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| <b>The Tata Power Company Ltd</b>  |  | <i>OPEN TENDER NOTIFICATION</i>               |
| <i>Tender Reference: CC26NK004</i> |   | <i>Document Date: 6<sup>th</sup> May 2025</i> |

## **OPEN TENDER NOTIFICATION**

**FOR**

**Design, Manufacturing, Supply and Supervisory services of 800 kVA, 22kV & 33kV Distribution Type Transformers – 7 Nos in Mumbai Operations area for various Tata Power Receiving Stations.**

**Tender Enquiry No: CC26NK004**

**(Please note this reference number must be quoted in all submission pertaining to this tender)**

**The Tata Power Company Limited (Tata Power)  
Corporate Contracts,**

**Smart Center of Procurement Excellence,  
3rd Floor, Sahar Receiving Station, Near Hotel Leela,  
Sahar Airport Road, Andheri (E), Mumbai 400 059**

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**Procedure for Participating in Tender**

| Tender Enquiry No. | Work Description   | EMD (Rs.)  | Tender Participation Fee | Last date and time for Payment of Tender Participation Fee* | Last date and time for bid submission |
|--------------------|--|------------|--------------------------|---|---------------------------------------|
| CC26NK004          | Design, Manufacturing, Supply and Supervisory services of 800 kVA, 22kV & 33kV Distribution Type Transformers – 7 Nos in Mumbai Operations area for various Tata Power Receiving Stations. | 2,00,000/- | Rs. 2,000/-              | 16 <sup>th</sup> May 2025                                   | 6 <sup>th</sup> June 2025             |

\* Interested bidders are strongly advised not to wait by above time and purchase the tender immediately to get the link for bid submission. This will enable them to communicate/raise queries against the subject tender in time.

**Procedure for Participating in Tender. Following steps to be done before last date for purchase of tender,**

1. Interested Vendors to refer to the Section C of the tender (Prequalification criteria).
2. Eligible and Interested Bidders to submit duly signed and stamped letter on Bidder's letterhead indicating
  - a. Tender Enquiry number
  - b. Name of authorized person
  - c. Contact number
  - d. e-mail id
  - e. Details of submission of Tender Participation Fee
3. Non-Refundable Tender Participation Fee, as indicated in table above, to be submitted in the form of Direct deposit in the following bank account and submit the receipt along with a covering letter clearly indicating the Tender Reference number –

Beneficiary Name – The Tata Power Co. Ltd.

Bank Name – HDFC Bank Ltd.

Branch Name – Fort Branch, Mumbai

Address – Maneckji Wadia Building, Nanik Motwani Marg, Fort, Mumbai 400023.

Branch Code – 60

Bank & Branch Code – 400240015

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Account No – 00600110000763

Account type – CC

IFSC Code – HDFC0000060

E-mail with necessary attachment of 1 and 2 above to be send to [n.kuppusami@tatapower.com](mailto:n.kuppusami@tatapower.com) with copy to [vaishali.Kachare@tatapower.com](mailto:vaishali.Kachare@tatapower.com) before “Last date and time for Payment of Tender Participation Fee”

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

Please note all future correspondence regarding the tender, bid submission, bid submission date extension, Pre-bid query etc. will happen only through Tata Power E-Tender system (Ariba). User manual to guide the bidders to submit the bid through e-Tender system (Ariba) is also enclosed in the Section I of the Tender Document.

No e-mail or verbal correspondence will be responded. All communication will be done strictly with the bidder who have done the above steps (Payment of tender fee and submission of letter with requisite details) to participate in the Tender.

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

Any payment of Tender Participation Fee / EMD by Bidder who have not done the pre-requisite within stipulated timeline will not be refunded.

Also, all future corrigenda to the said tender, if any, will be informed on Tender section on website <https://www.tatapower.com>

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### **CONTENTS OF THE ENQUIRY**

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**\* To be submitted in editable excel format**

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## Section A: Tender Notice including Instruction to Bidders

### 1. Tender Details

#### 1.1 Key Tender Specific Details

|  |   |
|--|---|
| <b>Reference Number</b>                | <b>CC26NK004</b>  |
| <b>Description</b>                     | <b>Design, Manufacturing, Supply and Supervisory services of 800 kVA, 22kV &amp; 33kV Distribution Type Transformers – 7 Nos in Mumbai Operations area for various Tata Power Receiving Stations.</b> |
| <b>Type of Tender</b>                  | <b>Firm Order</b>   |
| <b>Period</b>                          | <b>Till the completion of work.</b>   |
| <b>Tender Fee</b>                      | <b>Rs 2,000/-</b>   |
| <b>Earnest Money Deposit (EMD)</b>     | <b>Rs 2,00,000/-</b><br><b>Rs Two Lakhs Only</b><br><b>PLEASE NOTE THAT IT IS MANDATORY TO SUBMIT EMD IN BANK GUARANTEE FORMAT ONLY</b>   |
| <b>Price Basis</b>                     | <b>Firm Price</b>   |
| <b>Executive Handling this Tender*</b> | Name: Mr. Nithishkumar Kuppusami<br>Contact No.: 9344046713<br>E-Mail ID: <a href="mailto:n.kuppusami@tatapower.com">n.kuppusami@tatapower.com</a>  |

\*You may contact the above personnel from Monday to Friday during office hours only.

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## 1.2 Calendar of Events

|     |   |                                |
|-----|---|--------------------------------|
| (a) | Access to Tender Documents through Tata Power website   | 6 <sup>th</sup> May 2025       |
| (b) | Date & Time of Pre-Bid Meeting (if applicable).   | Shall be intimated in advance. |
| (c) | Last date and time for Payment of Tender Participation Fee to get e-tender link for bid submission* | By 16 <sup>th</sup> May 2025   |
| (d) | Last Date of receipt of pre-bid queries, if any.  | 21 <sup>st</sup> May 2025      |
| (e) | Last Date of Posting Consolidated replies to all the pre-bid queries as received                    | By 26 <sup>th</sup> May 2025   |
| (f) | Last date and time of receipt of Bids   | By 6 <sup>th</sup> June 2025   |

**Note: - \* Interested bidders are strongly advised not to wait by above time and purchase the tender immediately to get the link for bid submission. This will enable them to communicate/raise queries against the subject tender in time.**

These date and time in above calendar of events are as planned and tentative. In case of change the same shall be intimated to Authorized Person of Interested Bidder through E-Tender System.

Please note post submission of Bids relevant communication will be done with Authorized Person of Interested Bidder through E-Tender System.

## 1.3 Mandatory documents required along with the Bid

- 1.3.1 Bid Guarantee Fee (EMD) of requisite value and validity. PLEASE NOTE THAT BID GUARANTEE ONLY IN FORM OF BANK GUARANTEE WILL BE ACCEPTED.
- 1.3.2 Requisite Documents to ascertain fulfilling of Technical and Commercial Pre-Qualification Requirement as detailed in Tender Enquiry.
- 1.3.3 Technical Submission including Drawings, Type Test details etc. as detailed in Technical Specification.
- 1.3.4 Required Commercial Submission as detailed in Tender Document
- 1.3.5 Technical and Commercial Clarification and Deviations as per the format attached in the Tender Enquiry
- 1.3.6 Proper authorization letter to sign the tender and participate in Tata Power E-Tender system on the behalf of bidder.
- 1.3.7 **For vendor not registered with Tata Power, Duly filled Vendor Registration form with all supporting documents is mandatory to participate in the Tender.**

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

**Also please note that whenever editable format is shared it is requested that data be filled in relevant cells. No formatting or addition / deletion of rows / columns to be done. Wherever editable Excel submission are requested the file should be free from references, macros etc.**

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Checklist of Document Submission

| Stage of Tendering                             | Document  | Type of Format                 | Mode of submission                 |
|--|---|--------------------------------|------------------------------------|
| Before last date of Pre-Bid Query              | Query / Clarification / Deviation (QCD) Format. (F1)<br><br>Separate Excel sheet to be used for Technical and Commercial Pre-Bid Query  | Editable Excel Format          | Through message in E-tender system |
| <b>Bid Submission Envelope 1 (First Part)</b>  | <b>Earnest Money Deposit</b>  | <b>Original Bank Guarantee</b> | <b>In Sealed Envelope</b>          |
| <b>Bid Submission Envelope 2 (Second Part)</b> | <b>Documents to be uploaded in Ariba only.</b><br>In case of multiple files, a zipped folder can be attached for the same (size limit of 100 MB per zipped file)  |                                |                                    |
| To be submitted Under Tab 2 in Ariba           | Duly filled PQR and supporting documents  |                                |                                    |
|  | Duly filled PQR format  | Editable Excel Format          | E-Tender System                    |
|  | Backup documents for Technical PQR  | Signed and Scanned documents   | E-Tender System                    |
| To be submitted in Ariba                       | Duly Filled Vendor Registration Form (for unregistered vendor) and supporting documents. Registered vendor to submit letter indicating <b>Vendor Code</b> in Tata Power and <b>factory/supply address</b> to be used. |                                |                                    |
|  | Duly filled Vendor Registration Form (if vendor is not registered with Tata Power)  | Signed and Scanned documents   | E-Tender System                    |
|  | Backup document for Vendor Registration Form (if vendor is not registered with Tata Power)  | Signed and Scanned documents   | E-Tender System                    |

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|  |   |  |                 |
|--|---|--|-----------------|
| To be submitted in Ariba               | Technical Submission and Supporting Documents                         |  |                 |
|  | Duly filled Technical Submission Format                               | Editable Excel Format  | E-Tender System |
|  | Technical Submission as required for Technical Specifications         | Signed and Scanned documents   | E-Tender System |
|  | Duly filled Technical Submission- Type test verification sheet Format | Editable Excel Format  | E-Tender System |
|  | Backup documents for Type Test verification                           | Signed and Scanned documents/ reports  | E-Tender System |
|  | Query / Clarification / Deviation (QCD) Format for Deviation if any   | Editable Excel Format  | E-Tender System |
|  | Duly filled Unpriced Bid Format                                       | Signed and scanned copy of document  | E-Tender System |
| To be submitted in Ariba               | Commercial Submission and supporting document                         |  |                 |
|  | Letter of Undertaking (FOR VENDORS NOT REGISTERED WITH TATA POWER)    | Scanned Copy of letter of undertaking duly filled, stamped and signed              | E-Tender System |
|  | E-auction Undertaking form  | Scanned Copy of letter of undertaking duly filled, stamped and signed              | E-Tender System |
|  |   |  |                 |
| Bid Submission Envelope 3 (Third Part) | Duly filled Priced Bid Format   | Duly signed and stamped scanned copy of document. To be entered in E-Tender System | E-Tender System |

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#### **1.4 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 Query / Clarification / Deviation (QCD) Format. Deviations have to be mandatorily submitted in editable Excel sheet Technical and Commercial deviation have to be submitted separately.

Technical or Commercial Deviation should be mentioned in Deviation Format only. Deviation in any other document or Format will not be considered.

#### **1.5 Right of Acceptance/Rejection**

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

1.5.2 Mandatory Documents as listed in 1.3 above

1.5.3 Price Bid as per the Price Schedule mentioned in Tender Document

1.5.4 Receipt of Bid and Response to queries within the due date and time

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

#### **1.6 Qualification Criteria**

**Qualification Requirement expectation and document are detailed in documents in Section C**

#### **1.7 Pre-Bid Queries**

Pre-Bid Queries if any has to be sent through message in E-Tender System. Pre-Bid Query has to be sent only in the Query / Clarification / Deviation (QCD) Format. Technical Pre-Bid Query and Commercial Pre-Bid Query have to be submitted in Separate Editable Excel File in Prescribed Format. Pre-Bid Queries sent in any other format or send through any other communication channel will not be accepted and answered. Pre-Bid Query have to be sent in the stipulated timeline as defined in the Tender Document. No Pre-Bid Query will be accepted after the due time and date as specified as "Last Date of receipt of pre-bid queries, if any"

#### **1.8 Marketing Integrity**

We have a fair and competitive marketplace. The rules for bidders are outlined in the General Condition of Contracts and other parts of Tender Documents. Bidders must agree to these rules prior to participating. In addition to other remedies available, Tata Power 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 or other part of the Tender Documents. A bidder who violates the marketplace rules or engages in behavior that disrupts the fair execution of the marketplace, may result in restriction of a bidder from further participation in the marketplace for a length of time, depending upon the seriousness of the violation. Examples of violations include, but are not limited to:

- Failure to honor prices submitted to the marketplace
- Breach of terms as published in TENDER
- Submit irrelevant documents or frequently cases of missing documents as part of compliance to Qualifying, Technical or Commercial Requirements causing unnecessary delay in Tender Evaluation

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### 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 Tata Power. This includes all bidding information submitted to Tata Power. All tender documents remain the property of Tata Power and all suppliers are required to return these documents to Tata Power upon request. Suppliers who do not honor these confidentiality provisions will be excluded from participating in future bidding events.

## 2. 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 / each line item as calculated in Schedule of Items. Tata Power, however, reserves 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 against each line item.
- Bidder must mandatorily quote against each item of Schedule of Items. Failing to do so, Tata Power may reject the bids.

**NOTE:** In case of a new bidder not registered with Tata Power, factory inspection and evaluation shall be carried out to ascertain bidder's manufacturing capability and quality procedures. However, Tata Power 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 Tata Power shall be final and binding on the bidder in this regard.

### 2.1 Price Variation Clause and Cap:

The prices shall remain firm during the entire contract period and no price variation is applicable.

## 3. Submission of Bid Documents

### 3.1 Bid Submission

Bidders are requested to submit their offer in line with this Tender document. Bids shall be submitted in 3 (three) parts:

**FIRST PART: "EMD – BANK GUARANTEE"** of Value detailed in 1.1 valid for 180 days from the due date of bid submission in the form of Bank Guarantee favoring 'The Tata Power Company Limited'. The EMD must be strictly in the format as mentioned in Tender Document, failing which it shall not be accepted by Tata Power and the bid as submitted shall be liable for rejection.

**Note: BG of 180 days validity and further claim period of 180 days is needed. In case the same cannot be issued by your bank then BG valid for 365 days can be provided.**

Note: At times bidders have sought Tata Power bank details which is needed by them to make BG. Hence the same is reproduced below. These details are only provided to facilitate making of BG if needed

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Tata Power's Bank Details for submitting EMD BG:  
Bank Name & Address – ICICI Bank, 163 HT Marg,  
Backbay Reclamation, Churchgate, Mumbai 400 020.  
A/c no. - 000451000293  
IFSC Code – ICIC0000393

The hard copy of EMD in a sealed envelope should be sent on address mentioned in Tender document.

**First Part must be submitted in Sealed Envelope.**

**SECOND PART: "TECHNICAL / UN-PRICED COMMERCIAL BID"** shall contain the following documents:

- a) Documentary evidence in support of Technical, Commercial qualifying criteria
- b) Technical literature/GTP/Type test report/Details of Qualified Manpower Available/ Testing Facility available etc. *(complete in all respect as desired and detailed in Technical Specification and Technical Requirement Section)*
- c) Duly filled Technical and Commercial Deviation Sheets
- d) Duly filled formats like Authorization affidavit form
- e) *Unpriced Commercial Bid*

**The technical / un-priced commercial bid shall be properly indexed and is to be submitted in Soft Copy through E-Tender system of Tata Power. Hard Copy of Technical Bids need not be submitted.**

**Second Part must be submitted through E-Tender System Only.**

**THIRD PART: "PRICE BID"** shall contain only the price details and strictly in Price Bid format along with explicit break up of basic prices and applicable GST. Basic price should include packaging forwarding, freight, transit insurance and any other cost envisaged by the bidder.

**Third part must be submitted through E-Tender System Only.**

**FOR BIDS INVITED THROUGH E-TENDER SYSTEM (TECHNICAL AND UN-PRICED COMMERCIAL BID):**

In response to advertisement Bidder has to provide details of person authorized to Bid on behalf of the Bidder. An e-mail will be generated by E-Tender System and the authorized person can download the Tender Documents from the system.

**Bidders have to mandatorily submit SECOND and THIRD PART (Technical and Price Bid) only through E-Tender system of Tata Power. Bids submitted through any other form (hard copy) / route shall not be admissible.**

**FOR BIDS INVITED IN SEALED ENVELOPE PROCESS (FIRST PART):**

First Part of the bid shall be sealed in envelope which shall be clearly marked as below:

**EMD BID –  
"Please mention Tender Reference No"**

Please mention our Tender Reference No on the Tender and drop the same in our Tender Box located at The Tata Power Company Limited (Tata Power), Corporate Contracts, Smart Center of Procurement Excellence, 3rd Floor, Sahar Receiving Station, Near Hotel Leela, Sahar Airport Road, Andheri (E), Mumbai 400 059.

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The bid shall be addressed to:

Head - Procurement  
The Tata Power Company Limited (Tata Power),  
Smart Center of Procurement Excellence, 3rd Floor, Sahar Receiving Station,  
Near Hotel Leela, Sahar Airport Road, Andheri (E), Mumbai 400 059.

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 Tata Power, 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.

Bids submitted by Email/Telex/Telegram /Fax will be rejected. No request from any Bidder to Tata Power to collect the proposals from Courier/Airlines/Cargo Agents etc. shall be entertained.

**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**

**Communication Details: Detailed in 1.1**

**3.3 Bid Prices**

Bidders shall quote for the entire Scope of Supply/ work with a breakup 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 Tata Power. 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 breakup 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

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Specifications/ Scope of Work/ SLA mentioned in the tender, shall be deemed to be included in prices quoted.

### 3.4 Bid Currencies

Prices shall be quoted in Indian Rupees Only. It also may be noted that the denomination of Purchase Order / Outline Agreement / Rate Contract and associated Payment to Successful Bidder shall also be in Indian Rupees Only. In case Bidder intends to import any equipment, part etc. and supply to Tata Power then all liability and costs related to import will rest with the Bidder. All statutory compliances, payments, expenditure etc. related to importing of equipment will be responsibility of the bidder.

### 3.5 Period of Validity of Bids

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

Price submitted as part of E-auction / Negotiation shall remain valid for **90 days** from date of E-auction / Negotiation.

Notwithstanding clause above, Tata Power 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 Tata Power against the risk of bidder's conduct which would warrant forfeiture.

The EMD shall be in following form:

- Bank Guarantee valid for 180 days after due date of submission with an additional claim period of 180 days from the date of expiry of BG.

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

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

**Or**

- b) In case of a successful bidder, if the Bidder, within 15 days, does not
  - i) accept the purchase order, or
  - ii) furnish the required Contract Performance Bank Guarantee (CPBG)

**Original Bank Guarantee submitted as EMD shall be returned only after completion of award process for unsuccessful bidders and issue of Contract Performance Bank Guarantee (CPBG) for successful bidder.**

## 4. Bid Opening & Evaluation process

|                                    |   |   |
|------------------------------------|---|---|
| <b>The Tata Power Company Ltd</b>  | <br><b>TATA</b><br><b>TATA POWER</b> | <i>OPEN TENDER NOTIFICATION</i>               |
| <i>Tender Reference: CC26NK004</i> |   | <i>Document Date: 6<sup>th</sup> May 2025</i> |

#### **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 Tata Powers 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 Tata Power as per our standard Process. The bids shall be opened internally by Tata Power. Technical bid must not contain any cost information whatsoever.

First the envelope marked "EMD" will be opened. Bids without EMD 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 in E-Tender system.

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

Tata Power 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. Tata Power may ask for submission of original documents in order to verify the documents submitted in support of qualification criteria.

Prior to the detailed evaluation, Tata Power 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 Tata Power and/or the Tata Power 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, Tata Power may, at its discretion, ask the Bidder for a clarification on its Bid for any deviations with respect to the Tata Power 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 Tata Power.

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

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 Tata Power without any further correspondence in this regard.

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

|                                    |   |   |
|------------------------------------|---|---|
| <b>The Tata Power Company Ltd</b>  | <br><b>TATA</b><br><b>TATA POWER</b> | <i>OPEN TENDER NOTIFICATION</i>               |
| <i>Tender Reference: CC26NK004</i> |   | <i>Document Date: 6<sup>th</sup> May 2025</i> |

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.

#### **4.6 Reverse Auction and Price Matching Option**

Tata Power reserves the right to conduct the reverse auction AND / OR Manual Negotiations for the products/ services being asked for in the tender. Only Technical Qualified Bids will be allowed to participate in e-auction. Date and time of e-auction will be intimated through E-Tender system to Authorized Person of Interested Bidder.

For case where more than one bidder has to be awarded (including Rate Contract / Outline Agreement) Price Matching Option will be exercised. Volume of job allocated to original competitive bidder will be more than bidder who is chosen through Price Matching Option. Tata Power decision regarding work sharing shall be final and no explanation OR clarification shall be given regarding the same.

