimensional details of Aluminum ferrules for HT AL circular stranded compacted XLPE cables			
Cable Size in MM <sup>2</sup>	φA (mm) +0.3mm	φC (mm) +0.3 mm	J (mm) ±3mm
95	12	16.9	108
150	15.1	21.2	116
300	21.8	30.2	150
400	25	34.8	150
630	31.7	44.4	200
1000	41	56	250

Dimensional details of Aluminum Lugs for HT circular stranded compacted XLPE cables							
Cable Size in MM <sup>2</sup>	φE (mm) ±0.1mm in centre of palm	φA (mm) +0.5mm	φC (mm) +0.5 mm	D (mm) ±1.5mm	F (mm) ±0.5mm	B±3.0mm	J (mm) ±5mm
95	13	12	16.9	23.5	4.9	73	109
150	13	15.1	21.2	29.5	6	83	128
300	17	21.8	30.2	42	8.4	89	157
400	17	25	34.8	48	9.8	113	187
630	17	31.7	44.4	61	12.7	140	225
1000	-	41	56	77.5	15	160	280



For remaining cable sizes, dimensions of Ferrules & Lugs shall be as per IS.

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<b>Revision No.</b>	00	<b>Page 15 of 16</b>	
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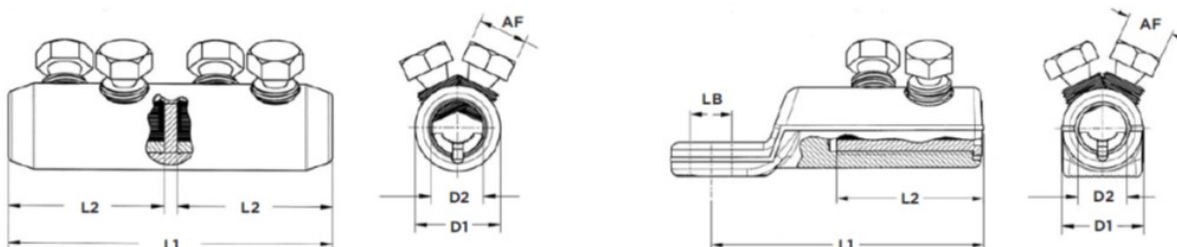
**Annexure- Dimensions Mechanical connectors & Mechanical Lugs**

Aluminium Mechanical connectors

Cable Size in MM <sup>2</sup>	φD1 (mm)	φD2 (mm)	L (mm)
185-400	50	25.5-26	440- 450
185-400	42	25.5-26	170-200
500- 630	50	33- 33.5	180-230
1000	60	40	180-230

Tinned Aluminium Mechanical Lugs

Cable Size in MM <sup>2</sup>	φLB (mm)	φD1 (mm)	φD2 (mm)	L (mm)
185-400	17	42	25.5-26	137-150
500- 630	17	50	33- 33.5	150-180
1000	2x17	60	40- 40.5	180- 240



**Annexure- II**

Inspection Test Plan for HS Jointing kit components

S. No.	Name of test	Specified value(Range)	Reference documents	Test Result	Pass/Fail
1	Visual inspection	Free from pin holes, cracks, nicks, protrusion and other visible defects.	ENA-TS-09-13 Clause No. 3.15 & TPCODL specification		
2	Physical verification of kit contents and dimensions	Dimensions as per TPCODL approved BOM			
3	Electric Strength test	10 KV /mm (Minimum)	ENA-TS-09-13 Clause No. 3.4		
4	Ultimate Elongation tests	200% (Minimum)	ENA-TS-09-13 Clause No. 3.12		
5	Tensile Strength	10 N/mm <sup>2</sup> (Minimum) For anti-track tube-8 N/mm <sup>2</sup>	ENA-TS-09-13 Clause No. 3.12		
6	Tracking resistance test(Anti-tracking Tube)	NO Tracing erosion to top surface /flash failure after 1 hr 2.5 KV 1hr 2.75KV 20 min 3.5 KV	ENA-TS-09-13 Clause No. 3.14		
7	Volume Resistivity	1x10 <sup>10</sup> Ohm- meter (Minimum)	ENA-TS-09-13 Clause No. 3.16		
8	Wall thickness ratio	0.6 or 60% (Minimum at any two points of measurements)	ENA-TS-09-13 Clause No. 3.3		
9	Expanded and recovered diameters	As per TPCODL approved BOM	ENA-TS-09-13 Clause No. 3.3(i)		
10	Longitudinal change after recovery	10% max	ENA-TS-09-13 Clause No. 3.3(ii)		
11	Heat shock test	No splitting, cracking, dripping or flowing	ENA-TS-09-13 Clause		

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	<b>TP CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBANESWAR</b>		
	<b>TECHNICAL SPECIFICATION</b>		
<b>Document Title</b>	<b>Technical Specification – Heat Shrinkable Straight Through Joint and Termination for 11 kV Power Cable</b>		
<b>Document No.</b>	ENG-HV-2002	<b>Eff. Date: 20/Aug/19</b>	
<b>Revision No.</b>	00	<b>Page 16 of 16</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

		after 30 min @200°C min	No. 3.7.1/ 3.7.2		
12	Low temperature flexibility	No cracking after 4 Hrs @ Minus 20°C max	ENA-TS-09-13 Clause No. 4.5		
13	Insulation build up thickness after shrink on Ferrule as per IS 10810 -6	Not less than as specified in specification	as per IS 10810 -6 Clause No. 8.1		
14	Flame retardant test	After one min burn: burnt or charred length 250 mm max.	ENA-TS-09-13 Clause No. 3.5.1/ 3.5.2		
15	Area measurement of tinned copper braids (Area of one wire x no. of wires x no. of carriers)	As per TPCODL specification/ approved BOM			
16	Ferrules/ connectors/ lugs dimension and conductivity test	As per annexure-I in this specification	as per IS 8309 Clause 8.3 and IEC 61238		
17	Uniformity of zinc coating on GI mesh as per IS 2633	No reddish color after one dip for ½ minute in CuSO4 solution	as per IS 2633 Clause 4.1		

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<b>Document Title</b>	<b>Technical Specification – Heat Shrinkable Straight Through Joint and Termination for 1.1 kV Power Cable</b>		
<b>Document No.</b>	ENG-LV-3001	<b>Eff. Date:</b> 20/Aug/19	
<b>Revision No.</b>	00	<b>Page 1 of 13</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

## CONTENTS

1. SCOPE
2. APPLICABLE STANDARDS
3. CLIMATIC CONDITIONS OF INSTALLATION
4. GENERAL TECHNICAL REQUIREMENTS
5. GENERAL CONSTRUCTION
6. NAME PLATE AND MARKING
7. TESTS
8. TYPE TEST CERTIFICATES
9. PRE-DISPATCH INSPECTION
10. INSPECTION AFTER RECEIPT AT STORES
11. GUARANTEE
12. PACKING
13. TENDER SAMPLE
14. TRAINING
15. QUALITY CONTROL
16. MINIMUM TESTING FACILITIES
17. MANUFACTURING ACTIVITIES
18. SPARES, ACCESSORIES AND TOOLS
19. DRAWINGS AND DOCUMENTS
20. GUARANTEED TECHNICAL PARTICULARS
21. SCHEDULE OF DEVIATIONS

<b>1.0</b>	<b>Scope</b>	<p>Technical Specification – covering requirements wrt Design, Manufacturing, Material, Testing at manufacturer’s work/CPRI/ERDA lab, Packaging, Supply and Delivery, Unloading at site/store of 1.1 kV Heat Shrink Cable Straight through Joints and Terminations with all accessories for contributing to trouble free and efficient network operation.</p> <p>The equipment shall conform in all respects to high standards of Engineering, Design and Workmanship</p>
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<b>TP CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBANESWAR</b>			
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<b>Document No.</b>	ENG-LV-3001	<b>Eff. Date:</b> 20/Aug/19	
<b>Revision No.</b>	00	<b>Page 2 of 13</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

		and be capable of performance in continuous operation.																																													
2.0	<b>Applicable Standards</b>	<p>The equipment covered in the Specification shall unless otherwise stated, be designed, manufactured and tested in accordance with the latest editions of the following Indian, International standards / IEC and shall conform to the regulations of the local authorities.</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Standards</th> <th>Title</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>IS-13573: 2011(Part-1)</td> <td>Cable Accessories for extruded power cables, for working voltages for 1.1 kV up to and including 3.3 kV – test methods and test requirements</td> </tr> <tr> <td>2</td> <td>IS 7098-2003 (Part1)</td> <td>Cross linked polyethylene insulated PVC sheathed cables up to and including 1.1 kV Cable.</td> </tr> <tr> <td>3</td> <td>IS 14255</td> <td>LT Aerial Bundled cable working up to 1.1 kV</td> </tr> <tr> <td>4</td> <td>ENA TS 09-13</td> <td>High voltage heat shrinkable material components for use up to and including 36 kV</td> </tr> <tr> <td>5</td> <td>IEC 61238-1: 2003</td> <td>Compression and Mechanical Connectors for Power Cables</td> </tr> <tr> <td>6</td> <td>IS 8308 : 2003</td> <td>Compression type tubular inline connector for Aluminium conductors of insulated cables</td> </tr> <tr> <td>7</td> <td>IS 8309 : 2003</td> <td>Compression type tubular terminal ends for Aluminium conductors of insulated cables</td> </tr> <tr> <td>8</td> <td>IS 2633</td> <td>Methods for testing uniformity of coating of zinc coated articles</td> </tr> <tr> <td>9</td> <td>IS 4826</td> <td>Hot dipped galvanized coatings on round steel wires</td> </tr> <tr> <td>10</td> <td>IS 12444</td> <td>Continuous Cast and Rolled electrolytic copper wire rods for electrical conductors</td> </tr> <tr> <td>11</td> <td>IS 191</td> <td>Copper Specification</td> </tr> <tr> <td>12</td> <td>IS 10810</td> <td>Methods of test for cables</td> </tr> <tr> <td>13</td> <td>EN 50393</td> <td>European Cable Jointing Standard</td> </tr> <tr> <td>14</td> <td>ASTM D-2303</td> <td>Standard Test Methods for Liquid-Contaminant, Inclined-Plane Tracking and Erosion of Insulating Materials</td> </tr> </tbody> </table>	S. No.	Standards	Title	1	IS-13573: 2011(Part-1)	Cable Accessories for extruded power cables, for working voltages for 1.1 kV up to and including 3.3 kV – test methods and test requirements	2	IS 7098-2003 (Part1)	Cross linked polyethylene insulated PVC sheathed cables up to and including 1.1 kV Cable.	3	IS 14255	LT Aerial Bundled cable working up to 1.1 kV	4	ENA TS 09-13	High voltage heat shrinkable material components for use up to and including 36 kV	5	IEC 61238-1: 2003	Compression and Mechanical Connectors for Power Cables	6	IS 8308 : 2003	Compression type tubular inline connector for Aluminium conductors of insulated cables	7	IS 8309 : 2003	Compression type tubular terminal ends for Aluminium conductors of insulated cables	8	IS 2633	Methods for testing uniformity of coating of zinc coated articles	9	IS 4826	Hot dipped galvanized coatings on round steel wires	10	IS 12444	Continuous Cast and Rolled electrolytic copper wire rods for electrical conductors	11	IS 191	Copper Specification	12	IS 10810	Methods of test for cables	13	EN 50393	European Cable Jointing Standard	14	ASTM D-2303	Standard Test Methods for Liquid-Contaminant, Inclined-Plane Tracking and Erosion of Insulating Materials
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3.0	<b>Climate conditions of the installation</b>	<p>a The service conditions shall be as follows:</p> <ol style="list-style-type: none"> <li>1. Maximum altitude above sea level 1,000m</li> <li>2. Maximum ambient air temperature 50°C</li> <li>3. Maximum daily average ambient air temperature 35°C</li> <li>4. Minimum ambient air temperature 0°C</li> <li>5. Maximum relative humidity 95%</li> <li>6. Average number of thunderstorm days per annum (isokeraunic level) 70</li> <li>7. Average number of rainy days per annum 120</li> <li>8. Average annual rainfall 150cm</li> <li>9. Earthquakes of an intensity in horizontal direction-equivalent to seismic acceleration of 0.3g</li> <li>10. Earthquakes of an intensity in vertical direction-equivalent to seismic acceleration of 0.15g (g being acceleration due to gravity)</li> <li>11. Wind velocity: 300 km/hr, 200 km/hr and 160 km/hr.</li> </ol> <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>																																													
4.0	<b>General Technical Requirements</b>	<p>4.1 General design and sizes of 1.1 kV XLPE insulated cables with Aluminium conductor operated in TPCODL network are as mentioned below:</p> <p>A. <b>Four Core Cables, 1.1KV A2XWY</b> (Aluminium conductor stranded sector shaped, XLPE insulation, PVC inner sheath, GI round wire armour, PVC outer sheath) &amp; A2XFY</p>																																													

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<b>TP CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBANESWAR</b>			
<b>TECHNICAL SPECIFICATION</b>			
<b>Document Title</b>	<b>Technical Specification – Heat Shrinkable Straight Through Joint and Termination for 1.1 kV Power Cable</b>		
<b>Document No.</b>	ENG-LV-3001	<b>Eff. Date:</b> 20/Aug/19	
<b>Revision No.</b>	00	<b>Page 3 of 13</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

		<p>a) 4CX400 sq.mm.  b) 4C X 300 sq.mm.  c) 4CX240 sq.mm.  d) 4C X 150 sq.mm.  e) 4C X 95 sq.mm.  f) 4C X 50 sq.mm.  g) 4C X 35 sq.mm.  h) 4C X 25 sq.mm.</p> <p><b>B. Two Core Cables, 1.1KV A2XWY</b> (Aluminium conductor stranded sector shaped, XLPE insulation, PVC inner sheath, GI round wire armour, PVC outer sheath)</p> <p>a) 2C X 50 sq. mm.  b) 2C X 25 sq. mm.  c) 2C X 16 sq. mm.  d) 2C X 10 sq. mm.</p> <p>C. <b>LT ABC, 1.1 kV, A2X</b> Aluminium Conductor, Stranded Circular Compacted, XLPE insulation  1C X 150 sq.mm.</p> <p><b>4.2 According to standard sizes of cables, following types of cable joints and terminations shall be required:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Type &amp; size of cable</th> <th style="text-align: center;">Type of Joint</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">4C Cables – all sizes</td> <td style="text-align: center;">Straight through joints</td> </tr> <tr> <td style="text-align: center;">4C Cables – 300 &amp; 400 sq.mm.</td> <td style="text-align: center;">Indoor/ Outdoor termination</td> </tr> <tr> <td style="text-align: center;">2C Cables</td> <td style="text-align: center;">Straight Through joints</td> </tr> <tr> <td style="text-align: center;">1C AB Cables</td> <td style="text-align: center;">Straight through joints</td> </tr> </tbody> </table> <p><b>4.3 General requirement for Heat Shrinkable Jointing and Termination kit:</b></p> <ul style="list-style-type: none"> <li>The jointing kit containing heat shrinkable tubing, mastics and other accessories for making a complete joint and termination shall be designed to meet TPCODL specification ENG-LV-08, ENA TS 09-13 and IS 13573 and other relevant standards.</li> <li>Cable joint and termination material shall not be adversely affected in any manner even after contact with material used in cable construction and material used as accessories in the construction of cable joints and terminations and there will be no chance of corrosion developing on any metal surface.</li> <li>Assembled jointing kit components shall perform without distress in system with parameters(mentioned below):</li> </ul> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">S. No.</th> <th style="text-align: center;">Parameter</th> <th style="text-align: center;">Unit</th> <th style="text-align: center;">Requirement</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">Rated Voltage</td> <td style="text-align: center;">kV</td> <td style="text-align: center;">1.1</td> </tr> <tr> <td rowspan="2" style="text-align: center;">2</td> <td style="text-align: center;">Continuous operation withstand Temperature</td> <td style="text-align: center;">°C</td> <td style="text-align: center;">90</td> </tr> <tr> <td style="text-align: center;">Short Circuit withstand temperature</td> <td style="text-align: center;">°C</td> <td style="text-align: center;">250</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">Short circuit current rating of conductor</td> <td style="text-align: center;">kA for 1 sec</td> <td style="text-align: center;">As per TPCODL specification for 1.1 kV Power Cable ENG-LV-08  400 sq.mm. – 37.6 kA  300 sq.mm. – 28.2 kA  240 sq.mm. – 22.56 kA  150 sq.mm. – 14.1 kA  95 sq.mm. – 8.93 kA  50 sq.mm.- 4.7 kA</td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">Storage Temperature Range</td> <td style="text-align: center;">°C</td> <td style="text-align: center;">-10°C to + 45°C</td> </tr> </tbody> </table>	Type & size of cable	Type of Joint	4C Cables – all sizes	Straight through joints	4C Cables – 300 & 400 sq.mm.	Indoor/ Outdoor termination	2C Cables	Straight Through joints	1C AB Cables	Straight through joints	S. No.	Parameter	Unit	Requirement	1	Rated Voltage	kV	1.1	2	Continuous operation withstand Temperature	°C	90	Short Circuit withstand temperature	°C	250	3	Short circuit current rating of conductor	kA for 1 sec	As per TPCODL specification for 1.1 kV Power Cable ENG-LV-08 400 sq.mm. – 37.6 kA 300 sq.mm. – 28.2 kA 240 sq.mm. – 22.56 kA 150 sq.mm. – 14.1 kA 95 sq.mm. – 8.93 kA 50 sq.mm.- 4.7 kA	4	Storage Temperature Range	°C	-10°C to + 45°C
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<b>TP CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBANESWAR</b>			
<b>TECHNICAL SPECIFICATION</b>			
<b>Document Title</b>	<b>Technical Specification – Heat Shrinkable Straight Through Joint and Termination for 1.1 kV Power Cable</b>		
<b>Document No.</b>	ENG-LV-3001	<b>Eff. Date:</b> 20/Aug/19	
<b>Revision No.</b>	00	<b>Page 4 of 13</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

		5	Shelf life of kit components excluding mastic and solution	Year	Minimum 5 Years	
		6	Shelf life of mastic and solution	Years	Minimum 2 Years	
		<b>4.4 General Technical Particulars for Heat Shrinkable Insulation Tubing/ Sleeves/ Wrap Around Sleeve:</b>				
		<b>S. No.</b>	<b>Parameter</b>	<b>Specified limit</b>		
		1	Visual Examination	Free from protrusions, pin holes, cracks, nicks and other visible defects		
		2	Wall thickness Ratio	0.6 or 60% (Minimum at any two points of measurements)		
		3	Internal dia of tube after full recovery	Shall not be higher than as specified in approved BOM / GTP		
		4	Longitudinal change	10% Max.		
		5	Dielectric Strength	10 KV /mm (Minimum)		
		6	Tensile Strength	10 N/mm <sup>2</sup> (Minimum)		
		7	Ultimate Elongation	200% (Minimum)		
		8	Heat Shock	No splitting, cracking, dripping or flowing after 30 minutes at 200°C Min. (For stress control tube: 30 Minutes at 250°C Min.)		
		9	Low Temperature Flexibility	No cracking after 4 Hrs. at minus 20°C Max.		
		10	Volume Resistivity	1x 10 <sup>10</sup> Ohm- meter (Minimum) (For stress control tube VR: 1x 10 <sup>7</sup> Ohm-meter Min.)		
		11	Flame Retardant (Applicable only for Anti tracking Tubes/ sleeves)	After 1 minute burn: Burnt or charred length 250 mm Max.		
<b>4.5 General Technical Particulars for Heat Shrinkable moulded components/ Breakouts:</b>						
<b>S.No.</b>	<b>Parameter</b>	<b>Specified limit</b>				
1	Visual Examination	Free from protrusions, pin holes, cracks, nicks and other visible defects.				
2	Wall thickness Ratio	0.6 or 60% (Minimum at any two points of measurements)				
3	Internal dia of tube after full recovery	Shall not be higher than as specified in approved BOM / GTP.				
4	Longitudinal change	25% Max.				
5	Dielectric Strength	10 KV /mm (Minimum)				
6	Tensile Strength	8 N/mm <sup>2</sup> (Minimum)				
7	Ultimate Elongation	200% (Minimum)				
8	Heat Shock	No splitting, cracking, dripping or flowing after 30 minutes at 200°C Min.				
9	Low Temperature Flexibility	No cracking after 4 Hrs. at minus -20°C Max.				
10	Volume Resistivity	1x 10 <sup>10</sup> Ohm- meter (Minimum)				
11	Flame Retardant (For anti-tracking moulded components)	After 1 minute burn: Burnt or charred length 250mm Max.				
<b>4.6. Service Support</b>						
- Bidder shall have own setup in Odisha for jointing and termination services along with supervision and other necessary allied services for ensuring quality of installed jointing and terminations.						
<b>5.0</b>	<b>General Construction</b>	<b>5.1. Components of Indoor/ Outdoor Termination Kit:</b>				

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<b>TP CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBANESWAR</b>			
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<b>Document Title</b>	<b>Technical Specification – Heat Shrinkable Straight Through Joint and Termination for 1.1 kV Power Cable</b>		
<b>Document No.</b>	ENG-LV-3001	<b>Eff. Date:</b> 20/Aug/19	
<b>Revision No.</b>	00	<b>Page 5 of 13</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

S. No.	Components	Requirement
1	Lugs	<ul style="list-style-type: none"> <li>- Material: Aluminium</li> <li>- All Aluminum lugs with anti-corrosive paste shall be long barrel type as per IS 8309: 2003.</li> <li>- Dimensions shall be as annexure-I of this specification.</li> </ul>
2	Lug Seal	<ul style="list-style-type: none"> <li>- Fire resistant and weather resistant as per ENA TS 09-13</li> </ul>
3	Mastic tape	<ul style="list-style-type: none"> <li>- Mastic tape shall be electrically insulating, non-tracking and water/humidity resistant.</li> <li>- Volume resistivity of mastic shall not be less than volume resistivity of insulating tube as specified in ENA TS 09-13.</li> </ul>
4	Heat Shrink Breakout	<ul style="list-style-type: none"> <li>- Fire resistant and weather resistant as per ENA TS 09-13.</li> <li>- Adhesive coated Breakouts shall be provided on outer sheath of the cable to prevent water ingress.</li> </ul>
5	Tinned coated copper braid	<ul style="list-style-type: none"> <li>- Shall be completely insulated by adhesive coated fire retardant and weather resistant HS tube/sleeve up to copper lug.</li> <li>- Fire resistant and weather resistant as per ENA TS 09-13.</li> <li>- Size and length is as follows: 25 mm<sup>2</sup> x 500 mm x 1 Run for 300 mm<sup>2</sup> cables.</li> <li>- Compatible Supporting ring with SS jubilee clips shall be provided to connect tinned copper braids.</li> </ul>
6	Tinned copper wire mesh	<ul style="list-style-type: none"> <li>- Minimum 2.5mm<sup>2</sup> x 500 mm shall be provided for wrapping over armor circumference beneath the copper braid.</li> </ul>
7	Sub-kit components	Tapes, Mastic, GI back-up rings, Worm Drive clip/ Jubilee clip of stainless steel, adhesive cloth, cleaning solvents and other necessary items.
8	Submission of BOM and instruction sheet	<ul style="list-style-type: none"> <li>- Participating bidder shall submit BOM (during pre-bid) with dimensions of each size and quantity of HS joint and termination. Also instruction sheet shall be provided in each kit.</li> <li>- *Note: BOM shall be approved by TPCODL authorized official at the time of pre-bid.</li> </ul>

**5.2. Components of Straight Through jointing kit:**

S. No.	Components	Requirement
1	Heat Shrinkable insulating tube/ Sleeve	<ul style="list-style-type: none"> <li>- Surface of material: shall be smooth and free from protrusion, voids and nicks.</li> <li>- Recovered thickness: Recovered thickness of insulation tubes over ferrule circumference shall not be less than 2.5 mm at any point of measurement.</li> <li>- Wall thickness ratio (before recovery) of all sleeves/ tubes shall not be less than 60% at any two points of measurement.</li> </ul>
2	Ferrule	<ul style="list-style-type: none"> <li>- Material : 99% Electrolytic grade Aluminium with Anti-corrosive paste</li> <li>- Shape: As per IS 8308</li> <li>- Dimensions as per <b>Annexure-I</b> of this Specification</li> <li>- Conductivity of Aluminium shall be min. 60% of IACS</li> </ul>
3	Mastic Tape	<ul style="list-style-type: none"> <li>- Mastic tape OR Sealant shall be electrically insulating, non-tracking and water/humidity resistant.</li> <li>- Volume resistivity of mastic shall not be less than volume</li> </ul>

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<b>TECHNICAL SPECIFICATION</b>			
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<b>Document No.</b>	ENG-LV-3001	<b>Eff. Date:</b> 20/Aug/19	
<b>Revision No.</b>	00	<b>Page 6 of 13</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

			resistivity of insulating tube as specified in ENA TS 09-13.
4	Tinned coated copper braid	<ul style="list-style-type: none"> <li>- Uniformly tinned coated copper braid shall be provided for armor continuity.</li> <li>- Size of tinned copper braid shall be:               <ul style="list-style-type: none"> <li>a) 50 mm<sup>2</sup> x 1 Run for 4CX 400 sq.mm, 4CX 300 sq.mm. &amp; 4CX240 sq.mm. cable</li> <li>b) 25 mm<sup>2</sup> x 1 Run for 4CX 150 sq.mm. and 4C X 95 sq.mm. cable</li> <li>c) 10 mm<sup>2</sup> x 1 Run for 50 sq.mm. cable and below sizes.</li> </ul> </li> <li>- Length of tinned copper braid shall be as per approved BOM.</li> </ul>	
5	Tinned copper wire mesh	<ul style="list-style-type: none"> <li>- Minimum 2.5 mm<sup>2</sup> X 1000 mm for 4CX400 mm<sup>2</sup>, 4CX300mm<sup>2</sup>, 4CX240 mm<sup>2</sup> and 4C X 150 mm<sup>2</sup> and</li> <li>- 2.5 mm<sup>2</sup> X 300 mm – 95 sq.mm. and below sizes</li> <li>- shall be provided for wrapping over armour circumference beneath the copper braid.</li> </ul>	
6	GI wire mesh	<ul style="list-style-type: none"> <li>- Mechanical protection shall be provided in GI armored cables by means of heavily zinc coated GI mesh as per IS 4826.</li> </ul>	
7	Breakouts	<ul style="list-style-type: none"> <li>- Adhesive coated Breakouts shall be provided on outer sheath at both sides on the cable to prevent water ingress.</li> </ul>	
8	Wrap around insulating tube/Sleeve as outer most tube	<ul style="list-style-type: none"> <li>- Material: cross-linked polyolefin (Heat Shrinkable) as a waterproof seal.</li> <li>- Shape: Wrap around form with hot-melt adhesive liner on the inner surface of the sleeve (Upon heating, the sleeve shrinks and the adhesive melts, creating a water-tight bond between the sleeve and the cable).</li> <li>- Stainless steel channel shall be provided along the wrap around to close the sleeve during installation.</li> <li>- Excellent mechanical and corrosion protection, and atmospheric sealing.</li> <li>- High split resistance.</li> <li>- *Note: Overlapping of wrap around sleeve is not acceptable.</li> <li>- Additionally, adhesive coated sleeve approx. 300 mm length shall be provided at ferrule joint area beneath the wrap around sleeve.</li> </ul>	
9	Sub-kit Components	<ul style="list-style-type: none"> <li>- Tapes, Mastic, GI back-up rings, Worm Drive clip/ Jubilee clip of stainless steel, adhesive cloth, cleaning solvents and other necessary items.</li> </ul>	
10	Submission of BOM and instruction sheet	<ul style="list-style-type: none"> <li>- Participating bidder shall submit BOM (during pre-bid) with dimensions of each size and quantity of HS joint and termination. Also instruction sheet shall be provided in each kit.</li> <li>- *Note: BOM shall be approved by TPCODL authorized official at the time of pre-bid.</li> </ul>	

<b>6.0</b>	<b>Name plate and Marking</b>	<p>Following details shall be printed on the box:</p> <ol style="list-style-type: none"> <li>a) Manufacturer's name</li> <li>b) Month &amp; Year of manufacturing</li> <li>c) Voltage Grade</li> <li>d) Property of TPCODL</li> <li>e) Material code</li> <li>f) PO No.</li> </ol> <p>HS Sleeves/ tubes and breakout components shall be embossed with:</p> <ol style="list-style-type: none"> <li>a) Month and year of manufacturing</li> <li>b) Manufacturer name</li> <li>c) Batch no. / Lot no.</li> <li>d) Shrink ratio</li> <li>e) Size</li> <li>f) Type</li> </ol>
<b>7.0</b>	<b>Tests</b>	<p>All Routine, Acceptance &amp; Type tests shall be carried out in accordance with the Relevant IS/IEC/ ENA TS 09-13.</p> <p>Acceptance tests shall be witnessed by TPCODL authorized representative.</p>

Initiator	HoG(Plant Engineering)
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<b>TP CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBANESWAR</b>			
<b>TECHNICAL SPECIFICATION</b>			
<b>Document Title</b>	<b>Technical Specification – Heat Shrinkable Straight Through Joint and Termination for 1.1 kV Power Cable</b>		
<b>Document No.</b>	ENG-LV-3001	<b>Eff. Date:</b> 20/Aug/19	
<b>Revision No.</b>	00	<b>Page 7 of 13</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

		<p>All the components shall also be type tested as per the relevant standards mentioned below. Following tests shall be necessarily conducted on the Joint and Termination Kits in addition to others specified in IS/IEC/ ENA-TS 09-13 standards:-</p> <p><b>A. Type Tests:</b></p> <p><b>(I) Terminations &amp; Straight Through joints</b></p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Test</th> <th>Clause No.</th> <th>Reference Standard</th> </tr> </thead> <tbody> <tr> <td>AC Voltage withstand Test (Air)</td> <td>8.6</td> <td>IS 13573(Part-1)</td> </tr> <tr> <td>AC Voltage withstand test (Immersed)</td> <td>8.6</td> <td>IS 13573(Part-1)</td> </tr> <tr> <td>Impulse voltage withstand at ambient Temp.</td> <td>8.2</td> <td>IS 13573(Part-1)</td> </tr> <tr> <td>Heat Cycle test (in air and water)</td> <td>8.3</td> <td>IS 13573(Part-1)</td> </tr> <tr> <td>Insulation Resistance (in air)</td> <td>8.4</td> <td>IS 13573(Part-1)</td> </tr> <tr> <td>Insulation Resistance (immersed)</td> <td>8.4</td> <td>IS 13573(Part-1)</td> </tr> <tr> <td>Visual Examination</td> <td>8.8</td> <td>IS 13573(Part-1)</td> </tr> </tbody> </table> <p><b>(II) Kit Components</b></p> <p><b>a) For Tubing and Moulded Components</b></p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Test</th> <th>Clause No.</th> <th>Reference Standard</th> </tr> </thead> <tbody> <tr> <td>Corrosion Resistance</td> <td>3.1</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Density</td> <td>3.2</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Dimensions</td> <td>3.3</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Electric Strength</td> <td>3.4</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Flame Retardance (for anti –tracking tubes &amp; Moulded components)</td> <td>3.5</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Heat Shock</td> <td>3.7</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Low temperature flexibility</td> <td>3.8</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Relative Permittivity</td> <td>3.9</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Tensile strength and Ultimate elongation</td> <td>3.12</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Thermal Ageing</td> <td>3.13</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Tracking Resistance</td> <td>3.14</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Visual Examination</td> <td>3.15</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Volume Resistivity</td> <td>3.16</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Water Absorption</td> <td>3.17</td> <td>ENA -TS 09-13</td> </tr> </tbody> </table> <p><b>b) For Lugs, Ferrules and mechanical connectors</b></p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Test</th> <th>Clause No.</th> <th>Reference Standard</th> </tr> </thead> <tbody> <tr> <td>Conductivity test</td> <td>8.3</td> <td>as per IS 8309</td> </tr> </tbody> </table> <p><b>B. Routine Tests:</b></p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Test</th> <th>Clause No.</th> <th>Reference Standard</th> </tr> </thead> <tbody> <tr> <td>Visual inspection of tubing and moulded components for free from pin holes, cracks, nicks, protrusion and other defects</td> <td>3.15</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Dimension check</td> <td colspan="2">As per TPCODL approved BOM</td> </tr> <tr> <td>Electric Strength</td> <td>3.4</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Ultimate Elongation</td> <td>3.12</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Tensile Strength</td> <td>3.12</td> <td>ENA -TS 09-13</td> </tr> <tr> <td>Volume Resistivity</td> <td>3.16</td> <td>ENA -TS 09-13</td> </tr> </tbody> </table>	Test	Clause No.	Reference Standard	AC Voltage withstand Test (Air)	8.6	IS 13573(Part-1)	AC Voltage withstand test (Immersed)	8.6	IS 13573(Part-1)	Impulse voltage withstand at ambient Temp.	8.2	IS 13573(Part-1)	Heat Cycle test (in air and water)	8.3	IS 13573(Part-1)	Insulation Resistance (in air)	8.4	IS 13573(Part-1)	Insulation Resistance (immersed)	8.4	IS 13573(Part-1)	Visual Examination	8.8	IS 13573(Part-1)	Test	Clause No.	Reference Standard	Corrosion Resistance	3.1	ENA -TS 09-13	Density	3.2	ENA -TS 09-13	Dimensions	3.3	ENA -TS 09-13	Electric Strength	3.4	ENA -TS 09-13	Flame Retardance (for anti –tracking tubes & Moulded components)	3.5	ENA -TS 09-13	Heat Shock	3.7	ENA -TS 09-13	Low temperature flexibility	3.8	ENA -TS 09-13	Relative Permittivity	3.9	ENA -TS 09-13	Tensile strength and Ultimate elongation	3.12	ENA -TS 09-13	Thermal Ageing	3.13	ENA -TS 09-13	Tracking Resistance	3.14	ENA -TS 09-13	Visual Examination	3.15	ENA -TS 09-13	Volume Resistivity	3.16	ENA -TS 09-13	Water Absorption	3.17	ENA -TS 09-13	Test	Clause No.	Reference Standard	Conductivity test	8.3	as per IS 8309	Test	Clause No.	Reference Standard	Visual inspection of tubing and moulded components for free from pin holes, cracks, nicks, protrusion and other defects	3.15	ENA -TS 09-13	Dimension check	As per TPCODL approved BOM		Electric Strength	3.4	ENA -TS 09-13	Ultimate Elongation	3.12	ENA -TS 09-13	Tensile Strength	3.12	ENA -TS 09-13	Volume Resistivity	3.16	ENA -TS 09-13
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<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