Tata Power reserves the right to go for Reverse Auction (RA) for price negotiation and discover the most competitive price on ARIBA portal, Tata Power's official e-tendering platform. This will be decided after techno-commercial evaluation of the bids. Bidders need to give their acceptance with the offer for participation in RA. Non-acceptance to participate in RA may result in non-consideration of their bids, in case Tata Power decides to go for RA.

Only those bidders who are techno-commercially qualified shall be eligible to participate further in RA process. However, the original H1 bidder (whose price bid is the highest post techno-commercial evaluation) shall not be allowed to participate in further RA process provided minimum three techno-commercially qualified bids are available.

#### **5.0 Award Decision**

Tata Power 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 Priced Bid Format subject to any corrections required in line with Clause 4.3 above. The decision to place purchase order/Outline Agreement/ Rate Contract solely depends on Tata Power on the cost competitiveness across multiple lots, quality, delivery and bidder's capacity, in addition to other factors that Tata Power may deem relevant.

Tata Power 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 Tata Power reserves the right to award other suppliers who are found fit.

#### **5.1 Rate Contract / Outline Agreement**

Rate Contract / Outline Agreement does not guarantee any assured business volume in Rupees or Quantity. Quantities are only indicative and specified for the purpose of readiness as per the request from Purchaser. Supplies shall be only against Firm Purchase Orders placed as per the agreed terms and conditions of Rate Contract / Outline Agreement. Purchaser shall be entitled at its discretion to place firm order for such supplies on "As and When Required Basis" without minimum take-off guarantee.

|                                    |   |   |
|------------------------------------|---|---|
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| <i>Tender Reference: CC26NK004</i> |   | <i>Document Date: 6<sup>th</sup> May 2025</i> |

Rate Contract / Outline Agreement will have list of Items with Unit Rate and applicable Taxes and Duties. There will be a cap on value for which order which can be placed against the Rate Contract / Outline Agreement. Actual quantity ordered for each line item may differ significantly from the tentative quantity indicated in the Tender Document. One / few / all items of Rate Contract / Outline Agreement can be ordered till the Cap Value is reached.

## **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. Outline Agreement/Purchase Order (with Commercial conditions)
2. Special Terms and conditions (if applicable)
3. General Terms and conditions
4. Technical Specifications

In case there is a discrepancy in the BOQ mentioned in tender (to the extent modified through subsequent Corrigendum, if any) and the bid submitted by any bidder, the description as mentioned in the tender (to the extent modified through subsequent Corrigendum, if any) shall prevail.

## **7.0 Ethics**

Tata Power is an ethical organization and as a policy Tata Power 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.

Tata Power work practices are governed by the Tata Code of Conduct. Bidder is requested to refer Tata Code of Conduct Clause in General Terms and Conditions.

## **8.0 General Condition of Contract and Special Condition of Contracts**

Any condition not mentioned above shall be applicable as per General Terms and Conditions and Special Condition of Contracts attached along with this tender.

---XXX---



## Technical and Commercial Pre bid Queries Format

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## Pre-qualification Requirement and Submission Format

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**FORMAT C.1**  
**Technical Pre-Qualification Requirement and Submission Format**  
**Tender No** CC26NK004  
**Package Name** Design, Manufacturing, Supply and Supervisory services of 800 kVA, 22kV & 33kV Distribution Type Transformers – 7 Nos in Mumbai Operations area for various Tata Power Receiving Stations.  
**Bidder :**  
**Note :** Vendor Submission / claim without suitable backup document will not be accepted and Bid is Liable for Rejection  
This format duly filled in editable Excel format has to be uploaded as Bid Submission with all relevant Backup Document

| To be filled by Tata Power |                                |  |  | To be filled up be Vendor                            |   |
|----------------------------|--------------------------------|--|--|--|---|
| Sr No                      | Parameter                      | Tata Power Requirement   | Documents to be submitted by vendor to ascertain meeting of Pre-Qualification Requirement  | Vendor Submission against Tata Power PQR Requirement | Documents submitted by Vendor to ascertain meeting of Pre-Qualification Requirement |
| 1                          | 2                              | 3  | 4  | 5  | 6   |
| 1                          | Infrastructure                 | Bidder shall be an OEM of "Station (Distribution) Transformer" with manufacturing facility / assembly in India. The bidder must have in-house routine and acceptance testing facilities for acceptance as per relevant IS/IEC.   | Self-undertaking to be submitted in this regard. Tata Power reserves the right to inspect the said manufacturing facility as a proof of compliance to this parameter.  |  |   |
| 2                          | Supply and Experience          | Bidder shall have supplied from India minimum "14 Nos" Mineral Oil (MO) Station Transformer of 33 kV, 800 KVA or higher capacity rating in last 10 years. Minimum 2 no. of MO Station transformer of same rating or higher capacity should have been in satisfactorily commercial operation for a minimum period of two years as on the date of bid opening.<br>"In case the bidder has a previous association with Tata Power for similar products and services, the performance feedback for that bidder by Tata Power shall only be considered irrespective of performance certificates issued by any other organization. Technical performance, delivery timelines, service and support records of past executed projects in Tata Power will be considered for technical evaluation of bidder."<br><br>Indian Subsidiaries of global companies having plant in India are also eligible to bid if the qualification requirements stated above are met independently or in combination with the parent company.<br><u>Declaration from parent company needs to be submitted.</u> | Supply List & Performance Certificates from the utilities / clients<br><br>Self-undertaking to be submitted in this regard. TATA Power reserves the right to inspect the said manufacturing facility as a proof of compliance to this parameter.   |  |   |
| 3                          | Type Test                      | The bidder shall submit Type test reports obtained from NABL/ International Accredited Lab for the equipment / material offered. The type tests should have been conducted on the same ratings ( 22 KV & 33 KV) or higher rating MO Station Transformer of the same design.<br><br>The type tests should have been conducted within 5 years prior to the date of bid opening. Time period for type test can be extended by another 5 years as a special case, if there is no change in design / material of construction (MOC).<br><br>In case the type test reports furnished are not for the quoted equipment / material but for the equipment / material with higher voltage class and/or different capacity, then type test shall be carried out for the offered equipment / material from NABL / International Accredited Lab without any cost implication to the owner and the Type Test reports shall be submitted before despatch of the equipment / material.   | Type Test Report.<br><br>Undertaking that there is no change in design / material of construction (MOC) if Type Test Report older than 5 years but less than 10 years prior to date of bid opening has to be considered (if applicable)<br><br>Undertaking that type test shall be carried out for the offered equipment / material from NABL / International Accredited Lab without any cost implication to the owner and the Type Test reports shall be submitted before despatch of the equipment / material, in case type test reports furnished are not for the quoted equipment / material but for the equipment / material with higher voltage class and/or different capacity, (if applicable) |  |   |
| 5                          | EPC Experience (If applicable) | In case the package involves installation & commissioning of the equipment / material, then the bidder shall have installed and commissioned 7 nos. Mineral Oil (MO) Station Transformer of 33 kV, 800 KVA or higher capacity rating and should have been in satisfactorily commercial operation for a minimum period of two years as on the date of bid opening.  | Performance Certificates from the utilities / clients  |  |   |
| 4                          | Commercial Capability          | Average Annual turnover of the bidder for last three years shall not be less than INR 3 Crore.   | Profit and Loss Statements, Balance Sheet, Cash Flow Statements for the Three (3) preceding financial years duly audited and approved by Authorized Audit Firm / CA.   |  |   |

Note -

1) The Prequalification Criteria published along with the tender "In Section C.1 Pre Qualification Criteria" is the total & complete pre-qualification requirement for the tender and shall prevail over any other/additional pre-qualification requirement mentioned elsewhere in the tender.

2) Tata Power reserves the right to review and approve / reject the Bidder based on Document Submission.

3) In case the bidder has a previous association with any of the Tata Group companies for similar products and services, the performance feedback for that bidder by Tata Group companies shall only be considered for evaluation, irrespective of performance certificates issued by any third organization.

4) Apart from the above PQR bidder must also qualify in Safety evaluation. Details will be shared along with tender documents.

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

- Name of the Vendor/Bidder** : -
- Name of the Sub Vendor (If job is given to Sub Vendor)** : -
- Description of the Job** : -
- Request for Quotation (RFQ) No.** :-

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

### 1. Proposed Manpower Deployment Schedule : -

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

**Instructions to Bidder to fill:**

- Bidder to provide the overall site manpower deployment schedule as above.
- Bidder to indicate (through colour code mentioned below ) their direct and sub-contracted employees  
Direct bidder employee  
Partly Direct / Partly sub-contracted  
Sub-Contracted
- Against each of the category, bidder to indicate the minimum qualification and experience of the proposed manpower.
- Rows can be added to also identify other specialised manpower e.g. specific details to be included for high risk activities operators
- Columns can be extended to the actual duration of Site activities.
- Bidder to note that if operations is in shifts, then Shift-in-charge / safety officers are required for each shift of operation.

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

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

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

### 3. Safety Records:

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

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

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

### 4. Job Safety Plan/ Method Statement:

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

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

### 5. Management System Certification: -

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

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

### Appendix 8: CSM-F-8 PPE requirements

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

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

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

|  |   |  |
|--|---|--|
| <b>The Tata Power Company Ltd</b>                |  | <i>Contractor's Safety Code of Conduct</i> |
| <i>Document No.<br/>TPSMS/GSP/CSM/015 REV 05</i> |   | <i>Date of Issue:<br/>30/07/2020</i>       |

**Appendix 9: CSM- F-10 Site Safety Management Plan / Method Statement**

**Site Safety Plan / Method Statement (Template)**

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

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

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

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

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



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

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

**6.1 Pre-Working Checks**

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

**Tools required for work:**

| Sr.No | Tools /Equipment /Machine | UOM | Required Qty. | Remark |
|-------|---------------------------|-----|---------------|--------|
| 1     |                           |     |               |        |
| 2     |                           |     |               |        |
| 3     |                           |     |               |        |
| 4     |                           |     |               |        |
| 5     |                           |     |               |        |
| 6     |                           |     |               |        |
| 7     |                           |     |               |        |
| 8     |                           |     |               |        |
| 9     |                           |     |               |        |
| 10    |                           |     |               |        |

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

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

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

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

**Attachment:** - Specific Risk Assessment

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

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

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

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

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

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

**10.0 First Aid facilities and Nearby Hospitals Details**

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

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

1. Please give a brief writeup / methodology of your organization planned to avoid impact of the COVID-19 pandemic at Tata Power working site.
2. Please give brief details of occupational health and hygiene related interventions planned by your organisation to ensure good health and fitness of workforce at Tata Power site.

**NOTE : Please sign and submit all the documents listed below for the Safety Bids in a ZIP file**

| Sl.No |  | Criteria   | Minimum Requirement   |
|-------|--|--|---|
| 1     | Manpower ( As per the Clause No1 )   | Safety Officer (1 per 500 workers)   | Qualification- Officer shall possess Advance Diploma In Safety by state technical board. Experience- Minimum 1 year experience in relevant field as mentioned in the job in PR.   |
|       |  | Supervisor (1 per work site upto max. 50 workers)  | Qualification- Supervisor shall possess ITI/ Diploma in relevant field. Experience- Minimum 2 year experience in relevant field as mentioned in the job in Retraining – Trained and certified by TPDSI or equivalent institute in relevant safety procedures. Note: On request of the contractor/Users -TPDSI should vet & certify the skilled & experienced Technician if Technical Qualification is not adequate. |
|       |  | Technician (Skilled workers as electrician, rigger, fitter, welder, cable jointer, line men etc)   | Experience- Minimum 2 year experience in relevant field as mentioned in the job in Retraining – Trained and certified by TPDSI or equivalent institute in relevant safety procedures.   |
| 2     | Tools & Tackles  | To be evaluated as per approved tool list of concerned Departments   | The list of all the tools and tackles to be submitted by the contractor.<br>Evaluation of the list will be carried out based on<br>1) Suitability as per the relevant job<br>2) Make and age of the tools from authorized agencies defined by the user.<br>3) Certification by the competent authority of respective state  |
| 3     | PPE Requirements   | To be evaluated as per approved PPEs standard and PPEs Matrix specified in CSM   |   |
| 4     | Job Safety Plan /Method Statement  | To be evaluated as per SOP/WI/HIRA   |   |
| 5     | Vehicle Deployment   | Weightage will be given for CNG Vehicles with endorsement of CNG Kit on RC/Electrical Vehicles   |   |
| 6     | Crane and Mechanized Heavy Equipment Deployment  | Date of Manufacturing or running Hours   |   |
| 7     | Training Records   | Training records to be evaluated with evidence and scoring to be done as per availability of records   |   |
| 8     | Accredited Bodies Certificate  | ISO-9001   | ISO-9001  |
|       |  | ISO-14001  | ISO-14001   |
|       |  | ISO 45001  | ISO 45001   |
| 9     | Safety Initiatives for learnings implemented in accidents in organization and workforce (Fatal/Non Fatal ) | Maximum 15 marks will be awarded for visible evidence in terms of safety initiative deployed based on learning of accident in organization and workforce in case of accident |   |
| 10    | Rewards and Recognition  | Maximum 5 marks will be awarded for R&R process evidence   |   |



## General Terms and Conditions - Supply

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The Tata Power Company Limited is hereunder referred to as the "Purchaser" or "Company". The person, firm or company selling the goods, the subject of this purchase order is referred to as "Vendor" or "Contractor". The subject of this purchase order is hereinafter referred to as the "Material(s)" or "Goods".

The Contract shall mean the contract as derived from the following:

1. Purchase Order (with 'Commercial Notes' and Annexures to the Purchase Order referred thereon)
2. Technical Specifications.
3. General Terms & Conditions

The documents including all reference document (s) and Annexures forming the Contract are to be read together as a whole and are to be taken as mutually explanatory.

#### **1. Price:**

Unless otherwise specifically stipulated, the price shall be firm and shall not be subject to escalation for any reason till the validity of this Contract.

Unless otherwise specifically stipulated, the price shall be inclusive of road/ rail worthy water-proof packing & forwarding charges up to effecting delivery at FOT/ FOR despatch point, GST and shall also be inclusive of inland freight, terminal taxes and entry taxes as leviable on the transportation or entry of goods into any local area limits pursuant to the Contract.

#### **2. Taxes and Duties:**

- 2.1 The Contract Price shall be inclusive of all taxes, duties, including but not limited to GST or any local taxes, levies imposed by State/Central/Local governments
- 2.2 Taxes as mentioned in the Contract Price or Price Schedule shall be paid to the contractor subject to the Contractor complying with all the statutory requirements and furnishing the relevant documents including error free invoices containing detailed break-up of the taxes
- 2.3 However the payment of GST or local levies shall be restricted to the total amount as indicated in the price schedule.
- 2.4 Any duties, levies or taxes not mentioned in Contract Price or Price Schedule but applicable as per any statute (s) shall be deemed to be

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included in the Contract price and shall be to the account of the Contractor.

- 2.5 Any statutory variation in duties, levies or taxes if applicable and specified in this Contract till the scheduled date for supply of Goods and limited to direct invoices of the Contractor shall be to the account of Purchaser. The Contractor shall have the obligation to provide the necessary documentary evidence / supporting by way of gazetted notifications etc. to prove the change in such levies or taxes between the due date of submission of the Bid and the scheduled date of supply of goods to claim the difference.
- 2.6 The Contractor shall pass on to the Purchaser all the benefits of either reduction in tax rates, exemptions, concessions, rebate, set off, credits etc. or introduction of new tax rates exemptions, concessions, rebate, set off, credits etc. pertaining to all taxes, duties, imposts, fees and levies in respect of the supplies of Goods or performance of obligations under the contract. This would specifically include reduction of tax rates as a result of statutory changes or judicial rulings.
- 2.7 Any other taxes, levies and duties not mentioned in Contract Price or Price Schedule but applicable as per any statute (s) or introduction (omission) of new taxes, levies and duties shall be deemed to be included in the Contract Price and shall be to the account of the Contractor.
- 2.8 For facilitating availment of a credit, set-off, rebate, drawback or like benefit available to the Purchaser, the Contractor will facilitate the Purchaser by providing the necessary documentary and/or procedural support. In any process of assessment or re-assessment, of taxes payable by the Purchaser. Wherever expressly agreed the purchaser would provide the statutory form 'C' to the seller for availing the concessional rate of Central sales tax.
- 2.9 The Contractor shall bear and pay all the costs, liabilities, levies, interest, penalties in respect of non-compliances of any legal requirements as per various statutory provisions. The contractor shall keep the owner indemnified at all times from any tax liability, interest, penalties or assessments that may be imposed by the statutory authorities for non-compliances or non-observation of any statutory requirements by the Contractor.
- 2.10 Purchaser shall pay the invoices to the Vendor after necessary deductions as prescribed under the applicable law, income - tax or other

deductions under the State Tax laws as may be applicable to the Contract.

### **3 Packing details:**

Packing details: The material must be packed in suitable packing to suit the mode of transport and to ensure its safe receipt at point of delivery. Any damage to material noticed at the time of delivery at site, due to improper packing or any other reason whatsoever shall be the responsibility of the Vendor. Such damaged goods shall be replaced within 14 days from intimation from the Purchaser.

### **4 Transportation and Unloading at Site:**

The Vendor shall deliver the Material(s) at site/ Stores as per the delivery address specified in the Purchase order. The unloading at delivery shall be organised by the Purchaser unless otherwise specified. The receipt of the material/ equipment is subject to inspection and rejection if Material(s) is found unsatisfactory or any of the clauses under this purchase order are violated.

### **5 Insurance:**

Unless otherwise specified, Purchaser will be responsible to obtain transit insurance for the Material(s). The Vendor shall intimate the Order Manager (as mentioned in the Purchase Order) along with Invoice, packing list, the Railway Receipt/Truck or Lorry Receipt etc. immediately after the consignment is booked, at the e-mail id mentioned in the Purchase order.

### **6 Payment Terms:**

100% payment shall be made within 60 days from the receipt and acceptance of the material at the Consignee Stores/ Site/ Location as per the Contractual terms and conditions herein.

### **7 Bills and invoice:**

The tax invoices should contain the details to comply with the GST Law. The supplier shall:

- i) Furnish (electronically) and communicate to the Owner, the details of Goods or Services supplied by the 10th of the month succeeding the said tax period,
- ii) Upon discovery of any discrepancy, rectify it and shall pay the tax and interest thereof,
- iii) Furnish the returns (electronically), for the inward and outward supplies of

Goods and/or Services, before the specified dates as per the GST Law,  
iv) Communicate the tax paid, credits etc. as and when credited.

v) The Invoice should clearly state the description of the goods, quantity, sale price, tax %, and tax amount;

vi) The Invoice should be signed by an Authorized Signatory.

Bills/Invoices in the name of The Tata Power Company Ltd. with packing lists in triplicate shall be forwarded along with the equipment.

Contractor to furnish GST Registration no. in all invoices as well as Purchaser's (Tata Power's) GST no.

### **8 Transfer of Title and risk:**

The transfer of property and risk of Material(s) shall be deemed to take place as follows:

a. For delivery F.O.R. or F.O.T. despatch point: Transfer of property on handing over the Material(s) to the carrier against receipt of clean Railway Receipt/Truck or Lorry Receipt and such receipt having been handed over to Purchaser. However, the risk of loss shall pass to the Purchaser on delivery of goods at the specified destination.

b. In case the Material(s) are procured by the Vendor from sub-vendors on receipt of duly endorsed documents of title to the goods.

### **9 Contract Performance Bank Guarantee (In case applicable):**

9.1 The Vendor shall within 15 days of issue of this Purchase Order furnish an unconditional irrevocable bank guarantee duly stamped and strictly as per the prescribed format of the Purchaser from any nationalized bank or any scheduled bank having a branch in Mumbai and approved by the Purchaser for a sum equivalent to 10% of the Total value of Order valid for a period not less than 6 months from the expiry of the Warranty period.

9.2 Irrespective of the performance demonstrated as part of the Factory Acceptance Tests Take-over tests / Performance Tests etc, the Purchaser may call for re-validation of performance of the system during the performance guarantee period by conducting fresh performance tests if in its opinion, the

system is not able to deliver the designed performances based on its operational performance results. If the equipment fails to prove the performance during such performance tests, the Purchaser may allow the Vendor to either rectify the system by addition / modification of equipment etc at the Vendor's costs & risk to restore the performance levels. Failure to rectify the system to achieve the designed performance levels may result in imposition of penalties including revocation of the Performance Bank Guarantee and forfeiture of the entire amount under the Performance Guarantee.

- 9.3 In case the Vendor fails to furnish the requisite Bank Guarantee as stipulated above, then the Company shall have the option to terminate the contract besides other contractual remedies.