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<b>8.0</b>	<b>Type Test Certificate</b>	<p>The bidder shall furnish the type test certificates for the tests as mentioned above as per the corresponding standards.</p> <p>All the tests shall be conducted at CPRI/ERDA as per the relevant standards not exceeding 5 years from the date of opening of bid.</p> <p>In the event of any discrepancy in the test reports, i.e. any test report not acceptable, same shall be carried out without any cost implication to TPCODL.</p> <p>TPCODL has rights for Surveillance test of random selected samples from third party lab for quality checks of item.</p> <p>TPCODL shall be intimated in case revision is done by manufacturer in product design/ dimension/ material during execution of contract. Subsequently Type test certificate shall be produced.</p>																																																				
<b>9.0</b>	<b>Pre-dispatch inspection</b>	<p>Equipment shall be subject to inspection by a duly authorized representative of TPCODL. Inspection may be made at any stage of manufacturing at the option of TPCODL and the equipment if found unsatisfactory as to workmanship or material, the same is liable to rejection.</p> <p>Bidder shall grant free access to the places of manufacture TPCODL's representatives at all times when the work is in progress. Inspection by TPCODL's authorized representatives shall not relieve the supplier of his obligation of furnishing equipment in accordance with the specifications. Material shall be dispatched after specific MDCC (Material Dispatch Clearance Certificate) is issued by TPCODL. The pre-dispatch inspection shall be carried out as per annexure-II.</p> <p>Following documents shall be sent along with material:</p> <ol style="list-style-type: none"> <li>Test reports</li> <li>MDCC issued by TPCODL</li> <li>Invoice in duplicate</li> <li>Packing list</li> <li>Drawings &amp; catalogue</li> <li>Guarantee / Warrantee card</li> </ol>																																																				

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<b>10.0</b>	<b>Inspection after receipt at Stores</b>	Material received at TPCODL's store shall be inspected for acceptance and shall be liable for rejection, if found different from the reports of the pre-dispatch inspection and one copy of the report shall be sent to Engineering department.																																			
<b>11.0</b>	<b>Guarantee</b>	Bidder shall stand guarantee towards design, materials, workmanship & quality of process / manufacturing of items under this contract for due and intended performance of the same, as an integrated product delivered under this contract. In the event any defect is found by TPCODL up to a period of at least 60 months from the date of commissioning or 66 months from the date of last supplies made under the contract whichever is later. Further Bidder shall also stand guarantee towards poor workmanship in installation of straight through joint and terminations installed by bidder's jointer up to 60 months from the date of installation. Bidder shall be liable to undertake to replace/rectify such defects at own costs, within mutually agreed time frame, and to the entire satisfaction of TPCODL, failing which TPCODL shall be at liberty to get it replaced/rectified at bidder's risks and costs and recover all such expenses plus the Company's own charges (@ 20% of expenses incurred), from the bidder or from the "Security cum Performance Deposit" as the case may be. Bidder shall further be responsible for free replacement for another period of THREE years from the end of the guarantee period for any 'Latent Defects' if noticed and reported by TPCODL.																																			
<b>12.0</b>	<b>Packaging</b>	Bidder shall ensure that all the equipment covered under this specification shall be prepared for rail/road transport in a manner so as to protect the equipment from damage in transit. The material used for packing shall be environmentally friendly. Each components shall be supplied in a single package as a complete kit for one termination/joint.																																			
<b>13.0</b>	<b>Tender Sample</b>	Bidder shall be submit the sample of material during tender evaluation process with the offer (in case of first supply to TPCODL).																																			
<b>14.0</b>	<b>Training</b>	Detailed Installation instruction with drawings for all joints and termination shall be provided by Bidder with tender documents in English and Hindi Language. Updated installation manual shall be provided in the kit. Hands-on-training shall be conducted annually at our site location for BA and TPCODL jointers.  Bidder shall provide installation/operational services at site.																																			
<b>15.0</b>	<b>Quality Control</b>	The bidder shall submit with the offer, 'Quality Assurance Plan' indicating the various stages of inspection, the tests and checks which shall be carried out on the material of construction, components and bought out items. TPCODL's engineer or its nominated representative shall have free access to the manufacturer's/sub-supplier's works to carry out inspections.																																			
<b>16.0</b>	<b>Minimum Testing facilities</b>	Bidder shall have adequate in house testing facilities for carrying out all routine tests, acceptance tests as per Indian /International standards.																																			
<b>17.0</b>	<b>Manufacturing activities</b>	The successful bidder shall submit bar chart for various manufacturing activities clearly elaborating each stage, with quantity. This bar chart should be in line with the Quality assurance plan submitted with the offer. This bar chart shall be submitted within 15 days from the release of the order.																																			
<b>18.0</b>	<b>Spares, Accessories and Tools</b>	Not applicable.																																			
<b>19.0</b>	<b>Drawings and Documents</b>	After the award of the contract four (4) copies of following drawings, drawn to scale, describing the equipment in detail shall be forwarded for approval. <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>S. No.</th> <th>Description</th> <th>For Approval</th> <th>For Review Information</th> <th>Final Submission</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Technical Parameters</td> <td style="text-align: center;">√</td> <td></td> <td style="text-align: center;">√</td> </tr> <tr> <td>2</td> <td>BOM ( at the time of pre-bid)</td> <td style="text-align: center;">√</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>Drawing showing Joints Details</td> <td style="text-align: center;">√</td> <td></td> <td style="text-align: center;">√</td> </tr> <tr> <td>5</td> <td>Termination drawings</td> <td style="text-align: center;">√</td> <td></td> <td></td> </tr> <tr> <td>6</td> <td>Manual/Catalogues</td> <td></td> <td style="text-align: center;">√</td> <td style="text-align: center;">√</td> </tr> <tr> <td>7</td> <td>Transport/ Shipping dimension</td> <td></td> <td style="text-align: center;">√</td> <td style="text-align: center;">√</td> </tr> </tbody> </table>	S. No.	Description	For Approval	For Review Information	Final Submission	1	Technical Parameters	√		√	2	BOM ( at the time of pre-bid)	√			3	Drawing showing Joints Details	√		√	5	Termination drawings	√			6	Manual/Catalogues		√	√	7	Transport/ Shipping dimension		√	√
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7	Transport/ Shipping dimension		√	√																																	

<b>Initiator</b>	<b>HoG(Plant Engineering)</b>
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<b>TP CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBANESWAR</b>			
<b>TECHNICAL SPECIFICATION</b>			
<b>Document Title</b>	<b>Technical Specification – Heat Shrinkable Straight Through Joint and Termination for 1.1 kV Power Cable</b>		
<b>Document No.</b>	ENG-LV-3001	<b>Eff. Date:</b> 20/Aug/19	
<b>Revision No.</b>	00	<b>Page 10 of 13</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

		<table border="1"> <tr> <td></td> <td>drawing</td> <td></td> <td></td> <td></td> </tr> <tr> <td>8</td> <td>QA &amp;QC Plan</td> <td>√</td> <td>√</td> <td>√</td> </tr> <tr> <td>9</td> <td>Routine, Acceptance and Type Test Certificates</td> <td>√</td> <td>√</td> <td>√</td> </tr> </table> <p>All the documents &amp; drawings shall be in English language.</p>		drawing				8	QA &QC Plan	√	√	√	9	Routine, Acceptance and Type Test Certificates	√	√	√
	drawing																
8	QA &QC Plan	√	√	√													
9	Routine, Acceptance and Type Test Certificates	√	√	√													
<b>20.0</b>	<b>Guaranteed Technical Particulars</b>	Bidder to comply all above clauses as per specification.															
<b>21.0</b>	<b>Schedule of Deviations</b>	<p>The bidders shall set out all deviations from this specification, Clause by Clause in this schedule. Unless specifically mentioned in this schedule, the tender shall be deemed to confirm the purchaser's specifications.</p> <p style="text-align: center;">(TO BE ENCLOSED WITH THE BID)</p> <p>All deviations from this specification shall be set out by the Bidders, clause by Clause in this schedule. Unless specifically mentioned in this Schedule, the tender shall be deemed to confirm the purchaser's specifications:</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>S.No.</th> <th>Clause No.</th> <th>Details of deviation with justifications</th> </tr> </thead> <tbody> <tr> <td style="height: 100px;"></td> <td></td> <td></td> </tr> </tbody> </table> <p>We confirm that there are no deviations apart from those detailed above.</p> <p>Seal of the Company: _____</p> <p style="text-align: right;">Signature: _____</p> <p style="text-align: right;">Designation: _____</p>			S.No.	Clause No.	Details of deviation with justifications										
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Initiator		HoG(Plant Engineering)	
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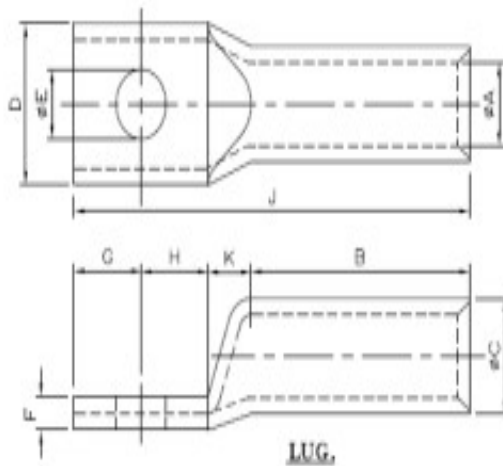
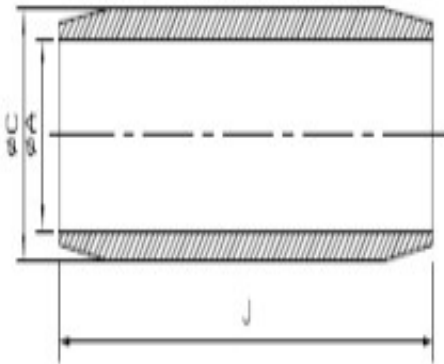
<b>TP CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBANESWAR</b>			
<b>TECHNICAL SPECIFICATION</b>			
<b>Document Title</b>	<b>Technical Specification – Heat Shrinkable Straight Through Joint and Termination for 1.1 kV Power Cable</b>		
<b>Document No.</b>	ENG-LV-3001	<b>Eff. Date:</b> 20/Aug/19	
<b>Revision No.</b>	00	<b>Page 11 of 13</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

### Annexure-I

Dimensions of ferrules & Lugs for LT power cables and LT ABC

Dimensional details of Aluminum ferrules for LT stranded compacted sector shaped XLPE cables			
Cable Size in MM <sup>2</sup>	φA (mm) ±0.3mm	φC (mm) ±0.3 mm	J (mm)
16	5.4	8.3	65-75
25	7.2	9.7	65-75
50	10	13.5	80-90
95	12.9	17.3	100-110
150	16.3	21.5	120-130
300	23.6	31	140-150

Dimensional details of Aluminium Lugs for LT sector stranded compacted XLPE cables							
Cable Size in MM <sup>2</sup>	φE (mm) ±0.1mm in centre of palm	φA (mm) ±0.3mm	φC (mm) +0.5 mm	D (mm) ±1.5mm	F (mm) -0mm	B±3.0mm	J (mm) ±5mm
300	17	23.9	31	45	7	89	157



For remaining cable sizes, dimensions of Ferrules & Lugs shall be as per IS.

Initiator	HoG(Plant Engineering)
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<b>TP CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBANESWAR</b>			
<b>TECHNICAL SPECIFICATION</b>			
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<b>Revision No.</b>	00	<b>Page 12 of 13</b>	
<b>Prepared By</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issued By</b>

### Annexure- II

Inspection Test Plan for HS Jointing kit components

S. No.	Name of test	Specified value(Range)	Reference documents	Test Result	Pass/Fail
1	Visual inspection	Free from pin holes, cracks, nicks, protrusion and other visible defects.	ENA-TS-09-13 Clause No. 3.15 & TPCODL specification		
2	Physical verification of kit contents and dimensions	Dimensions as per TPCODL approved BOM			
3	Electric Strength test	10 KV /mm (Minimum)	ENA-TS-09-13 Clause No. 3.4		
4	Ultimate Elongation tests	200% (Minimum)	ENA-TS-09-13 Clause No. 3.12		
5	Tensile Strength	10 N/mm <sup>2</sup> (Minimum) For anti-track tube-8 N/mm <sup>2</sup>	ENA-TS-09-13 Clause No. 3.12		
6	Tracking resistance test(Anti-tracking Tube)	NO Tracing erosion to top surface /flash failure after 1 hr 2.5 KV 1hr 2.75KV 20 min 3.5 KV	ENA-TS-09-13 Clause No. 3.14		
7	Volume Resistivity	1x10 <sup>10</sup> Ohm- meter (Minimum)	ENA-TS-09-13 Clause No. 3.16		
8	Wall thickness ratio	0.6 or 60% (Minimum at any two points of measurements)	ENA-TS-09-13 Clause No. 3.3		
9	Expanded and recovered diameters	As per TPCODL approved BOM	ENA-TS-09-13 Clause No. 3.3(i)		
10	Longitudinal change after recovery	10% max	ENA-TS-09-13 Clause No. 3.3(ii)		
11	Heat shock test	No splitting, cracking, dripping or flowing after 30 min @200°C min	ENA-TS-09-13 Clause No. 3.7.1/ 3.7.2		
12	Low temperature flexibility	No cracking after 4 Hrs @ Minus 20°C max	ENA-TS-09-13 Clause No. 4.5		
13	Insulation build up thickness after shrink on Ferrule as per IS 10810 -6	Not less than as specified in specification	as per IS 10810 -6 Clause No. 8.1		
14	Flame retardant test	After one min burn: burnt or charred length 250 mm max.	ENA-TS-09-13 Clause No. 3.5.1/ 3.5.2		
15	Area measurement of tinned copper braids (Area of one wire x no. of wires x no. of carriers)	As per TPCODL specification/ approved BOM			
16	Ferrules/ connectors/ lugs dimension and conductivity test	As per annexure-I in this specification	as per IS 8309 Clause 8.3		
17	Uniformity of zinc coating on GI mesh as per IS 2633	No reddish color after one dip for ½ minute in CuSO <sub>4</sub> solution	as per IS 2633 Clause 4.1		

Initiator		HoG(Plant Engineering)	
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<b>TPCODL</b>	<b>TP CENTRAL ODISHA DISTRIBUTION LIMITED</b>	
	<b>WORK INSTRUCTION /OPERATING GUIDELINES</b>	
Doc. Title	<b>GENERAL CONDITIONS OF CONTRACT- COMPOSITE ORDERS</b>	
Rev. No	0	Page 1 of 104

<b>CONTENTS</b>	
<b>CLAUSE NO.</b>	<b>DESCRIPTION</b>
<b>1.0</b>	<b>ORGANIZATIONAL VALUES</b>
<b>2.0</b>	<b>ETHICS</b>
<b>3.0</b>	<b>CONTRACT PARAMETERS</b>
3.1	Issue/ Award of Contract
3.2	Contract Commencement Date
3.3	Contract Completion Date
3.4	Contract Period/Time
3.5	Contract Execution Completion Date
3.6	Contract Execution Period/Time
3.7	Contract Price /Value
3.8	Contract Document
3.9	Contract Language
3.10	Reverse Auction
<b>4.0</b>	<b>SCOPE OF WORK</b>
4.1	Technical Evaluation
4.2	Indemnity
4.3	Display of notice boards at work site
4.4	Disposal of waste at site
4.5	Deployment of workforce
4.6	Damage of Properties
4.7	Issuance of material
4.8	Company's right to use works
4.9	Rights of TPCODL to vary the scope work
<b>5.0</b>	<b>PRICES/RATES/TAXES</b>
5.1	For Supply part of Contract
5.2	For Service part of Contract
5.3	Changes in statutory Tax Structure

Doc. Title	<b>GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS</b>	
Rev. No	0	Page 2 of 104

<b>CONTENTS</b>	
<b>CLAUSE NO.</b>	<b>DESCRIPTION</b>
<b>6.0</b>	<b>TERMS OF PAYMENT</b>
6.1	Pre-Requisites for Payment
6.2	Bills & Invoices
6.3	Payment & Statutory Deductions
6.4	Guidelines for Raising Running/Final Bills
6.5	Quantity Variation
6.6	Full and Final Payment
<b>7.0</b>	<b>MODE OF PAYMENT</b>
<b>8.0</b>	<b>SECURITY CUM PERFORMANCE DEPOSIT</b>
<b>9.0</b>	<b>STATUTORY COMPLIANCE</b>
9.1	Compliance to Various Acts
9.2	SA 8000
9.3	Affirmative Action
9.4	Compliance to Labour Laws
9.5	Compliance to C&D Waste Management Rules & Environment (Protection) Amendment Rules
<b>10.0</b>	<b>QUALITY</b>
10.1	Knowledge of Requirements
10.2	Material/Equipment/Works Quality
10.3	Adherence to Rules & Regulations
10.4	Specifications and Standards
<b>11.0</b>	<b>SAFETY</b>
<b>12.0</b>	<b>INSPECTION/PARTICIPATION</b>
12.1	Right to Carry Out Inspection
12.2	Facilitating Inspection
12.3	Third Party Nomination
12.4	Waiver of Inspections
12.5	Incorrect Inspection Call
<b>13.0</b>	<b>MDCC &amp; DELIVERY OF MATERIALS</b>
13.1	Material Dispatch Clearance Certificate

Doc. Title	<b>GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS</b>	
Rev. No	0	Page 3 of 104

<b>CONTENTS</b>	
<b>CLAUSE NO.</b>	<b>DESCRIPTION</b>
13.2	Right to Rejection on Receipt
13.3	Consignee
13.4	Submission of Mandatory Documents on delivery
13.5	Dispatch and Delivery Instructions
<b>14.0</b>	<b>GUARANTEE</b>
14.1	Guarantee of Performance
14.2	Guarantee period
14.3	Failure in Guarantee period (GP)
14.4	Cost of repairs on failure in GP
14.5	Guarantee Period for Goods Outsourced
14.6	Latent Defect
14.7	Support beyond the Guarantee Period
<b>15.0</b>	<b>LIQUIDATED DAMAGES</b>
15.1	LD Waiver Request
15.2	Material Recovery
<b>16.0</b>	<b>ASSIGNMENT OR SUBCONTRACTING</b>
<b>17.0</b>	<b>UNLAWFUL ACTIVITIES</b>
<b>18.0</b>	<b>CONFIDENTIALITY</b>
18.1	Documents
18.2	Geographical Data
18.3	Associate's Processes
18.4	Exclusions
18.5	Violation
<b>19</b>	<b>INTELLECTUAL PROPERTY RIGHTS</b>
<b>20</b>	<b>INDEMNITY</b>
<b>21</b>	<b>LIABILITY &amp; LIMITATIONS</b>
21.1	Liability
21.2	Limitation of Liability
<b>22.0</b>	<b>FORCE MAJEURE</b>



Doc. Title	<b>GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS</b>	
Rev. No	0	Page 4 of 104

<b>CONTENTS</b>	
<b>CLAUSE NO.</b>	<b>DESCRIPTION</b>
<b>23.0</b>	<b>SUSPENSION OF CONTRACT</b>
23.1	Suspension for Convenience
23.2	Suspension for Breach of Contract Conditions
23.3	Compensation in lieu of Suspension
<b>24.0</b>	<b>TERMINATION OF CONTRACTS</b>
24.1	Termination for default/breach of contract
24.2	Termination for convenience of associate
24.3	Termination for Convenience of TPCODL
<b>25.0</b>	<b>Dispute resolution and Arbitration</b>
25.1	Governing laws and jurisdiction
<b>26.0</b>	<b>ATTRIBUTES OF GCC</b>
26.1	Cancellation
26.2	Severability
26.3	Order of Priority
<b>27.0</b>	<b>INSURANCE</b>
<b>28.0</b>	<b>ERRORS AND OMISSIONS</b>
<b>29.0</b>	<b>TRANSFER OF TITLES</b>
<b>30.0</b>	<b>SUGGESTIONS &amp; FEEDBACK</b>
<b>31.0</b>	<b>CONTACT POINTS</b>
<b>32.0</b>	<b>LIST OF ANNEXURES</b>

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 5 of 104

## 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 members of Team TPCODL, Associates and Stakeholders are requested to register any grievance on ethics violation on Central Control Telephone No. 011-66404040.

## 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 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

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 6 of 104

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 (detailed in section 12 of this document) 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 execution of all items in the schedule of quantities (Supply, Service and or both as applicable) shall be deemed as the Contract Execution Completion Date.

### **3.6 Contract Execution Period/Time**

The Period from Contract Commencement Date to Contract Execution Completion Date shall be the Contract Execution Period/Time. Timely Completion of Works/Timely Delivery of Materials is the essence of the contract. The period from effective date of contract to the date stipulated for completion of delivery of all items/completion of all the works/services, as per schedule of quantities of the contract is defined as contract execution completion time. The Delivery of Materials /The Completion of Works, as applicable, should be achieved in all respects as per schedules of quantities and all the terms and conditions of the contract, in the contract execution time.

Any revision/amendment in the originally stipulated contract execution time has to be approved by authorized representative of TPCODL.

### **3.7 Contract Price /Value**

The total all inclusive price/value mentioned in the LOI/PO/RC of the contract document 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/actual measurement of work done and accepted and certified by the authorized representative of the company unless otherwise specified in schedule of quantities or in contract documents.

### **3.8 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.

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 7 of 104

- Letter of Intent (LOI/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)

### 3.9 Contract Language

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

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

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

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

### 4.0 SCOPE OF WORK

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

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

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, licence 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

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 8 of 104

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.

#### 4.1 Technical Evaluation

TPCODL reserves the right to assign scores to different parameters including but not limited to the following while evaluating the bids. TPCODL reserves the right to change the parameters and score without prior information to the associates:

S. No.	Evaluation Parameter	Max. Score
<b>A</b>	<b>Bidders already Registered with TPCODL</b>	<b>100</b>
	<b>Quality of the Products &amp; Services</b>	
	a. <u>For Supply Part:</u> No Material Rejections in last 2 years Deduction of 3 marks for each PO/ RO (for same product category) with major rejections in last 2 years. (Major rejection shall be considered when material is taken back by the vendor for rectification and the quantity of rejected material is more than 10%).	12
<b>A.1.</b>	b. <u>For Service Part:</u> No violation of statutory compliances in last 1 year. Deduction of 2 marks for each instance of violation in last 1 year.	12
	c. <u>Safety</u> Deduction of 2 marks for each instance of safety violation in last 1 year. Deduction of 4 marks for each reported Non-Fatal Accident in last 1 year. In case of any reported fatal accident: <b>ZERO MARKS</b>	16
<b>A.2.</b>	<b>Timely Execution of Contracts</b> Total Achieved Score = {30 – 3 x (Avg. %age LD deductions in last 2 years)}	30
<b>A.3.</b>	<b>Legal Issues with TPCODL</b> Zero instances of Arbitration procedures / Court Cases / PBG forfeitures in last 2 years: 30 marks else 'Zero' marks	30
<b>B</b>	<b>Bidders new to TPCODL</b>	<b>100</b>
	<b>Visits</b> <u>For Supply Part:</u> Factory Visit and Evaluation. <u>For Service Part:</u> Client Site Visit where the bidder is providing similar services.	30
<b>B.1.</b>	The visits as above shall be arranged by the bidder. However all costs towards conveyance, lodging, boarding etc. shall be borne by TPCODL. The score assigned by TPCODL based on the above visits shall be final and binding on the bidder. <b>Safety:</b>	20

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 9 of 104

S. No.	Evaluation Parameter	Max. Score
	Score achieved against the BA safety Management System questionnaire.	
<b>B.2.</b>	<p><b>Client Referrals</b> At least 3 nos. Customer References for similar products/ services in last 3 years. All customer references shall be either of the following:</p> <ul style="list-style-type: none"> <li>▪ Govt. Organizations/ PSUs/ Power Distribution Utilities.</li> <li>▪ Private Organizations with an annual turnover of <math>\geq</math> 500 cr.</li> </ul> <p>PO copies or Completion Certificates are admissible. Each reference: 10 marks</p>	30
<b>B.3.</b>	<p><b>Blacklisting Information</b> Not blacklisted by any reputed organization / utility in last 2 years: 20 marks else 'Zero' marks.</p>	20

- Bidder shall be considered as technically qualified if they are able to achieve a technical score of  $>70$  marks on the above parameters. 'A' or 'B'.
- The bidder must have the PF and ESI registration. In case it is not there (provided the bidder is not exempted from the PF and ESI), bidder shall not be evaluated on the above parameters and will be considered as disqualified.

#### 4.2 Indemnity

Associates shall undertake to fully indemnify TPCODL (also referred to as the Company in the GCC) against all kinds of liabilities or damages, of whatsoever nature, including compensation arising from any accident to the person or property of those in Associate's employment or to any other person or properties including those of TPCODL, arising due to reasons attributable to any, act, omission or negligence of the Associate the Associates, for the entire period of contract including period of guarantee.

Within 7 days of award of work, the Associates shall submit Indemnity Bond in the format as per Annexure-E to Order Issuing Authority.

Contract having value more than Rs 2 Cr per Annum, Associates shall submit Indemnity Bond on Rs 100/- Non Judicial Stamp Paper in the format as per Annexure- E to Order Issuing Authority.

#### 4.3 Display of Notice Boards at Work Sites

The Associate shall put up display notice board at each project site where the works are in progress indicating the information given below:

- Name of the Project.
- Estimated Cost of Project.
- Date of Commencement.
- Expected date of completion.
- Name of Associate and his telephone number.
- Name of Engineer-in-Charge and his telephone number.

#### 4.4 Disposal of Waste at Site

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.

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 10 of 104

The associates shall follow the below criteria for disposal of waste at site during the execution of project.

- Associate shall ensure that the detailed project plan include the waste management, segregation of all designated waste material (Recyclable/ Non-Recyclable), collecting, storing, disposing and transferring the same to pre-arranged facility/destination in timely and safe manner as per environmental legislations during the execution of project. The project plan shall also include the innovative construction practice to eliminate or minimize waste, protect surface/ground water, control dust and other emissions to air and control noise during the execution of project. The copy of same shall be given to EIC before the commencement of project.
- The purchase policy of BA shall encourage the procurement of material with recycled and minimum packaging of goods during delivery. Associate shall provide the appropriate means for site to site transportation of materials to avoid damage and litter generation.
- Associate shall educate and inform to its project team about the requirement and responsibilities for waste minimization and disposal in general and provide training of practices that support this. Waste management should be treated like a safety program.
- In the event that area of contaminated or biological hazard is identified, Associate shall ensure that plant, equipment, personnel and any activity associated with the work is carried out in consultation with EIC of TPCODL.
- Associate shall ensure that the residents living near the site are kept informed about proposed working schedule and shall informed timings and duration of any abnormal noise full activity that is likely to happen.
- Associate shall ensure the regular maintenance and monitoring of vehicles and equipment for efficient fuel use so that emissions and noise are within acceptable limits to avoid air pollution.

#### **4.5 Deployment of Work Force**

Associate shall deploy adequate labour, as considered necessary by TPCODL for execution of the contract including Sundays and Holidays whenever required to do so with no extra cost to TPCODL. However, prior permission shall be taken from the site Engineer to carry out the work beyond normal working hours or on Sundays and Holidays. Female employees shall not be deployed beyond normal working hours/days and no child labour shall ever be deployed. Associate shall depute full time qualified and experienced engineers to supervise the work at site. All such staff shall be maintained from commencement to completion of all works to the entire satisfaction of the Engineer-in-Charge. Associate's employees deployed for the works under this contract will not be considered in Company's employment at any time. Associate shall continue to be responsible for all such employees, their safety, all types of statutory compliances related thereto and in any other manner whatsoever. The company will stand indemnified by the Associate in respect of all the above. At the same time Company upon noticing any breach or default on any statutory compliances, may at their sole discretion, decide to act in a manner as deemed fit at the risks and costs of the Associate.

Doc. Title	<b>GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS</b>	
Rev. No	0	Page 11 of 104

TPCODL shall have the right to instruct the Associate to change the Sub- Associates or skilled /unskilled workers in case the conduct, the workmanship or speed of the work is not satisfactory.

Associates shall submit duly signed undertaking regarding engagement of competent staff / employee commensurate to the nature of job to Engineer-in-charge in the format attached as Annexure – H.

#### **4.6 Damages to Properties**

The Associates shall take necessary steps to ensure that the equipment and installations of the Company, Third parties, including other utility services like water supply pipelines; open drains telephone cables etc. are not damaged during execution of the works. The Associates shall be responsible for all such damages and shall have to repair/ replace and/or compensate for the entire claims in respect of such damages at its own cost.

#### **4.7 Issuance of Material**

The material issued to the Associate shall be in the custody of the Associates who shall be fully responsible for the same. After completion of the works, the Associates will reconcile the material. Any cost of material which is short or damaged/lost will be deducted from Associate bill/ deposits.

#### **4.8 Company's Right To Use Works**

If Taking Over Certificate is delayed for any reason, for which TPCODL's decision shall be final and binding upon the Associate, the Company shall be entitled to use the works or portion thereof without affecting Associate's responsibility and liability to complete the balance works as per company's directives from time to time, though Associate shall be afforded reasonable opportunity by the company to enable Associates to complete all balance works required for issuance of 'Taking Over Certificate' by the company.

#### **4.9 Rights of TPCODL to vary the scope work**

TPCODL shall 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 communicating the intent to do so in writing to the Associate. On receipt of such communication the Associate shall, within the time frame specified in the contract shall provide TPCODL with a reasonably detailed estimate of the cost of the change in scope outlined in the TPCODL communication. The change in the Contract price and time shall be revised 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 in the scope of work till such time revision of Contract price and time schedule are approved and communicated to the associate by TPCODL.

Any change in the Scope of Work and/or Terms & Conditions of the order shall be intimated by TPCODL through an amendment to the contract. The amendment shall be treated valid only if signed by the authorized signatory of the original contract.

### **5.0 PRICES/ RATES/ TAXES**

#### **5.1 For Supply part of Contract**



Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 12 of 104

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

The Prices/Rates are inclusive of all taxes, levies, cesses 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.

## **5.2 For Service part of Contract**

The Prices and Rates are inclusive of cost of materials supplied as per contract terms and for which MDCC is issued by TPCODL and to the extent required for completion of works, cost of service executed as per schedule of quantities, cost of testing as per contract terms, cost of documentations including all relevant test certificates and other supportive documents to be furnished as per contract terms. The rates shall remain firm till actual completion of contract.

The Prices/Rates are inclusive of all taxes, levies, cesses 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 shall remain unchanged irrespective of TPCODL making changes in quantum in all or any of the schedules of items of contract.

## **5.3 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**

- A. 5% of the Release Order/ Purchase Order price shall be paid as initial interest free advance on fulfillment of the following by the Associate:
  - a) Acceptance of PO/ LOI.
  - b) Submission of advance payment BG of 15% of the Release Order/ Purchase Order price which shall remain valid till the advance is fully adjusted.

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 13 of 104

- c) Submission of Contract Performance Bank Guarantee of 5/10% of the RC/ PO price valid till 30 days after taking over of the works.
- B. 10% of the Release Order/ Purchase Order price shall be paid as interest free advance against approval of drawings under Category-1 of major drawings, Quality Plans, Pert Chart, Field Quality Plan, posting of Project Manager and commencement of the first mile stone of the work mutually agreed including C-3 Form, and submission of a true copy of 'Erection All Risk Insurance Policy' taken for the awarded jobs. The drawing list shall be mutually agreed at the time of award of work.
- C. 50% on account payment of the total of item wise cost of material Release Order/ Purchase Order shall be paid against receipt of material at site in good condition and certification by TPCODL along with bills complete in all respects viz. MDCCs etc.
- D. 20% on account payment of the actual executed value shall be paid against mechanical completion of erection on prorata basis against monthly bills and 70% on account of the actual executed value shall be paid against the service line item including composite line item. In case this milestone is not completed beyond 120 days for reasons attributable to TPCODL, the payment corresponding to supply part shall be released subject to submission of BG of equivalent amount by the BA valid for a period of further 12 months. If required, it shall be extended by the BA on request of TPCODL.
- E. 15% payment of the actual executed Release Order/ Purchase Order shall be paid after completion of acceptance test and Taking Over of the complete systems specified in the enquiry, including clearance of Electrical Inspection, compliance of final punch point and after reconciliation & adjustment of payments, if any, towards Quantities of materials issued from purchaser's stock and consumed by the contractor for expeditious completion of the job. In case this milestone is not completed beyond 120 days beyond schedule for reasons attributable to TPCODL, the payment corresponding to supply part shall be released subject to submission of BG of equivalent amount by the BA valid for a period of further 12 months. If required, it shall be extended by the BA on request of TPCODL.

The Contractor shall submit all Operation & Maintenance manuals and "As Built Drawings" etc. and shall also submit Equipment Warranty Bank Guarantee (EWBG) equivalent to 5/10% of actual executed contract price before the release of this last payment and return of CPBG. The validity of EWBG shall be for a period of 15 months from the date of taking over of the works or specified guarantee period in drawing/tender/technical specification documents etc. whichever is later. The associate shall also submit 'No Demand Certificate' at the time of receipt of full and final payment.

### 6.1 Pre-Requisites for Payment

- Associate should have completed execution of that part of contract, for which payment is sought, to the satisfaction of TPCODL's Engineer-in-Charge responsible for the contract and obtained certification for execution of the work.
- Associate has undertaken joint measurement of the work executed along with TPCODL's Engineer-in-charge

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 14 of 104

- Associate's bills/invoices submitted have been certified by Engineer-In-Charge.

## 6.2 Bills & Invoices

Unless specified otherwise in the special conditions of contract, Associate shall raise not more than one invoice/contract per month for the services rendered in the prescribed Tax Format and the invoice shall be submitted within 15 days of the following month at Bill Inward Receipt Desk (BIRD) located at Civil Lines III Office, TPCODL.

All Bills shall be supported by joint measurement of work done, quality test report and a copy of wage sheet, if applicable (showing proof of having disbursed wages as per applicable law) and a copy of statement substantiating that statutory payments having been affected.

Bills/ invoices shall mention Associate's 'Sales, Service, WCT Tax Registration Number, PAN number as applicable.

Final bill submission after completion of project or execution of job must be within 30 days from the actual date of completion/execution of work awarded.

## 6.3 Payment & Statutory Deductions

Payment shall be released within 30 days from the submission of the bills. The associate shall submit "No Demand Certificate" in the format as per Annexure-D at the time of receipt of full and final payment. In case any non-compliance to contract conditions comes to TPCODL's notice, TPCODL will be entitled to deduct 30% of estimated wages plus 20% of wages as TPCODL's overheads. Associates would be obliged to provide the copy of monthly wage sheet in any case, failing which no payment shall be made. TPCODL at their sole discretion may deposit the PF etc. with statutory authorities. TPCODL will deduct the amounts of TDS as per statutory requirement under the income tax act and the DVAT Act and certificates (wherever applicable) will be issued to associate accordingly.

In case of non-submission of PAN No TDS @ 20% shall be deducted from all payable amounts for which no TDS certificate shall be issued. TDS once deducted as above shall not be revised in any condition.

### 6.3.1 Statutory Deductions

TPCODL will deduct the amounts of TDS, TCS as per statutory requirement under the income tax act, the Goods and Services tax act, BOCW Act, or any other applicable tax act and certificates (wherever applicable) will be issued to associate accordingly. For consumption of TPCODL's Water and Electricity by Associate for execution of Contract, Associate shall pay 0.5% & 1.0% respectively of contract value and it shall be deducted from the running bills. The Engineer-in-Charge as stated in the Order shall be responsible for certification of the work executed and the bills. Bills (including original) shall be submitted in triplicate at Bill Inward Receipt Desk (BIRD) located at TPCODL.

## 6.4 Guidelines for Raising Running/Final Bills

Contract Value Up to 5 Lakhs	One Final Bill
Contract Value More than 5 lakhs	Monthly Running Bill & One Final Bill

All Bills shall be processed only when all bank Guarantees are in place and before payments of Final Bill Associate have to furnish NDC.

Doc. Title	<b>GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS</b>	
Rev. No	0	Page 15 of 104

## **6.5 Quantity Variation**

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

## **6.6 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-D.

## **7.0 MODE OF PAYMENT**

Payment shall be made through RTGS mode for which Business Associated shall submit the details of Bank Account and other details as per annexure K. 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.

The quantities of items indicated are estimated and preliminary. However, payments shall be made on the basis of actual quantity of work carried out and measured jointly by the Company and the Associate. Associates shall be responsible to organize joint measurements of works with TPCODL Engineer-in-Charge before raising any bill of work done. In the event Associate fails to do so, TPCODL at their sole discretion, may take measurements of work done and proceed as deemed fit and in such an event Associate's right to lodge any subsequent claim shall stand forfeited.

## **8.0 SECURITY CUM PERFORMANCE DEPOSIT**

Associates shall submit within 15 days from the effective date of issue of PO/RC, Security cum Performance 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

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 16 of 104

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 TPCODL indemnified always till completion of contracts.

### 9.2 SA 8000

Further being TPCODL is SA 8000 complied and expects its Associates to follow guidelines of SA8000: 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	25% relaxation in PBG for order value above 50 lacs else 50% relaxation	All limited and Open tenders
4	Turnover	25% relaxation in company turnover under qualifying requirement criteria	All Open Tenders

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 17 of 104

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

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

**9.4 Compliance to Labour Laws**

Bidder needs to ensure compliance to applicable labour laws including timely disbursement of wages. In case wages are not disbursed as per the stipulated timelines, then TPCODL shall pay the wages to BA employees on behalf of BA. Apart from deducting the amount of wages paid, TPCODL shall deduct an additional service charge equivalent to 25% of the wages paid from the payment due to BA.

**9.5 Compliance to Construction and Demolition Waste Management Rules & Environment (Protection) Amendment Rules**

BA is liable to follow the Construction and Demolition Waste Management Rules- 2016, Environment (Protection) Amendment Rules- 2018 and Guidelines on dust mitigation measures in handling construction material and C&D wastes issued by CPCB.

Following are some main points of above Rules/Guidelines for Construction work, cable laying jobs etc.

1. Barricading to be provided at site to cover complete area.
2. Construction material and waste should be inside the closed area made by using barricading.
3. Water sprinkling/fine spray from nozzles to be done to suppress the dust.
4. The board of Dust mitigation measures shall be displayed at site for public viewing with required details.
5. Loose sand or soil and construction material that causes dust shall be covered.
6. Transport material that are easily wind borne need to be covered by a sheet made of either jute, tarpaulin, plastic or any other effective material.
7. All areas for storing C&D waste/construction material to be demarcated and preferably barricaded particularly those materials that have potential to be dust borne.
8. Grinding and cutting of building materials in open area shall be prohibited.
9. Construction material and waste should be stored only within earmarked area and road side storage of construction material and waste shall be prohibited.
10. No uncovered vehicles carrying construction material and waste shall be permitted.
11. Construction and demolition waste processing and disposal site shall be identified and required dust mitigation measures to be notified at the site.

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 18 of 104

## **10.0 QUALITY**

### **10.1 Knowledge of Requirements**

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

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

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

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

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

### **10.4 Specifications and Standards**

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

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

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 19 of 104

circumstances the codes, specimen and standards prescribed by any government agency should not be violated.

## 11.0 SAFETY

All Associates shall strictly abide by the guidelines provided in TPCODL's Contractor Safety Management System (CSMS) as applicable at all stages during the contract period. Associate shall execute the contracts ensuring the following in and as order of priority:

- Safety of Human Beings.
- Safety of equipment/Assets.
- Timely Completion of Contract.

Safety related requirements as mentioned in our Contractor Safety Management System is attached as annexure L and is an integral part of this GCC.

## 12.0 INSPECTION/PARTICIPATION

### 12.1 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 within maximum of two weeks of 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.

### 12.2 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.



Doc. Title	<b>GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS</b>	
Rev. No	0	Page 20 of 104

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

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

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

### **12.3 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.

### **12.4 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.

### **12.5 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.

## **13.0 MDCC & DELIVERY OF MATERIALS**

### **13.1 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

Doc. Title	<b>GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS</b>	
Rev. No	0	Page 21 of 104

transit by sea. Gas seals or other materials shall be utilised by the associate for protection against moisture during transit of all Plant and Equipment.

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

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

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

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

- 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.

### 13.2 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.

### 13.3 Consignee

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

### 13.4 Submission of mandatory documents on Delivery

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 22 of 104

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

### 13.5 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.

### 14.0 GUARANTEE

#### 14.1 Guarantee of Performance

Associates shall stand guarantee that the equipment and material supplied/service or work rendered 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

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 23 of 104

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.

#### **14.2 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 15 Months from the Date of Commissioning or 24 months from the date of delivery of final lot of supplies made, whichever is earlier.

#### **14.3 Failure in Guarantee Period (GP)**

If the equipment and material supplied/service or work rendered 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/service or work rendered under the contract within time frame specified in the SCC or elsewhere in the contract documents at associate's cost to make the equipment and material supplied/service or work rendered under the contract of performing its due, rated and intended quality performance. If Associate fails to repair/rectify/replace the equipment or material supplied/service or work 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.

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

The cost of repairs/rectification /replacement, apart from the actual cost of repairs/rectification/replacement is also inclusive of all associate costs of required transportation, site inspection /mobilization/dismantling and re-installation costs as applicable, to be borne by the 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.

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 24 of 104

#### **14.5 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.

#### **14.6 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.

#### **14.7 Support beyond the Guarantee Period**

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

#### **15.0 LIQUIDATED DAMAGES**

Liquidated damages @1% of the total executed contract value per week or part thereof, for the period of delay in integrated completion, subject to maximum 10% of the value of the contract shall become leviable without prejudice to other rights of the TPCODL. This amount shall be recoverable from any amount due or becoming due to the Business Associates under this or any other contract. In specific cases, TPCODL reserves the right to apply LD only on the unexecuted portion of the supply and works for standalone use, provided full quantity is executed within a maximum 30% additional time. 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.

#### **15.1 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.

#### **15.2 Material Recovery**

In case of any recoveries for materials or services (for material free issued by TPCODL and not reconciled by BA or for services claimed and paid in excess at the time of running bills), the total cost which shall be recovered from the BA, shall be the gross amount of material or services (i.e. including taxes) plus applicable taxes as prevailing at the time of such recoveries.

#### **16.0 ASSIGNMENT OR SUBCONTRACTING**

Associates shall not assign/subcontract/outsource the schedule of activities of contract TPCODL enters with the associate, in part or full, without TPCODL's prior written approval.

Doc. Title	<b>GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS</b>	
Rev. No	0	Page 25 of 104

However outsourcing of materials/equipment/services by Associate to make the integrated product for which TPCODL's has placed the contract with the associate from suppliers, makes and agencies which have been mutually agreed upon during contract pre-award stage is permitted subject to following conditions.

In such cases where outsourcing is done by the Associate

- Shall ensure that outsourced suppliers comply with the technical and financial qualification requirements specified by TPCODL in the contract document
- Shall furnish all particulars about the proposed outsourcing agencies and the details of the goods/services/work outsourced to the Associate while seeking approval of TPCODL for inclusion for outsourcing. The Associate shall give approval or shall refuse approval in writing within thirty (30) days of receipt of such request. However the Associate shall not be entitled for any additional contract execution time whatsoever in lieu of the process for approval for outsourcing agencies, and shall be held responsible for any delay in the project execution time.
- Shall remain jointly and severally liable for any action, deficiency, and/or negligence on the part of his outsourcing agencies. The approval extended by the Associate to outsourcing agencies recommended by the Associate shall not discharge the later from his Contract obligations.

Shall submit to the Associate unpriced copies of purchase orders with technical specifications included in the orders, placed on outsourcing agencies as soon as the respective orders have been placed by the Associate.

#### **17.0 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.

#### **18.0 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.

##### **18.1 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.

##### **18.2 Geographical Data**

Doc. Title	<b>GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS</b>	
Rev. No	0	Page 26 of 104

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

### **18.3 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.

### **18.4 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.

### **18.5 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.

## **19.0 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

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 27 of 104

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.

## 20.0 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.

## 21.0 LIABILITY & LIMITATIONS

### 21.1 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.***

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.

### 21.2 Limitation of Liability



Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 28 of 104

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

## **22.0 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.

## **23.0 SUSPENSION OF CONTRACT**

### **23.1 Suspension for Convenience**

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

Doc. Title	<b>GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS</b>	
Rev. No	0	Page 29 of 104

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

- Immediately discontinue further supply of material/goods specified in the suspension notice for supply contracts
- Immediately discontinue further service/work and supply of materials of those services/materials/work specified in the suspension notice for service /composite contract
- Promptly make every reasonable effort to obtain suspension, upon terms satisfactory to TPCODL, of all orders, outsourcing arrangements, and rental Contracts to the extent that they relate to performance of the portion of Work suspended by the notice.
- Protect and maintain the portion of the service/Work already completed, including the portion of the Work suspended hereunder, unless otherwise specifically stated in the notice.
- Continue delivering/carrying out the supply/service/work items as per contract conditions, which do not fall under purview of the suspension notice.

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

### **23.2 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 27 for breach/default of contract conditions.

### **23.3 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 24.3) 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.

## **24 TERMINATION OF CONTRACTS**

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

The contract / PO 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:

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 30 of 104

- a. Withdrawal or intimation by the Associate of its intent to withdraw or surrender the execution / completion of the contracted work /PO or failure in ensuring adherence to any delivery schedules, in deviation of the contract/ PO.
- b. Refusal or neglect on the part of the Associate to supply material/equipment of quantity or quality as specified by TPCODL and within the timeframe as specified in the contract document or refusal or neglect to execute the services/work in terms of the agreed standards of quantity or quality and/or within the timeframe specified in the contract/PO.
- c. Failure in any respect to perform any portion of the Work contracted with promptness, diligence, or in accordance with the terms of the contract.
- d. Failure to furnish guarantees as specified and /or failure to comply with the terms thereof.
- e. Failure to furnish such relevant documents or information within the time specified which may be necessary for due execution / completion of the works and documentation.
- f. Liquidation, bankruptcy either voluntary or involuntary OR entering into any composition or compromise with its creditors, or Insolvency.
- g. In case any reasonable information has been received by TPCODL that Associate has adopted/ or attempted to adopt any unethical conduct, action in award of the contract /PO or at any time thereafter.
- h. Failure to comply with applicable statutory provisions as contained in the contract or failure to comply with the applicable laws.
- i. Failure to comply with safety regulations/clauses stipulated in the contract or as may be generally instructed by TPCODL.

If the default or breach as specified under clause 24 (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 24 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:

- i) Associate shall discontinue the supply, on the expiry of the said period of two weeks.

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 31 of 104

ii) 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.

iii) 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.

iv) 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.

v) 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.

## **24.2 Termination for convenience of Associate**

Doc. Title	<b>GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS</b>	
Rev. No	0	Page 32 of 104

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. This convenience will be available to associate only after one year from the contract effective date. For this purpose, associate will provide a notice period of 90 days to TPCODL, Associate will have to pay TPCODL a 'termination convenience fee' equivalent to 5% of unexecuted contract value.

### **24.3 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.

### **25.0 DISPUTE RESOLUTION & ARBITRATION**

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

#### **25.1 Governing law 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.

### **26.0 ATTRIBUTES OF GCC**

#### **26.1 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.

#### **26.2 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.

#### **26.3 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.

### **27.0 INSURANCE**

Doc. Title	<b>GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS</b>	
Rev. No	0	Page 33 of 104

The Associate shall arrange accident insurance policy for his foreign experts/specialists/personnel deputed to Site and Associate's/his sub-Associates' manufacturing works as well as for his Indian engineers and supervisory staff. The Associate shall also take out for his Indian workmen, where applicable, a separate policy as required under Workmen's Compensation Act.

Associates shall be responsible to suitably insure their entire work-force (to the extent of at least meeting requirements under Workmen Compensation Act) Tools, Plant, Third party liability at the project site, All Risk comprehensive insurance for the entire works (insurance for free issue items will be in TPCODL scope) for total contract (PO/RO) value or any other such risks during execution of works, till the works are handed over to the company, in consultation with TPCODL and shall submit copies of such insurances to the Engineer-in-Charge for review / acceptance before commencing the work. Engineer-in-charge must ensure compliance to insurance requirement by Associate before commencement of works. TPCODL shall stand fully indemnified in this respect.

### **28.0 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.

### **29.0 TRANSFER OF TITLES**

The title of ownership and property to all equipment, installations, erections, constructions materials, drawings & documents shall pass to the TPCODL after Commissioning and complete handing over-taking over.

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.

The Associate shall take all corrective measures arising out of discrepancies, errors and omissions in drawings and other information within the time schedule and without extra cost to the TPCODL.

The Associate shall also be responsible for any delay and/or extra cost if any, in carrying out engineering, and site works by other agencies arising out of discrepancies, errors and omissions stated in as well as of any late revision/s of drawings and information submitted by the Associate.

### **30.0 SUGGESTIONS & FEEDBACK**

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

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

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 34 of 104

### 31.0 CONTACT POINTS

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

### 32.0 LIST OF ANNEXURES

S. No.	Subject	Annexure
1.	Performa for Bid Security Bank Guarantee	A
2.	Performa for Advance Payment Bank Guarantee	B
3.	Performa for Performance Bank Guarantee (CP cum EP)	C
4.	Performa for No Demand Certificate by Associate	D
5.	Performa for Indemnification on Statutory Compliance	E
6.	Performa For Application For Issuance of Consolidated TDS Certificate	F
7.	HR Service Level Agreement	G
8.	Under taking for competence of workmen	H
9.	Business Associate Feedback Form	I
10.	Acceptance Form For Participation In Reverse Auction Event	J
11.	NEFT or RTGS payment request form	K
12.	Contractor Safety Management System	L
13.	Vendor Appraisal Form	M
14.	Manufacturers Authorization Form	N





Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 36 of 104

**ANNEXURE-B**

**PROFORMA FOR ADVANCE PAYMENT BANK GUARANTEE**

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

**Note:**

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

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**TP Central Odisha Distribution Limited**

**Bhubaneswar**

**Advance Payment B.G.No.....**

**Contract No.....dated.....**

1. You have entered into a Contract No \_\_\_\_\_ with M/s. \_\_\_\_\_ (hereinafter referred to as "the Vendor") for the supply and delivery 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, you have agreed to make an advance payment of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) being \_\_\_\_\_% (\_\_\_\_\_percent) of the total value of the contract on "the Vendor" furnishing you with an irrevocable, unconditional and acceptable bank guarantee to be valid till the date of receipt of "the said equipment" covered by your above mentioned contract. For this purpose you have agreed to accept our 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 months 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

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 37 of 104

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 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)**
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 month 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 \_\_\_\_\_ 200 \_\_\_\_\_

**Witness**

- |          |  |
|----------|--|
| 1. _____ | Bank's rubber stamp<br>Banks full address        |
| 2. _____ | Designation of Signatory<br>Bank official number |

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 38 of 104

**ANNEXURE- C**

**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

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**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

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 39 of 104

available to you, and our Bank shall not be released from its obligations under this guarantee by your exercising any of your rights with reference to matters aforesaid or any of them or by reasons of any other act or forbearance or other acts of omission or commission on your part or any other indulgence shown by you or by any other matter or thing whatsoever which under the law would, but for this provision have the effect of relieving our bank from its obligation under this guarantee.

6. We also agree that you shall be entitled at your option to enforce this guarantee against our bank as a principal debtor, in the first instance, notwithstanding any other security or guarantee that you may have in relation to "the Vendor's" liabilities in respect of the premises
7. This guarantee shall not be affected by any change in the constitution of our Bank or "the Vendor" or for any other reason whatsoever.
8. Any claim / extension under the guarantee can be lodge-able at outstation banks or at Bhubaneswar branch and claim will also be payable at Bhubaneswar Branch (to be confirmed by Bhubaneswar Branch by a letter to that effect in case BG is from the branch outside Bhubaneswar)
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 \_\_\_\_\_ 200\_\_

**Witness**

- |          |  |
|----------|--|
| 1. _____ | Bank's rubber stamp<br>Banks full address        |
| 2. _____ | Designation of Signatory<br>Bank official number |

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 40 of 104

**ANNEXURE-D**

**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.

**Dated**

**Signature**

**Place**

**Name**

**Designation**

**(Company Seal)**

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 41 of 104

**ANNEXURE – E**

**PROFORMA FOR “INDEMNIFICATION ON STATUTORY COMPLIANCES”**

(To be submitted by the successful Bidder within seven days of award of work)

**(Certificate No. CCP/001)**

Name of the Project

Letter of Award / Contract No.

Dated

Name of the Associate

Scheme No. / Job No.

By this confirmation we, \_\_\_\_\_  
(Associate) are formally bound to M/s. TPCODL towards any sum which may be imposed, levied or hereinafter recovered by the Provident Fund Organization under the provisions of the Employees of the Provident Fund and Miscellaneous Provisions Act 1952 in respect of employees employed by us.

We well and truly bind ourselves and our heirs executors administrators and representatives jointly severally and respectively for the above payment only to be paid to M/s. TPCODL.

AND WHEREAS we, \_\_\_\_\_ (Associate) is making compliance of the Employees Provident Fund and Miscellaneous Provisions Act 1952, have entered into the above written bond for the indemnity to M/s. TPCODL against all losses from the acts or default of the said Associate in respect of compliance of the Provident Fund Act.

Similarly we hereby confirm that we have complied with all statutory and local laws and nothing is outstanding with regard to Local Sales Tax, Labour Laws, Local Municipal dues, Electricity dues etc. We have entered into the above written bond for the indemnity to M/s. TPCODL against all losses from the acts or default of the said Associate in respect of compliance of the Local Sales Tax Laws, Local Laws, Labour Laws, Local Municipal Dues, Electricity dues etc.

NOW THE CONDITION, of the above written bond is as such that if the Associate during the period of this contract commits any default or fails to make payment of Contributions in respect of his employees to the Employees Provident Fund Organization, he shall indemnify the Principal Employer M/s. TPCODL from all and every loss and damage caused to them from any act, omissions or negligence of the said Associate in respect of compliances under the Employees Provident Fund and Miscellaneous Provisions Act, 1952.

IN WITNESS to the above written bond we have here to set our hands, with our free consent.

**Dated**

**Signature**

**Place**

**Name**

**Designation (Company Seal)**

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 42 of 104

**ANNEXURE-F**

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

To be printed on the letterhead

To,

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**

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 43 of 104

## ANNEXURE - G

### SERVICE LEVEL AGREEMENT

(To be adhered to by Business Associates (BAs) in TPCODL on Human Resource Issues)

**1.0 The following shall be adhered to by the Business Associates during his / its association with TPCODL:**

**Shall Abide by TPCODL Core Values:**

- a) **Integrity** – We must conduct our business fairly, with honesty and transparency. Everything we do must stand the test of public scrutiny.
- b) **Understanding** – We must be caring, show respect, compassion and humanity to our colleagues and customers and always work for the benefit of the communities we serve.
- c) **Excellence** – We must constantly strive to achieve the highest possible standards in our day to day work and in the quality of services we provide.
- d) **Unity** – We must work cohesively with our colleagues across the group and with our customers and partners to build strong relationships based on tolerance, understanding and mutual co-operation.
- e) **Responsibility** – We must continue to be responsible and sensitive to the communities and environments in which we work and always ensuring that what comes from the people; goes back to the people many times over.
- f) **Agility**- We must work in a speedy and responsive manner and be proactive and innovative in our approach.

**2.0 The Business Associate / his manager / supervisor who is responsible for managing the project site / performance contract etc. in TPCODL would also ensure adherence of these values by his employees / persons deployed by him in connection with his works undertaken in TPCODL.**

**3.0 TPCODL is a signatory to the United Nation Global Compact as an integral part of its Governance principles / business. The Business Associates are required to:**

- a) Support and respect the protection of human rights and make sure that they are not complicit in human right abuses.
- b) Respect freedom of association and effective recognition of the right to collective bargaining.
- c) Not to resort to any form of forced and compulsory labour.
- d) Shall ensure abolition of child labour in his area of work.
- e) There is no discrimination in respect of employment and occupation in respect of his employees.
- f) Support precautionary approach to environmental challenges.
- g) Promote greater environmental responsibility by himself and his employees in his areas of work.
- h) Deploy and defuse environmental friendly technologies while carrying out the works.
- i) Work against corruptions in all its form including extortion and bribery by himself and his employees.

**4.0 The Business Associates are required to adhere to all applicable Labour Laws with special reference to the following:**



Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 44 of 104

- a) No person below the age of 18 years and no child labour will be engaged directly or indirectly for executing the work connected with the business of TPCODL.
- b) Minimum wages along with other statutory dues like PF, ESI, etc. as applicable to the workers shall be made within the prescribed period of 7<sup>th</sup> / 10<sup>th</sup> day of the following month.
- c) Deduction / deposit / record keeping and all other requirements under Employees PF Act 1952, Employees State Insurance Act 1948 and other applicable acts (if any) shall be adhered to.
- d) Only statutorily authorized deductions (if any) shall be made in accordance with the relevant statutes.
- e) All the provisions of Contract Labour (R&A) Act 1970 shall be complied with in respect of the workers engaged for TPCODL work. The work will be commenced only after completing necessary formalities for obtaining Labour License (if applicable).
- f) Necessary registers / records, filing of returns etc. shall be maintained for verification by Statutory / TPCODL authorities.
- g) Payment of wages shall be made only in presence of and with certification of authorized representative of TPCODL or shall be made in the form of cheque / bank transfer to the employee.
- h) During the period of contract, the Business Associate will arrange for deployment of his supervisor / manager for total supervision and control of the work and their manpower. All the activities related to their manpower e.g. attendance, leave, wage disbursement etc. will be done under the supervision & control of Business Associates, While adhering to the prescribed standard / norms of production / productivity & quality. During execution of the work, Business Associate shall engage only such qualified / skilled manpower as may be envisaged / required for ensuring level of production / service into the contract / work order.
- i) Clearances as follows shall be obtained from IR & Welfare Group:
  - i. Clearance for commencement (before start of the work).
  - ii. No Objection Certificate (after completion / before final settlement).
  - iii. Copies of PF / ESI Challans shall be deposited with IR & Welfare Group every month
- j) The Business Associate shall indemnify TPCODL from any liabilities under applicable Labour Statutes.
- k) The Business Associate shall ensure safety and health of his employees and shall also maintain hygienic working environment / condition in his area of work.
- l) The Business Associate and his employee shall abide by Laws of Land and shall not violate any applicable provisions.
- m) The Business Associate appreciates with and acquiesces to the right of TPCODL as principal employer to fulfil any of his legal obligations, if he fails to do so under applicable labour laws and deduct the same from his running bills / final payments / encashing security deposit / Bank Guarantee as the case may be. If there is any further shortfall TPCODL has the right to recover the same from the Business Associate.
- n) The Business Associate ensures that person employed by him adhere to the moral and legal conduct and shall not violate any standard conduct envisaged in the premise of

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 45 of 104

TPCODL by all such as, Transparency, Safety, Discipline, Integrity etc. The Business Associate or his employees should refrain from corrupt practices, giving or taking bribe in connection with any TPCODL business.

**5.0 The 'Statutory Compliance Enforcement System' in TPCODL is detailed below for adherence by all concerned. Corporate IR & Welfare Group will be the process owner for implementation of the system with the help of concerned Engineer I/c or Officer I/c.**

- a) Statutory Compliance being a professed value in TPCODL Code of Conduct, the concerned Engineer / Officer in charges are requested to adhere to the provisions and advise respective Business Associates in their domain to comply in letter and spirit.
- b) Immediately after issuance of letter of intent, the authorized representative of the Business Associate will report to Corporate IR & Welfare group for completion of statutory requirements.
- c) Normally, the work will be started only after 'Clearance for Commencement of Work (CCW)' is issued by IR & W group to the Business associate. However in exceptional exigencies in engineer I/c / Officer I/c may direct the Business Associate to start the work and inform IR & W group about the same. Statutory requirements in this case may be completed parallelly.
- d) First monthly bill will be released only after producing CCW to the finance department. Similarly closure of work and final settlement will be affected after issuance of no objection certificate from IR & W group.

**6.0 Requirements for 'Clearance for Commencement of Work' (CCW):**

- a) Submission of filled up Form 'A' for database (Annexure-1).
- b) Copy of PF Code allocation letter.
- c) Copy of ESI Code allocation letter.
- d) Submission of duly filled up Form IV CL(R&A) act (In case more than or equals to 20 workers during the period of contract).
- e) Submission of duly filled up Form VI A (Notice of Commencement).
- f) Copy of insurance cover note under WC Act 1923 (if applicable).
- g) Copy of Contract Agreement.
- h) Copy of indemnity bond (if applicable).
- i) Affidavit with regard to payment of wages through cheque / bank transfer only.

**7.0 Requirements during execution of work:**

- a) Copy of receipt of application for license / license (if applicable).
- b) Copy of PF Challan (latest by 26<sup>th</sup> day of every Month).
- c) Copy of ESI Challan (latest by 26<sup>th</sup> day of every Month).
- d) Copy of Wage disbursement sheet / Bank statement.
- e) Filing / Maintenance of all statutory registers / reports / returns for inspection by Statutory/ TPCODL authorities.
- f) Certification of wage disbursement by authorized representative of TPCODL.
- g) Copy of 'Labour Welfare Fund' deposit certificate / Challan.
- h) Insuring safe working practices at the work place.

**8.0 Requirements for 'No Objection Certificate' (NOC) for closure of work:**

- a) Submission of duly filled up Form VI A (Notice of Completion).

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 46 of 104

- b) Copy of Half yearly / Annual return for ESI / PF / CL(R&A).
- c) Consolidated copy of wage sheet of last month indicating full & final settlement of all dues like retrenchment benefit, bonus, leave encashment etc. Copy of individual declaration by employees in Form X regarding termination of employment.
- d) Confirmation certificate regarding filling up of form for transfer / withdrawal of PF by the concerned workers.

**In case any of the above are deviated / not complied with the Letter of Award/Order shall be liable to be withdrawn / cancelled.**

**Enclosure:**

- 1) Form A
- 2) Form X
- 3) Form XI
- 4) Form VI A
- 5) Form XXIV

GENERAL CONDITIONS OF CONTRACT

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 47 of 104

**FORM (A)**

**[To be submitted by the Business Associate to the Principal Employer within a week from LoA issuance]**

**A. Details of the Agency**

1. Name of Agency :
2. Nature of work :
3. Local Address with Ph.No. :  
(With Father's name) :
4. Permanent Address (Full) :
5. PF code no. & Place :
6. ESI Code no. & Place :
7. Name and address of :  
Sub-contractor (if any)

**B. Details of Work**

8. Name of work (as specified in LOI/LOA) :
9. LOI/LOA Nos. & Dates :
10. Period of contract (Specify Dates) :  
[Including Extension period, if any] :
11. Work Area [Department / Location] :
12. Name / Cell no. of Officer I/c :
13. Maximum No. of workers and staff to be engaged on any day during the year.
  - Supervisory Staff :
  - Workers :
14. Do you have any other contract in TPCODL : Yes/No  
If yes, furnish details:

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 48 of 104

15. Details of Workmen's compensation Policy, if applicable

Name of Insurance Company .....  
 .....Policy No ..... Number of persons covered .....  
 Period of coverage: From ..... To .....

If no, I hereby undertake the liability arising out of Workmen's Compensation Act and Rules made there under.

**C. Details of workers to be engaged**

**No. of Workers**

S. No.	Unskilled*	Semi-skilled*	Skilled*	Clerical / Supervisory

**\* Number to be indicated**

I/We shall fulfill all obligations arising from and under all relevant law in force from time to time. I/We undertake to keep the TPCODL indemnified against any loss or liability arising out of failure of my / our abiding the relevant laws.

The name of my / our representatives is ..... to enter the TPCODL Premises on my behalf.

**Date:**

**(Signature of the Business Associate  
 or his Authorized Representative)**

**This Business Associate is / will be engaged in TPCODL.**

**(Signature and seal of**

**Officer I/c of the Work)**

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 49 of 104

**Form X**

**Undertaking**

I \_\_\_\_\_ hereby undertake that all the dues in respect of my employment with M/s \_\_\_\_\_ for the period of \_\_\_\_\_ to \_\_\_\_\_ have been settled and final payments including retrenchment benefit have been made to me in full.

( \_\_\_\_\_ )

\_\_\_\_\_

Date:

GENERAL CONDITIONS OF CONTRACT

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 50 of 104

**Form XI**

**Undertaking**

With reference to the contract job awarded by M/s TP Central Odisha Distribution Limited to M/s \_\_\_\_\_ vide work order No. \_\_\_\_\_ dated \_\_\_\_\_

I \_\_\_\_\_ on behalf of

M/s \_\_\_\_\_ hereby undertake:

1. that the dues in respect of the workmen/ employee(s) engaged by us for the said contract, payable as per the provisions of relevant statute pertaining to
  - i. wages/ salary
  - ii. PF & ESI, Bhubaneswar Labour Fund
  - iii. All other statutory obligation
 has been paid /settled in full and no amount/ compliance is due/ pending.
  
2. That in case any dispute / claim is raised by the concerned workers i.r.o. any dues / payments, M/s \_\_\_\_\_ will settle the same on it's own and such liability will be borne by M/s \_\_\_\_\_
  
3. That M/s \_\_\_\_\_ hereby indemnify M/s TPCODL from any future liability i.r.o. any statutory obligation in respect of said contract.

Date:

\_\_\_\_\_  
( )

Authorized Signatory

For M/s \_\_\_\_\_

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 51 of 104

**FORM- VI A**

**Notice for Commencement /Completion of contract work**

I/We, Sh. / M/s \_\_\_\_\_ (Name and Address of the Contractor) hereby intimate that the contract work \_\_\_\_\_ (name of work) in establishment of the \_\_\_\_\_ (name and address of the Principal Employer) for which License No. \_\_\_\_\_ dated \_\_\_\_\_ has been issued to me/us by the Licensing Officer \_\_\_\_\_ (name of the Headquarters), has been commenced / completed with effect from \_\_\_\_\_ date / on date.

**Signature of Contractor**

**With Office Seal**

**The Inspector**

\_\_\_\_\_  
\_\_\_\_\_



**FORM XXIV**

[See Rule 82(1)]

***Return to be sent by the Contractor to the licensing Officer (in duplicate)***

Half -Yearly Ending \_\_\_\_\_

1. Name and address of the Contractor
2. Name and address of the Establishment
3. Name and address of the Principal Employer
4. Duration of Contract: From \_\_\_\_\_ to \_\_\_\_\_
5. No. of days during the half year on which
  - (a) the establishment of the principal employer had worked
  - (b) the contractor's establishment had worked
6. Maximum No. of contract labour employed on any day during the half –year:

Men	Women	Children	Total

7.
  - (i) Daily hours of work and spread over
  - (ii)
    - (a) whether weekly holiday observed and on what day
    - (b) if so, whether it was paid for
  - (iii) No. of man – hours of overtime worked

8. No. of man days worked by

Men	Women	Children	Total

9. Amount of wages paid

Men	Women	Children	Total

10. Amount of deductions from wages, if any

Men	Women	Children	Total

Whether the following have been provided –

- (i) Canteen : \_\_\_\_\_
- (ii) Rest rooms : \_\_\_\_\_

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 53 of 104

(iii) Drinking water : \_\_\_\_\_

(iv) Crèches : \_\_\_\_\_

(v) First Aid : \_\_\_\_\_

**Signature of contractor**

Place \_\_\_\_\_

Date \_\_\_\_\_

GENERAL CONDITIONS OF CONTRACT

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 54 of 104

**ANNEXURE – H**

**UNDERTAKING FOR COMPETENCE OF WORKMEN**

Name of Associate :

Tender No. :

Item :

With reference to the tender mentioned above, I/We \_\_\_\_\_,  
hereby undertake that the workmen/ employee(s) engaged by M/s  
\_\_\_\_\_ for the job against said tender shall be competent in all  
respect, commensurate to the nature of job.