#### **10 Price reduction:**

- 10.1 The Vendor agrees that time of supply of Material(s) is of prime importance. If the Vendor fails to supply Material(s) before the respective scheduled / fixed date for supply. Company may without prejudice to any other right or remedy available to the Company: -

10.1.1 Recover from the Vendor ascertained and agreed, genuine pre-estimate liquidated damages, and not by way of penalty, a sum equivalent to 1% (of total value of order) per week or part thereof for each week's delay, beyond the scheduled supply date each subject to maximum of 10% of the total order value, even though the Company may accept delay in supply after the expiry of the scheduled supply date. The Company may, at its discretion, set off the aforesaid amounts from any other amounts owed by the Company to the Vendor or recover such amounts in other manner as may be permissible under applicable laws.

10.1.2 Arrange to get supply from elsewhere on account and at the sole risk of the Vendor, such decision of the Company being final and binding on the Vendor; or

10.1.3 Terminate the contract or a portion of supply of the supply work thereof, and if so desired, arrange for the supply in default by the Vendor to be attained from elsewhere at the sole risks and costs of the Vendor.

- 10.2 Liquidated damages for performance shortfall (if applicable) shall be specified in the Technical Specifications.

- 10.3 The Liquidated Damages referred in this clause 10 may be recovered by the Company from the Vendor as set off against any monies owed by the Company to the Vendor or in any other manner permissible under applicable laws.

#### **11 Warranties:**

- 11.1 Materials and Workmanship: Vendor shall fully warrant that all the stores, equipment and component supplied under the order shall be new and of first class quality according to the specifications and shall be free from defects (even concealed fault, deficiency in design, materials and workmanship).

11.2 Should any defects be noticed in design, material and/or workmanship within 12 months after the Material(s) or any portion thereof as the case may be have been commissioned or for 24 months from the date of delivery, whichever period concludes earlier. Purchaser shall inform Vendor and Vendor shall immediately on receipt of such intimation, depute their personnel within 7 days to investigate the causes of defects and arrange rectification/ replacement/modification of the defective equipment at site, without any cost to Purchaser within a reasonable period. If the Vendor fails to take proper corrective action to repair/replace defects satisfactorily within a reasonable period, Purchaser shall be free to take such corrective action as may be deemed necessary at Vendor's risk and cost after giving notice to the Vendor, including arranging supply of the Goods from elsewhere at the sole risk and cost of the Vendor.

11.3 In case defects are of such nature that equipment shall have to be taken to Vendor's work for rectification etc., Vendor shall take the equipment at his costs after giving necessary undertaking or security as may be required by Purchaser. After repair Vendor shall deliver the equipment at site on freight paid basis. Any taxes applicable in relation to this repair shall be to the Vendor's account. All risks in transit to and fro shall be borne by the Vendor.

11.4 Equipment or spare parts thereof replaced shall have further warranty for a period of 12 months from the date of acceptance.

#### **12 Quality, Testing, inspection, installation:**

- 12.1 All Material(s) supplied under this Contract shall be new and unused.

- 12.2 Wherever a specific Quality Assurance Plan is provided with the Request for Quotation (RFQ) or agreed as part of the commercial/ technical discussions, the same shall be binding on the Vendor.
- 12.3 The material shall be inspected
- a. At consignee end by Purchaser.
  - b. At factory premise of the Vendor/ sub-vendor by Purchaser or third party duly nominated by Purchaser. The Vendor shall extend all necessary co-operation to Purchaser/ third party inspector carrying out the inspection. The Inspector(s) shall have the right to carry out the inspection or testing, which will include inspection and testing of the raw materials at manufacturers shop, at fabricators shop and at the time of actual despatch before and/or after completion of packing.
- 12.4 The Vendor will inform Purchaser at least eight (8) days in advance of the exact place, date and time of tendering the Material(s) for required inspection and provide free access to the Inspector(s) during normal working hours at Vendor's or his/ its sub-Suppliers works, and place at the disposal of the Inspector(s) all useful means for undertaking the Inspection, checking the results of tests performed, marking the Material(s), getting additional tests conducted and final stamping of the Material(s).
- 12.5 Even if the inspection and tests are fully carried out, the Vendor shall not be absolved from its responsibilities to ensure that the Material(s), raw materials, components and other inputs are supplied strictly to conform and comply with all the requirements of the Contract at all stages, whether during manufacture and fabrication, or at the time of Delivery as on arrival at site and after its erection or start up or consumption, and during the defect liability period. The inspections and tests are merely intended to prima facie satisfy Purchaser that the Material(s) and the parts and components comply with the requirements of the Contract.
- 12.6 *All costs associated with the inspection shall be included in cost of Material(s).*
- 12.7 Original material test certificate/ performance test certificate/ fitment certificate/ test reports etc. relevant/ applicable as per the specifications/ standards shall be dispatched along with the material supply failing which the material may be rejected.
- 13 Rejection:**
- 13.1 Rejected goods shall be removed and replaced within 14 days of the date of communication of rejection.
- 13.2 Claim in respect of breakage/shortages in any cases shall be referred on the Vendor within ninety (90) days from the date of receipt of Goods by the Purchaser which shall be replaced/made good by the Vendor at his own cost. All risk of loss or damage to the material shall be upon the Vendor till it is delivered to the purchaser/consignee.
- 14 General Indemnity:**
- The Vendor shall indemnify and keep the Purchaser indemnified from and against any and all claims, costs, liabilities (financial), litigations, compensations, judgments, expenses or damages (including attorney's fees and other related expenses) arising out of any breach or alleged breach of any of the conditions of this Contract, performance of the obligations hereunder, or any representation or misrepresentation made by the Vendor or any third party with regard to the subject of this Contract.
- 15 Indemnity against IPR:**
- The equipment, system, drawings, and other materials that shall be supplied against the order will become the Purchaser's property. Without limitation of any liability of whatsoever nature, the Purchaser shall be indemnified and kept indemnified against any claim for infringement or breach of any of the statues, rules & regulations by the use of or sale of any article or material supplied by the Vendor. The indemnity shall include any infringement of patent, trade mark, design, copyright or other property rights whether in Country of Origin, or elsewhere resulting from the Vendor's design, manufacture, use, supply or re-supply & would also cover use or sale of any article or material supplied by the Vendor to the Purchaser under the Purchase Order. The Indemnity shall cover any claim/action taken by a third party either directly against the Purchaser or any claim/action made against the Vendor & where under the Purchaser is made liable. The

Indemnity shall be for losses, damages, and costs including litigation costs, attorney fees etc incurred by the Purchaser in relation to the Purchase Order.

#### **16 Latent Defects Liability period (if applicable):**

Notwithstanding the inspections, acceptance tests, quality checks etc carried out by the Vendor and witnessed/accepted by the Purchaser, the Vendor shall further warrant the equipment for any latent defects in its design, material or workmanship against the specifications set forth and shall make good any such defects by way of repair or replacement of the part or whole of the defective product at its own cost & risks as and when such latent defects are observed and intimated by the Purchaser and intimated to the Vendor within 36 months of completion of warranty period.

#### **17 Force Majeure:**

- 17.1 In the event of either party being rendered unable by force majeure to perform any obligation required to be performed by it under this Contract the relative obligation of the party affected by such force majeure shall, after notice under this articles be suspended for the period during which such cause lasts. The term 'Force Majeure' as employed herein shall mean acts of God, wars (declared or undeclared), riots or civil commotion, fire, floods, and acts and regulations of the Government of India or State Government or any of the statutory agencies. Both the party shall pay to the other party, the amount payable upon the date of the occurrence of such force majeure.
- 17.2 Upon the occurrence of such cause and upon its termination, the party alleging that it has been rendered unable as aforesaid, thereby shall notify the other party in writing immediately but not later than twenty four (24) hours of the alleged beginning and ending thereof giving full particulars and satisfactory evidence in support of the claims.
- 17.3 During the period, the obligations of the parties are suspended by force majeure, the contractor shall not be entitled to payment of any rate.
- 17.4 In the event of the force majeure conditions continuing or reasonably expected to continue for a period more than thirty (30) days, Purchaser shall have the option of terminating the contract by giving seven (7) days notice thereof to the contractor.

#### **18 Variation:**

Except for any provisions in this Purchase Order, any change /modification to the terms and conditions of this Order can be issued only by Purchaser or with the prior written approval from Purchaser.

#### **19 Termination**

- 19.1 The Contract shall be deemed to be terminated on completion of delivery of Material(s)
- 19.2 Termination of Default by Vendor:  
Purchaser may terminate the contract at any time if the Vendor fails to carry out any of his obligations including timely delivery under this Contract. Prior to termination, the Vendor shall be advised in writing of the causes of unsatisfactory performance to be improved upon 15 days of the receipt of notice. In case, if the Vendor fails to bring about the improvement to the satisfaction of the Purchaser, then the order shall be terminated.
- 19.3 Without prejudice to the rights and remedies available to Purchaser, Purchaser may terminate the Contract or part thereof with immediate effect with written notice to the Vendor if,:
- 19.3.1 The Vendor becomes bankrupt or goes into liquidation.
- 19.3.2 The Vendor makes a general assignment for the benefit of creditors.
- 19.3.3 A receiver is appointed for any substantial property owned by the Vendor.
- 19.3.4 The Vendor has misrepresented to Purchaser, acting on which misrepresentation Purchaser has placed the Purchase Order on the Vendor.

The Vendor/ Contractor shall not be entitled to any further payment under the Contract if the Contract is terminated. If the order is terminated under clause 19.2 and 19.3, the Vendor shall not be entitled to any further payment, except that, if Purchaser completes the supply of Material(s) and the costs of completion are less than the Total Order value, the Purchaser shall pay Vendor an amount properly allocable to supply of Material(s) fully performed by Vendor prior to termination for which payment was not made to Vendor. In case, the cost of completion of Material(s) exceed the total Order value, the additional cost incurred by Purchaser for such completion shall be paid by the Vendor.

19.4 Purchaser shall be entitled to terminate the Contract at its convenience, at any time by giving thirty (30) Days prior notice to the Contractor. Such notice of termination shall specify that termination is for Companies convenience and the date upon which such termination becomes effective. Upon receipt of such notice, the Contractor shall proceed as follows:

- 19.4.1 cease all further work, except for such work as may be necessary and instructed by the Company/ Company's representative for the purpose of protecting those parts of the supplies already manufactured;
- 19.4.2 stop all further sub-contracting or purchasing activity, and terminate Sub-contracts;
- 19.4.3 handover all Documents, equipment, materials and spares relating to the supply of goods prepared by the Contractor or procured from other sources up to the date of termination for which the Contractor has received payment equivalent to the value thereof; and
- 19.4.4 handover those parts of the supplies manufactured by the Contractor up to the date of termination.

Upon termination pursuant to clause 19.4, the Vendor shall be entitled to be paid the full value on the Material(s) delivered in accordance with the Contract.

19.5 The Contractor shall not be released from any of his obligations or liabilities accrued under the Contract on termination. For the avoidance of doubt, the termination of the Contract in accordance with this clause shall neither relieve the Contractor of his accrued obligations for Warranty or his accrued liability to pay (liquidated) damages for Delay nor shall entitle him to reduce the value of Performance Security.

## **20 Sub letting and assignment:**

The contractor shall not without prior consent in writing of the Purchaser, sublet, transfer or assign the contract or any part thereof or interest therein or benefit or advantage thereof in any manner whatsoever, provided nevertheless that any such consent shall not relieve the contractor from any obligation, duty or responsibility under the contract.

## **21 Dispute Resolution:**

Dispute or differences arising out or relating to this Order shall be resolved amicably by the parties. Failing such amicable resolution of dispute / differences either party may refer the matter to arbitration of a Sole Arbitrator to be appointed jointly by both the parties. The award of the Arbitrator shall be final, binding and conclusive on the parties. The venue for arbitration shall be Mumbai. The Arbitration proceedings will be governed and regulated by the provisions of Indian Arbitration and Conciliation Act, 1996 as amended from time to time and the rules framed there under.

## **22 Governing laws**

This Contract shall be construed in accordance with and governed by the Laws of India without giving effect to any principle of conflict of law.

## **23 Jurisdiction**

This Contract and the transaction contemplated herein shall be subject to the exclusive jurisdiction of the competent Courts in Mumbai only.

## **24 Limitation of Liability**

Notwithstanding anything contained in the Contract, the Contractor's aggregate liability under this Contract shall be limited 100% of the Total order value. This shall however, exclude liability arising pursuant to clause 2.8- tax indemnity, clause 14- General Indemnity, clause 15- Indemnity against IPR, clause 25 – Confidentiality and liabilities arising due to wilful misconduct, gross negligence, third party claims and corrupt acts attributable to the Vendor.

## **25 Confidentiality:**

The Vendor shall use the Confidential Information of the Purchaser only in furtherance of this Contract and shall not transfer or otherwise disclose the Confidential Information to any third party. The Vendor shall (i) give access to such Confidential Information solely to those employees with a need to have access thereto; and (ii) take the same security precautions to protect against disclosure or unauthorized use of such Confidential Information that the party takes with its own confidential information but, in no

event, shall a party apply less than a reasonable standard of care to prevent such disclosure or unauthorized use.

## **26 Consequential Damages:**

Unless otherwise specified, neither Party shall be responsible for and nor shall be liable to the other Party for indirect/consequential losses and damages suffered by such Party including for loss of use, loss of profit whether such liability or claims are based upon any negligence on the part of the other Party or its employees in connection with the performance of the Purchase Order.

## **27 New Legislation (The Micro, Small and Medium Enterprise Development Act 2006)**

- a. This Act has been enacted and made effective from 2nd October 2006. The Interest on Delayed Payments to Small Scale and Ancillary Industrial Undertaking Act, 1993 is repealed.
- b. Vendor is requested to inform the purchaser if vendor fall under The Micro, Small and Medium Enterprises Development Act, 2006 legislation and provide the purchaser, registration number and date to enable purchaser to take necessary care. The vendors are also requested to mention the same on their invoice / bill.

## **28 Relation between parties:**

The Purchase Order shall be entered into on a principal-to-principal basis only. The Purchase order shall not be construed as a partnership or an association of persons. There is no agent and principal relationship between the parties. Each party shall be responsible for its own conduct. The Vendor shall ensure at all times that all the work carried out under this contract either by its own person or through any of its sub-Vendors shall be always done under its own direct supervision.

## **29 Environment / ISO 14001 Certification:**

The Vendor to confirm whether their organization is ISO 14001 certified. If not, the Vendor must certify that the handling, use and disposal of their product / by-products conform to practices consistent with sound environmental management and local statutes. The Vendor shall ensure that all the wastes are disposed in environmental friendly way with strict compliance to applicable laws including

adherence to MoEF guidelines with respect to disposal of batteries, lead waste, copper cables, ash, waste oil, e-waste etc which shall be disposed through MoEF approved parties only. The Vendor shall also be responsible to collect and recycle all the e-waste generated at the end of the product life cycle at its own costs and risks as per the MoEF guidelines/ orders.

## **30 Tata Code of Conduct**

The Purchaser abides by the Tata Code of Conduct in all its dealing with stake holders and the same shall be binding on the Purchaser and the Vendor for dealings under this Purchase Order. A copy of the Tata Code of Conduct is available at our website: <http://www.tatapower.com/aboutus/code-of-conduct.aspx>. The Vendor is requested to bring any concerns regarding this to the notice of our Chief Ethics Officer on the e-mail ID: [cecounsellor@tatapower.com](mailto:cecounsellor@tatapower.com).

## **31 Responsible Supply Chain Management:**

The Purchaser is committed for a cleaner environment and respect of Human rights through its Responsible Supply Chain Management policy. The Vendor is required to comply with all the environment & Human rights related laws, including emission norms, Labour and environmental regulations. The Purchaser encourages its Vendors/ Contractors/ Business partners to pay more attention to green design, green supply, green production, green logistics and green packaging in performing their business obligations.

The Vendor is required to abide by the Tata Power Corporate Environment policy, Energy Conservation and Corporate Sustainability Policy.

A copy of the Responsible Supply Chain Management Policy along with Environment policy, Energy Conservation policy, Sustainability policy, Health & Safety policy and Human Rights policy is available at website: <http://www.tatapower.com/sustainability/policies.aspx>.

Vendor/Bidder is required to completely fill the attached "Supplier Sustainability Questionnaire" in support of their Green Supply Chain Management initiatives and submit the same with their offer.

The Owner recognizes that diversity in the workplace positively impacts business. The Owner is committed to help people from SC/ST background either by helping them to become entrepreneurs or by engaging workforce from SC/ST community under the contracts agreed herein. To encourage engaging SC/ST community, the owner may consider on the merit to incentivize the Contractor by paying additional 1% of the service contract portion if the number of SC/ST workforce engaged in the contract exceeds 30% of the total deployed strength and 2%, if the strength goes beyond 50%. While the Contractor will assist the workforce so engaged to become self-reliant in meeting the work expectation, the Owner may also volunteer its training resources to the extent possible to improve their employability. The Contractor shall maintain the proper documentation of such category of the workforce engaged and the owner may consider to pay the incentive after its verification.

The Owner may also consider extending price preference of 5% in the bid evaluation for an order value up to Rs.50 Lacs, provided the company is owned by a person from SC/ST community having minimum 50% holding in the company.

### **32 Vendor rating**

You are requested to ensure compliance to the terms of the individual orders with regards to timely delivery, provision of all applicable documents / challans / test certificate, quality of the material etc. Your performance with respect to the said factors will be taken into consideration for future business.

### **33 Vendor Feedback:**

- 33.1 In this dealing Vendors feedback is important for the purchaser to improve its processes. If vendor have to report any grievance, problem or require any clarification, information, vendor is requested to contact purchaser at email ID: [CC\\_CUSTOMERFEEDBACK@tatapower.com](mailto:CC_CUSTOMERFEEDBACK@tatapower.com)
- 33.2 Vendor is requested to ensure compliance to the terms of the individual orders with regards to timely delivery, provision of all applicable documents / challans / test certificate, quality of the material etc. Vendor performance with

respect to the said factors will be taken into consideration for future business.

### **34 Non-Waiver:**

Failure of Purchaser or its representatives to insist upon adherence to any of the terms or conditions incorporated in the Contract or failure or delay to exercise any right or remedies herein or by law accruing, or failure to promptly notify the Vendor in the event of breach or the acceptance of or the payment of any Material(s) hereunder or approval of any design or Material(s) shall not release the Vendor and shall not be deemed a waiver of any right of Purchaser to insist upon the strict performance thereof or of any of its rights or remedies as to any such Material(s) regardless of when the Material(s) are shipped, received or accepted not shall any purported oral modification or revisions of the Contract by Purchaser or its representative(s) act as waiver of the terms hereof.

### **35 Repeat Order:**

Purchaser may place the repeat order for 100% of ordered quantities within a span of 6 months from the date of issue of this Purchase Order & Vendor shall execute it at same rates, terms and conditions.

### **36 Severability**

If any provision of this Contract is invalid, unenforceable or prohibited by law, this Contract shall be considered divisible as to such provision and such provision shall be inoperative and shall not be part of the consideration moving from any Party hereto to the others, and the remainder of this Contract shall be valid, binding and of like effect as though such provision was not included herein.

# **ESG FRAMEWORK FOR BUSINESS ASSOCIATES**

Tata Power's Sustainability philosophy sits at the core of its Business Strategy. Tata Power Sustainability Model has an overarching objective of 'Leadership with care' with key elements of 'Care for the Environment'; 'Care for the Community'; 'Care for our Customers / Partners' and 'Care for our People'. These sustainability objectives encompass the Environmental, Social and Governance objectives driven as integrated elements.

Tata Power, together with its stakeholders is determined to achieve sustainable growth while creating shared value for all.

As a part of future ready roadmap, Tata Power has targeted following as our Environment, Social and Governance priorities:

- Being Carbon Net Zero before 2045
- Growing Clean capacity (80% by 2030)
- Customer centricity
- Becoming water neutral before 2030
- Achieving zero waste to landfill before 2030
- No net loss of biodiversity before 2030
- Positively impacting 80 million lives by 2027

In order to create a sustainable business ecosystem, Tata Power expects that all its Business Associates (BA) which includes its suppliers, vendors, consultants and service providers to align to its ESG and sustainability commitments.

Tata Power encourages improved efficiencies and scaling up of green initiatives through technology and innovation taking us farther on the journey of reducing carbon emissions and preparing the entire eco-system towards products and services that would have net positive impact on the environment and communities that we operate in.

The Vendors/ bidders wishing to associate with Tata Power are expected to share their own sustainability and ESG journey. We at Tata Power promote all Business Associates to have a sustainable procurement policy for their supplier and service providers to contribute to our integrated approach in achieving a sustainable supply chain. The BA is encouraged to carry out the assessment of their sub-contractors and sub-vendors on sustainability readiness so that they are aware of the expectation/ business requirement.

The Vendor/ Bidder shall fill-in the 'Environment, Social and Governance Compliance Screening Questionnaire for Business Associates' attached at Annexure-I and submit the same along with the Bid in Ariba online platform.