Date:

\_\_\_\_\_  
( )

Authorized Signatory

For M/s

Seal

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 55 of 104

**ANNEXURE-I**

**BUSINESS ASSOCIATE FEEDBACK FORM**

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

**You are associated with us as**

- OEMs       Service Contractor       Material Suppliers       Material & Manpower Supplier

**You are associated with us for**

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

**Your office is located at**

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

**Your nearly turnover with TPCODL**

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

**Additional information**

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

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

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 56 of 104

### 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						

S. No.	Parameters	1	2	3	4	5	Remarks/ Suggestion
		Do Not Agree	Slightly in Agreement	In Fair Agreement	Mostly in Agreement	Fully Agree	
11	TPCODL Engineer-in-Charge efficiently supervises the job execution for timely completion of job						
12	BIRD (Bill Inward Receipt Desk) initiative has improved payment disbursement process						
13	Our approach for Inspection and Quality Assurance effective to expedite project completion?						
14	TPCODL never defaults on contractual terms						
15	In TPCODL Contracts closure is done within set time limit						
16	Our material receiving procedures are well defined and efficiently deployed to reduce mutual inconvenience						
17	Bank Guarantees are released in time bound manner						
18	Our processes related to payment / account settlement are effective.						
19	You get payments on time						
20	TPCODL Employees follow Ethical behaviour						

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 58 of 104

**SECTION - B**

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

SN	Parameters	1	2	3	4	5	Remarks/ Suggestion
1	How do you rate courtesy/ empathy/ attitude level and warmth of TPCODL employees you interact with from following team?						
1.1	Project Engineering						
1.2	District / Zones						
1.3	Projects/HOG (TS &P)						
1.4	Inspection & Quality Assurance						
1.5	Stores						
1.6	Metering & Billing						
1.7	Accounts / Finance						
1.8	Administration						
1.9	IT & Automation						
2	How would you rate TPCODL in comparison to your other clients in terms of <b>fairness of treatment and transparency</b> with its Business Associates?						
3	How would you rate TPCODL in comparison to your other clients in terms of <b>processes and systems to manage partnership</b> with its Business Associates						
4	How would you rate TPCODL in comparison to your other clients in terms of <b>building long term &amp; mutually relationship</b> with its Business Associates						

**SECTION-C**

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

SNo	Parameters	Certainly NO	Probably NO	Probably YES	Certainly 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
---	---	---	---	---	---	---	---	---	----



Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 60 of 104

### 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 have observed / experienced elsewhere in Indian/ International organization.

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

We thank you for your time and courtesy!!

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 61 of 104

## ANNEXURE-J

### 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 outrightly 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**



Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 63 of 104

send payment information)

Name of the Authorized Signatory :

Contact Person's Name :

Official Correspondence Address :

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

Thanking you,

For \_\_\_\_\_

**(Authorized 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 authorized 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)**

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 64 of 104

**ANNEXURE-L**  
**CONTRACTOR SAFETY MANAGEMENT SYSTEM**

**1. OBJECTIVE**

The objective of the Contractor Safety Management System is to lay down clear guidelines for all Business Associates (including their associates, staff and agents) which would facilitate them to observe all statutory rules and regulations, comply with applicable standards of Central Electricity Authority (Measures relating to safety and electric supply) Regulations, 2010 & (safety requirements for construction, operation and maintenance of electrical plants and electric lines) Regulations, 2011, TPCODL Safety Manual and Guidelines and thus, ensure creation of safe working environment for all stakeholders of our network.

**2. SCOPE**

All contracts (minor and major) will be subject to the provisions of this document.

**Minor Contracts:** Contracts which satisfy all the criteria listed under the head “Minor Contracts”.

**Major Contracts:** Contracts which satisfy any two or more criteria listed under the head “Major Contracts”

Criteria	Minor Contracts	Major Contracts
Value of Contract	< Rs. 1500000/- (less than Rs. Fifteen Lac)	>= Rs. 1500000/- (Equal or more than Rs. Fifteen Lac)
Period	Period less than 1 year	Any period
Working on energized electrical equipment	No	Yes
Working on height (above 1.8 Mtrs from ground)	No	Yes
Work involving construction activity	No	Yes
Working with hazardous goods or chemicals	No	Yes
Work involving danger to general public	No	Yes

**Note:** Exceptions for major and minor contract are – in house software development, supply of material or equipment but no direct or indirect installation of the same material, administration contracts (courier, water supply, printing, security, transport, etc.), minor civil work like plastering at ground level or flooring, etc. The facility management (housekeeping) contract will always be treated as a minor contract.

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 65 of 104

### 3. INFORMATION REQUIRED AT TIME OF VENDOR REGISTRATION OR BEFORE COMMENCEMENT OF CONTRACT

- 3.1 Business Associate is required to fill the Safety Management System Questionnaire as per *annexure 1* and submit along with the vendor registration process / bid / tender document. The filled questionnaire will be scrutinized by Engineer In-charge / indenting group and recommend suitability of the BA with respect to safety requirements. The fulfilment of statutory requirements for vendor registration pertaining to labour laws etc. shall be done by BA Cell on being referred to it.
- 3.2 Business Associate is required to take suitable risk control measures mentioned against the identified Hazards and Risk document provided for all contracts as per *annexure 2*. The primary objective of this is to evaluate the understanding of the BA towards risk mitigation and employment of safe work procedures. BA is required to conduct the Hazard identification and Risk Assessment study as per the procedure and deploy more or other measures if deemed necessary.
- 3.3 Business Associate shall comply with **Statutory Requirements related to Safety and Occupational Health** and submit the "Safety Undertaking" as per *annexure 4*.

### 4. GENERAL SAFETY CONDITIONS REQUIRED TO BE FULFILLED BY BUSINESS ASSOCIATES

The requirements of the contractor safety management system applicable to the minor or major contracts related to various groups are as following –

- 4.1 Maintenance of Distribution Network – *Annexure 3.1*
- 4.2 Distribution Projects – *Annexure 3.2*
- 4.3 EHV Projects – *Annexure 3.3*
- 4.4 Maintenance of Sub transmission network – *Annexure 3.4*
- 4.5 Civil / Generation Projects – *Annexure 3.5*
- 4.6 Meter Management Group (MMG), Revenue Recovery Group (RRG), Energy Auditing Group, AMI, MRG, etc. – *Annex3.6*
- 4.7 Maintenance and Operation of Street Light. – *Annexure 3.7*

1. *Please note that hydra cranes used by any dept should be ACE Model No. FX 150 ACE SX 150, Escorts Model No. TRX 1550 or contemporary. Use of old generation hydra cranes like ACE 14XW or ACE 12 XW, etc are prohibited.*

**(Details as per Annexure attached)**

**Note:** For minor contracts, the BA shall assign the duties of Safety Representative to the Work Supervisor. Work Supervisor will deliver all duties and responsibilities of Safety Supervisor as detailed in this document.

The Business Associate (BA) having major contract will appointing Safety supervisor, engineer / manager for the TPCODL work. The BA shall make all necessary arrangements for getting their workforce safety trained and competency checked from the concerned official of TPCODL before deployment in the field. BA Cell shall recommend the suitability after competency checked by Engineer In-charge and SAFETY group (or his representative) of TPCODL. After getting the clearance from concerned official, BA cell and receiving temporary I-card issued by TPCODL, Business Associate shall commence the working.

Safety Representative of Business Associates will formally become the nodal point for safety concerns for TPCODL. **BA shall not frequently transfer or terminate the services of any of the safety representatives appointed for TPCODL work site. BA needs to ensure**

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 66 of 104

**that Safety representative is available at all points of time; failing which the work being carried out in the interim (period when Safety representative is not available) shall be treated as working under improper supervision and due penal provisions shall be initiated against the BA.** BA will be required to provide all applicable infrastructure and power to ensure smooth working of the safety representative to maintain a sound safety management system. **In all contracts safety representative will not be assigned any other activity at site apart from the works related to safety management. The duties are detailed in clause 5.5 of this document.** TPCODL will be auditing the facilities provided to the BA's safety team time to time.

The Safety Representative of the BA shall be required to meet and follow the instructions of the Engineer In-charge and SAFETY Group of TPCODL. He shall be responsible for providing the MIS and/or any other relevant information, as and when desired, within the stipulated time frame as per the requirements of TPCODL. Any non-conformance to safety will lead to the negative marking or issue of safety violation challan/ tokens which shall affect the monthly evaluation and performance of BA.

All contracts where BA has to depute vehicle for their staff and equipment to move from one location to other, the BA shall ensure that vehicle complies all required statutory clearances and requirement as per The Motor Vehicle Act, 1988 as well as TPCODL Road Safety Policy and are in good & safe state of working.

## **5. QUALIFICATION AND EXPERIENCE OF THE SAFETY AND SITE PERSONNEL**

Qualification and experience required for the safety and site personnel are as following:

**5.1 Safety Supervisor:** It is mandatory that educational qualification of safety supervisor be ITI (of relevant trade) / Diploma (Any branch of engineering) and he has a working experience on electrical system / relevant field of work at least 5 yrs for ITI and 3 years for Diploma holder. Having formal experience of the safety systems will be an added advantage

**5.2 Safety Engineer:** It is mandatory that educational qualification of safety engineer be at least Diploma (relevant branch) and he has working experience on electrical system of at least 3 yrs. Having the formal experience of the safety systems will be an added advantage.

**5.3 Safety Manager:** The educational qualification of safety manager should be graduate engineer with working experience on electrical system / network of at least 3 yrs. OR Diploma in Industrial Safety with working experience of 05 years including at least 02 years on electrical network.

However, clause 5.1, 5.2 and 5.3 are not applicable for minor contracts. In such cases, BA shall assign the duties of Safety Representative to the Work Supervisor. Work Supervisor will deliver required duties of Safety Representative (as per clause 5.5) in addition to other duties without diluting the importance of safety.

**5.4 Site Skilled Personnel:** For all responsibility related to site activities and operations, the BA shall employ only qualified and skilled persons and shall comply the provisions of section 19 & 29 of Central Electricity Authority (Measures relating to safety and electric supply) Regulations, 2010. Persons holding valid approvals only by any Government approved agency or a competency assessment panel or a team set up by TPCODL

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 67 of 104

shall be allowed to perform the High Risk / High Hazard activities (refer page 1). The skill / qualification required for the electrician and electrical supervisor are given in *annexure 5*. The contracts related to maintenance of Distribution Network, Distribution Projects, EHV Projects, maintenance of Sub-Transmission Network, MMG & EAG, maintenance and operation of street lights, shall preferably have at least 20 per cent of ITI qualified electricians in the first year of the contract. This figure shall preferably be incremented by 15 per cent every subsequent year.

*Note: For the competency assessment may please refer the work instructions. An employee shall have to necessarily undergo the competency assessment check once in every eighteen months.*

#### **5.5 Requirements from the Safety Representative(s) of the Business Associate:**

- 5.5.1 Safety training of 2 hrs/employee/month and one day of safety induction training to all new employees joining the BA will be conducted by the BA as per Safety training modules of TPCODL.
- 5.5.2 Safety Talk / tool box talk before start of shift to BA employees.
- 5.5.3 Ensuring the availability & proper usage of the standard safety equipment (PPE)
- 5.5.4 Periodic inspection of PPE to ensure their serviceability and maintaining the 10% buffer stock of standard PPEs.
- 5.5.5 Ensuring the adherence to standard operating procedures of TPCODL as mentioned in TPCODL Safety standard and O & M and concerned function's manual.
- 5.5.6 Safety inspections / audits as per the process of TPCODL
- 5.5.7 Working in close coordination SAFETY Group of TPCODL.
- 5.5.8 Reporting of unsafe acts, unsafe conditions, near miss, incident or accident to Engineer In-Charge and SAFETY Group of TPCODL immediately after its occurrence.
- 5.5.9 Regular HIRA at site and comply the control measures as stated in the detailed HIRA as per the *annexure 2*. Also deployment of JSA based checklist shall be ensured.
- 5.5.10 Ensuring compliance with safety and other laws as may be applicable and providing for safety assurance.

#### **5.6 Training and Syllabus:** The BA shall not deploy any person at work place / site or send newly recruited personnel directly to concerned official for competency assessment without Safety Induction Training.

5.6.1 All new BA employees have to necessarily undergo one and half days Safety training and Competency assessment at training centre of BA cell. This training will be conducted once in a week. After the completion of Safety training & Competency assessment I-card will be issued to all competent BA employees

5.6.2 BA is expected to initially train and judge the capability of the workman at his own end before further recommending the workmen for Competency assessment. If any BA workman sent for competency assessment. In case any BA workman fails in the Competency test at concerned official, it will be deemed that BA has not imparted sufficient training at his end and actual cost of training ₹ 7500/ BA employee/ failed attempt will be recovered.

5.6.3 The workers who have imparted Safety Training and issued I-Cards of TPCODL, are not deployed at TPCODL worksites/ voluntarily left the job by workers/ used somewhere else other than TPCODL by the BA, in that case Management reserves the rights to intervene and recover the actual cost of training i.e. ₹ 7500/BA employee. (*Exempted for attrition rate of BA workers less than or equal to 10% of total workforce deployed at TPCODL*)



Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 68 of 104

5.7 It is desired that Safety representative of the BA to impart the general safety training to each employee of duration 2 hrs per month. The training will be organized at BA level and the record to be sent to engineer in-charge and SAFETY group of TPCODL every month. Please refer schedule and syllabus in *annexure 6*.

**List of Personal Protective Equipment (PPE) and Maintenance schedule:** BA shall commence the project or any work only when the required PPE are made available to the team of employees involved in the work. Each PPE of BA shall be checked / inspected by the safety representative / supervisor at zone before the work start or as prescribed in the list. Safety representative shall regularly check the healthiness of each PPE allocated to lineman. Suitable record shall be maintained at zone. Defective PPE shall be immediately replaced or within 24 hours by the BA. In no case linemen or any other official of BA may be allowed to work with defective PPE. It is preferred that BA ensures minimum stock of each PPE at zone for immediate replacement with defective one. The PPE shall be IS / BS / CE marked and exactly as per the standard or specification mentioned in the *annexure 7*. Working without PPE / non-standard PPE shall be treated as safety violation and penalty as stated in section 6.0 of this document. If TPCODL finds that BA has not provided the adequate / appropriate PPE to their staff, TPCODL reserves the rights to stop the work and call the BA to provide appropriate PPEs at the risk. If the BA fails to provide the required PPEs at the risk then the same shall be provided by TPCODL at the actual cost of the PPE. The amount shall be charged to BA and same shall be first recovered from the current bill of BA or any future payment to be made to BA. In the event of any balance amount still left for recovery, the same shall be adjusted against retention amount or by invoking bank guarantee submitted by BA.

**5.8 Safety Audit / Inspection & HIRA:** The BA shall get the required safety inspection / audit conducted by his technical team comprising of safety representative as per the *annexure 8*. The safety representative will be required to conduct the HIRA (Hazard Identification and Risk Assessment) *as per annexure 2* of the process and work undertaken at least two times in a year or every time if a new process / activity / machine is introduced or whenever an accident take place. The risk identified to be addressed suitably with –

- Engineering Control
- Management Control, and
- Personal Protective Equipment.

The safety representative of BA shall inform and educate for the identified risk and hazard control methods to employees, supervisor and engineer as well as the engineer in-charge and SAFETY group of TPCODL.

**5.9 Safety Performance and Safety MIS:** The BA shall maintain good practice of safety all through the contract duration. Safety shall always be of paramount importance during the contract period. Safety performance will be monitored on yearly basis throughout the period and no relaxation will be given for bad performance. BA with good track record and excellent performance will be rewarded suitably as per clause 6.0 of this document. The BA has to provide monthly “Performance Report – Safety” to engineer in-charge and SAFETY group TPCODL this shall be part of monthly bill along with training details. Performa of the report is enclosed as *annexure 9*.

**5.10 Pre – Employment Medical Check-up and Fitness of employees engaged for the critical works:** The BA shall submit the health fitness certificate for all those workers involved in climbing the pole or working at height for following diseases:

5.10.2 Epilepsy

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 69 of 104

- 5.10.3 Colour blindness
- 5.10.4 Deafness
- 5.10.5 Vertigo & height phobia

Every year BA will give an undertaking stating that all the employees are fit to work and have not developed aforesaid diseases. The Record of such medical check-ups shall be submitted to BA Cell before issue of temporary identity card. The records shall be maintained at BA Cell. All such medical check-ups shall be repeated once in a year for all workers involved in climbing the pole or working on electrical network.

## 6. REWARD AND PUNITIVE MEASURES

**6.1** To support the enforcement of good SHE & DM practices by the Business Associate and to eliminate repeated or continuing safety violations, use of appropriate reward and punitive measures shall be made. Each unsafe act or violation of the safety guidelines as described in the Safety Manual of the TPCODL will be audit criteria of this system. Broadly the measures identified are following:

- 6.1.1 Working without PPE/ Safety Gadgets
- 6.1.2 Working without proper tools and tackles, barricading, Poor condition of Crane / Hydra / Vehicle, using without certification / Licence, Incompetent driver/ Helper
- 6.1.3 Working without creation of effective safety zone
- 6.1.4 Improper Supervision at worksite, Lineman/ Supervisor working without competency
- 6.1.5 Working without adherence to PTW process or authorization/ not adherence to SOPs / W.I. of TPCODL.
- 6.1.6 Improper Working at height equal to or above 1.8 mtrs without taking proper fall protection measures/ Poor condition of Ladder

### 6.2 Measures of Reward and Punitive Measures

The Engineer In-Charge, NSO, SC, ASOs, CSI / SIs and SHE &DM group will conduct the surprise audits of the work / project and if any non-conformance is found the same will be booked and entered in the format "Safety Violation Record" *annexure 10*. The flow of the information is given below:

Safety Violation Escalation & Monitoring process	
Action	Responsibility
Safety Violation form has been filled and counter foil sent to SAFETY team for information. The main form is to be given to BA supervisor / Engineer in-charge. <i>(Automatically generated if Site audit done through Mobile App.)</i>	Engineer In-charge/ NSO / SC / SAFETY Group /CSI/ ASO/ Any authorised TPCODL official.
↓	
Entry of the violation in the master record and sending the information to concerned Manager, HoG, HoD, Head and Chief (O &S). <i>(Automatically generated if Site audit done through Mobile App.)</i>	SAFETY Group
↓	
Forwarding the information Centralized Account Payable (CAPS) for amount deduction from the current bill of the BA,	Engineer In-charge

<i>if any.</i>	
↓	
HoG (Safety – II) & HoG (Safety & Quality – Commercial) and CAPS to generate the MIS of the violations and the amount deducted.	SAFETY Group
↓	
The pool of the amount generated after the deduction to be utilized in safety welfare of BA employees.	SAFETY Group with approval of CFO/Chief (O & S) /CEO&MD

The safety violations have been rated from 1 to 5 (figure 6.3) as per the gravity of the violation. If the same violation is repeated it may escalate into a higher penalty. If a particular Business Associate employee violates safety norms three times, he shall not be allowed to work in TPCODL for a period of one year from the date of the 3<sup>rd</sup> violation.

### 6.3 Safety Violation Escalation Matrix

#### 6.3.1

Consequence of Safety Violation Observed (Not related to Incident/ Accident)		Violation				Subsequent Violations
S.No.	Safety Violation	1st	2nd	3rd	4th	
1	Working without PPE (Helmet/Gloves/Safety Harness/ Safety Shoes etc.)	A	B	C	D	Will attract the same penalty as applicable in the 4th violation.
2	Improper Working at Height	A	B	C	D	
3	Working without proper tools and tackles	A	B	C	D	
4	Poor condition of Crane/Hydra/ Vehicle/Incompetent driver/ Helper	A	B	C	D	
5	Violation of SOP/ WI	B	C	D	E	
6	Working without adherence to PTW process or authorization/ Safety Zone	C	D	E		
<b>Legend</b>		<b>Action to be taken</b>	<b>Responsibility</b>	<b>Penalty Amount (in Rs.)</b>		The number of violations are to be calculated cumulatively over the contract period and not on monthly basis.
A	Warning letter	Engineer Incharge	Nil			
B	Levy of Penalty	Engineer Incharge	2,000			
C	Memo to BA & Levy of Penalty	Head of Group	4,000			
D	Memo to BA & Levy of Penalty	Head of Department	10,000			
E	Memo to BA, Levy of Penalty and termination of Contract	Head of Department	1,00,000			

Figure 6.3 (1a)-Penalty Matrix for Safety violation (Applicable for Minor Contracts)

Consequence of Safety Violation Observed (Not related to Incident/ Accident)		Violation				Subsequent Violations
S.No.	Safety Violation	1st	2nd	3rd	4th	
1	Working without PPE (Helmet/Gloves/Safety Harness/ Safety Shoes etc.)	B	C	D	D	Will attract the same penalty as applicable in the 4th violation.
2	Improper Working at Height	B	C	D	D	
3	Working without proper tools and tackles	A	B	C	D	
4	Poor condition of Crane/Hydra/ Vehicle/Incompetent driver/ Helper	B	C	D	E	
5	Violation of SOP/ WI	C	D	E		
6	Working without adherence to PTW process or authorization/ Safety Zone	C	D	E		
<b>Legend</b>		<b>Action to be taken</b>	<b>Responsibility</b>	<b>Penalty Amount (in Rs.)</b>		The number of violations are to be calculated cumulatively over the contract period and not on monthly basis.
A	Levy of Penalty	Engineer Incharge	5,000			
B	Memo to BA & Levy of Penalty	Engineer Incharge	10,000			
C	Memo to BA & Levy of Penalty	Head of Group	25,000			
D	Memo to BA & Levy of Penalty	Head of Department	50,000			
E	Memo to BA, Levy of Penalty and termination of Contract	Head of Department	1,00,000			

Figure 6.3 (1b)-Penalty Matrix for Safety violation (Applicable for Major Contracts)

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 71 of 104

Once the BA reaches the “BLACK” (color – “5”) category, i.e. highest level of safety violation, “Termination” notice to BA will be issued from the office of the Head of Department (equivalent to Addl GM/ GM/ Sr. GM level) and further, *if required*, continuation / extension of contract will only be initiated by Functional Head of the department (equivalent to Sr. GM / VP level) and approved by CEO & MD. Till the extension, the contract will remain suspended.

TPCODL encourages the reportage of the safety violation during the contract work by BA. Any TPCODL employee can register a safety violation against the BA in the “Safety Violation Form” *annexure 10*. Initially the observer has to fill the form and handover the counterfoil (lower portion) of the document to the supervisor of the BA, inform the site engineer of TPCODL and send the top portion of the Safety Violation Form to SAFETY group for the further necessary action against the BA. **The cumulative nos. of Safety Violations pertaining to any particular BA shall be calculated on yearly basis.**

Safety violations resulting in incident / accident will be treated as per gravity of the injury / fatality and its impact as well as type i.e. minor or Major. Consequences of incident / accident are shown in the matrix (figure 6.3(2) for major and 6.3(3) for minor) below. In case of any accident, findings and recommendations of Accident Enquiry Committee will be final and binding and will supersede the arbitration clause of GCC.

Consequence Of an Incident / Accident (In case of <b>MAJOR</b> contract)		Incident / Accident				Action Required
Sl. No	Type of the injury	1st	2nd	3rd	4th	
1	Slight injury (First Aid Case)	<b>F</b> (Strengthening of process through continuous improvement in the work procedure)				Take risk reduction measures
2	Minor injury (No or Hospitalization less than 48 Hrs)	<b>F</b>	<b>G</b>	<b>G</b>	<b>H</b>	
3	Major injury (Bone injury or burn or Hospitalization more than 48 Hrs)	<b>G</b>	<b>G</b>	<b>H</b>	<b>I</b>	
4	Single fatality	<b>J</b>	<b>K</b>			Intolerable
5	Multiple fatalities (Two or more fatalities during one event)	<b>K</b>				
Legend	Action to be taken	Responsibility	Penalty (in Rs.)	The number of violations are to be calculated cumulatively over the contract period and not on monthly basis.		
<b>F</b>	Memo to BA and levy of penalty	Engineer Incharge	5,000/-			
<b>G</b>	Memo to BA and levy of penalty	Head of Group	20,000/-			
<b>H</b>	Memo to BA and levy of penalty	Head of Group	50,000/-			
<b>I</b>	Memo to BA and levy of penalty	Head of Department	2,00,000/-			
<b>J</b>	Memo to BA and levy of penalty	Head of Department	5,00,000/-			
<b>K</b>	Memo to BA, levy of penalty, termination of contract and black listing of BA	Functional Head	10,00,000/-			

Figure 6.3 (2) - Penalty Matrix for Incident / Accident in Major Contracts

(For example: In major contracts, if there is first incidence of major injury say bone injury (Cat. 3) where worker was hospitalized for more than 48 hrs then a penalty of amount Rs.20000/- will be deducted from the current bill produced for the payment. This penalty will be similar for first two incidents. However, it will increment to next higher category i.e. Rs. 50,000/- on subsequent incidents as per the above matrix)

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 72 of 104

Consequence Of an Incident / Accident (In case of <b>MINOR</b> contract)		Incident / Accident				Action Required
Sl. No	Type of the injury	1st	2nd	3rd	4th	
1	Slight injury (First Aid Case)	<b>L</b> <small>(Strengthening of process through continuous improvement in the work procedure)</small>				Take risk reduction measures
2	Minor injury (No or Hospitalization less than 48 Hrs)	<b>L</b>	<b>M</b>	<b>M</b>	<b>N</b>	
3	Major injury (Bone injury or burn or Hospitalization more than 48 Hrs)	<b>M</b>	<b>M</b>	<b>N</b>	<b>O</b>	
4	Single fatality	<b>P</b>	<b>Q</b>			Intolerable
5	Multiple fatalities (Two or more fatalities during one event)	<b>Q</b>				
Legend	Action to be taken	Responsibility	Penalty (in Rs.)	The number of violations are to be calculated cumulatively over the contract period and not on monthly basis.		
<b>L</b>	Memo to BA and levy of penalty	Engineer Incharge	5,000/-			
<b>M</b>	Memo to BA and levy of penalty	Engineer Incharge	10,000/-			
<b>N</b>	Memo to BA and levy of penalty	Head of Group	25,000/-			
<b>O</b>	Memo to BA and levy of penalty	Head of Department	1,00,000/-			
<b>P</b>	Memo to BA and levy of penalty	Head of Department	3,00,000/-			
<b>Q</b>	Memo to BA, levy of penalty, termination of contract and black listing of the BA	Functional Head	5,00,000/-			
<b>Figure 6.3 (3) - Penalty Matrix for Incident / Accident in Minor Contracts</b>						

(For example: In minor contracts, if a worker meets with a non-fatal accident say bone injury (Cat. 3) where he was hospitalized for more than 48 hrs then a penalty of amount Rs. 10,000/-, will be charged from the current bill produced for the payment. This penalty will be similar for first two incidents. However, it will increment to next higher category i.e. Rs. 25,000/- on subsequent incidents as per the above matrix.)

In case of single or multiple fatalities described under legends J&K of 6.3(2) and P&Q of 6.3(3), the concerned BA may be debarred from extension of contract or participate in new contract. In such event the approval of Chief (O & S) will be necessary for extension or award of new contract to concerned BA.

### 6.3.2 COMPENSATION FOR BA PERSONNEL

In the event of any untoward incident/ accident, the Business Associate shall ensure prompt medical assistance such as treatment, sickness benefit, etc. is provided to the victim(s) as per the Employees' Compensation Act, 1923 or Employees' State Insurance Act, 1948, as applicable. Also, the BA will be required to take adequate measures for compensating the victim(s) or his/her/their kin as follows:

#### I. For Death or Permanent / Total Disablement

The BA shall take an insurance coverage of at least Rs. 10 lakhs for each engaged employee, to cover any incidence of Death or Permanent / Total Disablement (Permanent/Total Disability shall be considered as defined under Employees' Compensation Act, 1923). In the event of any such unfortunate incident, the BA would ensure that adequate compensation is paid immediately to the family of the victim(s) from his own resources. This compensation shall be covered under the insurance policy subscribed by the BA mentioned earlier and the arrangement should be such that it would get reimbursed to the BA by the insurance agency subsequently.

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 73 of 104

## II. For Permanent Partial Disablement and Temporary Total Disablement

The compensation in this case will be as per provisions of the Employees' Compensation Act, 1923 or Employees' State Insurance Act, 1948, as applicable.

Accordingly, the BA shall obtain a suitable Insurance Policy on award of Contract and submit documentary evidence of the policy to the BA Cell before commencement of work. The BA shall ensure that the Insurance policy is active at all times and all employees are covered in all respects till the conclusion of contract period or till working with TPCODL. The BA shall submit a copy of the policy after periodic renewals to the BA Cell.

However, on occurrence of such unfortunate incident, if it is found that the victim(s) is/are not covered under any insurance policy, the BA shall be liable to pay the entire sum of Rs. 10 lakhs from his own resources.

Further, in case of an accident resulting in Death or Permanent / Total Disablement while on duty, the appointed BA Nodal Officer will ensure that the BA complies with all statutory provisions and benefits i.e. PF, Compensation, Gratuity etc., and that all these are made available to the employees' nominee(s) as per the stipulated timelines.

**6.3.3** TPCODL rewards the BA with good track record of safety management. It is proposed that BA complying with Contractors Safety Management, Safety Manual and Safety process will be rewarded suitably as per the procedure, rule and regulations of the TPCODL. In any case major accident is reported during an assessment period BA will not be eligible for this reward scheme. Assessment of contracts will be once in year. Generally the assessment cycle is calendar year and guidelines will be declared time to time.

### Abbreviations Used in the Document

TPCODL	TP Central Odisha Distribution Limited
BA	Business Associate
HIRA	Hazard Identification & Risk Assessment
JSA	Job Safety Analysis
EHV	Extra High Voltage
SAFETY	Safety, Occupation Health, Environment & Disaster Management
MMG	Meter Management Group
EAG	Energy Audit Group
PPE	Personal Protective Equipment
SOP	Standard Operating Procedures
CSI/SI	Circle Safety In-charge / Safety In-charge
ASO	Area Safety Officer
NSO	Nodal Safety Officer
SC	Safety Coordinator
HoG / HoD	Head of Group / Head of Department
AGM / GM / VP	Assistant General Manager / General Manager / Vice President

Doc. Title	<b>GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS</b>	
Rev. No	0	Page 74 of 104

CFO / Chief (O & S)/ CEO & MD	Chief Finance Officer / Chief (Operating & Safety) / Chief Executive Officer & Managing Director
COS	Corporate Operation Services
CAP	Centralized Account Payable System
PTW	Permit To Work
GCC	General Conditions of Contract.

- END -

GENERAL CONDITIONS OF CONTRACT

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 75 of 104

**Annexure 1 (Refer Para 3.1)**

***Business Associate Safety Management System Questionnaire***

Certification				
The information provided in this questionnaire is a summary of the company's occupational health and safety management system.				
Company Name:				
Turnover and experience:		Name of top officer:		
Date:		Position		
Contract Details				
Contract Name			Contract Number:	
Business Associates Safety Management System Questionnaire	Marks	Yes	No	Score achieved
<i>Safety Policy and Management</i>				
- <b>Is there a written company Safety policy?</b>  - If yes provide a copy of the policy, if No please refer Note 1.	1			
- <b>Does the company have an Safety Management system</b>  - If yes provide details, if No please refer Note 1.	1			
- <b>Is there a company Safety Management System manual or plan?</b>  - If yes provide a copy of the content page(s), if No please refer Note 1.	2			
- <b>Are Safety and occupational health responsibilities clearly identified for all levels of Management and staff?</b>  - If yes provide details, if No please refer Note 1.	2			
<i>Safe Work Practices and Procedures</i>				
- <b>Has the company prepared safe operating procedures or specific safety instructions relevant to its operations and relevant work as per contract?</b>  - If yes provide a summary listing of procedures or instructions, if No please refer Note 2.	1			



Certification				
- Comments				
- <b>Is there a register of injury or accident?</b> - If yes provide a copy (format)	1			
- <b>Is there a documented incident or accident investigation procedure?</b>  - If yes provide a copy of a standard incident report form, if No please refer Note 2.  - Comments	1			
<i>Safety Training</i>				
- <b>Describe how occupational health and safety training is conducted in your company</b>  If No please refer Note 1.	2			
- <b>Is a record maintained of all training and induction programs undertaken for employees in your company?</b>  - If yes provide examples of safety training records, if No please refer Note 2.	1			
- <b>Are regular safety inspections / audits are undertaken at worksites?</b>  -If yes provide details (formats), if No please refer Note 3.	1			
- <b>Is there a procedure by which employees can report hazards at workplaces?</b>  - If yes provide details if No please refer Note 1.	1			
<i>Safety Monitoring</i>				
- <b>Is there an officer / supervisor responsible for monitoring workplace / worksite safety?</b>	1			

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS		
Rev. No	0	Page 77 of 104	

Certification				
- If yes provide details				
<i>Safety Performance Monitoring</i>				
- <b>Are employees regularly provided with information on company health and safety performance?</b>	1			
- If yes provide details				
- <b>Has the company ever been convicted of an occupational health and safety offence?</b>	NO Marks (Negative mark ONE for each case)			
- If yes provide details				
- Has there been any major accident of employee at TPCODL site in past	NO Marks (Negative mark ONE for each case)			
- Has there been any fatal accident of employee at TPCODL site in past. - (Note: Bid evaluation committee has to take cognizance of the incident and shall evaluate the bid only after formal approval of competent authority i.e. CTO. - In case of yes please refer Note 4.	NO Mark (Negative mark FIVE for each case)			
Minimum of 75% marks is required for qualification.		Total Marks achieved		
<i>Company Reference</i>				
1. Name of company 2. Name of company				

**Note**

1: If company does not have formal procedure on Safety Management System than vendor may submit proposed Safety road map along with safety action plan and brief safety policy on his letter head signed by head of the organization.

2: The vendor may submit the same in the Safety Action Plan.

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 78 of 104

3: *The vendor may utilize the same format of TPCODL or on request SAFETY group will assist the vendor in developing the audit system. For other points also vendor may take the assistance of SAFETY group for development of Safety management system.*

4: *The vendor may submit the Safety Improvement Plan and Safety Action Plan for his employees based on following points.*

- i. Action plan for enhancing safety awareness*
- ii. Action plan for safety training of employee*
- iii. Action plan for increasing safety audit in field*
- iv. Action plan for provision and utilization of safety PPE.*
- v. Action plan for fatality reduction.*
- vi. Action plan for enhanced supervision at site*
- vii. Action plan for making employee more responsible and accountable for safety.*
- viii. Action plan for availability and utilization of all required tool and equipment.*
- ix. Safety Improvement done in last two years, specially highlighting those which have been taken after the fatal accident along with results.*
- x. Safety initiatives planed or started recently.*
- xi. Any other point.*

*Based on above points and documentary evidences vendor will be required to submit a detailed report in support of his bid. The bid evaluation committee and competent authority will scrutinize the facts and the evidence submitted. If found satisfactory competent authority i.e. CTO may accord his approval for bid opening otherwise his tender shall be disqualified.*

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 79 of 104

**Annexure 2 (Refer Para 3.2 and 5.8)**

***Risk Assessment Form***

Business Associate:
Scope of the work:
BA's Representative:
Telephone:
Signature:
Date:

Specific Task/Activity	Potential Hazards/Consequences	Class of Risk	Control Measures
Working at Height	Fall from height	2	<ol style="list-style-type: none"> <li>1. Mandatory usage of JSA checklist prior to start of work</li> <li>2. Use appropriate ladder</li> <li>3. Use full body safety harness having double lanyard.</li> <li>4. Use Electrical Safety Shoes if working on electrical network otherwise use safety shoes.</li> <li>5. Use Safety helmet.</li> <li>6. Use PPE as per the annexure 7 of this CSM document</li> <li>7. Refer Work instruction related to Working at Height for other details</li> <li>8. Use of metal scaffold to be ensured in height work (cup lock type)</li> <li>9. Deploy competent workforce who are medically fit</li> </ol>

GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS

Specific Task/Activity	Potential Hazards/Consequences	Class of Risk	Control Measures
Working on electrical equipment / network	Electric flash / electrocution	3	<ol style="list-style-type: none"> <li>1. Mandatory usage of JSA checklist prior to start of work</li> <li>2. Use Electrical Safety Shoes while working on electrical network.</li> <li>3. Use Electrical Safety gloves of appropriate voltage rating.</li> <li>4. Use face shield / visor attached with helmet.</li> <li>5. Use Safety helmet.</li> <li>6. Use PPE as per the annexure 7 of this CSM document</li> <li>7. Mandatory usage of Insulated tools &amp; tackles on electrical system</li> <li>8. Mandatory compliance for Lock Out &amp; Tag out system. Refer Work instruction related to Working on electrical equipment / network for other details</li> </ol>
Excavation / Civil work	Collapse of soil, Fall in excavated pit leading to Injury	2	<ol style="list-style-type: none"> <li>1. Use safety shoes.</li> <li>2. Use Safety helmet.</li> <li>3. Use PPE as per the annexure 7 of this CSM document</li> <li>4. Hard Barricading of the worksite.</li> <li>5. Refer Work instruction related to excavation / civil work for other details</li> </ol>
Material lifting & Mechanical Erection work	Fall of material/object, Topple of crane,	2	<ol style="list-style-type: none"> <li>1. Mandatory compliance of crane checklist</li> <li>2. Visual condition check of lifting tools and tackles such as wire rope sling, belt sling, chain, pulley block, D-shackles, etc. shall be ensured.</li> <li>3. The operator's physical fitness and alertness should be judged by sup. / EIC.</li> <li>4. Use PPE as per the annexure 7 of this CSM document</li> <li>5. Refer Work instruction related to Material lifting &amp; Mechanical Erection work</li> </ol>
Road Safety	Road Accidents	3	<ol style="list-style-type: none"> <li>1. Mandatory compliance of TPCODL Road Safety policy W07(COR-P-12)</li> </ol>

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 81 of 104

Specific Task/Activity	Potential Hazards/Consequences	Class of Risk	Control Measures
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*Note: This information for the general indication purpose. The detailed risk assessment shall be conducted before start of the work by the authorized representative of the BA. The report of same shall be submitted to engineer in-charge along with annexure 4 of the CSM document.*

### Guidelines for filling the Risk Assessment Form

- *Specific Task/Activity* - The documentation of each major task associated with the contract.
- *Potential Hazards* - The identification of hazards associated with each activity or task to be carried out.
- *Class of Risk* - Each hazard should be evaluated as a level of risk, described as Risk Class 1, 2 or 3 defined above.
- *Control Measure* - The identification and documentation of actions required to eliminate or reduce the hazards that could lead to accident or injury.

Hazard / Risks shall be classified according to the following schedule:

- Class 1: Potential to cause injury treatable with first aid
- Class 2: Potential to cause death or permanent injury
- Class 3: Potential to cause more than one or more lost time injuries.

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 82 of 104

### Annexure 3.1 (Refer Para 4.0)

#### General Safety Conditions for the Maintenance of Distribution Network Contracts:

A BA awarded a contract (O&M) work of maintenance of distribution network will be required to fulfil the following conditions:

- BA shall provide Safety Policy and safety objectives of their company.
- BA shall comply with all statutory requirements like: applicable acts, regulations, codes of practice, OHSAS Standards, etc.
- BA shall provide the filled safety management questionnaire as per Annexure 1
- BA shall conduct a job risk assessment and provide information as per Annexure 2
- BA shall abide by Safety manuals, guidelines of TPCODL.
- BA shall provide its organisation structure & responsibilities in terms of Safety Management to TPCODL.
- BA shall document the work practices and procedures in terms of Safety Management.
- BA shall ensure safety training and induction program for the employees
- BA shall conduct safety audits & inspections as per TPCODL procedures provided by SAFETY group.
- BA shall provide and ensure the proper usage of the safety equipment (PPE) as per the TPCODL approved list in *annexure 7*.
- BA shall ensure periodic inspection of PPE to ensure its serviceability as per the specification given by TPCODL.
- BA shall ensure the adherence to standard operating procedures or guidelines laid down by TPCODL.
- BA shall ensure reporting of any unsafe act, unsafe conditions, near miss, incident or accident to engineer in-charge and SAFETY team of TPCODL.
- BA shall provide safety performance and Safety MIS (*annexure 9*) to engineer in-charge and SAFETY group periodically. Based on any non-confirmation to the safety procedures and guidelines, BA is liable to be negatively marked for his performance and suitable penalty will be imposed.
- BA shall ensure to depute a Safety Supervisor for managing a complete safety management system in a district. In case the BA has been awarded work in more than one district, then the following safety structure will be adopted.



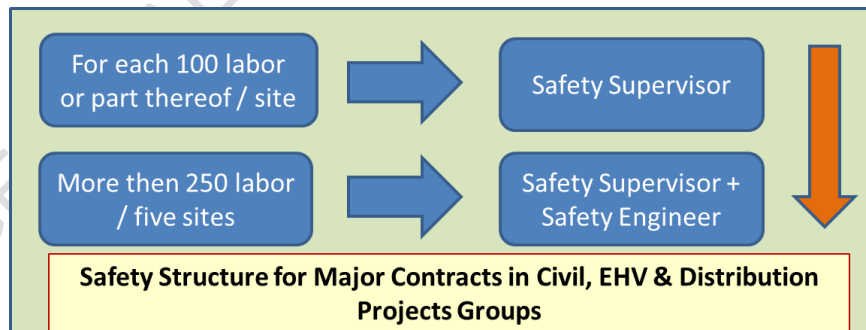
Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 83 of 104

**Annexure 3.2 (Refer Para 4.0)**

**General Safety Conditions for the Distribution Projects Major Contracts:**

A BA awarded a major contract work of TS&P in area of a circle will be required to fulfil the following conditions:

- BA shall provide Safety Policy and safety objectives of their company.
- BA shall comply with all statutory requirements like: applicable acts, regulations, codes of practice, OHSAS Standards, etc.
- BA shall provide the filled safety management questionnaire as per Annexure 1.
- BA shall conduct a job risk assessment and provide information as per Annexure 2
- BA shall abide by Safety manuals, guidelines of TPCODL.
- BA shall provide its organisation structure & responsibilities in terms of Safety Management to TPCODL.
- BA shall document the work practices and procedures in terms of Safety Management.
- BA shall ensure safety training and induction program for the employees
- BA shall conduct safety audits & inspections as per TPCODL procedures provided by SAFETY group.
- BA shall provide and ensure the proper usage of the safety equipment (PPE) as per the TPCODL approved list in annexure 7.
- BA shall ensure periodic inspection of PPE to ensure its serviceability as per the specification given by TPCODL.
- BA shall ensure the adherence to standard operating procedures or guidelines laid down by TPCODL.
- BA shall ensure reporting of any unsafe act, unsafe conditions, near miss, incident or accident to engineer in-charge and SAFETY team of TPCODL.
- BA shall provide safety performance and Safety MIS (*annexure 9*) to engineer in-charge and SAFETY group periodically. Based on any non-confirmation to the safety procedures and guidelines, BA is liable to be negatively marked for his performance and suitable penalty will be imposed.
- BA shall ensure to depute a Safety Supervisor for managing a complete safety management system in the area. In case the BA has been awarded work in more than one circle, then the following safety structure will be adopted.





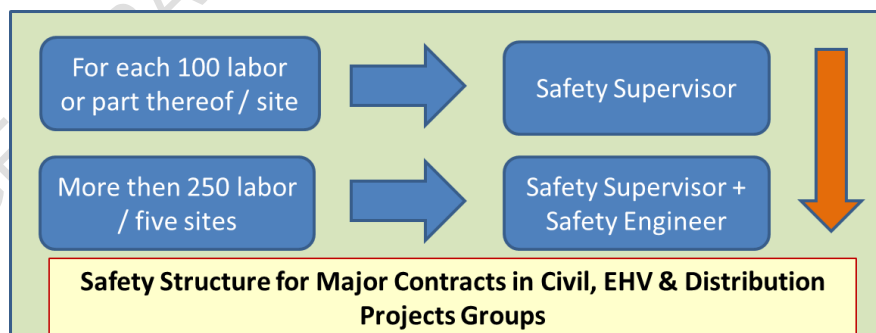
Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 84 of 104

### Annexure 3.3 (Refer Para 4.0)

#### **General Safety Conditions for the major EHV Projects Contracts:**

A BA awarded a major contract work of EHV projects will be required to fulfil the following conditions:

- BA shall provide Safety Policy and safety objectives of their company.
- BA shall comply with all statutory requirements like: applicable acts, regulations, codes of practice, OHSAS Standards, etc.
- BA shall provide the filled safety management questionnaire as per Annexure 1
- BA shall conduct a job risk assessment and provide information as per Annexure 2
- BA shall abide by Safety manuals, guidelines of TPCODL.
- BA shall provide its organisation structure & responsibilities in terms of Safety Management to TPCODL.
- BA shall document the work practices and procedures in terms of Safety Management.
- BA shall ensure safety training and induction program for the employees
- BA shall conduct safety audits & inspections as per TPCODL procedures provided by SAFETY group.
- BA shall provide and ensure the proper usage of the safety equipment (PPE) as per the TPCODL approved list in annexure 7.
- BA shall ensure periodic inspection of PPE to ensure its serviceability as per the specification given by TPCODL.
- BA shall ensure the adherence to standard operating procedures or guidelines laid down by TPCODL.
- BA shall ensure reporting of any unsafe act, unsafe conditions, near miss, incident or accident to engineer in-charge and SAFETY team of TPCODL.
- BA shall provide safety performance and Safety MIS (*annexure 9*) to engineer in-charge and SAFETY group periodically. Based on any non-confirmation to the safety procedures and guidelines, BA is liable to be negatively marked for his performance and suitable penalty will be imposed.
- BA shall ensure to depute a Safety Supervisor for managing a complete safety management system in the area. In case the BA has been awarded work in more than one circle, then the following safety structure will be adopted.
- BA shall refer Construction Safety Manual in TPCODL Safety Manual for details.



Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 85 of 104

### Annexure 3.4 (Refer Para 4.0)

#### General Safety Conditions for the Maintenance of Sub – Transmission Network Contracts:

A BA awarded a major contract work of maintenance of sub – transmission network in area of a power system will be required to fulfil the following conditions:

- BA shall provide Safety Policy and safety objectives of their company.
- BA shall comply with all statutory requirements like: applicable acts, regulations, codes of practice, OHSAS Standards, etc.
- BA shall provide the filled safety management questionnaire as per Annexure 1
- BA shall conduct a job risk assessment and provide information as per Annexure 2
- BA shall abide by Safety manuals, guidelines of TPCODL.
- BA shall provide its organisation structure & responsibilities in terms of Safety Management to TPCODL.
- BA shall document the work practices and procedures in terms of Safety Management.
- BA shall ensure safety training and induction program for the employees
- BA shall conduct safety audits & inspections as per TPCODL procedures provided by SAFETY group.
- BA shall provide and ensure the proper usage of the safety equipment (PPE) as per the TPCODL approved list in annexure 7.
- BA shall ensure periodic inspection of PPE to ensure its serviceability as per the specification given by TPCODL.
- BA shall ensure the adherence to standard operating procedures or guidelines laid down by TPCODL.
- BA shall ensure reporting of any unsafe act, unsafe conditions, near miss, incident or accident to engineer in-charge and SAFETY team of TPCODL.
- BA shall provide safety performance and Safety MIS (*annexure 9*) to engineer in-charge and SAFETY group periodically. Based on any non-confirmation to the safety procedures and guidelines, BA is liable to be negatively marked for his performance and suitable penalty will be imposed.
- BA shall ensure to depute a Safety Coordinator for managing a complete safety management system in the area. In case the BA has been awarded work in more than one area power system, then the following safety structure will be adopted.



Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 86 of 104

### Annexure 3.5 (Refer Para 4.0)

#### **General Safety Conditions for the major contract work in Civil / Generation Projects:**

A BA awarded a major contract work of / in civil or Generation project will be required to fulfil the following safety conditions:

- BA shall provide Safety Policy and safety objectives of their company.
- BA shall comply with all statutory requirements like: applicable acts, regulations, codes of practice, OHSAS Standards, etc.
- BA shall provide the filled safety management questionnaire as per Annexure 1
- BA shall conduct a job risk assessment and provide information as per Annexure 2
- BA shall abide by Safety manuals, guidelines of TPCODL.
- BA shall provide its organisation structure & responsibilities in terms of Safety Management to TPCODL.
- BA shall document the work practices and procedures in terms of Safety Management.
- BA shall ensure safety training and induction program for the employees
- BA shall conduct safety audits & inspections as per TPCODL procedures provided by SAFETY group.
- BA shall provide and ensure the proper usage of the safety equipment (PPE) as per the TPCODL approved list in annexure 7.
- BA shall ensure periodic inspection of PPE to ensure its serviceability as per the specification given by TPCODL.
- BA shall ensure the adherence to standard operating procedures or guidelines laid down by TPCODL.
- BA shall ensure reporting of any unsafe act, unsafe conditions, near miss, incident or accident to engineer in-charge and SAFETY team of TPCODL.
- BA shall provide safety performance and Safety MIS (*annexure 9*) to engineer in-charge and SAFETY group periodically. Based on any non-confirmation to the safety procedures and guidelines, BA is liable to be negatively marked for his performance and suitable penalty will be imposed.
- BA shall ensure to depute a Safety Supervisor (for workforce upto 100 at site) / a safety engineer (for workforce upto 250 at site) / safety manager (for more than two safety engineers) for managing a complete safety management system at the project site. In case the BA has been awarded more than one major contracts, then the following safety structure will be adopted.
- BA shall refer Construction Safety Manual in TPCODL Safety Manual for details.



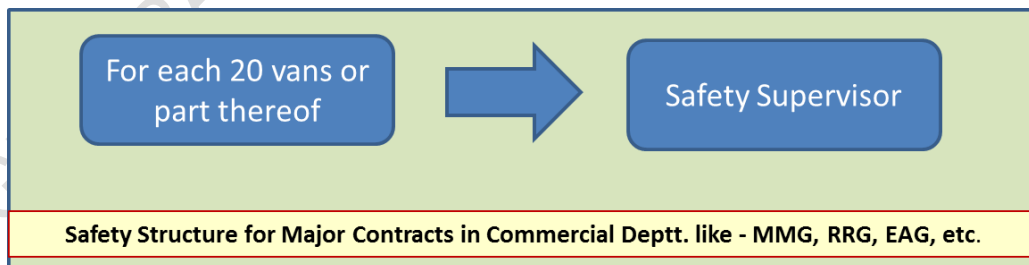
Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 87 of 104

**Annexure 3.6 (Refer Para 4.0)**

**General Safety Conditions for the major contract work in Commercial Department like - MMG, RRG, EAG, etc.:**

A BA awarded a major contract work in meter management group & energy auditing group will be required to fulfil the following safety conditions:

- BA shall provide Safety Policy and safety objectives of their company.
- BA shall comply with all statutory requirements like: applicable acts, regulations, codes of practice, OHSAS Standards, etc.
- BA shall provide the filled safety management questionnaire as per Annexure 1
- BA shall conduct a job risk assessment and provide information as per Annexure 2
- BA shall abide by Safety manuals, guidelines of TPCODL.
- BA shall provide its organisation structure & responsibilities in terms of Safety Management to TPCODL.
- BA shall document the work practices and procedures in terms of Safety Management.
- BA shall ensure safety training and induction program for the employees
- BA shall conduct safety audits & inspections as per TPCODL procedures provided by SAFETY group.
- BA shall provide and ensure the proper usage of the safety equipment (PPE) as per the TPCODL approved list in annexure 7.
- BA shall ensure periodic inspection of PPE to ensure its serviceability as per the specification given by TPCODL.
- BA shall ensure the adherence to standard operating procedures or guidelines laid down by TPCODL.
- BA shall ensure reporting of any unsafe act, unsafe conditions, near miss, incident or accident to engineer in-charge and SAFETY team of TPCODL.
- BA shall provide safety performance and Safety MIS (*annexure 9*) to engineer in-charge and SAFETY group periodically. Based on any non-confirmation to the safety procedures and guidelines, BA is liable to be negatively marked for his performance and suitable penalty will be imposed.
- BA shall ensure to depute a Safety Supervisor for managing a complete safety management system for the work as per the following safety structure.
- The BA for the RRG work shall depute one Safety supervisor.



Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 88 of 104

### **Annexure 3.7 (Refer Para 4.0)**

#### **General Safety Conditions for the major contract work in O&M of street light group:**

A BA awarded a major contract work in operation and maintenance of street light group will be required to fulfil the following safety conditions:

- BA shall provide Safety Policy and safety objectives of their company.
- BA shall comply with all statutory requirements like: applicable acts, regulations, codes of practice, OHSAS Standards, etc.
- BA shall provide the filled safety management questionnaire as per Annexure 1
- BA shall conduct a job risk assessment and provide information as per Annexure 2
- BA shall abide by Safety manuals, guidelines of TPCODL.
- BA shall provide its organisation structure & responsibilities in terms of Safety Management to TPCODL.
- BA shall document the work practices and procedures in terms of Safety Management.
- BA shall ensure safety training and induction program for the employees
- BA shall conduct safety audits & inspections as per TPCODL procedures provided by SAFETY group.
- BA shall provide and ensure the proper usage of the safety equipment PPE as per the TPCODL approved list in annexure 7.
- BA shall ensure periodic inspection of PPE to ensure its serviceability as per the specification given by TPCODL.
- BA shall ensure the adherence to standard operating procedures or guidelines laid down by TPCODL.
- BA shall ensure reporting of any unsafe act, unsafe conditions, near miss, incident or accident to engineer in-charge and SAFETY team of TPCODL.
- BA shall provide safety performance and Safety MIS (*annexure 9*) to engineer in-charge and SAFETY group periodically. Based on any non-confirmation to the safety procedures and guidelines, BA is liable to be negatively marked for his performance and suitable penalty will be imposed.
- Each BA shall ensure to depute a Safety Supervisor for managing a complete safety management system for the work awarded as per the below structure.



Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 89 of 104

#### **Annexure 4 (Refer Para 3.3)**

##### **Safety Undertaking by way of Affidavit**

I \_\_\_\_\_ s/o \_\_\_\_\_ R/o \_\_\_\_\_ (AUTHORIZED REPRESENTATIVE/PARTNER/DIRECTOR/PROPRIETOR ) of M/S \_\_\_\_\_ (name of company/firm) having its office at (Complete address of Company), authorized vide power of attorney dated -----/Board resolution dated----/letter of authority dated----, hereinafter referred to as **Contractor [or Business Associate (BA)]** which expression shall, unless it be repugnant to or inconsistent with the meaning or context thereof, be deemed to include its heirs, executors, administrators, and assigns do hereby affirm and undertake as under :

1. The present undertaking shall remain in force from the date of execution of contract awarded by TPCODL and shall be valid till the date of termination of the said contract by either parties. The undertaking is binding on me (contractor) as well as my sub-contractor and its employees, representatives etc.
2. That I(the contractor) will be responsible and liable to comply and abide by all the safety rules, instructions and regulations as may be specified and laid down by The TP Central Odisha Distribution Limited (TPCODL) so as enable TPCODL to achieve its goal of Zero On site incidences.
3. That the Contractor shall be fully responsible for ensuring occupational health and safety of its employees, representatives, agents as well as of its subcontractor's employees, at all times during the discharge of their respective obligations under the contract including any methods adopted for performance of their tasks / work.
4. That Contractor shall ensure ,at its own expense to arrange for and procure, implement all requisite accident prevention tools, first aid boxes, personal protective equipment, fire extinguisher, safety training, Material Safety Data Sheet, pre-employment medical test, etc. for operations & activities including as & when so specified by TPCODL specifically. , failing which TPCODL shall be entitled, but not obliged, to provide the same and recover the actual cost thereof from the Contractor's payments.
5. That the Contractor shall engage adequate and competent Safety – Supervisor / Engineer / Manager / Skilled persons at site as per the Para 5 (Qualification and experience of safety personnel) and Annexure 3 of Contract Safety Management.
6. That the Contractor shall engage the competent Site – Supervisor with each group of workers for safe and correct workmanship, proper co-ordination of material and site work as per contract.

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 90 of 104

7. That the Contractor shall immediately replace supervisor in case it is found to be not up to the level of skill and experience required as in skill and experience required in *annexure 5* of this document, but any such replacement shall be only with the prior concurrence of TPCODL .
8. That the Contractor and its subcontractors shall abide by all the safety guidelines as per Safety Manual, Contract Safety Management and other guidelines issued from time to time by TPCODL during the contract period.
9. That in case the Contractor and/or any of its Subcontractor fail to ensure the compliance as required in terms of this undertaking the Contractor shall keep and hold TPCODL / its directors / officers / employees indemnified against any / all losses / damage / expense / liability / fines / compensation / claims / action / prosecutions or the like which might be suffered by TPCODL or to which TPCODL might get exposed to as a result of any breach /wilful negligence /deliberate default on the part of the Contractor /Subcontractor in complying with the same. Contractor shall also furnish any press release, clarification etc. if sought by TPCODL for any near miss or safety violations, accidents, which are attributable to fault of Contractor.

DEPONENT

VERIFICATION

Verified at Bhubaneswar on this      Day of      20     that the contents of the above affidavit are true and correct and nothing material has been concealed therefrom

DEPONENT

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 91 of 104

**Annexure 5 (Refer Para 5.4)**

**SKILL / QUALIFICATION REQUIRED FOR ELECTRICIAN AND ELECTRICAL SUPERVISOR**

**Skill / Qualifications Required for Electrician (*Certificate of Competency Class-II*):**

1. Formal education in ITI – Wireman/ Electrician trade.

OR

2. Working experience of minimum three years of practical wiring.

OR

3. Have completed three years apprenticeship course through Apprenticeship Advisor, Govt. of Odisha / other state Govt. in the trade of Lineman / Wireman / Electrician.
4. A candidate must have attained the age of Eighteen years.

**Skill / Qualifications Required for Electrical Supervisor (*Certificate of Competency Class-I*):**

1. Have at least five years' experience of practical wiring after passing the certificate of competency class-II i.e. electrician.

OR

2. Recognized Degree or Diploma or equivalent qualification in Electrical Engineering from any Technical institute / College or University recognized by the Board.

AND

Must have completed the training/job in rectifying the common defects in electrical line and power installation for a period of one and three years after passing Degree or Diploma respectively

OR

3. Possessing the valid certificate of certificate of competency class – 1 (Electrical Supervisor)



Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 92 of 104

**Annexure 6 (Refer Para 5.6)**

**Training Module for BAs Worker & Supervisor**

**Training for BA Supervisor**

**Duration – 02 Hrs / Month**

**Methodology:** Lecture and Practical Demonstration of Safety Zone Creation

**Session: 1**

**Topic:** Electrical Safety Aspects

**Sub Topics:**

1. Learning specifics of HT & LT Network of zone
2. Major type of HT / LT / service lines / street light maintenance works
3. Understanding the need of Safety
4. Understanding the safe process of maintenance :
  - Planning of the maintenance job
  - Availability of men, material & machine, PPEs, Safety gear and approved PTW
  - Briefing of the job by the supervisor of the TPCODL
  - Identification of Risks associated with the maintenance work and planning for controlling measures by TPCODL supervisor
  - Creation of safety zone by TPCODL supervisor and satisfying that the network is dead – Use of Neon Tester, Shorting Chain and Safety Tagging
  - Start of the work – Right person for the right job
  - Alert supervision
  - Completion of the job – Check points
  - Energization of network
  - Actions to be taken in case of some accident

**Session: 2**

**Topic:** Use of Electrical Testing Equipment

**Methodology:** Lecture and Practical Demonstration

**Sub Topics:**

1. Meggar, Hi Pot, Clamp On Meter, Neon Tester, Discharge Rod, Line tester etc.

**Session: 3**

**Topic:** Awareness of Electrical Safety Aspects

- A. Understanding the need of this Training and Safety
- B. Learning specifics of HT & LT Network
- C. Major type of work to be carried out in zones
- D. Switching Operations (Do's & Don'ts) including Street Light Switching
- E. Working on Height (*practical demo also*)
- F. Understanding the Safe Process of Maintenance / Working:
  - Planning of the job
  - Availability of men, material & machine, PPEs, Safety gear and approved PTW
  - Briefing of the job by the supervisor
  - Permit to Work
  - Safety Tagging and Lock Out Tag out

Doc. Title	<b>GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS</b>	
Rev. No	0	Page 93 of 104

- Identification of Risks associated with the work to be carried out and planning for controlling measures by proper supervision
- Concept of "**Safety Zone**"
- Identification and use of Neon Tester, Shorting Chain, Clamp On Meter, Hi Pot, Meggar etc.
- Completion of the job – Check points
- Accident Theory & Incident Reporting
- Actions to be taken in case of some accident

#### **Session: 4**

**Topic: Identification, Demonstration and Usages of Tools, PPEs and other Safety Gears and demonstration of working on HT pole**

#### **Session: 5**

**Topic: Practical demonstration of Safety Zone creation**

### **FREQUENCY**

#### **Regular Safety Training Program**

- It will be conducted for all field & supervisor staff of BA in such a manner that all BA Personnel attend at least two hours safety training during every month.

#### **One Day Induction Safety Training Programs:**

- This training will be for the new BA's personnel, who have been cleared by the Cross Functional Panel to undergo Safety training and who are likely to be deployed at various work sites of TPCODL by the BA, as a part of AMC / Work Contract.

#### **Duration / Periodicity:**

- Duration and periodicity has been defined above. However, this is subject to change at the discretion of TPCODL.

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 94 of 104

**Annexure 7 (Refer Para 5.7)**




**LIST OF PERSONAL PROTECTIVE EQUIPMENT AND TESTING FREQUENCY**

Sl. No.	Name of PPE	IS / EN Standard	Testing Frequency	Remarks	Ref Brand & Model
01	Leather Safety Shoes (Color – Black) with PU toe cap.	IS:15298 (Part-2)	Monthly and visual check every day for any crack or damage in the leather or sole.		BATA (Model No.- Endura L/C)  Liberty (Model No. – 7198-01 HT Barton Black – Warrior)
02	HDPE Safety helmet with chin strap and ratchet type for adjustment.	IS:2925-1984	Monthly and visual check every day for any crack in shell.		Karam (PN Safetech )  Joseph Leslie  Accent Industries  Honeywell
03	Full body harness (Safety belt)	EN 361	Monthly and visual check every day of the bends and the harness.		Karam (PN Safetech )  Joseph Leslie  Accent Industries
04	Electrical Safety Gloves	EN: 60903 CE marked	Weekly and visual check for any crack and blow test before every work.	Manufactured not beyond 12 months.	Make Sparian / Sumitech / CATU supplied with inner cotton glove with over glove of split leather.
05	Full face visor with safety helmet	EN: 166 CE marked (Visor)	Monthly and visual check every day for any crack in shell.	Clear acrylic visor attached with safety helmet.	Karam (PN Safetech )  Joseph Leslie  Accent Industries  Honeywell
06	Fire Proof jacket for chest protection		Monthly and visual check every day.		
07	Safety Chain for shorting cum earthing.	As per TPCODL standard	Weekly and visual check before every work.	Made of brass, Total length – 5.5 meters and made of 12 SWG.	

*Note:*

1. Any other Personal Protection Equipment required beyond above list will be according to BIS or EN Standards.
2. All Personal Protection Equipment will be checked by the engineer in-charge or SAFETY group of TPCODL.
3. Safety Representative of the BA has to maintain the record of the availability, condition and checking of the PPEs.
4. All tools required as per the contract must be according to respective IS / EN standards.
5. TPCODL may revise or add the above list of PPE and their specifications as and when feel necessary. The information about new specifications /models will be circulated by the Engineer In-charge (EIC), which shall adhere by the business associated in the shortest possible time. The EIC shall issue a memo / instruction to BA with timeline for implementation. Any delay will be treated as non-compliance / safety violations. Refer picture of each PPE given in next page.

**Pictures of PPE for reference purpose.**

Sl. No.	Name of PPE	IS / EN Standard	Picture
01	Leather Safety Shoes (Color – Black) with PU toe cap.	IS:15298(Part-2) and with test report of electrical resistance.	
02	HDPE Safety helmet with chin strap and ratchet type for adjustment.	IS:2925-1984	
03	Full body harness (Safety belt)  The straps at shoulder and thigh shall have full pad for comfort. The back shall be so designed that harness straps do not tangle with each other.	EN 361:2002 EN 358 : 2000 IS: 3521:1991/2002	

04	Electrical Safety Gloves – Composite type Soft electrical gloves as per size of individual.	EN: 60903 CE marked	
05	Full face visor with safety helmet	EN: 166 CE marked (Visor)	
06	Fire Proof jacket for chest protection		
07	Safety Chain for shorting cum earthing.	As per TPCODL standard	
08	Reflective jacket to each workmen	As per TPCODL standard	

Note : Picture shown are for indicative purpose only. Actual product may differ.

**Annexure 8 (Refer Para 5.8) LIST OF AUDITS TO BE CONDUCTED**

Audits	Responsibility	Freq.	Ref. Doc.
Permit to Work & Field Audit	BA Safety Representative	Weekly	F04 (COR P - 12)
Tool Bag & PPE's Audit		Weekly	F06 (COR P - 12)
First Aid Box Maintenance Record		Fortnightly	F08 (COR P - 12)
Fire Extinguisher Record <i>(Applicable for the BA involved in major construction works and have storage of flammable material at worksite)</i>		Monthly	F09 (COR P - 12)
Safety Talk Register		Weekly	F18 (COR P - 12)
Site Safety Audit		Daily	F29A (COR P - 12)

Note:

1. (BA Safety Representative has to use the formats as per Safety process COR – P – 12 of TPCODL)

**Annexure 9 (Refer Para 5.9)**

**PERFORMANCE REPORT – SAFETY**

**FOR THE MONTH OF.....**

Name of BA : .....

Name of the Project and Purchase order No: .....

Date of commencement of work: .....

Man Hour Worked in this month (No. of employees X 8 Hrs + Overtime): .....

Cumulative Man Hour worked: .....

Total Number of Minor Injury (this month): ..... Minor Injury (Total).....

Major Injury (this month): ..... Major Injury (Total): .....

Detail of the Incident / Sub Standard Acts and Condition

Activity	This Month	Cumulative (Total)	Day Lost (this month)	Days Lost (Cumulative)
No. of the Incident				
No. of lost time injuries				
No. of dangerous occurrences				
No. of near miss reported				
Substandard Act/Conditions observed			Attach details of observation of this month	
Safety Violation Notice received (from TPCODL) (both in numbers and in Rs.)	No.	No.	No. of violation letter received and compliance report for the TPCODL.	
	Rs.	Rs.		

*Note: Cumulative means total from date of commencement of work according to the contract.*

Detail of the Accident / Near Miss Incidents:

Date and Time	Type of the incident	Name of Employee	Brief Description	Corrective and Preventive actions recommended

Details of the Safety Violations:

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 99 of 104

Date and Location	Brief Description	Name of employee involved	Action Taken

Detail of the Safety Talk / Tool Box Talk / Safety Training

Date and Location	Topic (s)	Total Number of employees (Worker / Supervisor)	Number of participants (Worker / Supervisor)

Detail of the Safety Meeting

Date and Location	Number of participants	Topics discussed	Major Observations / Innovation

Detail of the Safety Inspection /Audit: (as per TPCODL site audit checklist F29A(COR-P-12))

Date	Area / Location	Major Observations	Recommendations	Action Taken

Any other Safety, Occupational Health, Environment & Disaster Management Promotional Activity (During this month):

Date	Location	Activity	Level of Participation	Number of participation

Signature of the BA Safety Representative  
HoG

Signature of ZM /

Name, E. No. and Date

Name, E. No. Date.