### **Responsible Supply Chain Management:**

Tata Power is committed for a cleaner environment and respect of Human rights through its Responsible Supply Chain Management policy.

Tata Power Business Associate (BA) shall comply with all the environment & Human rights related laws, including emission norms, Labour and environmental regulations.

Tata Power encourages its BA to focus on green design, green supply, green production, green logistics and green packaging in performing their business obligations. The BA is expected to abide by the Tata Power Corporate Environment policy, Energy Conservation and Corporate Sustainability Policy (enclosed with this document as Annexure-II).

The BA is expected to:

- Strive towards Conservation of Energy, Water, Resources and optimize transportation of Men & Materials to minimize environmental impact and reduce carbon footprint.
- Carry out the assessment of materials used for construction, operation & maintenance, consumables and accordingly phase out those materials which are environmentally hazardous.
- Be cognizant that diversity in the workplace positively impacts business.
- Promote affirmative action by supporting people from SC/ ST background by engaging workforce from SC/ ST community under the contracts agreed herein.
- Share the commitment of 'No child labour', 'No forced labour', Non-discrimination on the basis of caste, colour, religion, gender, disability, maternity or pregnancy or any other factor unrelated to the requirements of the job
- Pay the wages or remuneration to the workforce, personnel deployed in compliance to all applicable laws and regulations.
- Provide its employees/ deployed labor with an employment environment that is free of physical or psychological harassment.
- Carry out the assessment of their Sub-contractors on their Sustainability Readiness so that they are aware of the above expectation/ standards
- To ensure usage of suitable package material which is more environmentally sustainable. Further the packing material shall be recycled to the extent possible. The material used for packing is expected to suit the mode of transport and to ensure its safe receipt at point of delivery.

#### **Waste Disposal:**

The BA is expected to follow best practices for disposal of waste, few of which are listed below:

- Have a detailed project plan that includes 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. 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.
- Have purchase policy to encourage the procurement of material with recycled and minimum packaging of goods during delivery and appropriate means for site-to-site transportation of materials to avoid damage and litter generation.
- Ensure that the residents living near the site are kept informed about proposed working schedule and timings/ duration of any abnormal noise full activity that is likely to happen.
- 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.

#### **Water Management:**

The BA is expected to follow best practices for water management, few of which include a management and monitoring system for water withdrawals and consumption, procedures to reduce water usage or reuse/recycle water, and pretreatment of wastewater before disposal.

**Compliance to Law:**

The BA shall adhere to responsible business practices and comply with the provision of all the Statutory Acts Applicable. Special attention of the BA is drawn towards the compliance of provision of the following statues: (along with the latest amendments/additions, as applicable):

- The Child Labour (Prohibition and Regulation) ACT, 1986.
- The Contract Labour (Regulation and Abolition) ACT, 1970.
- The Employee's Pension Scheme, 1995.
- The Employee's Provident Funds and miscellaneous provisions Act, 1952.
- The Employees State Insurance Act, 1948.
- The Equal Remuneration Act, 1976.
- The Industrial Disputes Act, 1947.
- The Maternity Benefit Act, 1961.
- The Minimum Wages Act, 1948.
- The Payment of Bonus Act, 1965
- The Payment of Gratuity Act, 1972.
- The Payment of Wages Act, 1936.
- The Shops & Establishment Act, 1954.
- The Workmen's Compensation Act, 1923.
- The Employer's Liability Act, 1938.
- and any other applicable statutory act

**Social Accountability (SA 8000):**

Tata Power expects its BAs to follow guidelines of SA 8000:2014 on the following aspects

- Child Labour
- Forced or Compulsory Labour
- Health & Safety
- Freedom of Association & Right to Collective Bargaining
- Discrimination
- Disciplinary Practices
- Working Hours
- Remuneration
- Management System

**Health and Safety**

The BA is expected to ensure the health and safety of his and his Sub-contractor's staff and labour. The BA shall, in collaboration with and according to the requirements of the local health authorities, ensure that medical staff, first aid facilities, sick bay and ambulance service are available at the accommodation and on the Site at all times, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics. The BA shall maintain records and make reports concerning health, safety and welfare of persons deployed, and damage to property, as the Owner's Representative may reasonably require. The BA shall be responsible for the medical treatment / hospitalization of his and his Sub-contractor's staff/ labour.

The BA shall appoint a qualified Safety officer at the Site to be responsible for maintaining the safety, and protection against accidents, of all personnel on the Site. Such Safety officer shall have the authority to issue instructions and take protective measures to prevent accidents.

The BA shall comply in toto with the Tata Power's Contractor Safety Terms & Conditions, Health Safety & Environment Manual while working on Tata Power Site/ Services/ Contracts.

### **Grievance Mechanism**

The BA is expected to have grievance procedures that allow stakeholders to anonymously bring environmental and/or work-related violations and/or concerns to the attention of management. In addition, the BA is expected to have procedures for examining reports of environmental and/or work-related violations or concerns and/or privacy complaints.

### **Data Protection**

The BA is expected to have a formal process to address data security or privacy issues.

## **ANNEXURE-I**



| Sr. No.  | Question Description   | Response (Y/N) | Remarks |
|--|--|----------------|---------|
| <b>Organization</b>  |  |                |         |
| 1  | Does your Company have Sustainability Policy at Organization Level?<br>If Yes, Please attach   |                |         |
| 2  | Do you have sustainable procurement policy in place for your own suppliers? If Yes, Please attach  |                |         |
| 3  | Does your company do regular assessment of its suppliers on ESG parameters?  |                |         |
| 4  | Are there ESG risks, or negative impacts identified in your supply chain   |                |         |
| <b>Governance</b>  |  |                |         |
| 1  | Is diversity taken into consideration when appointing board members/ senior management?<br>Do you have an independent director/s?  |                |         |
| 2  | Has your company taken initiatives to ensure ethical practices at workplace?<br>Please share the details, Policies etc.  |                |         |
| 3  | Does your company have a formal process to address data security or privacy issues?<br>Please share the details, Policies etc.   |                |         |
| 4  | Does your company have grievance mechanism for stakeholder issues and track resolution?  |                |         |
| <b>Environment/ Planet</b>   |  |                |         |
| 1  | Does your company have Environmental Policy? If Yes, Please attach   |                |         |
| 2  | Do you have a formal process for waste management including solid wastes, liquid wastes and hazardous waste?   |                |         |
| 3  | Does your company track greenhouse gas emission? Also, what percentage of own consumption comes from the renewable energy?   |                |         |
| 4  | Does your company have a formal process for water management including monitoring of water consumption and withdrawals, and if applicable, pretreatment of wastewater?                           |                |         |
| <b>Green Technology/ Innovation</b>  |  |                |         |
| 1  | Are your facility/ Product/ Services provided by you is based on green design, green production, green packaging or green logistics considerations? Please elaborate.                            |                |         |
| 2  | Do your products or services have any environmental or social features or benefits (e.g. environmental/energy certification, ecolabels, fair trade certification, etc.)?                         |                |         |
| <b>Social/ People</b>  |  |                |         |
| 1  | Does you facility/ Company have written personnel policies in place Are you an equal opportunity employer?   |                |         |
| 2  | Please describe any formal programme / campaign in place to promote company involvement with the community (volunteering, etc.). What is the percentage of profit spend on community activities? |                |         |
| 3  | Does your company have a written Health & Safety Policy or Program? If Yes, Please attach  |                |         |
| <b>Certifications: Does your company have following certifications (valid till date-please mention validity)</b> |  |                |         |
| 1  | ISO9001 accreditation  |                |         |
| 2  | SA8000 or equivalent   |                |         |
| 3  | ISO 14001 certification  |                |         |
| 4  | ISO 18001/45001 or equivalent  |                |         |
| 5  | ISO/IEC 27001 or equivalent  |                |         |
| 6  | Any Other (Please specify)   |                |         |

Signature

Business Associate Name

## **ANNEXURE-II**

## 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





## General Terms and Conditions - Services

CONFIDENTIAL

The Tata Power Company Limited is hereunder referred to as the "Owner" or "Company". The person, firm or company offering the services, the subject of this order is referred to as "Contractor". The subject of this order is hereinafter referred to as the "Work".

"Sub-Contractor" means any person named in the Contract as a Sub-contractor, sub-vendor, manufacturer or supplier for a part of the Works or any person to whom a part of the Works has been subcontracted and the legal successors in title to such Person, but not any assignee of such Person.

The Contract shall mean the contract as derived from the following:

1. Work Order (with 'Commercial Notes' and Annexures to the Work Order referred thereon)
2. Scope of Work.
3. General Terms & Conditions - Service

The documents including all reference document (s) and Annexures forming the Contract are to be read together as a whole and are to be taken as mutually explanatory, provided however, in the event of any inconsistency or discrepancy between the aforementioned documents, the order of precedence in interpretation of the documents shall be as set out above. For the avoidance of doubt, it is clarified that the terms set forth in the Work Order (with 'Commercial Notes' and Annexures to the Work Order referred thereon) shall take precedence over the terms set out in the Scope of Work, which shall in turn take precedence of the terms set out in the General Terms & Conditions – Service.

#### **1. Contractor's obligation:**

- 1.1 Contractor warrants that it is a competent, qualified and experienced contractor, equipped, organised and financed to perform and complete the services in the operating area in an efficient and professional manner and capable of meeting all the requirements of the Contract.
- 1.2 The Contractor has the overall responsibility of executing the contract, conducting Planning, Job Scheduling, Maintenance Planning, Maintenance Job Scheduling, executing the Work and maintenance jobs as per the Scope of work & schedule.
- 1.3 Except to the extent that it may be legally or physically impossible or create a hazard to safety, the Contractor shall comply with the Owner's representative(s) instructions and directions on all matters relating to the Work.
- 1.4 Contractor shall at all times have full responsibility for control of the Equipment and for the direction and supervision of operations being carried out under the Contract.
- 1.5 In the performance of the Work, Contractor shall be and act as an independent Contractor fully responsible and accountable for the proper execution of its responsibilities, obligations and

liabilities under this Contract and for its own acts and the acts of its Sub-Contractors and the Personnel. Owner's supervision, examination or inspection of the (performance of the) Work or omission to carry out the same shall not be construed in any manner whatsoever as relieving Contractor from its responsibilities, obligations or liabilities under this Contract.

- 1.6 Contractor shall submit list of tools & tackles with details of make, year of manufacturing, valid certification to the Project Manager/ User for their approval.

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.

- 1.7 Contractor shall engage Tata Power Skill Development Institute (TPSDI) certified labour force at the site for execution of the job. Requirement & fees for TPSDI certification shall be as per Company Policy.
- 1.8 Contractor shall take full responsibility for the protection and security of Owner's materials and equipment while such materials and equipment are temporarily stored in Contractor's facility or otherwise in Contractor's custody.
- 1.9 All notices, instructions, information, and other communications given by the Contractor to Owner under the Contract shall be given to the Order Manager/ Owner's representative, except as otherwise provided for in this Contract.
- 1.10 The Contractor shall make its own arrangements for movement of personnel and equipment, within and outside the sites / units / offices at the various locations covered by the Contract.
- 1.11 The Contractor shall acquire in its name all permits, approvals, and/or licenses from all local, state, or national government and other statutory authorities and/or public service undertakings that are necessary for the performance of the Contract.
- 1.12 Neither the Contractor nor its personnel shall during the term of this Contract, engage in any business or professional activities in India/abroad which would conflict with the activities assigned to them under this Contract.

#### **2. Service Warranties:**

Contractor warrants that all services performed for or on behalf of Owner will be performed in a competent,

workmanlike manner and shall be free from faults and defects. Said warranties shall be in addition to any warranties of additional scope given by Contractor to Owner. None of said warranties and no other implied or express warranties shall be deemed is claimed or excluded unless evidenced by a change notice or revision issued and signed by Owner's authorized representative.

### **3. Compliance of Local Laws:**

Contractor shall be responsible and shall comply with the provision of all the Statutory Acts Applicable. Special attention of the Contractor is drawn towards the compliance of provision of the following statues: (along with the latest amendments/additions, as applicable):

- a) The Child Labour (Prohibition and Regulation) ACT, 1986.
- b) The Contract Labour (Regulation and Abolition) ACT, 1970.
- c) The Employee's Pension Scheme, 1995.
- d) The Employee's Provident Funds and miscellaneous provisions Act, 1952.
- e) The Employees State Insurance Act, 1948.
- f) The Equal Remuneration Act, 1976.
- g) The Industrial Disputes Act, 1947.
- h) The Maternity Benefit Act, 1961.
- i) The Minimum Wages Act, 1948.
- j) The Payment of Bonus Act, 1965
- k) The Payment of Gratuity Act, 1972.
- l) The Payment of Wages Act, 1936.
- m) The Shops & Establishment Act, 1954.
- n) The Workmen's Compensation Act, 1923.
- o) The Employer's Liability Act, 1938.
- p) and any other applicable statutory act

Site Specific requirements shall be as Annexure at I. The compliance to these Site Specific requirements shall not absolve the Contractor of its obligation to comply with the Owner's Contractor Safety Management Policy.

### **4. Owner's Obligation:**

- 4.1 The order manager (As specified in the 'Commercial Notes') shall have the authority to represent Owner on all day-to-day matters relating to the Contract or arising from the Contract. All notices, instructions, orders, certificates, approvals, and all other communications under the Contract shall be given by the order manager, except as otherwise provided for in this Contract. The order manager may appoint the Engineer-In-Charges for different areas for monitoring the work progress, inspections and signing of bills.

- 4.2 Owner shall ensure the availability of site access, all information and/or data to be arranged/ supplied by Owner to the Contractor for execution of the Work . The terms on which the Contractor shall be allowed access to the site shall be specified by the Owner prior to commencement of the execution of the Work and thereafter shall be governed in accordance with such policies as the Owner may provide in writing to the Contractor from time to time.

### **5. Contractor's/ Sub-contractor's employees:**

- 5.1 The Contractor shall engage appropriately qualified persons to provide the services with the prior approval of Owner. Owner may withhold such approval for any reason whatsoever.

- 5.2 The Contractor hereby represents and warrants that:

- i) the personnel are duly qualified, and are, and will remain, sufficiently qualified, careful, skilful, diligent and efficient to provide the services to Owner; and
- ii) the Services will be rendered carefully, skilfully, diligently and efficiently, and to the professional standard reasonably expected by Owner of a contractor qualified and experienced in providing services substantially the same as the Services.

- 5.3 The Contractor must ensure that the Contractor's personnel conduct themselves in a proper manner and comply with the procedures and all policies, regulations and directives of Owner including any occupational, health and safety policies and the relevant prevailing laws and regulations in the Country of operations and specifically in the area where Work is being executed.

- 5.4 Owner may inform the Contractor to immediately remove Contractor's personnel from the relevant premises in the event of misconduct or incompetence on the part of the Personnel. The Contractor shall at all times remain liable for all acts and/or omissions of its Personnel.

- 5.5 It is made clear that no relationship of Owner and employee is created between Owner and the Contractor's resident engineers, employees and no claim for employment of any such personnel shall be tenable or entertained.

### **6. Title of Property:**

- 6.1 Unless otherwise provided in this order or agreed to in writing, property of every description including but not limited to all tooling, tools, equipment and material furnished or made available to Contractor, title to which is

in Owner, and any replacement thereof shall be and remain the property of Owner. Such property other than material shall not be modified without the written consent of Owner. Such property shall be plainly marked or otherwise adequately identified by Contractor as being owned by Owner and shall be safely stored separately and apart from Contractor's property.

6.2 Contractor shall not use such property except for performance of work hereunder or as authorized in writing by Owner. Such property while in Contractor's possession or control shall be listed in writing and kept in good condition, shall be held at Contractor's risk, and shall be kept insured by Contractor, at its expense, in an amount equal to the replacement cost with loss payable to Owner. To the extent such property is not material consumed in the performance of this order, it shall be subject to inspection and removal by Owner and Owner shall have the right of entry for such purposes without any additional liability whatsoever to Contractor. As and when directed by Owner, Contractor shall disclose the location of such property, prepare it for shipment and ship it to Owner in as good condition as originally received by Contractor, reasonable wear and tear excepted.

**7. Work Completion schedule:**

Contractor shall plan and execute the Work in accordance with a detailed schedule mutually agreed upon by the Parties (Owner and Contractor).

**8. Contract Price and Payment:**

8.1 The Contract Price shall be a firm & fixed Contract Value for the Work inclusive of all the taxes, levies & duties and shall remain firm till the validity of this contract.

8.2 Unless Specifically stated elsewhere in the contract, the Contractor is solely liable for payment of , and warrants that it will pay, or ensure the payment of all taxes imposed, assessment made in relation to the Work.

8.3 An amount as stated in the table below shall be retained towards Contractor's safety performance against every RA bill:

| Contract Value                            | Retention Amount (%) |
|---|----------------------|
| Upto Rs. 10 lakhs                         | 2.5                  |
| Above Rs. 10 lakhs and below Rs. 50 lakhs | 2                    |
| Above 50 lakhs and upto Rs. 10 Crores     | 1.5                  |
| Above Rs. 10 Crores                       | 1                    |

Rev. date: 25 Jul 2017

The above mentioned safety retention shall be over and above any other retentions/ deferred payments as may have been specifically agreed in the Contract.

8.4 For Contract Price Rs. 1 crores or above and Contract Completion Schedule 12 months or more, the above safety retention will be released half yearly against the Safety Performance Score (methodology for evaluation enumerated in the Safety Terms & Conditions attached as Appendix to this General Terms & Condition) which will be evaluated by the Order Manager every month. For all other contracts, the above said safety retention shall be released along with the final settlement only at the end of the contract period.

8.5 The Owner shall have the right to stop any work which in its opinion is not meeting the safety standards/ guidelines of the Owner and good engineering practice. The Contractor shall not be eligible for and shall not be granted any extension in Completion Schedule due to such stoppage of work by the Owner.

8.6 The above retention towards safety shall not absolve the Contractor of its liabilities including statutory liabilities towards safety violations, injury or death (whether by accident or otherwise). An amount between Rs. 5 to 50 lakhs as deemed appropriate by Owner's appointed Committee for incident investigation and/ or as determined by statutory authorities (whichever higher), will be payable by the Contractor in case of such severe incidents of injury leading to loss of property or partial/ permanent disablement (e.g. loss of limb/s, vision etc.) or death.

8.7 Notwithstanding anything else stated in the Contract, the Contractor shall be liable for termination without any notice and without recourse to Owner in case of three (3) or more severe safety violations. There shall be no termination fees/ compensation payable to Contractor for such termination.

8.8 In case the Contractor achieves 100% on the Safety Performance Score, the Contractor shall be awarded a discretionary bonus of 1% of invoiced value subject to a maximum of Rs. 50 lakhs towards Safety Performance.

8.9 Payment shall be released within 60 days of submission of error free invoice with supporting documents duly certified by the Order Manager/ Engineer-in-Charge after deducting taxes at source as prescribed under the applicable law, income – tax or other deductions under the state value added tax laws . If such payment release

day falls on a holiday of Owner, payment will be released on the next working day. Against deduction of statutory taxes, tax deduction certificates where ever applicable shall be issued as per the applicable provisions of the statute. The Order Manager may recover any amount wrongly paid in excess in any previous bills certified by him.

8.10 *Mode of Payment:* All payments shall be made direct to the Contractor or his authorized representative in the shape of RTGS or Electronics Transfer method, on certification of the Order Manager/Engineer-in-Charge and on compliance of contractual terms & conditions.

#### 9. **Taxes and Duties:**

9.1 The Contract Price shall be inclusive of all taxes, duties, including but not limited to Customs duty, GST or any local taxes, levies imposed by State/Central/Local governments.

9.2 Taxes as mentioned in the Contract Price or Price Schedule shall be paid to the contractor subject to the Contractor complying with all the statutory requirements and furnishing the relevant documents including error free invoices containing detailed break up of the taxes.

9.3 The tax invoices should contain the details to comply with the GST Law. The supplier shall:

- i) Furnish (electronically) and communicate to the Owner, the details of Goods or Services supplied by the 10th of the month succeeding the said tax period,
- ii) Upon discovery of any discrepancy, rectify it and shall pay the tax and interest thereof,
- iii) Furnish the returns (electronically), for the inward and outward supplies of Goods and/or Services, before the specified dates as per the GST Law,
- iv) Communicate the tax paid, credits etc. as and when credited.
- v) The Invoice should clearly state the description of the goods, quantity, sale price, tax %, and tax amount;
- vi) The Invoice should be signed by an Authorized Signatory.

Bills/Invoices in the name of The Tata Power Company Ltd. with packing lists in triplicate shall be forwarded along with the equipment.

Contractor to furnish GST Registration no. in all invoices as well as Purchaser's (Tata Power's) GST no.