*Note: The original form to be deposited with Engineer in-charge and a copy to SAFETY group on or before 5<sup>th</sup> of every month along with bill. List of training of the current month and status of PPE to be also mentioned individual wise.*

*BA may include additional lines if required. The TPCODL may revise the format as and when deemed required.*



Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 100 of 104

**ANNEXURE-M**  
**VENDOR APPRAISAL FORM**

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

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 101 of 104

		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	:
<b>9.0</b>	<b>MANUFACTURE</b>		
	9.1	SHOP SPACE, LAYOUT LIGHTING, VENTILATION, ETC.	:
	9.2	POWER (KVA)	:
		MAINS INSTALLED	:
		UTILISED	:
		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.)	:

Doc. Title	<b>GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS</b>	
Rev. No	0	Page 102 of 104

	9.8	WORKMANSHIP	:
	9.9	MATERIAL IN STOCK AND VALUE	:
	9.10	TRANSPORT FACILITIES	:
	9.11	CARE IN HANDLING	:
<b>10.0</b>	<b>INSPECTION / QC / QA / TESTING</b>		
	10.1	NUMBER OF PERSONNEL (INDICATE NO.OF YEARS OF EXPERIENCE)	:
	10.2	INDEPENDENCE FROM PRODUCTION	:
	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 RECOGNISED LABORATORIES	:
		i) FURNISH LIST OF TESTS CARRIED OUT AND THE NAME OF THE LABORATORY WHERE THE TESTS WERE CONDUCTED	:
		ii) CHECK AVAILABILITY OF CERTIFICATES AND REVIEW THESE WHEREVER POSSIBLE	:
<b>11.0</b>	<b>EXPERIENCE (INCLUDING CONSTRUCTION / ERECTION / COMMISSIONING) TO BE FURNISHED IN THE FORMAT INDICATED IN APPENDIX)</b>		
<b>12.0</b>	<b>SALES, SERVICE AND SITE ORANISATIONAL DETAILS</b>		

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 103 of 104

13.0	<b>CERTIFICATE FROM CUSTOMERS (ATTACH COPIES OF DOCUMENTS)</b>	:
14.0	<b>POWER SITUATION</b>	:
15.0	<b>LABOUR SITUATION</b>	:
16.0 *	<b>APPLICABILITY OF SC/ST RELAXATION (Y/N) IF YES, SUPPORTING DOCUMENTS TO BE ATTACHED</b>	
17.0	<b>ORGANIZATIONAL DETAILS</b> 1. PF NO 2. ESI NO 3. INSURANCE FOR WORK MAN COMPENSATION ACT NO 4. ELECTRICAL CONTRACT LIC NO 5. ITCC / PAN NO 6. SALES TAX NO 7. WC TAX REG. NO	:
18.0	<b>DOCUMENTS TO BE ENCLOSED:</b> 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. GST Registration No	

\* **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.**

Doc. Title	GENERAL CONDITIONS OF CONTRACT - COMPOSITE WORKS	
Rev. No	0	Page 104 of 104

**ANNEXURE-N**  
**MANUFACTURER AUTHORIZATION FORM**

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

Date: .....

Tender Enquiry No.: .....

To,

Chief (Procurement & Stores)

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

Contract Ref No.....	THE TATA POWER COMPANY LIMITED	
	TERMS AND CONDITIONS OF CONTRACT	
	PACKAGE.....	

## CONTENTS

Sr. No.	Particulars	Page No.
1.	SCOPE OF WORK.....	2
2.	COORDINATION WITH OTHER CONTRACTORS.....	2
3.	TIME OF COMPLETION.....	2
4.	COMPLETION OF THE WORKS.....	3
5.	CONFIDENTIALITY.....	3
6.	CODES AND STANDARDS.....	3
7.	PRICE & PAYMENT TERMS.....	3
8.	EXTRA/DEVIATED ITEMS.....	4
9.	TAXES & DUTIES.....	5
10.	LABOUR LAWS & INDEMNIFICATION.....	5
11.	QUANTITIES.....	6
12.	RISK AND INSURANCE.....	7
13.	MATERIAL STORAGE, LABOUR ACCOMMODATION AND PROTECTION OF THE WORKS.....	7
14.	CONSTRUCTION WATER, POWER AND STAGING.....	7
15.	SAFETY & QUALITY.....	8
16.	SERVICES AND FACILITIES BY THE OWNER/PROJECT MANAGER.....	9
17.	CONTRACTOR'S PERSONNEL.....	9
18.	PROGRESS OF WORK.....	9
19.	WORK IN MONSOON & DEWATERING.....	9
20.	DELAYS AND EXTENSION OF TIME.....	10
21.	LIQUIDATED DAMAGE.....	11
22.	STEP IN PROVISION.....	11
23.	ASSIGNMENT & SUBCONTRACTING.....	11
24.	DEFECTS & WARRANTY.....	11
25.	TERMINATION OF CONTRACT.....	11
26.	DISPUTES & ARBITRATION.....	12
27.	LAW LANGUAGE & MEASUREMENTS.....	13
28.	FORCE MAJEURE.....	13
29.	CHANGE.....	14
30.	MISCELLENIOUS.....	15

- Annexure- I Safety Terms & Conditions  
Annexure- II Safety Health & Environment and sustainability Policy  
Annexure- III Tata Code of Conduct (TCOC)

Contract Ref No.....	THE TATA POWER COMPANY LIMITED	
	TERMS AND CONDITIONS OF CONTRACT	
	PACKAGE.....	

**TERMS & CONDITIONS OF CONTRACT**

**1. SCOPE OF WORK:**


- 1.1 The scope of work under this Contract includes all activities required to complete the Works in accordance with the Specifications, drawings & BOQ which are part of Contract.
- 1.2 Supply of all resources inclusive of, but not limited to, men, materials and machinery, equipment, tools & tackles, scaffolding, formwork, consumables, all enabling activities etc., complete required for above works at each and every stage in time, to adhere to the completion date are included in scope of work unless otherwise specifically stated elsewhere in this agreement.
- 1.3 All temporary facilities required for the Works like site office, stores, employee welfare facilities, labour accommodation & transportation etc are in Contractor’s scope of work.
- 1.4 The entire scope of Contract Works shall be carried out strictly in accordance with the true intent and meaning of the scope of Contract Works, specifications, drawings and BOQ taken together, so that the Contract Works when completed are fit for the intended purposes. All documents comprising the scope of Contract Works and all parts of each of these documents or document mentioned therein are supplementary and complimentary to each other and shall be construed accordingly.

**2. COORDINATION WITH OTHER CONTRACTORS:**

Contractor shall be required to co-operate and co-ordinate with the other Contractors and/or Subcontractor's working simultaneously at Site at the same premises, and shall maintain harmonious and cordial relations at all times. There shall be no exclusive access for the Contract works, a proper coordination is required from other trade works. Contractor shall take necessary steps to ensure that the equipment and works of Owner, third parties, other contractors including other utility services like water supply pipeline, telephone cables etc are not damaged during execution of Contract Works or otherwise by Contractor or Contractor’s employees, subcontractors, suppliers etc. Contractor shall be responsible for all such damages and shall have to repair/replace and/or compensate for such damages at its own cost and indemnify the Owner for any losses suffered by the Contractor as a result of such damages caused by the Contractor.

**3. TIME OF COMPLETION:**

Time is of the essence in this Contract.  
The starting and completion date of the Work in all respects shall be as per the construction schedule provided elsewhere in the Contract. The Contractor shall strictly adhere to the program and the Owner’s representative(s) shall review the same periodically.

Contract Ref No.....	THE TATA POWER COMPANY LIMITED	
	TERMS AND CONDITIONS OF CONTRACT	
	PACKAGE.....	

Contractor shall start his mobilization activities within 7 working days from the date of this agreement/Notice to proceed and intimate the progress to Owner's representative time to time.

**4. COMPLETION OF THE WORKS:**

Completion of the works shall be on the issuance of a Completion Certificate by the Owner to the Contractor. Following minimum criteria shall be fulfilled before issuance of completion certificate.

4.1 Completion Criteria

4.1.1 The Contract Works shall be Complete when the following criteria have been satisfied:

- i) Completion of the Works and successful completion of all tests to the satisfaction of Owner in accordance the scope, technical specifications and Contract documents
- ii) Rectification of all punch list items and certification of the same by Owner
- iii) Submission of all As-Built Drawings

**5. CONFIDENTIALITY:**

Contractor shall not, without the previous written consent of Owner's representative, use, copy, publish, disclose or otherwise deal with, nor cause nor permit its sub-contractors, agents, employees, directors, advisors or any persons for whom it is contractually or otherwise responsible for, to use, copy, publish, disclose or otherwise deal with any confidential information, otherwise than for the performance of its obligations under the under the Contract, disclosure to advisors or otherwise as required under the applicable laws or local laws.

**6. CODES AND STANDARDS:**

The work shall be carried out as per the specifications laid down by the consultant. In the absence of the relevant code of practices also, the instructions of the authorized Owner's Representatives and or standard engineering practice shall be adopted. In case of contradictions/conflicts between the specifications, the interpretation of the Owner's representative shall be final and binding on both parties.


**7. PRICE & PAYMENT TERMS:**

7.1 **Price:** The agreed Contract Price and rates as per the price schedule given elsewhere in Contract shall remain fixed till the completion of works.

7.2 **Payment Terms**

- i) Monthly running bill shall be paid based on actual completion of work at site duly certified by Engineer in charge.
- ii) Retention: 10% of the gross value of each Running account (RA) shall be retained as retention money. This retention money shall be released after satisfactory completion of defect liability period.



Contract Ref No.....	THE TATA POWER COMPANY LIMITED	
	TERMS AND CONDITIONS OF CONTRACT	
	PACKAGE.....	

- iii) Income tax and any other statutory recoveries as applicable shall be recovered from Contractor monthly running bills and TDS certificate for the deductions shall be furnished.
- iv) All payments shall be made by the Owner to the Contractor within 45 days from the date of receipt of Contractor's error free invoice along with all the back-up documents complete in all respects.
- v) All payments are subject to signing of Contract Agreement and submission of an unconditional EMD cum Contract Performance bank guarantee.

**7.3** Where mode of measurement is not specified in Contract documents/specification, the measurements will be taken at site as per relevant I.S. Code of Practice for Measurements.


**7.4** The Owner/Owner's representative may from time to time intimate to the Contractor that they require the works to be measured and the Contractor shall attend or send a qualified agent to assist the Owner's representative in taking such measurements and calculations and to furnish all particulars or to give all assistance required by either of them. The Contractor shall give all assistance for taking measurements like steel measuring tapes, scaffolds, ladder and including surveyors with surveying instruments for checking and confirming levels.

**7.5** The final bill shall be submitted by the Contractor within 45 days of the date of the certificate of completion furnished by the Owner, otherwise Owner's representative's certificate of the measurement and the total amount payable for the work accordingly shall be final and binding on all parties.

**8. EXTRA/DEVIATED ITEMS:**

**8.1** No extra item shall be carried out without the prior approval from the Owner in writing. Any change in the specification/design resulting in additional expenditure shall be carried out only with the prior approval of the Owner in writing.

**8.2** Extra items approved by Owner shall be paid on the basis of vouchers of cost of materials and labour produced by the Contractor. Vouchers produced for materials, labour, machinery etc. shall be accepted only if such vouchers are as per the prevailing market rates. The Contractor shall be paid 20 percent of the cost of materials, labour and operation of plant and machinery etc. required to execute the item, towards his profit and overhead charges. For such extra work, the Contractor shall maintain time sheets of personnel engaged and machinery used for execution of same and get them certified by the Owner. Only such labour and plant cost based on above records, which in the opinion of the Owner is justified, shall be taken into account to determine the extra item rate.


Contract Ref No.....	THE TATA POWER COMPANY LIMITED	
	TERMS AND CONDITIONS OF CONTRACT	
	PACKAGE.....	

**9. TAXES & DUTIES:**

- 9.1 The price & rates quoted by Contractor and as mentioned in the schedule of price shall be inclusive of all taxes, Octroi, statutory clearances, duties, levies etc. Complete for each item.
- 9.2 Contractor shall submit an Income Tax Clearance certificate from the Income Tax department for the period including the past three (3) years.
- 9.3 Contractor shall provide a valid Provident Fund registration number; VAT and service tax registration number and evidence of the same shall be enclosed.
- 9.4 Failure to submit the evidence for the above will entitle the Owner to deduct appropriate tax liability values, Provident Fund values at the applicable rates from approved billing values. Such deductions shall not be refundable to the Contractor.
- 9.5 Any statutory variation in rate of applicable Indian taxes, duties, levies etc., any variation in applicable taxes or interpretation/enforcement of the same or introduction of new taxes or the introduction/amendment of any exemptions (other than Direct taxes i.e. Income Tax, corporate tax etc), levied in India, starting from 2 (two) Days prior to the Closing Date for submission of Bid but within the Guaranteed Completion Date of Works, shall be to the account of the OWNER/PROJECT MANAGER. Such adjustment shall be limited to direct transactions between the OWNER/PROJECT MANAGER and the Contractor and no amounts shall be payable on account of variation on taxes, duties and levies between the Contractor and its sub vendors/Sub-contractors/suppliers.

**10. LABOUR LAWS & INDEMNIFICATION:**

- 10.1 All employees and personnel engaged by the Contractor and approved sub-contractors shall be the employees of the Contractor or such approved sub-contractors, as the case may be and shall not, under any circumstances, be deemed to be the employees or agents or contractors of the Owner. Contractor shall comply with all the applicable laws, including labour related laws of the State Government, Central Government and local authorities as applicable to the place of work. All records to be maintained under these laws shall be maintained by Contractor and produced to the concerned authorities and the Owner as and when directed to do so. No extra payment will be made by the Owner to comply with such laws.  
Contractor shall bear the entire responsibility, liability and risk relating to coverage of his workforce under different statutory regulations including Workmen’s Compensation Act, The Employees Provident Fund Act, The Employees State Insurance Act, Factories Act 1948, the Contract labour Regulation Act 1970 and any other relevant regulations as applicable.  
Contractor shall be solely responsible for the payment of all employee and worker related benefits such as provident fund, bonus etc as applicable as per the various statutory regulations and shall keep Owner indemnified in this regard against any claim by its employees or workmen or sub-contractors.

Contract Ref No.....	THE TATA POWER COMPANY LIMITED	
	TERMS AND CONDITIONS OF CONTRACT	
	PACKAGE.....	

[10.2 The Contractor shall be fully responsible for the due compliance by him and his sub-contractors with all statutory requirements and with all applicable labour laws including Contract Labour Abolition and Regulation Act, Workmen’s Compensation Act, P.F./E.S.I., Labour welfare fund, Act as may be applicable to the Contractor, the sub-contractors and their employees. The Contractor shall fully indemnify and save harmless the Owner from and against all claims, demands, expenses, losses, liabilities, charges, actions, suits and proceedings whatsoever including claims under aforesaid Acts and laws which may be brought or made against the Owner, its Officers or servants by reason or in consequence of any matter or thing done or omitted to be done by the Contractor and/ or its sub-contractors and all costs, charges and expenses which may become payable by the Owner in respect thereof.


10.3 Contractor shall fully indemnify, save harmless and defend the Owner & it’s Representative/s from and against any and all claims, including reasonable legal costs, (collectively the “Damages”), including by third parties in respect of death or bodily injury or in respect to loss or damage to any property (other than the Works, Plant or part thereof not yet taken over) which arises out of or in consequence of the Services whilst the Contractor has responsibility for the care of the Works to the extent resulting from Contractor’s or any Sub-Contractor’s or their agents or employees act, negligence, or strict liability or omission in the performance of the Services hereunder; provided that the foregoing obligation shall not apply to the extent such damages are caused by the intentional acts or omissions of the Owner or Owner’s representative/s.

**11. QUANTITIES:**

11.1 The quantities against various items of work furnished in the Schedule of Quantities are only approximate and are based on preliminary designs. They are meant only for the purpose of having a common base of comparison of various tenders. Prices and rates quoted shall be firm for a variation in the total Contract price by ± 25% (plus or minus twenty five percent) with the provision that quantity of individual items of work may vary to any extent. No additional financial compensation will be payable in this regard.

BIDDER shall furnish percentage extra/rebate over the Contract Price in case variation in the contract price exceeds ± 25%. In case BIDDER does not specify this, the quoted price shall be deemed to remain unaltered for any variation beyond ±25%. No extension of time will be granted in case of increase /decrease of quantities/Contract Price beyond ± 25% due to additional quantities of work to any extent for any or all items of work.

11.2 The quantities of the various kinds of work to be done and materials to be furnished under this Contract which have been estimated and are set forth in the proposal or the Agreement or the Schedule of Quantities and Rates are the best available, but may not be accurate in any or all particulars and are only for the purpose of comparing on a uniform basis the bids offered for the work under this Contract

Contract Ref No.....	THE TATA POWER COMPANY LIMITED	
	TERMS AND CONDITIONS OF CONTRACT	
	PACKAGE.....	


- 11.3 The CONTRACTOR agrees that neither the OWNER/PROJECT MANAGER nor the ENGINEER nor any of the employees or agents thereof shall be held responsible if any of the said estimated quantities should be found to be not even approximately correct in the construction of the work and that he will not at any time dispute or complain of such statement nor assert that there was any misunderstanding in regard to the character, size and type of work to be done or the kind or amount of the materials to be furnished or work to be done. Further, the CONTRACTOR shall make no claim for anticipated profits, for loss of profit or for damage because of a difference between the quantities of the various kinds of work to be done or materials actually delivered and the estimated quantities set forth by the OWNER/PROJECT MANAGER or the ENGINEER
- 11.4 The rates/prices quoted by the CONTRACTOR in the schedule of rates/prices shall be fixed irrespective of any variation in the quantities of individual items of work and/or in the total Contract Price unless otherwise specified in the Contract.

**12. RISK AND INSURANCE:**

- 12.1 Contractor shall maintain with respect to the Work to be done under the Contract, in each applicable jurisdiction, all statutory insurance benefits and other insurances required by law.  
Contractor shall be responsible for suitably insuring his entire work force , tools, plant, third party liability at the project site, all risk comprehensive insurance including CAR policy for entire Works under the Contract and any such risk, till the works are complete and handed over. Copies of all such insurances shall be submitted by Contractor to Owner’s representative for review. Owner shall be fully indemnified in this respect.
- 12.2 **Liability Limitation:** The Contractor’s total liability to the Owner for all matters under or arising out of this Contract, other than the Excluded Matters, is limited to 100% of the Total Contract Value in aggregate. For the purpose of this clause 12.2, “Excluded Matters” shall mean liabilities arising on the Contractor on account of fraud, willful default, reckless misconduct by the Contractor or any regulatory penalties / third party claims that are made on the Owner on account of a breach of this Contract by the Contractor.

**13. MATERIAL STORAGE, LABOUR ACCOMMODATION AND PROTECTION OF THE WORKS:**

- 13.1 Contractor shall take all necessary steps to protect the Contract Works until fully taken over by the Owner. Completion shall be acknowledged by the issuance of a Completion Certificate issued by the Owner.
- 13.2 If available at site, space for material storage may be provided to Contractor, otherwise Contractor to arrange separately for the storage of materials at his own cost.
- 13.3 Contractor shall make all necessary arrangements for the accommodation of Contractor's labourers and personnel outside the site at no cost to the Owner.

Contract Ref No.....	THE TATA POWER COMPANY LIMITED	
	TERMS AND CONDITIONS OF CONTRACT	
	PACKAGE.....	

13.4 Contractor shall make all necessary arrangements for transporting labours and workers from the accommodation to the work place at no charge to the Owner.

**14. CONSTRUCTION WATER , POWER AND STAGING:**

14.1 Water and Electricity required for the execution of the works shall be arranged by the Contractor at his own cost.

14.2 It shall be ensured by the CONTRACTOR that work shall proceed uninterrupted even in the event of power failures with the help of DG Sets and Diesel compressors. As such, adequate number of diesel operated machinery (such as boring rigs, concrete mixers, vibrators, welding sets, etc.) shall be provided by the CONTRACTOR at its cost as an alternative arrangement in case electrically operated machinery are proposed to be brought to site.

14.3 Necessary scaffolding for the work is in the scope of the Contractor.

**15. SAFETY & QUALITY:**

**15.1 SAFETY RULES & REGULATIONS**


15.1.1 Contractor shall abide by Health, Safety & Environment policy of Tata Power as mentioned in clause 15.3 below. Also Contractor and his personnel shall follow all safety standards, specifications and practices in construction as per applicable laws and also as instructed by Owner's Safety In charge. Any violation shall attract penalty as determined by the Owner. All safety appliances and personal protective equipment required such as, but not limited to, safety helmets, safety footwear, safety belts, goggles, hand gloves etc. shall be arranged by Contractor at Contractor's cost. All Contractor works shall be monitored by the Safety engineer of the Owner. If the Owner is aware of any non compliance thereto, then the Owner will not only be entitled to make alternate arrangements for the same but also recover costs and damages for the same plus the Owner's own charges as deemed fit by the Owner.

Contractor and all Contractors' personnel shall abide by all safety standards, specifications and practices in construction and also as instructed by Owner's representative. Contractor is responsible for the safety of Contractor's staff and workmen. Contractor shall be subject to Safety audit at regular intervals.

15.1.2 Contractor shall indemnify the Owner against all claims, proceedings, legal actions etc whatsoever which arise due to Contractor's failure of following safety rules & regulations as mentioned above.

**15.2 QUALITY OF THE WORKS**

15.2.1 The works carried out by the Contractor shall be of best quality as per industry standard and specifications issued by the Owner. Wherever required, Contractor shall submit

Contract Ref No.....	THE TATA POWER COMPANY LIMITED	
	TERMS AND CONDITIONS OF CONTRACT	
	PACKAGE.....	

relevant test certificates for the materials/equipment/machinery/tools supplied/usage. If in any case the material used by the Contractor for the intended work is found defective, then the Contractor must replace the materials within 7 days of such defect notice. If the Works carried out by Contractor are not as per specification or relevant standards, the same shall be entrusted to some other agency at Contractor's risk and cost. The Contractor shall deploy sufficient numbers of dedicated full time quality assurance/quality control engineers at work place.


**15.3 TOTAL COMPLIANCE TO TCOC, SHE AND CSM:**

The Contractor shall abide and comply with Owner Safety, Health & Environment policies, Contract Safety Management (CSM), Sustainability and TCOC manuals / documents as enclosed, in totality.

**15.4 CONSEQUENCE MANAGEMENT FOR SAFETY**

In addition to CSM manual, following to be complied by the Contractor

- i) All Contractors working with Tata Power are to be ISO 14001 / OSHAS certified. In case it is not, Contractor shall obtain ISO 14001 / OSHAS within 6 months of the Effective Date of the Contract.
- ii). Contractors who have obtained OHSAS certification and have achieved 100% safety audit score for compliance will be eligible for 0.25% of the contract value as incentive which shall be payable at the time of closure of the Contract based on overall safety audit score.
- iii). 2% of monthly invoice value shall be retained towards safety assessment. The said payment will be released after the safety audit / performance score is calculated by the Company for the respective month provided there are no safety incidents / violations reported for the Contractor for the respective month after deduction of LDs as enumerated below:
  - a) 1st time violation of safety with severity 4 and 5 (highest severity) - Rs.10,000/- per incident
  - b) 2nd time violation of safety with severity 4 and 5 (highest severity) - Rs.25,000/- per incident
  - c) 3rd time onwards violation of safety with severity 4 and 5 (highest severity) - Rs.100,000/- per incident
- iv). For multiple incidents (more than 5 incident during contract), Project Manager / Site Manager to be changed by the Contractor.
- v). In case of fatality, LD of Rs.5,00,000/- shall be payable by the Contractor.
- vi). The above LDs shall be over and above liabilities including 3rd party claims & liabilities / statutory liabilities arising out of bodily injury or including death whether by accident or otherwise.

Contract Ref No.....	THE TATA POWER COMPANY LIMITED	
	TERMS AND CONDITIONS OF CONTRACT	
	PACKAGE.....	

- vii). Contractor shall submit list of tools & tackles with details of make, year of manufacturing, valid certification to the Project Manager/ User for their approval
- viii). Project Manager may during the execution of project inspect & verify that the tools & tackles are as per the qualification requirements approved by him and will have right to seek replacements in case of any discrepancies. The Contractor shall always comply with such directives.
- ix). Safety Committee at Site shall be the sole authority and shall have the sole right to assess the safety performance / audit of the Contractor and their decision on rewards / LDs shall be final and binding on the Contractor. Contractor to note that in case of repeated safety violations / gross violations of Company's Safety Policy, the Contract may be terminated without notice and the Contractor delisted from Tata Power / associates / group companies.

**16. SERVICES AND FACILITIES BY THE OWNER/PROJECT MANAGER:**

The following facilities and services will be provided by the OWNER/PROJECT MANAGER to the Contractor:

- i) Only a base line and one permanent benchmark would be furnished to the Contractor near the site. Surveying and laying out of all works shall be in Contractor's scope. Contractor shall maintain without disturbance during the course of execution of the work the reference line and the workbench mark.
- ii) The Owner will hand over to the Contractor within one week from the date of issue of Letter of Intent some areas, as available at site to enable Contractor to make arrangements for stores, site office, etc. at his own cost. If space provided for storage facilities is not sufficient, the Contractor has to make his own arrangement for space at his own cost outside the plant.


**17. CONTRACTOR'S PERSONNEL:**

Contractor shall engage a Project Manager at site at all times who will be single point of contact for the Works. Contractor shall also engage qualified & experienced Engineers & supervisors at site at all times. Contractor shall also engage a separate Safety officer and Quality incharge and adequate safety stewards for the entire duration of Contract.

**18. PROGRESS OF WORK:**

- 18.1 Within 7 days upon award, the Contractor shall submit an detailed Contract Works program containing all the important milestones in the project to the Owner for approval. The work program shall fulfill the time requirements as stipulated elsewhere in Contract. Such program shall be supported with details of resource deployment.
- 18.2 Contractor has to provide weekly and monthly progress report and progress photographs to the Owner. Contractor shall also submit a resources schedule to the Owner and augment the workforce of equipment as and when required to attain requisite progress of works without any extra cost to Owner.



Contract Ref No.....	THE TATA POWER COMPANY LIMITED	
	TERMS AND CONDITIONS OF CONTRACT	
	PACKAGE.....	

**19. WORK IN MONSOON & DEWATERING:**


- 19.1 The construction and erection work may entail working in monsoon also. The CONTRACTOR must maintain a minimum labour force as may be required for the job and plan and execute the construction and erection during monsoon according to the prescribed schedule. No extra rate will be considered for such work in monsoon. During monsoon and other period it shall be the responsibility of the Contractor to keep the construction site free from accumulating of water, at his own cost.
- 19.2 During inclement weather, rains, CONTRACTOR shall suspend concreting for such time as the Owner may direct and shall protect from damage all works already in progress or completed just then. All such temporary protective measures shall be at Contractor's cost and any damage to works shall be made good by the Contractor at his own expense.

**20. DELAYS AND EXTENSION OF TIME:**

- 20.1 The time allowed for carrying out the work as mentioned in the Contract shall be strictly observed by the Contractor.
- 20.2 If the Contractor shall desire an extension of time for completion of work on the grounds of his having been unavoidably hindered in its execution or any other ground, he shall apply in writing to the Owner within 5 days of the date of hindrance on account of which he desires such extension as aforesaid. This application must be accompanied by sufficient documentation giving reasons for seeking such extension. No application for such extension shall be entertained if it is not received in sufficient time to allow the Owner to consider it and the Contractor shall be responsible for the consequences arising out of such negligence. Upon receipt, Owner may accept or reject such application.

In the event of a disruption (other than suspension by Owner) to the Schedule and if in the opinion of Contractor it is not the responsibility of Contractor or its any Sub-contractor and which might have been caused due to action of any third parties which CONTRACTOR might not have reasonably prevented, and that Contract entitles Contractor to time extension and/ or other relief from Owner, the Contractor shall notify the Owner within twenty four (24) hours and provide a written report (to the best of Contractor's knowledge at the time) of the disruption within 72 (Seventy Two) Hours of Contractor's learning of the disruption and such report shall be supplemented on a prudent, informative and timely basis thereafter not later than 14 (Fourteen) Days from the date of Contractor's first learning of such disruption. In such an event the Contractor may modify and resubmit for approval to Owner, computer based network schedule and modifications if any required to the Schedule. Upon receipt, Owner shall take reasonable action in accordance with the Contract.



Contract Ref No.....	THE TATA POWER COMPANY LIMITED	
	TERMS AND CONDITIONS OF CONTRACT	
	PACKAGE.....	

Contractor in any case has to inform to Owner immediately upon learning of any possible hindrances to the Works which have caused or may cause delay or other impact to the Works to enable Owner take suitable action.

20.3 The OWNER/PROJECT MANAGER shall have the right to order discontinuance/suspension of the work, in whole or in part, for such time as may be necessary in the opinion of OWNER. In such an event, the OWNER/PROJECT MANAGER will grant such extension of time for completion of the Contract which in its opinion is proper and/or other relief in accordance with Contract in consequence of such delay.

**21. LIQUIDATED DAMAGE:**

In the event that the works are delayed beyond the interim milestone completion date / contractual completion date, Liquidated damage to the extent of 1% of the contract value per week of delay shall be levied, subject to a maximum of 10 % of the total contract value.

**22. STEP IN PROVISION:**

22.1 Should the progress or quality of the works be found to be persistently lesser than that required to complete the works by the Completion Date, following due notification to the Contractor of such progress deficiencies, Owner reserves the right to:

- a) Supplement the resources of the Contractor at Contractor's cost
- b) Remove a part of, or all remaining works from, the Contractor's scope and have the works completed by others at Contractor's risk and cost.

22.2 The Owner shall incur no cost greater than the Contract value in supplementing the Contractor, or completing the works by other means. All cost beyond that of the Contract value shall be borne by the Contractor.

**23. ASSIGNMENT & SUBCONTRACTING:**


Contractor shall not assign or subcontract in part or otherwise any portion of this Contract without prior written approval of Owner.

**24. DEFECTS & WARRANTY:**

Contractor is responsible for defects in the Works for a period of 12 (Twelve) months from the date of Issuance of the Completion certificate issued by the Owner/Project Manager to the Contractor for the Works.

**25. TERMINATION OF CONTRACT:**

Date.....


Contract Ref No.....	THE TATA POWER COMPANY LIMITED TERMS AND CONDITIONS OF CONTRACT	
	PACKAGE.....	

If the Contractor (being an individual or a firm) commit any 'Act of Insolvency', or shall be adjudged as insolvent, or shall make an assignment or composition for the greater part in number or amount of his creditors, or shall enter into a Deed of Assignment with his creditors, or (being an Incorporated Company) shall have an order made against him or pass an effective Resolution for winding up either compulsorily or subject to the supervision of the Court or voluntarily, or if the Official Assignee of the Contractor shall repudiate the Contract, or if the Contractor shall assign or sublet the Contract without the consent in writing of the Owner first obtained, or if the Owner's representative shall certify in writing to the Owner that in his opinion the Contractor,

- i. Has abandoned the Contract, or
- ii. Has failed to commence the works, or has, without any lawful excuse under these conditions suspended the progress of the works for fourteen days after receiving from the Owner written notice to proceed, or
- iii. Has failed to proceed with the works with such due diligence and failed to make such due progress as would enable the works to be completed within the time agreed upon, or
- iv. Has neglected or failed persistently to observe and perform all or any of the acts, matters or things required by this Contract to be observed and performed by the Contractor for seven days after written notice shall have been given to the Contractor requiring the Contractor to observe or perform the same, or

Then and in any of the said causes the OWNER/PROJECT MANAGER with the written consent of the ENGINEER may, notwithstanding any previous waiver, after giving seven days notice in writing to the Contractor, terminate the Contract. Notwithstanding any such termination, the Contractor shall continue to be responsible for all liabilities that have accrued under this Contract prior to the date of such termination. And further, the OWNER/PROJECT MANAGER with the consent of the ENGINEER by his agents or servants may enter upon and take possession of the works and all plant, tools, scaffolding, sheds, machinery, steam and other power, utensil and materials, lying upon premises or the adjoining lands or roads, and use the same as his own property or may employ the same by means of his own servants and workmen in carrying on and completing the works or by employing any other Contractor's or other persons or person to complete the works and the Contractor shall not in any way interrupt or do any act, matter or thing to prevent or hinder such other Contractor or other person or persons employed for completing and finishing or using the materials and plant for the works.

The Owner shall thereafter ascertain and certify in writing under his hand what (if anything) shall be due or payable to the Contractor by the Owner, for the value of the said plant and materials so taken possession of by the Owner, and the expense or loss which the Owner shall have been put to in getting the works to be so completed, and the amount, if any owing to the Contractor and the amount which shall be so certified shall, thereupon, be paid by the Owner to the Contractor or by the Contractor to the Owner as the case may be, and the certificate of the Owner shall be final and conclusive between the parties.

Contract Ref No.....	THE TATA POWER COMPANY LIMITED	
	TERMS AND CONDITIONS OF CONTRACT	
	PACKAGE.....	

**26. DISPUTES & ARBITRATION:**

- 26.1 In case any dispute or difference shall arise between the OWNER/PROJECT MANAGER or the ENGINEER on his behalf and the CONTRACTOR arising out of or in relation to or concerning this Contract or the construction, meaning, operation or effect hereof or of any clause herein contained or as to the rights, duties or liabilities of the parties hereto respectively or of the ENGINEER under or by virtue of these presents or otherwise or in connection with the subject matter of these presents or arising out of or in relation thereto (except as to matters left to the sole discretion of the ENGINEER) the same shall be referred to the arbitration of a single arbitrator in case the parties can agree upon one, otherwise, to two arbitrators, one to be appointed by each party and an umpire to be appointed by the two arbitrators before entering upon the references and in either case in accordance with and subject to the provisions of the Indian Arbitration and Reconciliation Act 1996 or any statutory modification or re-enactment thereof for the time being in force. All arbitration proceedings shall be conducted in English language only and the decision of the arbitration tribunal constituted in accordance with the above shall be final and binding upon the parties. Each party to the dispute shall bear its own costs, unless otherwise specified by the arbitration tribunal in its order. The seat and venue of all arbitration proceedings under this Contract shall be Mumbai.
- 26.2 Work under the Contract shall continue during the arbitration proceedings and no payments due or payable by the Owner shall be withheld on account of such proceedings.