9.4 However the payment of tax shall be restricted to the total amount as indicated in the price schedule.

9.5 Any statutory variation in duties, levies or taxes if applicable and specified in this Contract till the scheduled date for completion of Work and limited to direct invoices of the Contractor shall be to the account of Owner. The Contractor shall have the obligation to provide the necessary documentary evidence / supporting by way of gazetted notifications etc. to prove the change in such levies or taxes between the due date of submission of the Bid and the scheduled date of completion of work to claim the difference.

9.6 The Contractor shall pass on to the Owner all the benefits of either reduction in tax rates, exemptions, concessions, rebate, set off, credits etc. or introduction of new tax rates exemptions, concessions, rebate, set off, credits etc. pertaining to all taxes, duties, imposts, fees and levies in respect of the supplies of Goods or performance of obligations under the contract. This would specifically include reduction of tax rates as a result of statutory changes or judicial rulings.

9.7 Any other taxes, levies and duties not mentioned in Contract Price or Price Schedule but applicable as per any statute (s) or introduction (omission) of new taxes, levies and duties shall be deemed to be included in the Contract Price and shall be to the account of the Contractor.

9.8 For facilitating availment of a credit, set-off, rebate, drawback or like benefit available to the Owner, the Contractor will facilitate the Owner by providing the necessary documentary and/or procedural support. In any process of assessment or re-assessment, of taxes payable by the Owner,

9.9 The Contractor shall bear and pay all the costs, liabilities, levies, interest, penalties in respect of non-compliances of any legal requirements as per various statutory provisions. The contractor shall keep the owner indemnified at all times from any tax liability, interest, penalties or assessments that may be imposed by the statutory authorities for non-compliances or non-observation of any statutory requirements by the Contractor.

9.10 All formalities required under statutes, for availing any concessions under relevant tax laws shall be adhered to by the Contractor.

9.11 Deduction at source: Recovery at source towards income tax calculated at the rate prescribed from time to time under the Income Tax Act 1961 and other relevant sections of Income Tax Act shall be made from the bills of the Contractor and the amount so recovered shall be

deposited with the Income Tax Department. Necessary TDS certificate to this effect will be issued to the Contractor in the prescribed proforma.

- 9.12 If any other taxes / duties / cess etc are to be recovered at source as per government regulations / Legislation from time to time, the same shall be recovered from the bills payable to the Contractor. Necessary receipt to this effect will be issued to the Contractor in this regard as per the applicable legislation.

#### **10. Contract Performance Guarantees (If applicable)**

The Contractor shall within 15 days of issuance of this Order/Contract furnish an unconditional irrevocable bank guarantee duly stamped, strictly as per the prescribed format of Owner from any nationalized bank or any scheduled bank having a branch in Mumbai and approved by the Owner for a sum equivalent to 10% of the Total Contract Price valid for the Contract Period and with a claim period of not less than 6 months from the completion of Contract Period. The issuing bank should be advised to send a direct confirmation of issue of bank guarantee to Owner.

In case the Contractor fails to furnish the requisite Bank Guarantee as stipulated above, then the Owner shall have the option to cancel the Contract besides other contractual remedies.

#### **11. Price Reduction:**

- 11.1 In case the Contractor fails to deliver the service/ Complete the work as per the agreed Completion Schedule including intermediate milestones (if applicable), the Owner shall recover from Contractor, as ascertained and agreed Liquidated Damages, and not by way of penalty, a sum equivalent to 1% of the Contract Value per week of delay. The Liquidated Damages referred above may be recovered by the Owner as set off against any amounts payable by the Owner to the Contractor or in any other manner in accordance with applicable laws.
- 11.2 The overall cap on liquidated damages shall be limited to 10% of the Contract Price.

#### **12. Insurance**

- 12.1 The Contractor agrees to indemnify and protect Owner against all liability, claims or demands for injuries or damages to any person or property growing out of the performance of this order/ Contract.
- 12.2 The Contractor further agrees to furnish evidence of insurance showing that Contractor has and will maintain adequate insurance coverage during the life of this Contract/ order in the opinion of Owner, including but not

limited to comprehensive general liability insurance. Such evidence of insurance must set forth the name of the insurer, policy number, expiration date, and limits of liability. Compliance by Contractor with insurance requirements does not in any way affect Contractor's indemnification of Owner under Indemnification clause

#### **13. Indemnification:**

The Contractor shall indemnify, save harmless and defend the Owner and keep the Owner indemnified from and against any and all claims, costs, liabilities (financial), litigations, compensations, judgments, expenses or damages (including attorney's fees and other related expenses) arising out of any breach or alleged breach of any of the conditions of this Contract including compliance to statutory laws of provisioned under clause 3, performance of the obligations hereunder, or any representation or misrepresentation made by the Contractor or by any third party in respect of death or bodily injury or in respect to loss or damage to any property with regard to the subject of this Contract.

#### **14. Indemnity against IPR:**

The equipment, system, drawings, and other materials that shall be supplied against the Contract will become the Owner's property. Without limitation of any liability of whatsoever nature, the Owner shall be indemnified and kept indemnified against any claim for infringement or breach of any of the statues, rules & regulations by the use of or sale of any article or material supplied by the Contractor. The indemnity shall include any infringement of patent, trade mark, design, copyright or other property rights whether in Country of Origin, or elsewhere resulting from the Contractor's design, manufacture, use, supply or re-supply & would also cover use or sale of any article or material supplied by the Contractor to the Owner under the Contract. The Indemnity shall cover any claim/action taken by a third party either directly against the Owner or any claim/action made against the Contractor & where under the Purchaser is made liable. The Indemnity shall be for losses, damages, and costs including litigation costs, attorney fees etc incurred by the Owner in relation to the Contract.

#### **15. Free Issue Material:**

Wherever contracts envisage supply of Free Issue Material (FIM) by the Owner to the contractor for fabrication/ use in service performance, such Free Issue Material shall be safeguarded by an insurance policy to be provided by the Contractor at his own cost for the full value of such materials and the insurance policy shall cover the following risks specifically and shall be valid for six months beyond the Contract Validity date :

RISKS TO BE COVERED: Any loss or damage to the Owner's materials due to fire, theft, riot, burglary,

strike, civil commotion, terrorist act, natural calamities etc. and any loss or damage arising out of any other causes such as other materials falling on Owner's materials.

The amount for which insurance policy is to be furnished shall be indicated in the respective Contract.

Free Issue material (FIM) will be issued to the Contractor only after receipt of the Insurance Policy from the Contractor. The contractor shall arrange collection of the FIM from the Owner's premises and safe transportation of the same to his premises at his risk and cost. Notwithstanding the insurance cover taken out by the Contractor as above, the Contractor shall indemnify the Owner and keep the Owner indemnified to the extent of the value of free issue materials to be issued till such time the entire contract is executed and proper account for the free issue materials is rendered and the left over/surplus and scrap items are returned to the Owner. The contractor shall not utilize the Owner's free issue materials for any job other than the one contracted out in this case and also not indulge in any act, commission or negligence which will cause/result in any loss/damage to the Owner and in which case, the Contractor shall be liable to the Owner to pay compensation to the full extent of damage/loss. The Contractor, shall be responsible for the safety of the free issue materials after these are received by them and all through the period during which the materials remain in their possession/control/custody. The Free issue materials on receipt at the Contractor's works shall be inspected by them for ensuring safe and correct receipt of the material. The contractor shall report the discrepancies, if any, to the Owner within 5 days from the date of receipt of the material. The contractor shall take all necessary precautions against any loss, deterioration, damage or destruction of the FIMs from whatever cause arising while the said materials remain in their possession/custody or control. The free issue materials shall be inspected periodically at regular intervals by the Contractor for ensuring safe preservation and storage, the Contractor, shall also not mix up the materials in question with any other goods and shall render true and proper account of the materials actually used and return balance remaining unused material on hand and scrap along with the final product and if it is not possible within a period of one month from the date of delivery of the final product/ completion of Service covered by this Contract. The Contractor shall also indemnify the Owner to compensate the difference in cost between the actual cost of the free issue material lost/damaged and the claim settled to the Owner by the insurance company.

#### **16. Relation between parties:**

The Contract shall be entered into on a principal-to-principal basis only. The Contract shall not be construed as a partnership or an association of persons. There is no agent and principal relationship between the parties. Each party shall be responsible for its own conduct. The Contractor shall ensure at all times that all the work carried out under this contract

either by its own person or through any of its sub-Vendors shall be always done under its own direct supervision.

#### **17. Safety:**

Contractor shall comply with all legal and statutory provisions including all rules and regulations pertaining to Safety, Health and the Environment and will be responsible for all legal liabilities arising due to any of their acts or of their personnel.

The Contractor shall comply with the Owner's Contractor Safety Policy and Safety Terms and Conditions. Any misconduct and/ or violation with respect to the Owner's Contractor Safety Policy and Safety Terms and Conditions or any other legal and statutory provisions pertaining to Safety, Health and Environment shall be dealt with as per the Safety Terms and Conditions.

Prior to commencement of any work at site Contractor shall submit an undertaking in writing to adhere to and comply with all the provisions of Owner's Contractor Safety Code of Conduct.

The Contractor shall have a valid ISO 14001/ OHSAS certification. In absence of the same, the Contractor shall obtain the same within 6 months from the date of the Effective Date of Contract.

#### **18. Suspension of Work**

Owner may instruct Contractor at any time to suspend performance of the Work or any part thereof with a notice of 7 days for whatever reason. Provided Contractor is not in default under this Contract subject to Articles 1 and 5 inclusive, the Contractor shall be paid a mutually agreed fee, if any, necessarily incurred by Contractor as a direct consequence thereof of suspension and the Project Completion Schedule may be revised accordingly.

Without prejudice to any other rights Owner may have under this Contract or at law if Contractor is in default under this Contract, Owner may instruct Contractor to suspend performance of the Work or any part thereof by giving 7 days notice till such default has been corrected to the satisfaction of Owner. Also Liquidated Damages in accordance with Clause 11 shall continue to be applicable during such period until the default is cured. The costs incurred by the Contractor for such correction shall be to the Contractor's account, and furthermore no payment shall become due to the Contractor. Any cost incurred due to non - performance of the Contractor by the Owner shall be charged to the Contractor.

#### **19. Change Management:**

Owner shall have the right at any time to order any change in the Work in accordance with the following procedure. Contractor shall furnish to Owner upon request as soon as reasonably possible but no later

than five (5) days following the request, a written statement specifying:

- (a) the increase or decrease, as the case may be, in the costs of the Work which will result from a change in the Work as requested by Owner,
- (b) any effect such change in the Work may have on any other provision of this Contract originating from either parties, and
- (c) such other details as Owner may require.

Any change in costs shall be reasonably related to the proportional change in the Work and any other costs incurred by Contractor. If Owner agrees to Contractor's statement Owner shall notify Contractor thereof in writing in the form of a change order, whereupon the change in the Work shall be incorporated in the Work and immediately implemented. In the event that the change relates to a reduction in Work, the work in question shall not be undertaken pending the issue of an appropriate Change Order.

## **20. Governing Laws**

This Contract shall be construed in accordance with and governed by the Laws of India without giving effect to any principle of conflict of law.

## **21. Jurisdiction**

This Contract and the transaction contemplated herein shall be subject to the exclusive jurisdiction of the competent Courts in Mumbai only.

## **22. Dispute settlement:**

Dispute or differences arising out or relating to this Order shall be resolved amicably by the parties. Failing such amicable resolution of dispute / differences either party may refer the matter to arbitration of a Sole Arbitrator to be appointed jointly by both the parties. The award of the Arbitrator shall be final, binding and conclusive on the parties. The venue for arbitration shall be Mumbai. The Arbitration proceedings will be governed and regulated by the provisions of Indian Arbitration and Conciliation Act, 1996 as amended from time to time and the rules framed there under.

## **23. Force majeure:**

- 23.1 In the event of either party being rendered unable by force majeure to perform any obligation required to be performed by it under this Contract the relative obligation of the party affected by such force majeure shall, after notice under this articles be suspended for the period during which such cause lasts. The term 'Force Majeure' as employed herein shall mean acts of God, wars (declared or undeclared), riots or civil commotion, fire, floods, and acts and regulations of the Government of India or State Government or any of the statutory agencies. Both the party

shall pay to the other party, the amount payable upon the date of the occurrence of such force majeure.

- 23.2 Upon the occurrence of such cause and upon its termination, the party alleging that it has been rendered unable as aforesaid, thereby shall notify the other party in writing immediately but not later than twenty four (24) hours of the alleged beginning and ending thereof giving full particulars and satisfactory evidence in support of the claims.

- 23.3 During the period, the obligations of the parties are suspended by force majeure; the contractor shall not be entitled to payment of any rate.

- 23.4 In the event of the force majeure conditions continuing or reasonably expected to continue for a period more than thirty (30) days, Owner shall have the option of terminating the contract by giving seven (7) days notice thereof to the contractor.

## **24. Sub letting and Assignment**

The contractor shall not, without prior consent in writing of the Owner, sublet, transfer or assign the contract or any part thereof or interest therein or benefit or advantage thereof in any manner whatsoever, provided nevertheless that any such consent shall not relieve the contractor from any obligation, duty or responsibility under the contract.

## **25. Limitation of Liability:**

Notwithstanding anything contained in the Contract, the Contractor's aggregate liability under this Contract shall be limited 100% of the Total Contract value. This shall exclude liability arising pursuant to clause 3- Compliance to Local Laws, clause 9.10, clause 14- Indemnity against IPR, clause 13- Indemnity, clause 26 – Confidentiality, liability arising due to loss of or damage to the Free Issue Material (FIM) issued by Owner to Contractor for completion of the Work and liability arising due to wilful misconduct, gross negligence, third party claims and corrupt acts attributable to the Contractor.

## **26. Confidentiality:**

The Contractor shall use the Confidential Information of the Owner only in furtherance of this Contract and shall not transfer or otherwise disclose the Confidential Information to any third party. The Contractor shall (i) give access to such Confidential Information solely to those employees with a need to have access thereto; and (ii) take the same security precautions to protect against disclosure or unauthorized use of such Confidential Information that the party takes with its own confidential information but, in no event, shall a party apply less than a reasonable standard of care to prevent such disclosure or unauthorized use.

**27. Termination:**

27.1 The Contract shall be deemed to be terminated on completion of the Contract period.

27.2 Termination of default by Contractor:  
Owner may terminate the contract at any time if the Contractor fails to carry out any of his obligations under this Contract. Prior to termination, the Contractor shall be advised in writing of the causes of unsatisfactory performance to be improved upon 15 days of the receipt of notice. In case, if the Contractor fails to bring about the improvement to the satisfaction of the Owner, then the Contract shall be terminated.

27.3 Without prejudice to the rights and remedies available to Owner, Owner may terminate the Contract or part thereof with immediate effect with written notice to the Contractor if:

27.3.1 The Contractor becomes bankrupt or goes into liquidation.

27.3.2 The Contractor makes a general assignment for the benefit of creditors.

27.3.3 A receiver is appointed for any substantial property owned by the Contractor.

27.3.4 The Contractor is in breach of any representation or warranty made to the Owner by the Contractor.

The Contractor shall not be entitled to any further payment under the Contract if the Contract is terminated. If the order is terminated under clause 27.2 and 27.3, the Contractor shall not be entitled to any further payment, except that, if Owner completes the Work and the costs of completion are less than the Contract Price, the Owner shall pay Contractor an amount properly allocable to services fully performed by Contractor prior to termination for which payment was not made to Contractor. In case, the cost of completion of Work exceeds the Contract Price, the additional cost incurred by Owner for such completion shall be paid by the Contractor.

27.4 Owner shall be entitled to terminate the Contract at its convenience, at any time by giving thirty (30) Days prior notice to the Contractor. Such notice of termination shall specify that termination is for Companies convenience and the date upon which such termination becomes effective. Upon receipt of such notice, the Contractor shall proceed as follows:

27.4.1 cease all further work, except for such work as may be necessary and instructed by the Owner/ Owner's representative for the purpose of preserving and protecting Work already in progress and protect

materials, facilities and equipment on the Work Site or in transit;

27.4.2 stop all further sub-contracting or purchasing activity, and terminate Sub-contracts;

27.4.3 handover all Documents, equipment, materials and spares relating to the portion of Work already executed by the Contractor or procured from other sources up to the date of termination for which the Contractor has received payment equivalent to the value thereof; and

27.4.4 handover those parts of the supplies manufactured/ work executed by the Contractor up to the date of termination.

Upon termination pursuant to clause 27.4, the Contractor shall be entitled to be paid (a) all sums properly due to the Contractor under the Contract up to the date of termination; and (b) any direct and substantiated charges already incurred or committed for cancellation of the procurement of third party goods or services which were to have been supplied by the Contractor in connection with this Contract provided that the Contractor shall use its best endeavours to minimise such charges

25.5 The Contractor shall not be released from any of his obligations or liabilities accrued under the Contract on termination. For the avoidance of doubt, the termination of the Contract in accordance with this clause shall neither relieve the Contractor of his accrued obligations for Warranty or his accrued liability to pay (liquidated) damages for Delay nor shall entitle him to reduce the value of Performance Security.

**28. Consequential Damages:**

Unless otherwise specified, neither Party shall be responsible for and nor shall be liable to the other Party for indirect/consequential losses and damages suffered by such Party including for loss of use, loss of profit whether such liability or claims are based upon any negligence on the part of the other Party or its employees in connection with the performance of the Contract.

**29. Environment / ISO 14001 Certification:**

The Contractor to confirm whether their organization is ISO 14001 certified. If not, the Contractor must certify that the handling, use and disposal of their product / by-products conform to practices consistent with sound environmental management and local statutes. The Contractor shall ensure that all the wastes are disposed in environmental friendly way with strict compliance to applicable laws including adherence to MoEF guidelines with respect to disposal of batteries, lead waste, copper cables, ash, waste oil, e-waste etc which shall be disposed through MoEF approved

parties only. The Contractor shall also be responsible to collect and recycle all the e-waste generated at the end of the product life cycle at its own costs and risks as per the MoEF guidelines/ orders.

### 30. Non-Exclusive Agreement

This Contract is non-exclusive and Owner reserves the right to engage other contractors to perform similar or identical work. Contractor shall accord such other contractors adequate opportunity to carry out their contracts and shall accomplish the Work in co-operation with those contractors and with Owner, in accordance with such instructions as may be issued by the Owner from time to time.

### 31. Severability

In the event that any of the provisions, or portions or applications thereof, of this Contract are held to be unenforceable or invalid by any court or arbitration panel of competent jurisdiction, Contractor and Owner shall negotiate an equitable adjustment to the provisions of the Contract with a view towards effecting the purpose of the Contract and the validity and enforceability of the remaining provisions, or portions or applications thereof, shall not be affected thereby.

### 32. Housekeeping & Removal of scrap:

The Contractor shall be responsible for keeping the areas of his work at site, neat and tidy throughout the period of his work. All excess material/ spares/ consumables taken by Contractor, as well as the scrapped items and wooden logs/ crates/ planks shall be returned, from time to time, to the Stores, and transported/ unloaded by Contractor's personnel at the place shown by Order Manager/Engineer-in charge.

The Contractor shall so arrange that all the scrap generated during the progress of his work, is separated into two categories, viz.

- i) Saleable scrap like steel, copper or other metals, etc., and,
- ii) Others, which have nil or negligible resale value, like insulation material, jute, debris, etc. (or as directed by the Order Manager/Engineer-in charge).

The saleable scrap shall be shifted to and unloaded at a central place as per directions of the Stores-in charge, while the other scraps shall be shifted to other locations as per directions from Order Manager/ Engineer-in Charge, or as per terms of the order.

The Contractor shall arrange to remove the scrap on regular basis, or even on daily basis, depending upon the requirement, to keep the area around his workplace neat and tidy. In case, it is observed that the

Contractor is not carrying out regular cleaning of his areas of work, or, is not returning the excess materials/ scrap, etc., to the Stores, Owner reserves the right to arrange the same through other sources, and back-charge the Contractor the cost of doing so, along-with overheads, by deducting the amount from Contractor's bills.

Contractor's final bill will be cleared by Owner only after confirming that proper clearing of his areas of work has been completed by the Contractor, and same is certified by the Order Manager/ Engineer in-charge

### 33. Tata Code of Conduct

The Owner abides by the Tata Code of Conduct in all its dealing with stake holders and the same shall be binding on the Owner and the Contractor for dealings under this Order/ Contract. A copy of the Tata Code of Conduct is available at our website: <http://www.tatapower.com/aboutus/code-of-conduct.aspx>. The Contractor is requested to bring any concerns regarding this to the notice of our Chief Ethics Officer on the e-mail ID: [cecounsellor@tatapower.com](mailto:cecounsellor@tatapower.com).

### 34. Responsible Supply Chain Management:

The Owner is committed for a cleaner environment and respect of Human rights through its Responsible Supply Chain Management policy. The Contractor is required to comply with all the environment & Human rights related laws, including emission norms, Labour and environmental regulations. The Owner encourages its Vendors/ Contractors/ Business partners to pay more attention to green design, green supply, green production, green logistics and green packaging in performing their business obligations.

The Contractor is required to abide by the Tata Power Corporate Environment policy, Energy Conservation and Corporate Sustainability Policy.

A copy of the Responsible Supply Chain Policy along with Environment policy, Energy Conservation policy, Sustainability policy, Health & Safety policy and Human Rights policy is available at website: <http://www.tatapower.com/sustainability/policies.aspx>.

Contractor/Bidder is required to completely fill the attached "Supplier Sustainability Questionnaire" in support of their Green Supply Chain Management initiatives and submit the same with their offer.

The Owner recognizes that diversity in the workplace positively impacts business. The Owner is committed to help people from SC/ST background either by helping them to become entrepreneurs or by engaging workforce from SC/ST community under the contracts agreed herein. To encourage engaging SC/ST community, the owner may consider on the merit to incentivize the Contractor by paying additional 1% of

the service contract portion if the number of SC/ST workforce engaged in the contract exceeds 30% of the total deployed strength and 2%, if the strength goes beyond 50%. While the Contractor will assist the workforce so engaged to become self-reliant in meeting the work expectation, the Owner may also volunteer its training resources to the extent possible to improve their employability. The Contractor shall maintain the proper documentation of such category of the workforce engaged and the owner may consider to pay the incentive after its verification.

The Owner may also consider extending price preference of 5% in the bid evaluation for an order value up to Rs.50 Lacs, provided the company is owned by a person from SC/ST community having minimum 50% holding in the company.

**35. Vendor rating:**

You are requested to ensure compliance to the terms of the individual orders with regards to timely delivery, provision of all applicable documents / challans / test certificate, quality of the material etc. Your performance with respect to the said factors will be taken into consideration for future business.

**36. Vendor Feedback:**

34.1 In this dealing Vendors feedback is important for the purchaser to improve its processes. If Contractor have to report any grievance, problem or require any clarification, information, Contractor is requested to contact purchaser at email ID: [CC\\_CUSTOMERFEEDBACK@tatapower.com](mailto:CC_CUSTOMERFEEDBACK@tatapower.com)

34.2 Contractor is requested to ensure compliance to the terms of the individual orders with regards to timely delivery, provision of all applicable documents / challans / test certificate, quality of the material etc. Contractor performance with respect to the said factors will be taken into consideration for future business.

**37. Non-Waiver:**

Failure of Owner or its representatives to insist upon adherence to any of the terms or conditions incorporated in the Contract or failure or delay to exercise any right or remedies herein or by law accruing, or failure to promptly notify the Contractor in the event of breach or the acceptance of or the payment of any Material(s) hereunder or approval of any design or Material(s) shall not release the Contractor and shall not be deemed a waiver of any right of Owner to insist upon the strict performance thereof or of any of its rights or remedies as to any

such Material(s) regardless of when the Material(s) are shipped, received or accepted not shall any purported oral modification or revisions of the Contract by Owner or its representative(s) act as waiver of the terms hereof.

# **ESG FRAMEWORK FOR BUSINESS ASSOCIATES**

Tata Power's Sustainability philosophy sits at the core of its Business Strategy. Tata Power Sustainability Model has an overarching objective of 'Leadership with care' with key elements of 'Care for the Environment'; 'Care for the Community'; 'Care for our Customers / Partners' and 'Care for our People'. These sustainability objectives encompass the Environmental, Social and Governance objectives driven as integrated elements.

Tata Power, together with its stakeholders is determined to achieve sustainable growth while creating shared value for all.

As a part of future ready roadmap, Tata Power has targeted following as our Environment, Social and Governance priorities:

- Being Carbon Net Zero before 2045
- Growing Clean capacity (80% by 2030)
- Customer centricity
- Becoming water neutral before 2030
- Achieving zero waste to landfill before 2030
- No net loss of biodiversity before 2030
- Positively impacting 80 million lives by 2027

In order to create a sustainable business ecosystem, Tata Power expects that all its Business Associates (BA) which includes its suppliers, vendors, consultants and service providers to align to its ESG and sustainability commitments.

Tata Power encourages improved efficiencies and scaling up of green initiatives through technology and innovation taking us farther on the journey of reducing carbon emissions and preparing the entire eco-system towards products and services that would have net positive impact on the environment and communities that we operate in.

The Vendors/ bidders wishing to associate with Tata Power are expected to share their own sustainability and ESG journey. We at Tata Power promote all Business Associates to have a sustainable procurement policy for their supplier and service providers to contribute to our integrated approach in achieving a sustainable supply chain. The BA is encouraged to carry out the assessment of their sub-contractors and sub-vendors on sustainability readiness so that they are aware of the expectation/ business requirement.

The Vendor/ Bidder shall fill-in the 'Environment, Social and Governance Compliance Screening Questionnaire for Business Associates' attached at Annexure-I and submit the same along with the Bid in Ariba online platform.

### **Responsible Supply Chain Management:**

Tata Power is committed for a cleaner environment and respect of Human rights through its Responsible Supply Chain Management policy.

Tata Power Business Associate (BA) shall comply with all the environment & Human rights related laws, including emission norms, Labour and environmental regulations.

Tata Power encourages its BA to focus on green design, green supply, green production, green logistics and green packaging in performing their business obligations. The BA is expected to abide by the Tata Power Corporate Environment policy, Energy Conservation and Corporate Sustainability Policy (enclosed with this document as Annexure-II).

The BA is expected to:

- Strive towards Conservation of Energy, Water, Resources and optimize transportation of Men & Materials to minimize environmental impact and reduce carbon footprint.
- Carry out the assessment of materials used for construction, operation & maintenance, consumables and accordingly phase out those materials which are environmentally hazardous.
- Be cognizant that diversity in the workplace positively impacts business.
- Promote affirmative action by supporting people from SC/ ST background by engaging workforce from SC/ ST community under the contracts agreed herein.
- Share the commitment of 'No child labour', 'No forced labour', Non-discrimination on the basis of caste, colour, religion, gender, disability, maternity or pregnancy or any other factor unrelated to the requirements of the job
- Pay the wages or remuneration to the workforce, personnel deployed in compliance to all applicable laws and regulations.
- Provide its employees/ deployed labor with an employment environment that is free of physical or psychological harassment.
- Carry out the assessment of their Sub-contractors on their Sustainability Readiness so that they are aware of the above expectation/ standards
- To ensure usage of suitable package material which is more environmentally sustainable. Further the packing material shall be recycled to the extent possible. The material used for packing is expected to suit the mode of transport and to ensure its safe receipt at point of delivery.

#### **Waste Disposal:**

The BA is expected to follow best practices for disposal of waste, few of which are listed below:

- Have a detailed project plan that includes 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. 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.
- Have purchase policy to encourage the procurement of material with recycled and minimum packaging of goods during delivery and appropriate means for site-to-site transportation of materials to avoid damage and litter generation.
- Ensure that the residents living near the site are kept informed about proposed working schedule and timings/ duration of any abnormal noise full activity that is likely to happen.
- 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.

#### **Water Management:**

The BA is expected to follow best practices for water management, few of which include a management and monitoring system for water withdrawals and consumption, procedures to reduce water usage or reuse/recycle water, and pretreatment of wastewater before disposal.

**Compliance to Law:**

The BA shall adhere to responsible business practices and comply with the provision of all the Statutory Acts Applicable. Special attention of the BA is drawn towards the compliance of provision of the following statues: (along with the latest amendments/additions, as applicable):

- The Child Labour (Prohibition and Regulation) ACT, 1986.
- The Contract Labour (Regulation and Abolition) ACT, 1970.
- The Employee's Pension Scheme, 1995.
- The Employee's Provident Funds and miscellaneous provisions Act, 1952.
- The Employees State Insurance Act, 1948.
- The Equal Remuneration Act, 1976.
- The Industrial Disputes Act, 1947.
- The Maternity Benefit Act, 1961.
- The Minimum Wages Act, 1948.
- The Payment of Bonus Act, 1965
- The Payment of Gratuity Act, 1972.
- The Payment of Wages Act, 1936.
- The Shops & Establishment Act, 1954.
- The Workmen's Compensation Act, 1923.
- The Employer's Liability Act, 1938.
- and any other applicable statutory act

**Social Accountability (SA 8000):**

Tata Power expects its BAs to follow guidelines of SA 8000:2014 on the following aspects

- Child Labour
- Forced or Compulsory Labour
- Health & Safety
- Freedom of Association & Right to Collective Bargaining
- Discrimination
- Disciplinary Practices
- Working Hours
- Remuneration
- Management System

**Health and Safety**

The BA is expected to ensure the health and safety of his and his Sub-contractor's staff and labour. The BA shall, in collaboration with and according to the requirements of the local health authorities, ensure that medical staff, first aid facilities, sick bay and ambulance service are available at the accommodation and on the Site at all times, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics. The BA shall maintain records and make reports concerning health, safety and welfare of persons deployed, and damage to property, as the Owner's Representative may reasonably require. The BA shall be responsible for the medical treatment / hospitalization of his and his Sub-contractor's staff/ labour.

The BA shall appoint a qualified Safety officer at the Site to be responsible for maintaining the safety, and protection against accidents, of all personnel on the Site. Such Safety officer shall have the authority to issue instructions and take protective measures to prevent accidents.

The BA shall comply in toto with the Tata Power's Contractor Safety Terms & Conditions, Health Safety & Environment Manual while working on Tata Power Site/ Services/ Contracts.

### **Grievance Mechanism**

The BA is expected to have grievance procedures that allow stakeholders to anonymously bring environmental and/or work-related violations and/or concerns to the attention of management. In addition, the BA is expected to have procedures for examining reports of environmental and/or work-related violations or concerns and/or privacy complaints.

### **Data Protection**

The BA is expected to have a formal process to address data security or privacy issues.

## **ANNEXURE-I**



| Sr. No.  | Question Description   | Response (Y/N) | Remarks |
|--|--|----------------|---------|
| <b>Organization</b>  |  |                |         |
| 1  | Does your Company have Sustainability Policy at Organization Level?<br>If Yes, Please attach   |                |         |
| 2  | Do you have sustainable procurement policy in place for your own suppliers? If Yes, Please attach  |                |         |
| 3  | Does your company do regular assessment of its suppliers on ESG parameters?  |                |         |
| 4  | Are there ESG risks, or negative impacts identified in your supply chain   |                |         |
| <b>Governance</b>  |  |                |         |
| 1  | Is diversity taken into consideration when appointing board members/ senior management?<br>Do you have an independent director/s?  |                |         |
| 2  | Has your company taken initiatives to ensure ethical practices at workplace?<br>Please share the details, Policies etc.  |                |         |
| 3  | Does your company have a formal process to address data security or privacy issues?<br>Please share the details, Policies etc.   |                |         |
| 4  | Does your company have grievance mechanism for stakeholder issues and track resolution?  |                |         |
| <b>Environment/ Planet</b>   |  |                |         |
| 1  | Does your company have Environmental Policy? If Yes, Please attach   |                |         |
| 2  | Do you have a formal process for waste management including solid wastes, liquid wastes and hazardous waste?   |                |         |
| 3  | Does your company track greenhouse gas emission? Also, what percentage of own consumption comes from the renewable energy?   |                |         |
| 4  | Does your company have a formal process for water management including monitoring of water consumption and withdrawals, and if applicable, pretreatment of wastewater?                           |                |         |
| <b>Green Technology/ Innovation</b>  |  |                |         |
| 1  | Are your facility/ Product/ Services provided by you is based on green design, green production, green packaging or green logistics considerations? Please elaborate.                            |                |         |
| 2  | Do your products or services have any environmental or social features or benefits (e.g. environmental/energy certification, ecolabels, fair trade certification, etc.)?                         |                |         |
| <b>Social/ People</b>  |  |                |         |
| 1  | Does you facility/ Company have written personnel policies in place Are you an equal opportunity employer?   |                |         |
| 2  | Please describe any formal programme / campaign in place to promote company involvement with the community (volunteering, etc.). What is the percentage of profit spend on community activities? |                |         |
| 3  | Does your company have a written Health & Safety Policy or Program? If Yes, Please attach  |                |         |
| <b>Certifications: Does your company have following certifications (valid till date-please mention validity)</b> |  |                |         |
| 1  | ISO9001 accreditation  |                |         |
| 2  | SA8000 or equivalent   |                |         |
| 3  | ISO 14001 certification  |                |         |
| 4  | ISO 18001/45001 or equivalent  |                |         |
| 5  | ISO/IEC 27001 or equivalent  |                |         |
| 6  | Any Other (Please specify)   |                |         |

Signature

Business Associate Name

## **ANNEXURE-II**

## 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



## **Supplier Code of Conduct**

Tata Power follows the Tata Code of Conduct (TCoC) and the Whistle blower Policy and expect all its Suppliers to adhere to the same principles. “Supplier” here means any business, company, corporation, person or other entity that provides, sells or seeks to sell, any kind of goods or services to Tata Power, including the Supplier’s employees, agents and other representatives. The suppliers are expected to adhere to the following Do’s and Don’ts:

### **Do’s**

1. The Suppliers shall be committed to supplying products and services of high quality that meet all applicable standards and laws, including product packaging, labelling and after-sales service obligations.
2. Comply with all applicable laws and regulations, both in letter and in spirit, in all the territories in which it operates.
3. Strive to provide a safe, healthy and clean working environment for its employees.
4. Strive for environmental sustainability, particularly with regard to the emission of greenhouse gases, consumption of water and energy and the management of waste and hazardous materials.
5. The Supplier shall represent our company (including Tata brand) only with duly authorised written permission from our company.
6. Safeguard the confidentiality on the use of intellectual property, information and data of the Company.
7. Gifts and hospitality given or received should be modest in value and appropriate as per Company Policy.
8. The assets of Tata Power shall be employed primarily and judiciously for the purpose of conducting the business for which they are duly authorised.
9. All actual or potential conflicts due to financial or any other relationship with a Tata Power employee shall be disclosed.

### **Don’ts**

1. The Supplier shall not make unfair or misleading statements about the products and services of competitors.
2. Children shall not be employed at workplaces.
3. Forced labour shall not be used in any form.
4. The Suppliers shall neither receive nor offer or make, directly or indirectly, any illegal payments, remunerations, gifts, donations or comparable benefits that are intended, or perceived, to obtain uncompetitive favours for the conduct of its business with Tata Power.

### **Reporting Violations**

The Supplier shall notify the Company regarding any known or suspected improper behaviour of other suppliers or employees relating to its dealings with Tata Power, by email to: [cecounsellor@tatapower.com](mailto:cecounsellor@tatapower.com).

The same can also be raised through our 3<sup>rd</sup> party ethics helpline facility:

1. Email id: [tatapower@ethics-line.com](mailto:tatapower@ethics-line.com) ; Website: [www.tip-offs.com](http://www.tip-offs.com)
2. Helpline numbers: Toll free - 0008001004382 and 0008001008277. Also accessible at normal domestic call rates within India: +91-11-71279005
3. Postal address: Deloitte Touche Tohmatsu India LLP  
c/o Arjun Rajagopalan, Partner (Ethics Helpline Services)  
19th Floor, 46 - Prestige Trade Tower, Palace Road,  
High Grounds, Bengaluru, Karnataka – 560001

## **Special Terms and Conditions**

### **Item No D.2**

1. The information contained in this Tender Document or subsequently provided to Bidder, whether verbally or in documentary or any other form by or on behalf of The Tata Power Company Limited herein referred to as Tata Power, or any of its employees, is provided to Bidder on the terms and conditions set out in this Tender Document and such other terms and conditions subject to which such information is provided.
2. Tata Power also does not accept any liability of any nature whether resulting from negligence or otherwise however caused arising from reliance of any Bidder upon the statements contained in this Tender Document.
3. Tata Power, and its employees make no representation or warranty and shall have no liability to any person including any Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this Tender Document or otherwise, including the accuracy, adequacy, correctness, reliability or completeness of the Tender Enquiry and any assessment, assumption, statement or information contained therein or deemed to form part of this Tender Document or arising in any way in this Selection Process.
4. Tata Power may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumption contained in this Tender Document.
5. Though adequate care taken while issuing this Tender Document, Bidder should satisfy himself for completeness of the document in all respects. Intimation of any discrepancy should be given to Tata Power Concerned Person immediately. If no intimation received by this office within 3 days from the date of issue of the Tender Document, then Tata Power shall consider that the document received by the Bidder is complete and to the satisfaction of the Bidder in all respects.
6. Tata Power reserves the right to change any or all of the provisions of this Tender Document before date of submission. Such changes, if any, would be intimated to Authorized Person of Interested Bidder through E-Tender System only.
7. The issue of this Tender Document does not imply that Tata Power is bound to select a Bidder or to appoint the Selected Bidder, as the case may be, for the Contract and Tata Power reserves the right to reject all or any of the Proposals without assigning any reasons and or making any correspondence on this account whatsoever.
8. Bidder shall bear all costs associated with or relating to the preparation and submission of its Proposal including but not limited to preparation, copying, postage, delivery fees, expenses

associated with any demonstrations or presentations which may be required by Tata Power or any other costs incurred in connection with or relating to its Proposal. All such costs and expenses will remain with the Bidder and Tata Power shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by an Bidder in preparation or submission of the Proposal, regardless of the conduct or outcome of the Selection Process.

Any Bidder wishing to undertake site visits for familiarization with site conditions, may do so. All costs towards site visits, conference and submission of documents shall be borne by the Bidder themselves.

9. No claim shall be entertained on account of disruption of internet services being used by bidders. Bidders are advised to upload their bids well in advance to avoid last minute technical snag.
10. The decision of Tata Power Management regarding the opening of offers, evaluation and acceptance of the offer shall be final and binding on all the Bidders.
11. Tata Power reserves the right to extend the date of uploads/opening of tenders without assigning any reason thereof, and also reserves the right to distribute the work among more than one bidder.
12. Tata Power reserves the right to accept or reject any offer, and to annul the offer process and reject all offers at any time prior to award of Offer, without thereby incurring any liability to the affected Bidder or any obligation to inform the affected Bidder of the grounds for the Tata Power decision.
13. Tata Power reserves the right to invite open or limited tenders and when tenderers are called to accept a tender in whole or in part or reject any tender or all tenders without assigning any reasons for such action.
14. The authority for the acceptance of the tender will rest with the Tata Power. It shall be obligatory on the said authority to accept the most suitable bid or any other bid and no Bidder shall demand neither any explanation for the cause of rejection of his / their tender nor Tata Power undertake to assign reasons for declining to consider or reject any particular tender or tenders.
15. Local Conditions: It will be imperative on each Bidder to fully acquaint himself with all the local conditions and *factors* which would have any effect on the performance of the contract. Tata Power shall not entertain any request for clarifications from the tenderer regarding such local conditions. No request for the change of price, of time schedule of completion of work on account of any local conditions or factor shall be entertained after the offer is accepted by Tata Power.

16. The intending bidder will be deemed to have satisfied himself by actual inspection of the site and locality of the works, that all conditions liable to be encountered during the execution of the works are taken into account and that rates he enters in the tender papers are adequate and all inclusive, for the completion of works to the entire satisfaction of Tata Power.
17. Bidder who is Black listed / Banned / Debarred as on originally scheduled date of this bid opening or whose Agreement / Work order has been terminated on account of performance, or a bidder against whom there is adverse report about its performance under an existing contract or a bidders performance security has been forfeited by any company/organization for non-performance at any time shall not be eligible, within 5 (five) years of originally scheduled date of this bid opening by any State / Central Govt. / Govt. Undertaking / Public sector Undertaking in India for similar type of work, will not be eligible for participating in this tender. The Bidder should submit an affidavit on Letter Head (Format F1) as a proof in this regard.
18. The bidder should provide detailed information on any litigation or arbitration arising out of contracts completed or under execution by it over the last five years. A consistent history of awards involving litigation against the Bidder may result in rejection of Bid.
19. Conditional and incomplete tenders shall not be accepted. Bid must be in conformity with schedules / formats of this tender.
20. At any stage if it is found that bidder
  - a. have submitted false document for the purpose of qualifying in the tender or non-execution of project as per contract,
  - b. Have not provided relevant details (for example litigation history etc)action as per Law will be taken and the pending payment, Bank Guarantee, EMD, Security amount of the bidder will be forfeited by Tata Power at any stage of execution. Also Bidder will be Blacklisted for future Tenders by Tata Power.
21. Issuance of Tender document does not construe that Bidder will be qualified for award of work.
22. Tata Power reserves the right to verify all statements, information and documents, Submitted by the Bidder in response to Tender Document. Any such verification or the lack of such verification by Tata Power to undertake such verification shall not relieve the Bidder of its obligations or liabilities hereunder nor will it affect any rights of Tata Power there under.