**27. LAW, LANGUAGE & MEASUREMENTS**

- 27.1 Applicable law to this Contract shall be the Indian Law. The respective rights, privileges, duties and obligations of the Owner and the Contractor under this Contract shall be governed and determined by the Laws of State , where the project is located and of the Republic of India.
- 27.2 All correspondence and documentation pertaining to this Contract shall be in the English language only. The official text of this Contract shall be English, regardless of any translation that may be made for the convenience of the Parties. All correspondence, information, literature, data, manuals, definitive documents, notices, waivers and all other communication, written or otherwise, between the Parties in connection with this Contract shall be in English.
- 27.3 All measurements shall be in metric system

**28. FORCE MAJEURE:**

**28.1 Definition of Force Majeure**

“Force Majeure” shall mean an event or circumstance beyond the reasonable control of the Owner/Project Manager or the Contactor which could not have been foreseen, prevented or mitigated by such Party using its reasonable diligence and which makes it impossible for such Party to perform the whole or in part its obligations under the Contract, including but not limited to:


Contract Ref No.....	THE TATA POWER COMPANY LIMITED TERMS AND CONDITIONS OF CONTRACT	
	PACKAGE.....	

- a) Act of God.
- b) An act of war, (whether declared or undeclared) hostilities invasion, armed conflict or an act of foreign enemies, blockade, embargo, revolution, military action, or sabotage.
- c) Contamination by radio-activity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radioactive toxic explosive, or other hazardous properties.
- d) Riot, civil commotion, terrorism or disorder, unless solely restricted to employees of the Contractor or of his Sub-contractors.
- e) Natural or regional industrial disputes or targeted disputes which are part of national or regional campaign and which is not reasonably within the powers of a Party to prevent, or which is not specific to the Party or any of his Contractors or Subcontractors.
- f) Operation of the forces of nature such as earthquake, hurricane, lightning, tidal wave, tsunami, typhoon or volcanic activity.

**28.2 Excused Performance**

If either Party is rendered wholly or partially unable to perform its obligations under this Contract because of a Force Majeure Event, that party will be excused from whatever performance is affected by the Force Majeure event to the extent so affected provided that:

- a) The affected Party gives the other Party Written Notice of the occurrence of the Force Majeure Event as soon as practicable after the occurrence of the Force Majeure Event and also gives the other Party Written Notice describing in reasonable detail the particulars of such occurrence, including an estimation of its expected duration and probable impact on the performance of such Party's obligations hereunder, and thereafter continues to furnish thereto timely regular reports with respect to continuation of the Force Majeure Event;
- b) The suspension of performance shall be of no greater scope and of no longer duration than is reasonably required by the Force Majeure;
- c) No liability of either Party which arose before the occurrence of the Force Majeure Event causing the suspension of performance shall be excused as a result of the occurrence;
- d) The affected Party shall exercise all reasonable efforts to mitigate or limit Damages to the other Party;
- e) The affected Party shall use its best efforts to continue to perform its obligations hereunder and to correct or cure the event or condition excusing performance;

Contract Ref No.....	THE TATA POWER COMPANY LIMITED TERMS AND CONDITIONS OF CONTRACT	
	PACKAGE.....	

- f) When the affected Party is able to resume performance of its obligations under this Contract, that Party shall give the other Party Written Notice to that effect and shall promptly resume performance hereunder.

**28.3 Limitations**

Notwithstanding anything to the contrary contained herein:

- a) any act, event, or occurrence listed above or asserted as a Force Majeure Event that results materially from the negligence or intentional acts of the affected party (including in the case of Contractor or any Sub-contractor thereof) shall not constitute a Force Majeure Event; and
- b) The affected Party shall not be relieved from obligations under this Contract to the extent that the negligence or wilful misconduct of the affected Party (or in the case of Contractor or any Sub-Contractor thereof) contributes to or aggravates the Force Majeure Event.

**28.4 Effect of Force Majeure Event**

Neither the Owner/Project Manager nor the Contractor shall be considered in default or in Contractual breach to the extent that performance of obligations is prevented by a Force Majeure Event, which arises after the Effective Date. Except as otherwise provided in a Change Order, an extension of time shall be granted to Contractor only to the extent Contractor proves to Owner/Project Manager:


- a) The performance of the Work or supply of Goods is actually and necessarily delayed by an event of Force Majeure; and
- b) The effect of such event of Force Majeure could not have been prevented or avoided or removed despite exercise of reasonable due diligence whether before, after or during the event of Force Majeure.

**28.5 Payment to Contractor**

If, in consequence of Force Majeure, the Plant or any part thereof shall suffer loss or damage, the Contractor shall be entitled to claim and receive payment for the cost of Work or supply of Goods executed in accordance with the Contract, prior to the event of Force Majeure.

**28.6 Optional Termination, Payment and Release**

Irrespective of any extension of time, if a Force Majeure Event occurs and its effect continues for a continuous period of [180 days], the Owner/Project Manager may give to the other a Notice of termination, which shall take effect 30 (thirty) Days after the giving of the Notice. If, at the end of the 30 (thirty) Day period, the effect of the Force Majeure Event continues, the Contract shall terminate. If the Contract is so terminated, the Owner/Project Manager shall determine the work done and pay to the Contractor all amounts due and payable for such work.

Contract Ref No.....	THE TATA POWER COMPANY LIMITED	
	TERMS AND CONDITIONS OF CONTRACT	
	PACKAGE.....	

**29. CHANGE:**

A Change Order shall be issued by the Owner in accordance with this clause, when Owner proposes to make any change in the Scope, Services, the Contract Price, the Performance Guarantees and/or the Schedule.

**29.1 Further detailing not a Change Order**

Contractor’s performance of Services shall be subject to further detailing from time to time and Contractor shall receive no additional compensation for such detailing to the extent that such detailing does not constitute a Change Order.  
 No change made necessary because of any default of the Contractor in the performance of its obligations under the Contract shall be deemed to be a Change, and such change shall not result in any adjustment of the Contract Price or the Time for Completion.


**29.2 Right to Change Order**

Change Orders may be initiated by the Owner/Project Manager/Owner’s Representative at any time during the Contract Period, either by instruction or by a request (the “Change Order Notice”) to the Contractor to submit a proposal. If the Owner/Project Manager/Owner’s Representative requests the Contractor to submit a proposal and subsequently elects not to proceed with the change, the Contractor shall not be reimbursed for the Cost incurred for proposal.  
 The Contractor shall not make any alteration and/or modification of the Services unless and until the Owner/Project Manager/Owner’s Representative instructs or approves a Change Order in Writing.

**29.3 Change Order Procedure**


If the Owner/Project Manager/Owner’s Representative issues a Change Order Notice, the Contractor shall submit a proposal addressing proposed design and/or work to be performed with supporting details, any modification to the schedule as a result of the change and adjustment in Contract price, within fifteen (15) Days or any other period as mutually agreed:

- 29.3.1 The Owner/Project Manager/Owner’s Representative shall respond with approval, rejection or comments within a period to be mutually agreed after receipt of such proposals.
- 29.3.2 If the Owner/Project Manager/Owner’s Representative instructs or approves in Writing a Change Order, he shall proceed with adjustments to the Contract Price, Schedule of Payments, Performance Guarantees as required.
- 29.3.3 Contractor shall not suspend performance of this Contract during review and negotiation of any Change Order, except as may be directed by Owner/Project Manager or required by Applicable Law.
- 29.4 Payment in respect of the approved Change Orders shall be released by Owner/Project Manager to the Contractor on satisfactory completion of such Change Order and its certification by the Owner’s Representative in the same manner as applicable to corresponding milestone payments under the Contract.

Contract Ref No.....	THE TATA POWER COMPANY LIMITED	
	TERMS AND CONDITIONS OF CONTRACT	
	PACKAGE.....	

**30. MISCELLANEOUS:**

- 30.1 Site conditions has been made clear to the Contractor during tendering stage and the Contractor has understood the scope of work, hence, no claims of whatsoever nature shall be entertained by the Owner on account of any such reason cited by the Contractor at later date. It also understood that the Contractor has inspected the site of work, has fully acquainted himself with site conditions and has obtained for himself on his own responsibility and at his own expenses all information which may be necessary for execution of work.
- 30.2 In case work is nearly or is anticipated to be suspended by Contractor, or in case only unimportant progress is being made, or in case it is apparent that the CONTRACTOR is about to forfeit his Contract or that the money yet due to him will not complete his Contract, the Owner may, at his discretion, withhold any payment which may be due to the CONTRACTOR.
- 30.3 No claims shall be entertained on account of idle time charges.
- 30.4 The work shall be carried out with due diligence and all work shall be executed in a workman like manner subject to the approval of the Owner (or any other duly authorized representative of the Owner) whose decision as to rate of progress and quality of work or material shall be final and binding.
- 30.5 The Owner shall have right to omit or cancel, add or alter any items of work without assigning any reason whatsoever and no claim for compensation for damage will be entertained for such omissions, alterations, additions and cancellations.
- 30.6 The Contractor has to maintain the pollution limits to the minimum. The Contractor shall in advance intimate to Owner and other related Contractors about the areas of work which may be subjected to pollution, dust or noise and shall take proper pollution and dust control measures to prevent dust from rising as a result of pile boring or other such activities
- 30.7 Upon completion of work, the Contractor shall promptly demobilise from the site and leave the place in a manner as directed by the Owner, including cleaning of the area. CONTRACTOR shall start demobilisation only after the successful completion of the contract. No equipment, plant material or personnel shall be de-mobilised from the site unless with the express consent of the OWNER's Project Manager. The OWNER reserves the right to disallow in de-mobilisation if works under this scope of this contract are not completed to his satisfaction.
- 30.8 The Contractor is normally expected to work during daytime only and is required to complete the work in all respects as stipulated elsewhere. However, night work or working on Holidays may be stipulated by the Owner or permitted in exigencies with

Contract Ref No.....	THE TATA POWER COMPANY LIMITED TERMS AND CONDITIONS OF CONTRACT	
	PACKAGE.....	

prior approval of the Owner. Sufficient lights shall be provided by the CONTRACTOR to safeguard the workmen and the public when the night work is in progress.

- 30.9 No claims for extra works shall be entertained unless such extra works are agreed to in writing by the Contractor's Representative.
- 30.10 The Contractor is responsible for safety and security of the works executed by him under the Contract.
- 30.11 The Contractor to obtain at his own cost all Material entry permits to the state (Road Permits), statutory work permits and responsible for safe working procedures at sites, safety of men and machineries.
- 30.12 Day to Day debris cleaning and housekeeping is in the scope of the Contractor and no extra charges shall be paid for the same.

Date.....



## CORPORATE ENVIRONMENT POLICY

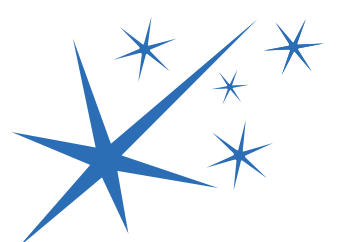
**Tata Power is committed to a clean, safe and healthy environment, and we shall operate our facilities in an environmentally sensitive and responsible manner. Our commitment to environmental protection and stewardship will be achieved by:**

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



(Praveer Sinha)  
CEO & Managing Director

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



**The Tata Power Company Ltd**



*Safety Terms and Conditions*

*Document No.  
TPSMS/GSR/STC/009 REV 02*

*Date of Issue:  
19/01/2019*

# **Safety Terms and Conditions**

<b>The Tata Power Company Ltd</b>		<i>Safety Terms and Condition</i>
<i>Document No. TPSMS/GSR/STC/009 REV 02</i>		<i>Date of Issue: 19/09/2019</i>

1. Definitions.....	3
2. Safety Policy.....	4
3. Ten Commandments on Safety ( Deleted) .....	<b>Error! Bookmark not defined.</b>
4. Safety Organization & Responsibilities.....	6
4.1 Contractor Site Management and Supervision.....	6
4.2 Contractor Supervisors and General Staff.....	6
4.3 Contractor Workforce.....	7
4.4 Vendor/Contractor .....	7
5. Site Safety Rules and Procedures: .....	8
5.1 Lock Out and Tag Out Procedure .....	8
5.2 Excavation Safety (Shoring and Sloping) Procedure .....	8
5.3 Confined Space Entry Procedure .....	8
5.4 Working at Height Procedure.....	9
5.5 Heavy Equipment Movement Safety Procedure .....	9
5.6 Mobile Crane Safety Procedure .....	9
5.7 Scaffold Safety Procedure .....	9
5.8 Electrical Safety Procedure .....	10
5.9 Job Safety Analysis (JSA) Procedure.....	10
5.10 Fire Safety Management Procedure .....	10
5.11 Permit To Work Procedure .....	10
5.12 Lift (Elevator) Safety Procedure .....	11
5.13 Working on conveyor belt Procedure .....	11
5.14 Handling Hazardous Materials Procedure .....	11
5.15 Material Handling and Storage Procedure.....	11
6. Training and Capability Building .....	12
7. Pre Employment and Periodic Medical check up .....	13
8. Safety Performance Evaluation and Penalties .....	13

<b>The Tata Power Company Ltd</b>		<i>Safety Terms and Condition</i>
<i>Document No. TPSMS/GSR/STC/009 REV 02</i>		<i>Date of Issue: 19/09/2019</i>

## 1. Definitions

- 1.1 **Order Manager:** Order Manager is the Tata Power representative, who has the ownership of the given job under the signed contract.
- 1.2 **Service Provider/Contractor/vendor:** An individual or an organization that provides services to Tata Power under a signed contract.
- 1.3 **Site Safety Management Plan:** It is the safety plan agreed between Contractor /service provider & Tata Power. It will contain the entire job specific safety requirement and will be signed by the service provider.
- 1.4 **High Risk Job:** Any job which has significant health and safety risk associated to it. The list of high risk jobs has been identified at Tata Power level.
- 1.5 **Emergency:** a serious, unexpected, business discontinuity and often dangerous situation resulting loss of revenue/property and requiring immediate action.

<b>The Tata Power Company Ltd</b>		<i>Safety Terms and Condition</i>
<i>Document No. TPSMS/GSR/STC/009 REV 02</i>		<i>Date of Issue: 19/09/2019</i>

## 2. Safety Policy





### HEALTH AND SAFETY POLICY

Tata Power is committed to provide safe and healthy working environment for the prevention of work related injuries and ill-health. Safety is one of our core values. We strive to be a leader in safety excellence in the global power and energy business. In pursuit of this, we are committed to the following:

- Maintain and continually improve our management systems to eliminate hazards and reduce health & safety risks to all our stakeholders.
- Incorporate appropriate health & safety criteria into business decisions for selection of plant and technology, performance appraisal of individuals and appointments in key positions.
- Comply and endeavour to exceed all applicable health & safety legal and other requirements
- Integrate health & safety procedures and best practices into every operational activity with assigned line-functional responsibilities at all levels.
- Involve our employees and business associates in maintaining a safe and healthy work environment through consultation and participation
- Inculcate safety culture by visible leadership and empowerment.
- Ensure required competency to enable our employees and business associates for working safely.
- ▶ Promptly report incidents, investigate, share crucial learnings and prevent recurrences.
- Influence our business associates in enhancing their health and safety standards and align with Tata Power's health & safety codes and practices.
- Set safety & health metrics as indicators of excellence, monitor progress and continually improve health and safety performance.

We shall ensure the availability of appropriate resources at all times to fully implement and communicate this policy to all stakeholders by suitable means and periodically review its relevance in continuously changing business environment.

Date: 11<sup>th</sup> March, 2019  


  
 (Praveer Sinha)  
 CEO & Managing Director



**The Tata Power Company Ltd**



*Safety Terms and Condition*

*Document No.  
TPSMS/GSR/STC/009 REV 02*

*Date of Issue:  
19/09/2019*

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<b>The Tata Power Company Ltd</b>		<i>Safety Terms and Condition</i>
<i>Document No. TPSMS/GSR/STC/009 REV 02</i>		<i>Date of Issue: 19/09/2019</i>

### **3. Safety Organization & Responsibilities**

#### **4.1 Contractor Site Management and Supervision**

**Each Contractor will be responsible for fulfilling all statutory and safety requirements as per the laws of the land and not limited to Factory Act, Electricity Act, Electricity Rules and Regulations, Shop and Establishment Act etc.**

Each Contractor shall provide at least one competent full time safety supervisor for workforce of less than 100 numbers. When workforce ranges from 100 to 1000, the contractor has to provide at least one qualified safety officer and safety supervisors (reporting to the safety officer) in the ratio 1:100. For every 1000 addition in workforce, the contractor has to add 1 safety officer. The Tata Power Project Safety Manager will review and approve the appointment of all safety supervisors. Contractor/Subcontractor safety supervisors/officers will work with Tata Power Safety Managers and align themselves with Tata Power safety requirements.

Each Contractors'/Subcontractors' Site Manager is responsible, and will be held accountable, for the safety of their sub contractors and workforce and for ensuring that all equipment, materials, tools and procedures remain in safety compliance at job site, including:

- 4.1.1 Holding officer/supervisors accountable for safety and actively promote safe work performance.
- 4.1.2 Participate in and cooperate with all safety program requirements to be implemented in order to meet Tata Power safety objectives.
- 4.1.3 Ensure timely reporting of safety incidents, near misses, unsafe acts and conditions.
- 4.1.4 Identify the training needs of its employees and maintain all safety training documents.
- 4.1.5 Provide safety performance report at an agreed frequency.
- 4.1.6 Stopping of unsafe work (acts and/or conditions) immediately, until corrective action be taken.

#### **4.2 Contractor Supervisors and General Staff**

Contractors' site supervisors and general staff members in charge of job site functions such as field engineering, warehousing, purchasing, cost and scheduling, etc. are responsible for the safe performance of the work of those they supervise. They must set an example for their fellow employees by being familiar with applicable sections of the Site Safety program and ensuring that all site activities are performed with SAFETY as the primary objective.

<b>The Tata Power Company Ltd</b>		<i>Safety Terms and Condition</i>
<i>Document No. TPSMS/GSR/STC/009 REV 02</i>		<i>Date of Issue: 19/09/2019</i>

Each site supervisor is responsible and will be held accountable for identifying, analyzing and eliminating or controlling all hazards through implementation of an aggressive, pro-active Health, Safety and Environmental Program from project inception through project completion. Each supervisor will proactively participate in the SHE program by observing, correcting unsafe acts, and recording these observations.

#### **4.3 Contractor Workforce**

Contractor workforce must make safety a part of their job by following safety rules and regulations and by using all safeguards and safety equipments. They must take an active part in the Site Safety program to ensure their own safety and injury-free employment as well as being alert to unsafe practices of their fellow employees.

Every member of the workforce is expected to report for work without influence of any Drug/Alcohol. All employees are expected to report any hazardous conditions practices and behaviors in their work areas and correct where ever possible.

Workforce is responsible for active participation in safety and health programs, suggestion systems, trainings and in immediate reporting of all injuries, any unsafe practices, conditions or incidents to their supervisors.

#### **4.4 Vendor/Contractor**

Vendors/Contractor shall at all times comply with, and ensure that their workforce comply with all site safety rules and regulations. Specifically, with applicable provisions of the Tata Power Site Safety Management Plan, and all statutory safety rules and regulations.



<b>The Tata Power Company Ltd</b>		<i>Safety Terms and Condition</i>
<i>Document No. TPSMS/GSR/STC/009 REV 02</i>		<i>Date of Issue: 19/09/2019</i>

#### **4. Site Safety Rules and Procedures:**

The work in the safest possible manner can only happen when it has been carefully planned and all applicable procedures are followed. The Tata Power Safety Procedures are derived from Tata Power best practices and the applicable Government acts regulations. In each case, the most stringent regulation is used.

Following is the list of Tata Power’s critical Safety Rules and Procedures. Contractor shall refer to approved Rules and Procedures for detailed requirements and ensure conformance.

##### **5.1 Lock Out and Tag Out Procedure**


This procedure is intended to be used for the protection of Personnel while servicing or performing maintenance on equipment / pipeline / vessel / process systems. This is a general procedure that shall be used as the minimum requirements for isolation of equipment, pipelines, machines, system from all possible sources of hazardous energy and / or material such as Steam, Hot Water, Compressed Air, any other process fluid / chemical energy /Mechanical energy or Electrical energy. For complete procedure kindly refer Procedure Document No. TPSMS/CSP/LOTO/001 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

##### **5.2 Excavation Safety (Shoring and Sloping) Procedure**

This procedure is developed to cover the safe practices required for shoring and sloping in excavation and trenching jobs. This procedure is developed to establish mandatory requirements for practices to protect personnel, property and equipment from hazards associated with above activities. For complete procedure kindly refer Procedure Document No TPSMS/CSP/EXS/002 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

##### **5.3 Confined Space Entry Procedure**

This procedure outlines the steps required to perform the confined space entry and to protect personnel from the hazards of entering and conducting operations in confined spaces. For complete procedure kindly refer Procedure Document No –TPSMS/CSP/CSE/003 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

<b>The Tata Power Company Ltd</b>		<i>Safety Terms and Condition</i>
<i>Document No. TPSMS/GSR/STC/009 REV 02</i>		<i>Date of Issue: 19/09/2019</i>

#### **5.4 Working at Height Procedure**

This procedure describes the rules and procedures to protect employees from the hazards of working at heights.

This procedure is developed to cover the safe practices required for Working at Heights. This procedure is developed to establish mandatory requirements for practices to protect personnel from hazards associated in this area. For complete procedure kindly refer Procedure Document No –TPSMS/CSP/WAH/004 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

#### **5.5 Heavy Equipment Movement Safety Procedure**

Heavy equipment lifting and movement is an activity involving loading, unloading, storage and movement from one place to another including lifting and erection or repairing of equipment with cranes or hoists. Material, machinery and equipment handling operations are being carried out by large capacity cranes and hoists, which make the job safer and faster. This procedure addresses the hazards and precautions associated with such equipment and their use. For complete procedure kindly refer Procedure Document No –TPSMS/CSP/HEMS/005 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

#### **5.6 Mobile Crane Safety Procedure**

Mobile cranes are responsible for many incidents, injuries. Falling loads from mobile cranes pose a severe hazard to operators and nearby workers and property. Many types of cranes, hoists, and rigging devices are used for lifting and moving materials. To maintain safe, appropriate standards has to be adhered to and only qualified and licensed individuals shall operate these devices. For complete procedure kindly refer Procedure Document No –TPSMS/CSP/MCS/006 REV 01.

#### **5.7 Scaffold Safety Procedure**

This procedure is developed to provide information on the safe erection, use, dismantling and maintenance of access scaffolding in the workplace. It is developed to establish mandatory requirements for practices to protect personnel from hazards associated with erection, use and dismantling of scaffolds. For complete procedure kindly refer Procedure Document No –TPSMS/CSP/SCAF/007 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

<b>The Tata Power Company Ltd</b>		<i>Safety Terms and Condition</i>
<i>Document No. TPSMS/GSR/STC/009 REV 02</i>		<i>Date of Issue: 19/09/2019</i>

### **5.8 Electrical Safety Procedure**

The objective of these standards is to specify minimum mandatory requirements and advisory guidance for identifying and controlling hazards to ensure 'Zero Harm' with regard to operation maintenance and testing of electrical equipment. For complete procedure kindly refer Procedure Document No- TPSMS/CSP/ELEC/010 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

### **5.9 Job Safety Analysis (JSA) Procedure**

This objective of this procedure is to have a task based risk assessment process in place that identifies, evaluates and controls the risks associated with work activities, and as a result, prevents those involved in the task or those potentially affected by the task, from being harmed. For complete procedure kindly refer Procedure Document No- TPSMS/CSP/JSA/009 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

### **5.10 Fire Safety Management Procedure**

Objective of This standard is to specify the minimum mandatory requirements and advisory guidelines to ensure prevention of fire related incidents and managing / controlling their impacts if they do occur. For complete procedure kindly refer Procedure Document No- TPSMS/CSP/FSM/011 REV 01

### **5.11 Permit To Work Procedure**

Given the inherent hazards of the power generation and distribution industry, a significant number of TATA POWER operations and installations are critical. Work Permit (WP) System is an essential element in controlling the workplace risks in an effective manner. For complete procedure kindly refer Procedure Document No –TPSMS/CSP/PTW/008 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

<b>The Tata Power Company Ltd</b>		<i>Safety Terms and Condition</i>
<i>Document No. TPSMS/GSR/STC/009 REV 02</i>		<i>Date of Issue: 19/09/2019</i>

### **5.12 Lift (Elevator) Safety Procedure**

To provide safe operating procedure for taking control of lift car before entering and existing the pit of OTIS make elevators. For complete procedure kindly refer Procedure Document No – TPSMS/GSP/LIFT/001 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

### **5.13 Working on conveyor belt Procedure**

This procedure is developed to cover the safe practices required for Working on live equipment and to protect personnel from hazards associated with it. For complete procedure kindly refer Procedure Document No – TPSMS/GSP/CONV/002 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

### **5.14 Handling Hazardous Materials Procedure**

This Procedure is developed to provide procedure for recycling and / or safe disposal of used / waste batteries in compliance with all legislation. For complete procedure kindly refer Procedure Document No-TPSMS/GSP/HAZM/003 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

### **5.15 Material Handling and Storage Procedure**

The purpose of this document is to provide procedures to assist the safe handling of materials (manual handling and mechanical handling). For complete procedure kindly refer Procedure Document No – TPSMS/GSP/MATL/004 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

### **5.16 Contractor Safety Management Procedure**

The purpose of this document is to engage with contractors in a way to create safe work environment for everyone working for Tata Power. For complete procedure kindly refer Procedure Document No – TPSMS/GSP/CSM/015 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

<b>The Tata Power Company Ltd</b>		<i>Safety Terms and Condition</i>
<i>Document No. TPSMS/GSR/STC/009 REV 02</i>		<i>Date of Issue: 19/09/2019</i>

The above procedures will be updated periodically and the updated version of the procedures as well as any additional critical procedure will be available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com)) for your reference.

## 5. Training and Capability Building

Safety Training and capability building of workforce is a major component of safety management program. All training required must be provided and documented as specified by Tata Power and Indian Regulations. Tata Power Safety Manager will audit contractors training and related documentation to assure its adequacy.

### 6.1 Tata Power Site Safety Orientation

All Tata Power contractor and subcontractor workforce is required to attend Tata Power Site Safety Orientation Training to receive a Safety Training Card, which is required to obtain a Gate Pass to the site, prior to entry.

This Safety Orientation Course will be for duration of minimum half day. The information provided during the orientation will include, but is not limited to following:

1. Job rules, personal safety and conduct
2. Hazards reporting
3. Reporting of injuries
4. Emergency procedures
5. Safety Activities and Program including disciplinary measure and incentives.
6. Critical safety procedure relevant to the job

### 6.2 Capability Building

Appropriate training such as L1, L2 & L3 is given to ensure that a jobholder, either supervisor or worker, is competent to do his/her job safely. The skill training is provided through TPSDI and other agencies authorized by Tata Power on the list of 15 procedures mentioned under safety procedure.

Contractor shall ensure that concerned workmen are provided with adequate training before he/she is allowed to execute the work.

An evaluation test will be conducted after the completion of the training. Those workmen employee who meet the minimum required competency will be provided with Gold Card which is valid for 3 years, post which the workmen has to reappear for the assessment. If the workman is not able to qualify the assessment, he/she will be given 3 additional attempts to clear in 3 month timeframe failing which he/she will not be allowed to work on high risk jobs.

<b>The Tata Power Company Ltd</b>		<i>Safety Terms and Condition</i>
<i>Document No. TPSMS/GSR/STC/009 REV 02</i>		<i>Date of Issue: 19/09/2019</i>

## 6. Pre Employment and Periodic Medical check up

Contractor shall arrange to conduct a pre employment and periodic medical check-up for its entire workforce by Tata Power medical officer or Tata Power authorized medical officer. The contractor shall be able to produce the certificate prior to the employment. The contractor shall also organize to conduct periodical medical checkup (six monthly) for the following category of employees:

- Drivers (Check for Vision & Hearing)
- Equipment Operators (Check for Vision & Hearing)
- Workforce working at Height (Check for Vision, Hearing, Vertigo & Height Phobia)
- Workforce Handling the hazardous substances (Coal, ash and chemicals)
- Workforce in high decibel area (> 90 Decibel, Check for Hearing)
- Workforce, working in specific areas requiring specific medical attention should conduct the medical test as laid down in the respective Site Safety Management Plan.

## 7. Safety Performance Evaluation and Penalties

8.1 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 based on "Safety Performance score" attached in CSM-F-3 of CSM procedure. The amount is based on following table

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

8.2 Safety performance Score will be monitored by the Order Manager every month.

8.3 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.

8.4 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.

<b>The Tata Power Company Ltd</b>		<i>Safety Terms and Condition</i>
<i>Document No. TPSMS/GSR/STC/009 REV 02</i>		<i>Date of Issue: 19/09/2019</i>

- 8.5 In case of fatality, limb loss or loss of property, vendor has to 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.
- 8.6 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.
- 8.7 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 is 100%.
- 8.8 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.
- 8.9 Order Manager, divisional chief and SBU head have the authority to terminate the contract in case of three consecutive serious violations.

#### **Safety Performance Evaluation - CSM-F-3**

	<b><u>Lead Indicators</u></b>	<b>Unit Of measurement</b>	<b>Target</b>	<b>weight age</b>
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 for Critical Equipments, lifting Tools & Tackles and hand tools used at site	%	80	5
4	Condition of tools, tackles and equipments	%	100	15
	<b><u>Lag Indicators</u></b>			
1	Number of Fatalities	No.	0	30
2	Number of Lost work day case ( LWDC)	No.	0	10
3	Man-days Lost	No.	0	10

<b>The Tata Power Company Ltd</b>		<i>Safety Terms and Condition</i>
<i>Document No. TPSMS/GSR/STC/009 REV 02</i>		<i>Date of Issue: 19/09/2019</i>

In addition to above evaluation criteria, for specific violations penalty shall be imposed on the contractors under following circumstances:

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 Earthing 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 Three-wheeler at the work site.	5	5000/-
16.	Starting the job without Tool Box 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 equipments.	5	5000/-
21.	Using damaged slings.	5	5000/-
22.	Unstable scaffolding/non standard Scaffolding in use	5	5000/-
23.	Handrails and mid-rails are missing	5	5000/-
24.	Safety Harness not anchored with lifeline/fixed structure	5	5000/-
25.	Fall arrestor not provided/ Not being used.	5	5000/-
26.	Double life line not used for working at height	5	5000/-
27.	No rubber mat in DB room	4	2000/-
28.	Water found accumulated in DB 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 D.B Room./ welding areas.	4	2000/-
32.	Loose material falling into excavated pit	4	2000/-
33.	Water logging into excavated pit	4	2000/-
34.	No / inadequate Barricade	4	2000/-



Sr No	Description of violation	Severity	Penalty /
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 HMV/Mobile Crane operator does not having a valid HMV driving license.	4	2000/
38.	The loading area is not leveled properly.	4	2000/
39.	Ladder not anchored at top	4	2000/
40.	Opening found in working platform of scaffolding/floor	4	2000/
41.	Inadequate illumination at the working area	4	2000/
42.	Loose material lying on Gantry ,platform	4	2000/
43.	Cleaning body with Compressed Air.	3	500/-
44.	Gas Cylinders using without cap.	3	500/
45.	Gas Cylinders stored without securing	3	500/
46.	Bringing inside any other chemicals, apart from approved by Safety dept.	3	500/
47.	Using drum for sitting or accessing height.	3	500/
48.	Misusing emergency facilities like fire hydrant line/ hose box/ spray system/ eye wash etc.	3	500/
49.	No provision of Safety net where falling materials or tools may occurs	3	500/
50.	Taking electrical supply from non designated outlet (other than socket).	3	500/
51.	Restricted gangways due to unwanted materials.	3	500/
52.	Not reporting incident.	3	500/
53.	Entering into restricted area like switch yard/ hazardous storage etc.	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 passengers cars.	3	500/
56.	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/ starch 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/

Sr No	Description of violation	Severity	Penalty /
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.	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 provide 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/-
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 Work Place	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.	Non functional Head light/ tail light 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/-

<b>The Tata Power Company Ltd</b>		<i>Safety Terms and Condition</i>
<i>Document No. TPSMS/GSR/STC/009 REV 02</i>		<i>Date of Issue: 19/09/2019</i>

<b>Sr No</b>	<b>Description of violation</b>	<b>Severity</b>	<b>Penalty /</b>
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"> <li>• First Time</li> </ul>	3	Warning
101.	<ul style="list-style-type: none"> <li>• Second Time</li> </ul>	4	1000/-
102.	<ul style="list-style-type: none"> <li>• Third Time</li> </ul>	5	5000/-
103.	Serious Violation Of House Keeping (after 1 <sup>st</sup> or 2 <sup>nd</sup> warning to be decided by Project Manager depending on the severity)		Rs.10000/- and above
104.	Repeat Violation of same nature	5	5X Violation

## HEALTH AND SAFETY POLICY

**We, at Tata Power, reaffirm our belief that the health and safety of our stakeholders is of the utmost importance and takes precedence in all our business decisions. In pursuit of this belief and commitment, we strive to:**

- Maintain and proactively improve our management systems to minimize health and safety hazards to our stakeholders and all others influenced by our activities.
- Comply and endeavour to exceed all applicable occupational health & safety legal and other requirements by setting the highest standards.
- Integrate health & safety procedures and best practices into every operational activity with assigned line-functional responsibilities at all levels, for improving and sustaining health & safety performance.
- Involve our employees in maintaining a safe and healthy work environment through risk assessments, periodic reviews of operational procedures, safe work methods and adoption of new technology.
- Develop a culture of safety through active leadership and provide appropriate training at all levels to enable employees developing their skills to work safely.
- Incorporate appropriate health & safety criteria into business decisions for selection of plant and technology, performance appraisal of individuals and appointments in key positions.
- Ensure availability at all times of appropriate resources to fully implement the health & safety policy of the company.
- Promptly report incidents, investigate for root causes and ensure lessons learnt shared and deployed across the company.
- Ensure service providers and their workmen align with company's safety codes and practices for the health and safety of personnel working with us.
- Set safety & health metrics as indicators of excellence, monitor progress and continually improve performance.