## Special Conditions of Contract

CONFIDENTIAL

|   |   |              |
|---|---|--------------|
| Design, Manufacturing, Supply and Supervisory services of 800kVA, 22kV & 33kV Distribution Type Transformers – 7 Nos in Mumbai Operations are for various Tata Power Receiving Stations.<br><b>Ref. No. CC26NK004</b> | <b>THE TATA POWER COMPANY LIMITED</b>     |              |
|   | <b>D.3 SPECIAL CONDITIONS OF CONTRACT</b> | SHEET 1 OF 3 |

| Sr. No. | TOPIC   | PRINCIPLES OF TERMS & CONDITIONS  |
|---------|---|---|
| 1       | GENERAL   | <p>The following <b>Special Conditions of Contract (SCC)</b> shall supplement the General Conditions of Contract (General Terms and Conditions).</p> <p>Wherever there is a conflict, the provisions herein shall prevail over those in the "General Terms and Conditions (Supply &amp; Services)".</p>   |
| 2       | CONTRACT PRICE AND CONTRACT STRUCTURE   | <p>The Price Bid shall remain valid for <b>180 days</b> from the date of bid submission or <b>90 days</b> from the date of reverse auction, whichever is later.</p> <p>Contract Price shall remain fixed and firm for the entire duration of the Contract. Following to be noted further, the contract price shall be Unit Rate basis in Indian Rupees as per the Contract Price Schedule.</p>  |
| 3       | COMMENCEMENT / EFFECTIVE DATE<br>(Note: It is to be noted that commencement date, effective date and notice to proceed are one and the same.) | <p>The vendor will commence work / manufacturing of equipment on issue of Letter of Award (LOA) / Firm Purchase Order by TATA POWER and notice to proceed by the Order Manager. No equipment shall be delivered without specific dispatch clearance from project Manager TATA POWER.</p>  |
| 4       | CONTRACT PERFORMANCE BANK GUARANTEE CUM PBG   | <p>This is further to the General Terms &amp; Conditions – Supply (Clause 9.0) &amp; Services (Clause 8.0)</p> <p>Successful bidder shall submit CPBG Cum PBG of 10% of Contract Value in format specified by Tata Power within 15 days after placement of confirmed Purchase Order. CPBG Cum PBG shall be valid till warranty period with additional claim period of 06 months.</p>  |
| 5       | TERMS OF PAYMENT  | <p>This is further to General Terms &amp; Conditions – Supply Cl 6.0 &amp; Services Cl 8.0 respectively.</p> <p><b>A. Payment Terms Supply Part:</b></p> <p>i) Eighty percent (80%) of the total supply part of the order shall be paid progressively (pro-rata basis) after receipt and acceptance of the Equipment/Materials on site and submission of error free bills &amp; supporting documents, duly approved by Order manager.</p> <p>ii) Twenty percent (20%) on Successful Installation/commissioning. In case Installation/commissioning does not happen because of a reason not attributable to Bidder then payment will be released after 60 days (with a further credit period) after ensuring CPBG cum PBG is submitted</p> |

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|   | <b>D.3 SPECIAL CONDITIONS OF CONTRACT</b> | SHEET 2 OF 3 |

|    |  |   |
|----|--|---|
|    |  | <p><b>B. Payment Terms Service Part:</b></p> <p>i) Supervision Services Part: 100% after completion of supervision services at actual. As per the "Retention for Safety Compliance" clause of GCC.</p> <p>C. Credit Period shall be 60 days (45 days for MSME) from the date of receipt of error free invoice along with all supporting documents.</p> <p>D. All payments against supply and services are subject to submission of unconditional CPBG cum PBG (as per clause 4 of SCC above) and unconditional acceptance/signing of the PO/Contract agreement.</p> |
| 6  | INSURANCE  | This is as per General Terms & Conditions – Supply (Clause 5.0) & Services (Clause 12) - complete Insurance will be in Bidder's scope.  |
| 7  | LIQUIDATED DAMAGES FOR DELAYS, NON – PERFORMANCE & OVERALL CAP                         | <p>This is further to General Terms &amp; Conditions – Supply (Clause 10.0) &amp; Services (clause 11)</p> <p>1% of total PO value per week of delay to a maximum of 10% of total PO value.</p>   |
| 8  | WORK COMPLETION PERIOD   | <p>Works shall be completed and commissioned as per the milestones given below:</p> <p>1) Completion of Engineering, Submission of Drawing and other relevant documents for Approval: Within 1 week from date of PO. Tata Power shall approve the drawing within 1 week from date of final submission.</p> <p>2) Delivery Supply Part: Within 4 months from the date of Drawing approval from Tata Power.</p> <p>3) Service Part: Installation, Testing &amp; Commissioning - within 3 days (for each Transformer) from the date of delivery of material.</p>       |
| 9  | WARRANTY PERIOD/DEFECT LIABILITY PERIOD  | The Warranty Period for the package applicable shall be in line with the requirements of warranty period mentioned in Technical Specifications (at least 36 months).  |
| 10 | Total Compliance to TCOC, safety Terms & Conditions and International Safety standards | Tata Power Contractor Safety Terms and Conditions is enclosed as Annexure to the GCC. Bidder shall have to abide fully without any deviation.   |

|   |   |              |
|---|---|--------------|
| Design, Manufacturing, Supply and Supervisory services of 800kVA, 22kV & 33kV Distribution Type Transformers – 7 Nos in Mumbai Operations are for various Tata Power Receiving Stations.<br><b>Ref. No. CC26NK004</b> | <b>THE TATA POWER COMPANY LIMITED</b>     |              |
|   | <b>D.3 SPECIAL CONDITIONS OF CONTRACT</b> | SHEET 3 OF 3 |

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| 11 | TPSDI Training | To improve work safety and to ensure that all work force deployed at owner premises have the right orientation / induction and skills training before they undertake any work, the bidder shall accordingly plan and enroll his and sub-contractors work force to the respective skills / crafts training (Levels L1/L2/L3) offered by TPSDI. |
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| The Tata Power Company Ltd               |  | Appendix 2 to CSCC<br>Safety Terms and Conditions |
| Document No.<br>TPSMS/GSR/STC/009 REV 06 |   | Date of Issue: 01/04/2024                         |

## Appendix 2: Safety Terms and Conditions

| Reason for Change   | Date of Last Revision               | Prepared By                | Reviewed By           | Approved by   |
|---|-------------------------------------|----------------------------|-----------------------|---|
| Periodic Revision and Inclusion of Procedures and formats from BASCC. | <u>1 Aug 2023</u><br><u>(Rev 5)</u> | All Discom and CFT members | Corporate Safety Team | <br>Suresh H Khetwani (Chief safety and Environment) |

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### 1.0 Objective:

The Objective of Safety Terms and Conditions is to apprise the Business Associates about various expectations from the BA to implement Tata Power Health & Safety Management System without fail.

### 2.0 Scope:

This procedure applies to all operating and project sites of The Tata Power Company Ltd and Group companies including new businesses like Electric Vehicle charging, Home Automation, Microgrid, Roof top solar etc. This Code of Conduct also applies to all operating and project sites of four Odisha Discoms and New business based on mutually agreed timeline for implementation.

### 3.0 Safety Organization & Responsibilities

#### 3.1 Business Associate Site Management and Supervision

Each Business Associate 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 Business Associate shall provide at least one competent full-time safety supervisor for workforce of every 50 workers or less than that. When workforce ranges to 500, the Business Associate must provide at least one qualified safety officer (This may be subjected to change as per applicable act). Thus, for work force of 500 workers there will be one qualified safety officer and 10 safety supervisors. For every 500 additions in workforce, the Business Associate must add 1 safety officer and 10 safety supervisors. The Order Manager or Safety Department of the Tata Power Division /Discoms will review and approve the appointment of all safety officers and supervisors. The safety supervisors/officers will work with the guidance from Tata Power Division /Discoms Safety Department and align themselves with Tata power Division/Discom safety requirements.

For O&M related AMC activities, minimum one qualified safety officer to be deployed for each Division of the Discoms.

(For any specific & specialized work, site safety supervisor will be decided by SCG)(R6)

Qualified safety officer means he or she has completed PDIS or ADIS from a recognized institute.

Site Safety Officer/Safety Supervisor / Safety Coordinator shall be interviewed by the Order Manager/ Safety head of the Tata Power Division/Discom and then gate passes shall be issued if the interview is successful.

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Site Manager of Business Associate /Sub Vendor is responsible, and will be held accountable, for the safety of their own workforce as well as that of sub-Business Associate s. He should also ensure that all equipment, materials, tools, and procedures remain in safety compliance at job site.

Responsibility of Site manager includes, but not limited to:

- 3.1.1 Holding officer/supervisors accountable for safety and actively promote safe work performance.
- 3.1.2 Participate in and cooperate with all safety program requirements to be implemented to meet Tata Power Division /Discoms safety objectives
- 3.1.3 Ensure timely reporting of safety incidents, near misses, unsafe acts, and conditions.
- 3.1.4 Identify the training needs of BA employees and maintain all safety training documents.
- 3.1.5 Provide Safety Performance Report at an agreed frequency.
- 3.1.6 Stopping of unsafe work (Acts and/or Conditions) immediately. Work to start only after corrective actions are implemented.
- 3.1.7 Ensure and participate in daily toolbox talk for all the jobs.
- 3.1.8 Ensure that only tested and certified tools and equipment are issued to the workers and being used at the site.

### 3.2 Business Associate Supervisors and General Staff.

Business Associate s' site supervisors and general staff members in charge of job site functions such as field engineering, warehousing, purchasing, costing, 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.

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. Each supervisor will proactively participate in the Safety program by observing, correcting, and recording unsafe acts and conditions at plant / sites.

The BA's supervisor is the link between Tata Power Management and the BA (including his employees). (R6)

- He coordinates the work of his company's employee on site and is responsible & accountable for the safety of BA workforce. He will collaborate with site safety supervisor (SSS). BA's supervisor shall review the Safety requirements with his employees prior to the beginning of each job. Documentation of this review shall be forwarded by him to the Order Manager.(R6)

- Assigning jobs to his workers, inspection of tools, equipment & PPEs , reporting of incidents & near-misses, housekeeping of work area and carrying out Safety Audits.(R6)
- Deployment of all applicable Safety standards & procedure as mention in Safety Term& Condition CSMF2 during execution of the jobs.(R6)
- Ensuring job specific training prior to execution of the job.(R6)
- Conducting Tool - box meeting and compliance of SOP & statutory requirements at work place, correction of all unsafe conditions and acts.(R6)
- BA'S Supervisor will deeply involve in making JSA through participation of work force.(R6)
- BA's Supervisor will invite all BA employees for participation & engagement daily ensuring 100% in either observation reporting, TBT, Mass Meeting and discussion for Risk Assessment & implementation of control measure.(R6)

### **3.3 BA Site Safety Supervisor (SSS)(R6):**

- 3.3.1 SSS will carry out daily safety audit and inspections of tools, tackles, equipment and PPEs. They will identify and help in correcting the unsafe acts and unsafe conditions created while executing job t site with the help of BA's supervisors (R6).
- 3.3.2 SSS will ensure his participations in TBT and Mass Meetings regularly. They will also ensure reporting of all incidents & near-misses and participate in incident investigation (R6).
- 3.3.3 SSS will help in risk assessment of activities while developing SOP for the job (R6).
- 3.3.4 SSS will deeply involve in making JSA through participation of work force.(R6)
- 3.3.5 SSS will assist for participation & engagement of 100% BA employees daily in either observation reporting, TBT, Mass Meeting and discussion for Risk Assessment & implementation of control measure.(R6)

### **3.4 Business Associate Workforce**

- 3.4.1 Business Associate shall provide adequate quality and quantity of manpower as mutually agreed. Generally, for each 10-15 workforce one supervisor is suggested. For all high risk jobs there shall be one Business Associates supervisor shall be deployed.(R6).
- 3.4.2 All the Business Associate employees shall attend "SHE L0(Other than new business and Odisha Discom)/L1 Foundation Course in Safety". Depending on the critical procedure in job employees shall also be required to attend "SHE L2 course of critical/high risk operations". All Supervisors shall be required to attend "SHE L3 Supervisory Training". All the above trainings will be conducted by TPSDI/Skill development

institute of Disco, or other equivalent institute approved by Tata Power.

- 3.4.3 Business Associate employees shall be required to attend any other additional training if suggested by Order manager or Site Safety Head. The cost of such additional training shall be borne by the Vendor.
- 3.4.4 Business Associate / Vendor shall mobilize their manpower well in advance to complete the training through TPSDI/Sill development Institute.
- 3.4.5 The Vendor / BA shall arrange or bear the conveyance and food expenses incurred during training of BA employees in Odisha Discom.
- 3.4.6 The validity of the training L1, L2 and L3 is 3 years. There will be competency assessment as Revalidation test in every three months for Tata Power Division and six months for Odisha Discom till one year from implementation of BASCC. Those who fail in the competency assessment shall undergo training again.
- 3.4.7 Supervisors/Welder/Electricians/Line man /Fitters /Radiographers/Riggers engaged by the Business Associate shall have valid competency certificates issued by authorized agency/Institute.
- 3.4.8 Business Associate workforce must make safety a part of their job by following safety rules and regulations and by using all safeguards and safety equipment. They must take an active part in the Safety programs for the Site.
- 3.4.9 Every member of the workforce is expected to report for work without influence of any Drug/Alcohol. Failure to comply with this requirement shall result in immediate termination of employees under the influence of drug and alcohol plus show cause notice/penalty to the vendor.
- 3.4.10 All employees shall report hazardous conditions, practices and behaviours in their work areas and correct wherever possible.
- 3.4.11 Workforce is responsible for active participation in safety and health programs, suggestion systems, trainings and reporting of unsafe act/practices, Unsafe conditions incidents and injuries to their supervisors.

### 3.5 Business Associate (Vendor) /sub-Vendor

- 3.5.1 Vendors/Business Associate shall always comply with and ensure that their workforce comply with all site safety rules and regulations. Specifically, with applicable provisions of the Site Safety Management Plan and all statutory safety rules and regulations.
- 3.5.2 After receiving the work order/ purchase order vendor/Business Associate /bidder shall not appoint Sub-Business Associate without safety assessment of the sub-Business Associate through safety concurrence group Under Business Associate Safety Code of Conduct. Penalty of 5% of contract value will be applicable to the Business Associate if sub-Vendor is appointed without the permission of SCG and without evaluation through BASCC process.

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- 3.5.3 For engaging any sub-Vendor, the Prime Vendor as well as the sub-Vendor should be individually registered with Tata Power. Sub-contracting or hiring of others, by the BA to perform the services is subjected to specific, prior approval by the CA/OM. Such approval shall depend upon compliance with the following minimum requirements (R6)-
- i. Sub-vendors identified by the Prime vendor will be subject to the same Safety Potential Evaluation Criteria as the Prime vendor for all Medium-risk/High-risk job where supervision will be done by the sub- vendors. In such cases, vendors must have a Star-rating of 4 or above, for becoming a sub- vendor(R6).
  - ii. The SCG team shall evaluate the Safety and technical competency of the sub-contractors for High risk job(R6)
  - iii. The Departmental Head will have the authority to approve any sub-contracting process based on requirement as submitted by the Prime Vendor (See CSM F-14 Sub-Vendor Engagement Request Form).
  - iv. No Safety potential evaluation shall be conducted for sub-letting of Low risk work(R6).
  - v. The Prime vendor shall be fully liable and responsible to Tata Power for the acts, errors, and omissions of its sub-vendors and shall be relieved neither of any obligation to Tata Power under the contract, nor of any other legal requirements(R6).
  - vi. The Prime vendor shall use only sub-vendors of demonstrated experience and reliability regarding the services to be provided(R6).
  - vii. The Sub-vendor shall agree in writing to be bound by all obligations of the Prime vendor set forth in the Contract.(R6)
  - viii. Safety performance evaluation shall be done for both prime vendor & sub-vendor.(R6)

**Types of Sub-contracts and Associated Requirements (R6):**

- I. Sub - Vendor working with his own supervision:- Sub-vendors must achieve a minimum Star-rating of 3 for performing High risk jobs under Tata Power supervision or under the Principal/Main Vendor (Prime Vendor).(R6)
- II. Sub-vendor working under Prime vendor's supervision (as supplier of manpower):- Manpower-supply contracts have to be supervised by the Prime vendor and the Prime vendor's Star- rating has to be taken into consideration. Vendors supplying manpower need not qualify in the Star-rating assessment.(R6)
- III. 3. Only one level of sub-contracting is allowed, and the use of any sub-vendors must be authorised by Tata Power before any contract is finalised. Sub-vendors shall be subject to the same registration and selection/screening processes, as well as the same Safety performance requirements as those required of all Tata Power vendor's. Sub- vendor details are to be attached to the main contract during the RFQ stage. The process of sub-contracting is to be approved by the Chief / Head of the department (BASCC - Appendix#14).(R6)

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#### 4.0 Procedure (R6).

##### 4.1 Registration of Business Associates (Vendors):

For Vendor Registration, Contract Department will issue following documents for evaluation of Business Associate’s safety capability.

- 1) **CSM F2 Safety Terms and Conditions (R6):** The document **CSM F2 Safety Terms and Conditions** provides the information about Tata Power-Division /Odisha Discom safety System to the Business Associate
- 2) **CSM F3 Safety Category Qualification Form(R6)::** Business Associate will submit the **CSM F3 Safety Category Qualification Form** with all relevant details and documents to Vendor Registration Initiator, which will in turn forward it to Safety Concurrence Group (SCG) for evaluation.

#### **CSM F3 (R6): - Safety Category Qualification form**

1. “**Safety Category Qualification Form**” is part of vendor registration form. It needs to be filled by the Business Associate at the time of Registration and should be submitted to Requester / Order Manager with all relevant documents.
2. The same will be evaluated by Safety Concurrence Group of the Division (SCG).
3. Information provided by Business Associate will be verified during site visit.