We shall actively communicate this policy to all stakeholders by suitable means and periodically review its relevance in continuously changing business environment.

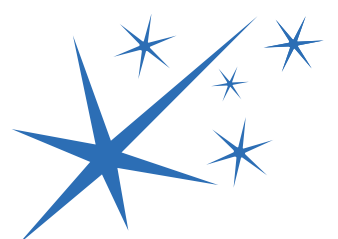


(Praveer Sinha)  
CEO & Managing Director

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

**TATA POWER**

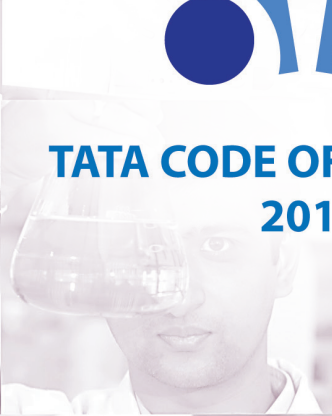
Lighting up Lives!







**TATA CODE OF CONDUCT  
2015**



## LEADERSHIP THAT INSPIRES

For over 100 years, the Tata group has been led by visionaries who have stayed true to the vision of the founder, Jamsetji Tata.

A vision that placed the greater good of society at par with business growth.

A vision that put into practice pioneering social initiatives that changed the way responsible business was run.

And a vision that brought into the group a strong social conscience.



We do not claim to be more unselfish, more generous or more philanthropic than other people. But we think we started on sound and straightforward business principles, considering the interests of the shareholders our own, and the health and welfare of the employees, the sure foundation of our success.

**Jamsetji Tata**  
Founder of the Tata group  
Chairman (1868 – 1904)

## CONTENTS

<b>Foreword</b> .....	3
A Our values.....	4
B Scope and purpose of this Code.....	5
C Our core principles.....	7
D Our employees.....	9
E Our customers.....	18
F Our communities and the environment.....	21
G Our value-chain partners.....	23
H Our financial stakeholders.....	25
I Governments.....	27
J Our group companies.....	29
<b>Raising concerns</b> .....	30
<b>Accountability</b> .....	31
<b>Acknowledgement sheet</b> .....	33



## FOREWORD

Tata companies have consistently adhered to the values and ideals articulated by the Founder for over 150 years. The Tata Code of Conduct was first formalized by Mr Ratan Tata. It articulates the Group's values and ideals that guide and govern the conduct of our companies as well as our colleagues in all matters relating to business. Today, the Code is a bedrock on which we base our individual, as well as leadership commitments to core Tata values.

The Tata Code of Conduct outlines our commitment to each of our stakeholders, including the communities in which we operate, and is our guiding light when we are sometimes faced with business dilemmas that leave us at ethical crossroads. The Code is also dynamic in that it has been periodically refreshed in order to remain contemporary and contextual to the changes in law and regulations. However it remains unaltered at its core.

Our stellar reputation and success as a business entity has been defined by the powerful commitment and adherence to the core values and principles expressed in this Code, by all our employees, directors and partners. I trust every Tata colleague and Tata company will continue to not only comply with the laws and regulations that govern our business interests around the world, but will continue to set new standards of ethical conduct that will generate deep respect and inspire emulation by others.

**N. Chandrasekaran**

21<sup>st</sup> February, 2017



## A. OUR VALUES

TATA has always been values-driven. The five core values that underpin the way we conduct our business activities are:



These universal values serve as the foundation for the Tata Code of Conduct. They find expression within the value system of every Tata company.

## B. SCOPE AND PURPOSE OF THIS CODE

1. This Code sets out how we behave with:
  - our employees, or those who work with us;
  - our customers;
  - the communities and the environment in which we operate;
  - our value-chain partners, including suppliers and service providers, distributors, sales representatives, contractors, channel partners, consultants, intermediaries and agents;
  - our joint-venture partners or other business associates;
  - our financial stakeholders;
  - the governments of the countries in which we operate; and
  - our group companies.
2. In this Code, “we or us” means our company, our executive directors, officers, employees and those who work with us, as the context may require.
3. The term “our group companies” in this Code typically means companies Tata Sons intends for this Code to apply to, and / or to whom Tata Sons has issued this Code.
4. This Code sets out our expectations of all those who work with us. We also expect those who deal with us to be aware that this Code underpins everything we do, and in order to work with us they need to act in a manner consistent with it.

### REMEMBER...

It is our commitment to protect our reputation and our brand equity by adhering to the values and principles set out in this Code. By doing so, we strengthen our unique culture and identity.

# OUR CORE PRINCIPLES



The Tata philosophy of management has always been, and is today more than ever, that corporate enterprises must be managed not merely in the interests of their owners, but equally in those of their employees, of the consumers of their products, of the local community and finally of the country as a whole.

**J.R.D. Tata**

Chairman, Tata Sons (1938 – 1991)

## C. OUR CORE PRINCIPLES

1. We are committed to operating our businesses conforming to the highest moral and ethical standards. We do not tolerate bribery or corruption in any form. This commitment underpins everything that we do.
2. We are committed to good corporate citizenship. We treat social development activities which benefit the communities in which we operate as an integral part of our business plan.
3. We seek to contribute to the economic development of the communities of the countries and regions we operate in, while respecting their culture, norms and heritage. We seek to avoid any project or activity that is detrimental to the wider interests of the communities in which we operate.
4. We shall not compromise safety in the pursuit of commercial advantage. We shall strive to provide a safe, healthy and clean working environment for our employees and all those who work with us.
5. When representing our company, we shall act with professionalism, honesty and integrity, and conform to the highest moral and ethical standards. In the countries we operate in, we shall exhibit culturally appropriate behaviour. Our conduct shall be fair and transparent and be perceived as fair and transparent by third parties.
6. We shall respect the human rights and dignity of all our stakeholders.
7. We shall strive to balance the interests of our stakeholders, treating each of them fairly and avoiding unfair discrimination of any kind.
8. The statements that we make to our stakeholders shall be truthful and made in good faith.
9. We shall not engage in any restrictive or unfair trade practices.
10. We shall provide avenues for our stakeholders to raise concerns or queries in good faith, or report instances of actual or perceived violations of our Code.
11. We shall strive to create an environment free from fear of retribution to deal with concerns that are raised or cases reported in good faith. No one shall be punished or made to suffer for raising concerns or making disclosures in good faith or in the public interest.
12. We expect the leaders of our businesses to demonstrate their commitment to the ethical standards set out in this Code through their own behaviour and by establishing appropriate processes within their companies.
13. We shall comply with the laws of the countries in which we operate and any other laws which apply to us. With regard to those provisions of the Code that are explicitly dealt with under an applicable law or employment terms, the law and those terms shall take precedence. In the event that the standards prescribed under any applicable law are lower than that of the Code, we shall conduct ourselves as per the provisions of the Code.

### REMEMBER...

“Good faith” means having a reasonable belief that the information you have provided is truthful. It does not mean having ‘all the evidence’ about the potential violation or case reported.

## OUR EMPLOYEES



Once you got the best people, the people who shared our values and ideals, we left them free to act on their own. We do not fetter them. We encourage them and give them opportunities for leadership.

**J.R.D. Tata**

Chairman, Tata Sons (1938 – 1991)

## D. OUR EMPLOYEES

### Equal opportunity employer

1. We provide equal opportunities to all our employees and to all eligible applicants for employment in our company. We do not unfairly discriminate on any ground, including race, caste, religion, colour, ancestry, marital status, gender, sexual orientation, age, nationality, ethnic origin, disability or any other category protected by applicable law.
2. When recruiting, developing and promoting our employees, our decisions will be based solely on performance, merit, competence and potential.
3. We shall have fair, transparent and clear employee policies which promote diversity and equality, in accordance with applicable law and other provisions of this Code. These policies shall provide for clear terms of employment, training, development and performance management.

### Q&A

**A job requirement entails extensive travel. One of the candidates has excellent relevant experience and qualifications. However, this candidate is a single parent. As a result, I feel such a situation would significantly hinder this candidate's ability to cope with the job requirement. What should I do?**

In accordance with the Code, the decision to recruit an employee should be based upon merit. We cannot make a presumption that the candidate would not be able to meet the travel requirements of the job. All eligible candidates should be provided with equal opportunity to demonstrate or justify that they can cope with the travel requirements of the job. Being a single parent cannot be a ground to be discriminated against at any stage of recruitment or ongoing employment in our company.

### REMEMBER...

We do not tolerate harassment in any form and therefore we expect every employee to discourage such misdemeanours in the workplace.

### Dignity and respect

4. Our leaders shall be responsible for creating a conducive work environment built on tolerance, understanding, mutual cooperation and respect for individual privacy.
5. Everyone in our work environment must be treated with dignity and respect. We do not tolerate any form of harassment, whether sexual, physical, verbal or psychological.
6. We have clear and fair disciplinary procedures, which necessarily include an employee's right to be heard.
7. We respect our employees' right to privacy. We have no concern with their conduct outside our work environment, unless such conduct impairs their work performance, creates conflicts of interest or adversely affects our reputation or business interests.

### Human rights

8. We do not employ children at our workplaces.
9. We do not use forced labour in any form. We do not confiscate personal documents of our employees, or force them to make any payment to us or to anyone else in order to secure employment with us, or to work with us.

### Bribery and corruption

10. Our employees and those representing us, including agents and intermediaries, shall not, directly or indirectly, offer or receive any illegal or improper payments or comparable benefits that are intended or perceived to obtain undue favours for the conduct of our business.

#### REMEMBER...

Violation by even a single employee of any law relating to anti-bribery, anti-corruption, anti-competition, data privacy, etc. could result in severe financial penalties and cause irreparable reputational damage to the company.



## Gifts and hospitality

11. Business gifts and hospitality are sometimes used in the normal course of business activity. However, if offers of gifts or hospitality (including entertainment or travel) are frequent or of substantial value, they may create the perception of, or an actual conflict of interest or an 'illicit payment'. Therefore, gifts and hospitality given or received should be modest in value and appropriate, and in compliance with our company's gifts and hospitality policy.

## Freedom of association

12. We recognise that employees may be interested in joining associations or involving themselves in civic or public affairs in their personal capacities, provided such activities do not create an actual or potential conflict with the interests of our company. Our employees must notify and seek prior approval for any such activity as per the 'Conflicts of Interest' clause of this Code and in accordance with applicable company policies and law.

### REMEMBER...

As a general rule, we may accept gifts or hospitality from a business associate, only if such a gift:

- has modest value and does not create a perception (or an implied obligation) that the giver is entitled to preferential treatment of any kind;
- would not influence, or appear to influence, our ability to act in the best interest of our company;
- would not embarrass our company or the giver if disclosed publicly.

The following gifts are never appropriate and should never be given or accepted:

- gifts of cash or gold or other precious metals, gems or stones;
- gifts that are prohibited under applicable law;
- gifts in the nature of a bribe, payoff, kickback or facilitation payment\*;
- gifts that are prohibited by the gift giver's or recipient's organisation; and
- gifts in the form of services or other non-cash benefits (e.g. a promise of employment).

(\*'Facilitation' payment is a payment made to secure or speed up routine legal government actions, such as issuing permits or releasing goods held in customs.)

### Working outside employment with us

13. Taking employment, accepting a position of responsibility or running a business outside employment with our company, in your own time, with or without remuneration, could interfere with your ability to work effectively at our company or create conflicts of interest. Any such activity must not be with any customer, supplier, distributor or competitor of our company. Our employees must notify and seek prior approval for any such activity as per the 'Conflicts of Interest' clause of this Code and in accordance with applicable company policies and law.

### Integrity of information and assets

14. Our employees shall not make any wilful omissions or material misrepresentation that would compromise the integrity of our records, internal or external communications and reports, including the financial statements.
15. Our employees and directors shall seek proper authorisation prior to disclosing company or business-related information, and such disclosures shall be made in

accordance with our company's media and communication policy. This includes disclosures through any forum or media, including through social media.

16. Our employees shall ensure the integrity of personal data or information provided by them to our company. We shall safeguard the privacy of all such data or information given to us in accordance with applicable company policies or law.
17. Our employees shall respect and protect all confidential information and intellectual property of our company.
18. Our employees shall safeguard the confidentiality of all third party intellectual property and data. Our employees shall not misuse such intellectual property and data that comes into their possession and shall not share it with anyone, except in accordance with applicable company policies or law.
19. Our employees shall promptly report the loss, theft or destruction of any confidential information or intellectual property and data of our company or that of any third party.

## Q&A

**I am an accountant in the finance department of my company. Due to my artistic skills, I received an offer to pen cartoons for a children's publication for which I would receive compensation. I plan to undertake this activity during week-ends. What should I do before accepting this offer?**

Before accepting the offer, you should ascertain whether the company policies and rules require you to make a disclosure to your supervisor so that the company may determine whether your undertaking this activity adversely affects our company's interests. On confirmation from the company that it does not do so, you would be free to take up the activity. It is also your duty to bring to the attention of the company whenever there is any change in the situation you have disclosed.

20. Our employees shall use all company assets, tangible and intangible, including computer and communication equipment, for the purpose for which they are provided and in order to conduct our business. Such assets shall not be misused. We shall establish processes to minimise the risk of fraud, and misappropriation or misuse of our assets.
21. We shall comply with all applicable anti-money laundering, anti-fraud and anti-corruption laws and we shall establish processes to check for and prevent any breaches of such laws.

### Insider trading

22. Our employees must not indulge in any form of insider trading nor assist others, including immediate family, friends or business associates, to derive any benefit from access to and possession of price sensitive information that is not in the public domain. Such information would include information about our company, our group companies, our clients and our suppliers.

### Q&A

**Our company has recently announced the launch of a new business initiative. In connection with this, your friend who is a journalist with a leading business newspaper has asked you to provide some information that he could cover in his forthcoming article. He has promised not to quote you, or reveal your identity. Should you be giving him this information?**

No. You should not be sharing information of this nature with the media, even if it is assured that the source would remain anonymous. Only authorised personnel in the company are permitted to speak to the media and provide information of this nature.

**Our company has a "Use of Social Media" policy that lays down the "dos and don'ts" for use of social media even if you may access such media on your own time. Why is there such a policy?**

External communication is a serious matter. It must be carefully managed because information put out with reference to our company or its businesses needs to be clear, truthful and not violate any undertakings we have given to other parties. In each business there are managers nominated to authorise and make different types of statements to the outside world. These managers should be consulted about any request for information you may receive or information you think we should give out.

In using social media, in particular blogs or social networking sites, you should exercise great caution while talking about our company or the business we do. It may feel like you are chatting with friends or expressing a personal opinion but even while doing so you cannot share any confidential information of our company.

### REMEMBER...

We must respect the property rights of others by never misusing their assets, intellectual property or trade secrets, including the copying or downloading of unauthorised software, trademarks, copyrighted material or logos. We should never make unauthorised copies of computer software programs or use unlicensed personal software on company computers.

### Prohibited drugs and substances

23. Use of prohibited drugs and substances creates genuine safety and other risks at our workplaces. We do not tolerate prohibited drugs and substances from being possessed, consumed or distributed at our workplaces, or in the course of company duties.

### Conflicts of interest

24. Our employees and executive directors shall always act in the interest of our company and ensure that any business or personal association *including close personal relationships* which they may have, does not create a conflict of interest with their roles and duties in our company or the operations of our company. Further, our employees and executive directors shall not engage in any business, relationship or activity, which might conflict with the interest of our company or our group companies.

25. Should any actual or potential conflicts of interest arise, the concerned person must immediately report such conflicts and seek approvals as required by applicable law and company policy. The competent authority shall revert to the employee within a reasonable time as defined in our company's policy, so as to enable the concerned employee to take necessary action as advised to resolve or avoid the conflict in an expeditious manner.
26. In the case of all employees other than executive directors, the Chief Executive Officer / Managing Director shall be the competent authority, who in turn shall report such cases to the Board of Directors on a quarterly basis. In case of the Chief Executive Officer / Managing Director and executive directors, the Board of Directors of our company shall be the competent authority.

### Q&A

**You are responsible for maintaining our company's customer database. One of your friends is starting a business venture and requests you to share a few particulars from this database for marketing purposes of his business. He assures you that he would keep the data as well as his source confidential. Should you do so?**

No. You should respect the confidentiality of customer information and not share any part of the database with any person without due authorisation.

**You have access to revenue numbers of different business units of our company. While having a conversation with you over evening drinks, your friend enquires about the financial performance of our company. You do not share detailed information with your friend, but share approximate revenue figures. Is this conduct of yours correct?**

No, it is not. You are not permitted to share financial information of our company with others who do not need to know this information. Financial information should always be safeguarded and disclosed only on a need-to-know basis after obtaining requisite approvals. Sharing of any price sensitive information that is not generally available with the public could also lead to violation of applicable insider trading laws.

27. Notwithstanding such or any other instance of conflict of interest that exists due to historical reasons, adequate and full disclosure by interested employees shall be made to our company's management. At the time of appointment in our company, our employees and executive directors shall make full disclosure to the competent authority, of any interest leading to an

actual or potential conflict that such persons or their immediate family (including parents, siblings, spouse, partner, children) or persons with whom they enjoy close personal relationships, may have in a family business or a company or firm that is a competitor, supplier, customer or distributor of, or has other business dealings with, our company.

### REMEMBER...

A conflict of interest could be any known activity, transaction, relationship or service engaged in by an employee, his/her immediate family (including parents, siblings, spouse, partner, and children), relatives or a close personal relationship, which may cause concern (based upon an objective determination) that the employee could not or might not be able to fairly perform his/her duties to our company.

### Examples of Potential Conflicts of Interest

A conflict of interest, actual or potential, arises where, directly or indirectly, an employee or executive director:

- (a) engages in a business, activity or relationship with anyone who is party to a transaction with our company;
- (b) is in a position to derive an improper benefit, personally or for any family member or for any person in a close personal relationship, by making or influencing decisions relating to any transaction;
- (c) conducts business on behalf of our company or is in a position to influence a decision with regard to our company's business with a supplier or customer where a relative of, or a person in close personal relationship with, an employee or executive director is a principal officer or representative, resulting in a personal benefit or a benefit to the relative;
- (d) is in a position to influence decisions with regard to award of benefits such as increase in salary or other remuneration, posting, promotion or recruitment of a relative or a person in close personal relationship employed in our company or any of our group companies;
- (e) undertakes an activity by which the interest of our company or our group companies can be compromised or defeated; or
- (f) does anything by which an independent judgement of our company's or our group companies' best interest cannot be exercised.

28. If there is a failure to make the required disclosure and our management becomes aware of an instance of conflict of interest that ought to have been disclosed by an employee or executive director, our management shall take a serious view of the matter and consider suitable disciplinary action as per the terms of employment. In all such matters, we shall follow clear and fair disciplinary procedures, respecting the employee's right to be heard.

### Examples of activities normally approved (post-disclosure) as per applicable company policy

Acceptance of a position of responsibility (whether for remuneration or otherwise) in the following cases would typically be permitted, provided the time commitments these demand do not disturb or distract from the employee's primary duties and responsibilities in our company, and are promptly disclosed to the relevant competent authority:

- (a) Directorships on the Boards of any of our group companies, joint ventures or associate companies.
- (b) Memberships/positions of responsibility in educational/professional bodies, where such association will promote the interests of our company.
- (c) Memberships or participation in government committees/bodies or organisations.

### Q&A

**You are in a relationship with a colleague who has been recently moved into your team and would now be reporting to you. What should you do?**

Romantic or close personal relationships with another employee where a reporting relationship exists and one is responsible for evaluating the other's performance, is likely to create a conflict of interest. In such a situation, you would need to report the potential conflict to your supervisor.

**Your company is submitting a proposal to a company in which you were previously employed. You have confidential information pertaining to your previous employer, which you believe will help your present employer in winning the contract. Should you share this information?**

No. You should not share this information with your company since it relates to confidential information of a third party. Your company respects its employees' duty to protect confidential information that they may have relating to their previous employers.

**You are the purchasing manager in the procurement department of your company. You receive an invitation from a supplier to attend a premier sporting event as her guest. This particular supplier is one of the vendors who has submitted a proposal for an open tender issued by your company. Should you accept the invitation?**

No. You should not accept the invitation in this instance. Since you are in a key decision-making role for the tender, any unusual benefit that you receive could be perceived as an inducement that could compromise your objectivity.

## OUR CUSTOMERS



We have continued to enjoy prosperity, even with adverse times to fight against. Our relations with all concerned are the most friendly. We have maintained the same character for straight-forward dealing with our constituents and customers. Our productions have continued to be of the same high quality, and therefore command the best reputation and realise the highest prices. ... I mention these facts only to point out that with honest and straight-forward business principles, close and careful attention to details, and the ability to take advantage of favourable opportunities and circumstances, there is a scope for success.

### Jamsetji Tata

Founder of the Tata group  
Chairman, Tata Sons (1868 – 1904)

## E. OUR CUSTOMERS

### Products and services

1. We are committed to supplying products and services of world-class quality that meet all applicable standards.
2. The products and services we offer shall comply with applicable laws, including product packaging, labelling and after-sales service obligations.
3. We shall market our products and services on their own merits and not make unfair or misleading statements about the products and services of our competitors.

### Export controls and trade sanctions

4. We shall comply with all relevant export controls or trade sanctions in the course of our business.

### Fair competition

5. We support the development and operation of competitive open markets and the liberalisation of trade and investment in each country and market in which we operate.
6. We shall not enter into any activity constituting anti-competitive behaviour such as abuse of market dominance, collusion, participation in cartels or inappropriate exchange of information with competitors.
7. We collect competitive information only in the normal course of business and obtain the same through legally permitted sources and means.

### Dealings with customers

8. Our dealings with our customers shall be professional, fair and transparent.
9. We respect our customers' right to privacy in relation to their personal data. We shall safeguard our customers' personal data, in accordance with applicable law.



## Q&A

**You are the Regional Sales Manager of our company. You have become a member of an “informal group”, on an instant messaging service, whose members are the regional sales heads of our company’s competitors. The administrator of the group has requested an in-person meeting to informally discuss market conditions and brainstorm on “pricing strategy” from an industry perspective. What should you do?**

Any meeting with competitors, especially to discuss “pricing strategy”, could be an attempt to promote an anti-competitive practice or manipulate prices. You should respond by declining this invitation and exiting the “informal group”. You should also report this incident to your supervisor and your Legal department.

**You are attending a customer meeting with a colleague, and your colleague makes an untruthful statement about the company’s services. What should you do?**

You should assist your colleague in correcting the inaccuracy during the meeting if possible. If this is not possible, raise the issue with your colleague after the meeting to enable him/her or the company to correct any misrepresentation made to the customer.

**While working on a customer project, you receive a call from your colleague. He used to manage that customer account before you took over his role. He recalls that he had worked with the customer on developing a new ordering system which he thinks would be beneficial for another customer and requests you to send him the project details. What should you do?**

You must not share this information without specific approval of the customer; you are not permitted to use a customer’s assets, including software, for another customer or for any personal use.

## REMEMBER...

Striving for excellence in the standards of our work and in the quality of our goods and services is a core Tata value. It is the unwavering practice of this value that builds and sustains customer trust in our brand.

# OUR COMMUNITIES AND THE ENVIRONMENT



In a free enterprise, the community is not just another shareholder in business but is in fact the very purpose of its existence.

**Jamsetji Tata**

Founder of the Tata group  
Chairman, Tata Sons (1868 – 1904)

## F. OUR COMMUNITIES AND THE ENVIRONMENT

### Communities

1. We are committed to good corporate citizenship, and shall actively assist in the improvement of the quality of life of the people in the communities in which we operate.
2. We engage with the community and other stakeholders to minimise any adverse impact that our business operations may have on the local community and the environment.
3. We encourage our workforce to volunteer on projects that benefit the communities in which we operate, provided the principles of this Code, where applicable, and in particular the 'Conflicts of Interest' clause are followed.

### The environment

4. In the production and sale of our products and services, we strive for environmental sustainability and comply with all applicable laws and regulations.
5. We seek to prevent the wasteful use of natural resources and are committed to improving the environment, particularly with regard to the emission of greenhouse gases, consumption of water and energy, and the management of waste and hazardous materials. We shall endeavour to offset the effect of climate change in our activities.

# OUR VALUE-CHAIN PARTNERS



If we had done some of the things that some other groups have done, we would have been twice as big as we are today. But we didn't, and I would not have it any other way.

**J.R.D. Tata**

Chairman, Tata Sons (1938 – 1991)

(on the pace of expansion of the Tata group in the 1960s and 70s)

## G. OUR VALUE-CHAIN PARTNERS

1. We shall select our suppliers and service providers fairly and transparently.
2. 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.
3. Our suppliers and service providers shall represent our company only with duly authorised 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.
4. 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.
5. We respect our obligations on the use of third party intellectual property and data.

### Q&A

**You head the procurement function in our company. You have tight budgetary constraints for a project that you are working on. In order to complete the project within the targeted costs, you intend to request your supplier to provide you an exceptional discount on this project order on the understanding that you would “make it up to him” in future orders. Would you be violating the Code?**

Yes, you would. Inducement in any form, including future benefits to the supplier, could compromise your ability to act objectively and in the best interests of the company and therefore must be avoided.

### REMEMBER...

Our value-chain partners would include our suppliers and service providers, distributors, sales representatives, contractors, channel partners, consultants, intermediaries and agents; joint-venture partners and other business associates.

# OUR FINANCIAL STAKEHOLDERS



Ethical behaviour in business – in every sphere and with all constituents – has been the bedrock on which the Tata group has built, and operates, its enterprises. This has been an article of faith for the group ever since its inception, a fundamental element of our cherished heritage and the essence of our way of life.

**Ratan Tata**

Chairman, Tata Sons (1991 – 2012)

## H. OUR FINANCIAL STAKEHOLDERS

1. We are committed to enhancing shareholder value and complying with laws and regulations that govern shareholder rights.
  2. We shall inform our financial stakeholders about relevant aspects of our business in a fair, accurate and timely manner and shall disclose such information in accordance with applicable law and agreements.
  3. We shall keep accurate records of our activities and shall adhere to disclosure standards in accordance with applicable law and industry standards.
-

# GOVERNMENTS



Business, as I have seen it, places one great demand on you; it needs you to impose a framework of ethics, values, fairness and objectivity on yourself at all times. It is not easy to do this; you cannot impose it on yourself forcibly because it has to become an integral part of you.

**Ratan Tata**

Chairman, Tata Sons (1991 – 2012)



## I. GOVERNMENTS

### Political non-alignment

1. We shall act in accordance with the constitution and governance systems of the countries in which we operate. We do not seek to influence the outcome of public elections, nor to undermine or alter any system of government. We do not support any specific political party or candidate for political office. Our conduct must preclude any activity that could be interpreted as mutual dependence/favour with any political body or person, and we do not offer or give any company funds or property or other resources as donations to any specific political party, candidate or campaign.

Any financial contributions considered by our Board of Directors in order to strengthen democratic forces through a clean electoral process shall be extended only through the Progressive Electoral Trust in India, or by a similar transparent, duly-authorized, non-discriminatory and non-discretionary vehicle outside India.

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### Government engagement

2. We engage with the government and regulators in a constructive manner in order to promote good governance. We conduct our interactions with them in a manner consistent with our Code.
3. We do not impede, obstruct or improperly influence the conclusions of, or affect the integrity or availability of data or documents for any government review or investigation.

## OUR GROUP COMPANIES



I do not think anyone was on par with Jamsetji as an industrial visionary. But that is not the sole reason why I have been an admirer of Jamsetji. The major reason was his sense of values, sterling values, which he imparted to this group. If someone were to ask me, what holds the Tata companies together, more than anything else, I would say it is our shared ideals and values which we have inherited from Jamsetji Tata.

**J.R.D. Tata**

Chairman, Tata Sons (1938 – 1991)

## J. OUR GROUP COMPANIES

1. We seek to cooperate with our group companies, including joint ventures, by sharing knowledge, physical resources, human and management resources and adopting leading governance policies and practices in accordance with applicable law including adherence to competition law, where relevant.
2. We shall strive to achieve amicable resolution of any dispute between us and any of our group companies, through an appropriate dispute resolution mechanism so that it does not adversely affect our business interests and stakeholder value.
3. We shall have processes in place to ensure that no third party or joint venture uses the TATA name/brand to further its interests without proper authorisation.
4. Our Board of Directors shall consider for adoption policies and guidelines periodically formulated by Tata Sons and circulated to group companies.

### Q&A

**You are in the process of selecting potential vendors for an IT project in our company. In the final shortlist of two companies, one is a new start-up with limited references and a lower price-quotation, while the other is a Tata company with thirty years of implementation experience and good references, but a marginally higher quote for the same job. With all other parameters of choice being nearly equal, which company should you select for the job?**

While price is undoubtedly an important criterion for decision making, it is clearly not the only one to be evaluated. You may also need to consider good customer references, proven track record and shared value systems in order to decide on your IT partner.

**You are in the process of selecting potential vendors for a project. One of the three finalists is a group company. In reviewing the final proposals, you rank the group company second out of the three proposals based on pricing and total cost of ownership, and select the first-ranked vendor. Is this the right decision?**

Yes. You should select the vendor that, on its own merits, is the vendor that is most appropriate for your company's requirements. You should not select a group company only because of its affiliation.

## RAISING CONCERNS

We encourage our employees, customers, suppliers and other stakeholders to raise concerns or make disclosures when they become aware of any actual or potential violation of our Code, policies or law. We also encourage reporting of any event (actual or potential) of misconduct that is not reflective of our values and principles.

Avenues available for raising concerns or queries or reporting cases could include:

- immediate line manager or the Human Resources department of our company
- designated ethics officials of our company
- the 'confidential reporting' third party ethics helpline (if available)
- any other reporting channel set out in our company's 'Whistleblower' policy.

We do not tolerate any form of retaliation against anyone reporting legitimate concerns. Anyone involved in targeting such a person will be subject to disciplinary action.

If you suspect that you or someone you know has been subjected to retaliation for raising a concern or for reporting a case, we encourage you to promptly contact your line manager, the company's Ethics Counsellor, the Human Resources department, the MD/CEO or the office of the group's Chief Ethics Officer.

### Q&A

**My supervisor has asked me to do something which I believe may be illegal. I am afraid if I do not do what I am told, I could lose my job. Should I do it?**

No. Breaking the law is never an option. Discuss the situation with your supervisor to be certain that you both understand the facts. If your concerns are not resolved, contact a higher level supervisor, the Ethics Counsellor, the Legal department or report them via the company's confidential reporting system, if available.

**I feel that my supervisor is treating me unfairly for reporting a concern to the Ethics Counsellor. What should I do?**

Retaliation against anyone who raises a concern is a violation of the Code. You should therefore promptly report this action of your supervisor to the Ethics Counsellor or the MD/CEO of your company or via the company's confidential reporting system, if available.

## ACCOUNTABILITY

This Code is more than a set of prescriptive guidelines issued solely for the purpose of formal compliance. It represents our collective commitment to our value system and to our core principles.

Every person employed by us, directly or indirectly, should expect to be held accountable for his/her behaviour. Should such behaviour violate this Code,

they may be subject to action according to their employment terms and relevant company policies.

When followed in letter and in spirit, this Code is *'lived'* by our employees as well as those who work with us. It represents our shared responsibility to all our stakeholders, and our mutual commitment to each other.

### SPEAK UP...

If you are unsure whether a particular action you are about to take is consistent with the principles set forth in the Code, ask yourself:

- Could it directly or indirectly endanger someone or cause them injury?
- Is it illegal/unlawful or out of line with our policies and procedures?
- Does my conscience reject it? Does it conflict with my personal values?
- Would I feel uncomfortable if the story appeared in the media? Would it shame my company, spouse, partner, parent or child?
- Does it 'feel' wrong?

If the answer to any of these questions is "Yes", please stop and consult your reporting manager, the Ethics Counsellor, the Human Resource department, the Legal department or any member of the senior management team, to assist you in making the decision.

**When faced with a dilemma:** Stop, Think, Act Responsibly

**NOTE**

The Code does not provide a comprehensive and complete explanation of all expectations from a company standpoint or obligations from a stakeholder standpoint.

Our employees have a continuing obligation to familiarise themselves with all applicable law, group-level advisories and policies, company-level policies, procedures and work rules as relevant. For any guidance on interpretation of the Code, we may seek support from our company's Ethics Counsellor or from the group's Chief Ethics Officer, as appropriate.

All joint ventures are encouraged to adopt the Tata Code of Conduct (TCOC) or a code of conduct that incorporates all elements of the TCOC.

This version of the Tata Code of Conduct supersedes all earlier versions and associated documents and stands effective from 29<sup>th</sup> July, 2015.

For any query or clarification on the Code, please contact the office of the group's Chief Ethics Officer via email at: [ethicsoffice@tata.com](mailto:ethicsoffice@tata.com).



## TATA CODE OF CONDUCT – 2015

I acknowledge that I have received the Tata Code of Conduct.

I have read the Tata Code of Conduct and I acknowledge that as a Tata employee, I am required to comply with the guidelines described therein and failure to do so may subject me to action as per my employment terms and relevant company policies.

If I have a concern about a violation, or a potential violation of the Tata Code of Conduct, I understand that there are channels available to me in my company to report such concerns. By making use of these channels when necessary, I will play my part in maintaining the high ethical standards to which we hold ourselves.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Department: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

*(Please submit this declaration to your Ethics Counsellor or the Human Resource department of your company.)*

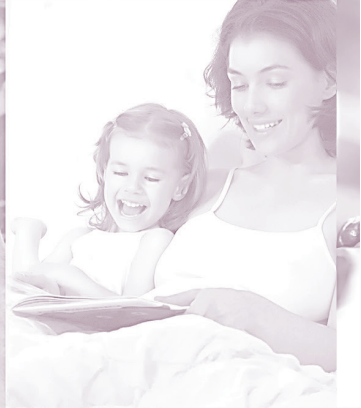












For further information on the Code please contact:  
 The Ethics Office,  
 Tata Sons Ltd.,  
 Bombay House,  
 24, Homi Mody Street,  
 Mumbai – 400001, India.  
 Email: [ethicsoffice@tata.com](mailto:ethicsoffice@tata.com)

## CORPORATE SUSTAINABILITY POLICY

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

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

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



(Praveer Sinha)  
CEO & Managing Director

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