#### **Safety Category Qualification Form**

**Please consider my application for**

**Category A Vendor:** Vendor eligible to carry out Very High- and High-risk O&M/Project jobs

**Category B Vendor:** Vendors eligible to carry out technical jobs, classified as Medium /~~low~~ risk

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

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

| Name of the Vendor: |  |                                  |  |
|---------------------|--|----------------------------------|--|
| Sr. No              | Safety Information   | Yes / No                         | Remarks  |
| 1                   | Certified for<br>i. ISO 45001,<br>ii. ISO: 14001<br>iii. ISO: 9001 | i. Y/ N<br>ii. Y/ N<br>iii. Y/ N | If Yes, Attach copy of the certification.<br><br>If No, mention plan to get the certification. |

| Name of the Vendor: |   |                 |   |        |              |                 |              |        |       |              |  |  |    |       |  |    |  |  |  |
|---------------------|---|-----------------|---|--------|--------------|-----------------|--------------|--------|-------|--------------|--|--|----|-------|--|----|--|--|--|
|                     | (ISO certificates to be issued from reputed accreditation agencies specified by Tata Power)   |                 |   |        |              |                 |              |        |       |              |  |  |    |       |  |    |  |  |  |
| 2                   | Safety Statistics for current and Last Three (3) Years<br>- LTIFR<br>- LTISR  | Yes/No          | <table border="1"> <thead> <tr> <th></th> <th>Current Year</th> <th>Year 1(Last FY)</th> <th>Year 2</th> <th>Year 3</th> </tr> </thead> <tbody> <tr> <td>LTIFR</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>LTISR</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>                     |        | Current Year | Year 1(Last FY) | Year 2       | Year 3 | LTIFR |              |  |  |    | LTISR |  |    |  |  |  |
|                     | Current Year  | Year 1(Last FY) | Year 2  | Year 3 |              |                 |              |        |       |              |  |  |    |       |  |    |  |  |  |
| LTIFR               |   |                 |   |        |              |                 |              |        |       |              |  |  |    |       |  |    |  |  |  |
| LTISR               |   |                 |   |        |              |                 |              |        |       |              |  |  |    |       |  |    |  |  |  |
| 3                   | Any Compensation paid due to accidents during current and last three years?   | Yes/No          | <table border="1"> <thead> <tr> <th></th> <th>Amount (INR)</th> <th>Manhour</th> </tr> </thead> <tbody> <tr> <td>Current Year</td> <td></td> <td></td> </tr> <tr> <td>Y1 (Last FY)</td> <td></td> <td></td> </tr> <tr> <td>Y2</td> <td></td> <td></td> </tr> <tr> <td>Y3</td> <td></td> <td></td> </tr> </tbody> </table> |        | Amount (INR) | Manhour         | Current Year |        |       | Y1 (Last FY) |  |  | Y2 |       |  | Y3 |  |  |  |
|                     | Amount (INR)  | Manhour         |   |        |              |                 |              |        |       |              |  |  |    |       |  |    |  |  |  |
| Current Year        |   |                 |   |        |              |                 |              |        |       |              |  |  |    |       |  |    |  |  |  |
| Y1 (Last FY)        |   |                 |   |        |              |                 |              |        |       |              |  |  |    |       |  |    |  |  |  |
| Y2                  |   |                 |   |        |              |                 |              |        |       |              |  |  |    |       |  |    |  |  |  |
| Y3                  |   |                 |   |        |              |                 |              |        |       |              |  |  |    |       |  |    |  |  |  |
| 4                   | Any prosecution against you by statutory bodies/clients during last three years due to statutory violations, criminal negligence towards safety and dereliction of duty of care towards your employees?<br><br>Is any case still pending against you? | Yes/No          | If yes, give details.<br><br>If no, give an undertaking that no case is pending against you and you have not been prosecuted by statutory bodies or clients.  |        |              |                 |              |        |       |              |  |  |    |       |  |    |  |  |  |
| 5                   | Do you have Safety Policy? Safety Principles? And Lifesaving Rules?   | Yes/No          | If yes, attach copy of the documents available.   |        |              |                 |              |        |       |              |  |  |    |       |  |    |  |  |  |
| 6                   | Do you have Safety training process?  | Yes/No          | If yes, attach safety training process and average training manhour of your employees for the last three years.   |        |              |                 |              |        |       |              |  |  |    |       |  |    |  |  |  |

| Name of the Vendor: |   |          |  |
|---------------------|---|----------|--|
| 7                   | Do you have a system for recording, reporting, and investigating all incidents or near misses?  | Yes / No | If yes, show the incident statistics of last three years and implementation of CAPA.                             |
| 8                   | Do you have a disciplinary action program against your employees for violation towards safety rules and procedures?   | Yes/No   | If yes, show the records of disciplinary action taken the last three years.                                      |
| 9                   | Do you have a reward and recognition scheme for your employees who show exemplary safe behavior and contribute to overall safety improvement at site?             | Yes/No   | If yes, show the records of Reward and Recognition given during the last three years.                            |
| 10                  | Do you engage in safety promotional activities?   | Yes/No   | If Yes, Show the proof of engagement in safety promotional activities.   |
| 11                  | Have you been recognized or awarded or rewarded by government bodies of clients for showing excellence in safety management in your jobs during last three years? | Yes / No | If Yes, Show proof.  |
| 12                  | Do you provide adequate quality of PPEs to your workmen?  | Yes/No   | If yes, please provide details of PPE Matrix and if required, samples for inspection.                            |
| 13                  | Do you have Safety organization structure e.g., Safety Officers and Safety Committees?  | Yes/No   | If yes, attach copy of the safety organization structure, details of safety committees and safety professionals. |
| 14                  | Name and address of sites where work is in progress or worked earlier   | Yes/No   | Site details to be attached for inspection by Tata Power-Division /DISCOM Officials.                             |

Note: If you respond NO to any of the above questions, you can mention your plan to get the required documents.

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I hereby confirm that the information provided above are true. I give my consent to be penalized as deemed fit in case any information given above are found to be false.

I will abide the general safety guidelines mentioned in the purchase order / work order and will ensure to prepare and follow site specific safe operating practices in consultation with the site-in-charge and safety professional. I will abide by penalty scheme in case of non-compliance.

Signature :  
Name and Designation :  
Stamp of Organization :

3) **CSM F4 Safety Potential Evaluation Criteria** : The SCG will evaluate the details submitted by the Business Associate based on a predetermined criteria **CSM F4 Safety Potential Evaluation Criteria along with Star Rating(R6)** for Vendor Registration and will determine the category (Category A/B/C/D) for which the Business Associate will be registered. As mentioned in the above criteria, a site visit may also be organized by SCG prior to registration under Category A and B. In case, the Business Associate does not qualify the safety criteria, the Business Associate will not be registered. However, he may apply afresh for registration after 6 months.

**CSM F4 - Safety Potential Evaluation Criteria for Vendor Registration (For Information to BA-Not to submit by BA) R6**

At the time of vendor registration, vendor will be registered under 4 categories

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

For vendors to be registered under **Category A/B**, a safety potential evaluation will be carried out based on following parameters. (Actual **score is safety capability score**)

Star rating criteria score: 5 Star- 90 to 100, 4 Star- 80 to 90, 3 Star- 70 to 80(R6)

| Sr No | Description   | Weight age (%) | Actual Score |
|-------|---|----------------|--------------|
| 1     | Does the service provider have a valid 45001 Certification?   | 10             |              |
| 2     | <u>Performance Measure: Lead Indicator</u><br><u>(Ref to Safety Performance evaluation report CSM F11 (A) Lead indicator score)(R6)</u> | <u>40</u>      |              |

|   |  |           |  |
|---|--|-----------|--|
| 3 | <u>Performance Measure: Lag Indicator</u><br><u>(Ref to Safety Performance evaluation report CSM F11 (B) Lag indicator score)(R6)</u>  | <u>20</u> |  |
| 4 | Has there been any prosecution / conviction for any Contravention regarding safety and Health provision under the factories Act/Electricity Act / BOCW Act and Rules framed there under? If yes Give Zero otherwise 5 Marks.   | 5         |  |
| 5 | Check the Safety orientation & training process of Service provider- Records of Safety training provided to safety officer/supervisor /workmen during last 1 year as percentage (%) of total employed by service provider<br><ul style="list-style-type: none"> <li>✓ <b>Safety Officer:</b> &gt;80% of employees: 5 Marks, 50 to 79% of employee: 2.5 Marks and &lt;50%: Zero.</li> <li>✓ <b>Safety supervisor:</b> &gt;80% of employees: 5 Marks, 50 to 79% of employee: 2.5 Marks and &lt;50%: Zero.</li> <li>✓ <b>Workmen:</b> &gt;80% of employees: 10 Marks, 50 to 79% of employee: 5 Marks and &lt;50%: Zero</li> </ul> | 20        |  |
| 6 | Check the organizational structure for safety professionals & engineers / supervisors.<br><ul style="list-style-type: none"> <li>✓ Check Availability of number of Safety Supervisor from government recognized institute as per workforce strength. 1 in 50 employees than 5 Marks <u>otherwise Zero.</u> (R6)</li> </ul>   | 5         |  |
|   | Total  | 100       |  |

**Evaluation Criteria for Category C**

| Sr no | Description   | Weight age (%) | Actual Score |
|-------|---|----------------|--------------|
| 1     | Does the Business Associate have a valid ISO 9001 certification?  | 40             |              |
| 2     | Check the Safety statistics of Service provider (If available than 10 otherwise Zero)   | 10             |              |
| 3     | Check the trend LTIFR/LTISR for last 3 years (If less than 0.2 than give 20 Marks if between 0.2 to 0.3 than give 10 marks and otherwise Zero   | 20             |              |
| 4     | Has there been any prosecution / conviction for any Contravention regarding safety and Health provision under the factories Act/Electricity Act / BOCW Act and Rules framed there under? If yes Give Zero otherwise 10 Marks.   | 10             |              |
| 5     | Check the Safety orientation & training process of Service provider- Records of Safety training provided to safety officer/supervisor /workmen during last 1 year as percentage (%) of total employed by service provider<br><ul style="list-style-type: none"> <li>✓ <b>Safety Officer:</b> &gt;80% of employees: 5 Marks, 50 to 79% of employee:</li> </ul> | 20             |              |

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|   |   |     |  |
|---|---|-----|--|
| ✓ | 2.5 Marks and <50%: Zero.<br><b>Safety supervisor:</b> >80% of employees: 5 Marks, 50 to 79% of employee: 2.5 Marks and <50%: Zero.<br><b>Workmen:</b> >80% of employees: 10 Marks, 50 to 79% of employee: 5 Marks and <50%: Zero |     |  |
|   | <b>Total</b>  | 100 |  |

**Evaluation Criteria for Category D**

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

For vendor to be registered for any category, vendor’s safety capability score should be ≥ 70%.

**4.1.1 Star Rating(R6):**

SCG will evaluate Star Rating as per following -

- Initially potential Star Rating based on CSM F4 Safety Potential Evaluation Criteria
- After 6 month actual star rating assessment to be carried out based on CSM F4 Safety Potential Evaluation Criteria and safety performance evaluation.
- Odisha Discom & New Business Star Rating process will be applicable only 1 year after implementation of it.
- Based on Safety capability score Vendors rating will be evaluated (For 3 star rated vendors - within 12 months from previous assessment date and for 4 &5 Star rated vendors – within 24 months from previous assessment and Re-assessment within three months from previous assessment date when a vendor is unable to achieve Star rating 3)
- Category A - Vendor must require Safety Star Rating 4 and above.
- Category B - Vendor must require Safety Star Rating 3

**\*Star Rating will be evaluated by Third Party from FY 26\***

**4.2 Contract Preparation(R6).**

Safety bid Evaluation will be done only for medium and high risk (R6). The RFQ will be attached with CSM F2 Safety Terms and Conditions which includes following Documents

- 1) CSM F6 Safety Competency Assessment Form
- 2) CSM F8 PPE requirements
- 3) CSM F9 Site Safety Management Plan Job Specific Safety Requirement (Educational and Professional Qualification, Skill & Experience Manpower, Tools,

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and Tackles, e.g., man lifter, use of drone, use & availability of rescue kit, Work Methodology etc.)

Safety bid evaluation will not be done for category C and D.

BA shall submit duly filled **CSM F6 Safety Competency Form** along with the bid. SCG will evaluate the document as per the **CSM F7 Safety bid evaluation criteria**. **Site Safety Management Plan CSM F9**, defining the complete procedure of executing the job at site will be signed by the Business Associate and SCG after mutual agreement. BA will attach a copy of Site Safety Management Plan along with PO to the successful bidder. Please refer **CSM F5 Process Flow Chart for issuing RFQ and PO significant health and safety risk associated with it**.

**CSM F6 - Safety Competency Assessment Form (Template)**

Name of the Vendor/Bidder:

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

Description of the Job:

Request for Quotation (RFQ) No.:

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

**1. Proposed Manpower Deployment Schedule :-**

| Type of manpower               | Qualification | Experience | Month 1 | Month 2 | Month 3 | ..... |
|--------------------------------|---------------|------------|---------|---------|---------|-------|
| <b>Project /AMC Manager( )</b> |               |            |         |         |         |       |
| <b>Site In Charge</b>          |               |            |         |         |         |       |
| <b>Safety Manager</b>          |               |            |         |         |         |       |
| <b>Safety Officer</b>          |               |            |         |         |         |       |
| <b>Supervisors</b>             |               |            |         |         |         |       |
| <b>Technicians</b>             |               |            |         |         |         |       |
| <b>High Skilled workmen</b>    |               |            |         |         |         |       |
| <b>Skilled workmen</b>         |               |            |         |         |         |       |
| <b>Semiskilled workmen</b>     |               |            |         |         |         |       |
| <b>Lineman</b>                 |               |            |         |         |         |       |
| <b>Helpers</b>                 |               |            |         |         |         |       |
| <b>Drivers</b>                 |               |            |         |         |         |       |
| <b>Unskilled</b>               |               |            |         |         |         |       |

|                 |  |  |  |  |  |  |
|-----------------|--|--|--|--|--|--|
| <u>Others()</u> |  |  |  |  |  |  |
|-----------------|--|--|--|--|--|--|

**Instruction to Bidders:**

- i. Indicate the overall site manpower deployment schedule as above
- ii. Indicate direct or subcontracted employees by using color code given below:  
**Direct Bidder Employee – Green**  
**Partly Direct / partly Subcontracted – Yellow**  
**4.1.1 Subcontracted – Red** If subBusiness Associate detail is not available at stage of Bid evaluation, then this can be agreed with Order manager or Engineer in charge before deployment Ensure that all sub-Business Associate s follow the Tata Power Safety Procedure and agreed CSM F9 Site Safety Management Plan.
- iii. Against each category, indicate minimum educational qualification and work experience
- iv. Add rows to include other specialized manpower, if any.
- v. Extend columns to cover the entire duration of the proposed contract.
- vi. If the operation is in shifts, then indicate shift in charge and / or safety officers required for each shift operation.

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

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

| Sr. No | Description of Tools / Tackles | Capacity / Rating | Quantity | Make | Year of manufacture | Remarks |
|--------|--------------------------------|-------------------|----------|------|---------------------|---------|
| 1      |                                |                   |          |      |                     |         |
| 2      |                                |                   |          |      |                     |         |
| 3      |                                |                   |          |      |                     |         |
| 4      |                                |                   |          |      |                     |         |
| 5      |                                |                   |          |      |                     |         |
| .....  |                                |                   |          |      |                     |         |

**3. Safety Records:**

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

| Description       | Safety Data for current and Last 3 Years |                  |           |           |
|-------------------|--|------------------|-----------|-----------|
|                   | Current Year                             | Year 1 (Last FY) | Year 2    | Year 3    |
|                   |  | 20__ - __        | 20__ - __ | 20__ - __ |
| Fatalities (Nos.) |  |                  |           |           |

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|                           |  |  |  |  |
|---------------------------|--|--|--|--|
| Lost Workday Cases (Nos.) |  |  |  |  |
|---------------------------|--|--|--|--|

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

**4. Job Safety Plan/ Method Statement:**

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

(Use Method Statement template attached as Appendix 9)

**5. PPE Requirement -**

| Division/DISCOM Requirement   | Bidders Response |
|---|------------------|
| The Bidder/Vendor shall ensure that all PPE of Approved standards as per CSM F8 – PPE Requirements shall be always available and shall be used by his employees with no exception whatsoever. Bidders to also ensure Standard PPE matrix of Tata Power to be followed for all activities.   |                  |
| 10% Buffer stock of PPEs to be provided by bidders at each circle to meet any contingency   |                  |
| Bidder will ensure that sample PPEs to be submitted/approved by Safety Department along with EIC at the time of submission of Safety bids for evaluation<br>In case bidder manpower found using substandard or any PPEs which are not approved by the Tata Power-Division /DISCOM representative, then Tata Power-Division /DISCOM will provide the same to manpower deployed at the cost of bidders. |                  |

**6. Vehicle Deployment:** Bidders to provide details of all vehicles deployed during execution of work-( )

| S. No. | Vehicle No. | Vehicle Type | Location | EV/CNG/Diesel/Petrol | Year | Whether CNG endorsed on RC |
|--------|-------------|--------------|----------|----------------------|------|----------------------------|
|        |             |              |          |                      |      |                            |
|        |             |              |          |                      |      |                            |
|        |             |              |          |                      |      |                            |

7. **Crane Deployment-**( ): Bidders to provide details of crane to be deployed during the execution of work as and when required. Bidders to provide approved new gen crane ACE Model SX150, ACE FX150 and Escorts Model TRX 1550.

| SI No | Crane No | Location | Year |
|-------|----------|----------|------|
|       |          |          |      |
|       |          |          |      |
|       |          |          |      |

8. **Training Records-**( ): Bidders to provide training records of employees deployed for the execution of work during last one year. These training includes OHS (Occupational Health and Safety) Training, Training on SOP/Work Procedures and Medical Emergency trainings imparted at their own facility, cost, and expenses. Bidders to provide the following details:

| Tata Power-Division /DISCOM Requirement   | Bidders Response |
|---|------------------|
| Training records of employees at their own facility, cost, and expenses for last one year |                  |
| Training facility available with Bidders  |                  |
| Future road map for enhancing the competency of workforce                                 |                  |

9. **Rewards and Recognition-**( ): Bidders to provide the details of process deployed in their organization for sharing and resolution of safety concerns raised by their employees. Also, bidders to provide the details of Rewards and Recognition process in their organization for safety to encourage the morale of their workforce.

10. **Management System Certification:** -

| Sr.No | Certification | Yes / No | If Yes, Year of Certification | If No, Target date for Certification |
|-------|---------------|----------|-------------------------------|--------------------------------------|
| 1     | ISO 9001      |          |                               |                                      |

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|          |                         |  |  |  |
|----------|-------------------------|--|--|--|
| <b>2</b> | ISO 14001               |  |  |  |
| <b>3</b> | ISO 45001               |  |  |  |
| <b>4</b> | Any other (Specify....) |  |  |  |

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

**CSM F7 Safety bid evaluation criteria.** If any specific condition related to Contract is required to be conveyed to the Business Associate, Site safety team will attach the same as Annexure for specific conditions of job and submit it to contract team along with safety bid evaluation form. Commercial bid of Business Associate will be considered for evaluation by contract team only if Business Associate is qualified in safety bid. Site Safety Management Plan, defining the complete procedure of executing the job at site will be signed by the Business Associate and SCG after mutual agreement. Contract shall attach a copy of Site Safety Management Plan along with PO to the successful bidder.

**CSM F7 - Safety Bid Evaluation Criteria (For Information to BA-Not to submit by BA) (R6)**

**Safety Bid Evaluation will be based on following parameters.**

**Evaluation Criteria**

| S. No. | Description                                     | Max Marks | Criteria for evaluation  |
|--------|---|-----------|--|
| 1.     | Qualification and Experience of manpower        | 15        | As per Clause No. 1 <b><u>CSM F6 (R6)</u></b>  |
| 2.     | Tools and Tackles to be provided by bidder      | 15        | To be evaluated as per approved tool list of concerned departments.                                      |
| 3      | PPE Requirements                                | 5         | To be evaluated as per approved PPEs standard and PPE Matrix specified in <b><u>CSM F8.(R6)</u></b>      |
| 4      | Job Safety Plan/ Method                         | 15        | To be evaluated as per as per SOP/WI/HIRA  |
| 5      | Vehicle Deployment                              | 5         | <b><u>Weightage will be given for CNG/Electrical Vehicles with endorsement of CNG kit on RC (R6)</u></b> |
| 6      | Crane and Mechanized heavy equipment Deployment | 15        | <b><u>Date of manufacturing or running hours or stipulated in laws.(R6)</u></b>                          |
| 7      | Training Records                                | 5         | Training records to be evaluated with evidence and scoring to be done as per availability of records     |
| 8      | Certificate Accreditation                       | 5         | ISO 9001-2.5 Marks<br>ISO 45001- 2.5 Marks<br>ISO14001- 2.5 Marks. Total Max 5 Marks for all Three       |

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|              |   |            |  |
|--------------|---|------------|--|
| 9            | Safety Initiative for learnings implemented in accidents in organization and work force (Fatal / Non-Fatal) | 15         | Maximum 15 marks will be awarded for visible evidence in terms of safety initiative deployed based on learning of accident in organization and workforce in case of accident |
| 10           | Rewards and Recognition Process   | 5          | Maximum 5 marks will be awarded for R&R process evidence   |
| <b>Total</b> |   | <b>100</b> |  |

**Safety Records (Lag Parameter)-**

|    |                  |   |  |
|----|------------------|---|--|
| 1. | Fatal Accident   | (-) 10 Marks for each case with max of 15 marks | For any fatality in Tata power /Other company in Current and last three years 10 marks will be deducted with maximum up to 15 marks.<br><br>For new entrant BA, these marks will be deducted for Past safety records.<br><br>If and BA found hiding such facts, then contract will be terminated immediately during the execution stage.         |
| 2  | LWDC (Non-fatal) | (-) 5 Marks for each case with max of 10 marks  | For each LWDC (Non-Fatal) case in Tata power /Other company in Current and last years, 5 marks will be deducted with maximum up to 10 marks.<br><br>For new entrant BA, these marks will be deducted for past safety records.<br><br>If and BA found hiding such facts, then contract will be terminated immediately during the execution stage. |

**Final Qualifying Criteria**

| S. No. | Description       | Max Marks          | Criteria for evaluation   |
|--------|-------------------|--------------------|---|
| 1.     | Qualified Bidders | More than 70 marks | Marks Obtained.<br>60 Marks for New business-like Odisha Discom for one year from CSCC implementation date. |

|                 |                                   | Minimum Requirement   | Weight age (%) | Score Obtained |
|-----------------|-----------------------------------|---|----------------|----------------|
| <b>Manpower</b> | <b>Safety Officer (1 per 500)</b> | <b>Qualification</b> - Safety Officer shall possess recognized degree in any branch of engineering with practical experience in similar industries of Min 2 years and Advance Diploma In Industrial | 5              |                |

|                                   |  |  |    |  |
|-----------------------------------|--|--|----|--|
|                                   | <p><b>workers) or as per requirement</b></p>   | <p>Safety by State technical board. (Each state government prescribes the qualification of safety officer.). Require knowledge of Local language.</p> <p><b>Experience-</b> Minimum 2-year experience in relevant field as mentioned in the job in PR.</p>   |    |  |
|                                   | <p><b>Safety Supervisor (1 per work site up to max. 50 workers)</b></p> <p><u>(For any specific &amp; specialized work, site safety supervisor will be decided by SCG)(R6)</u></p> | <p><b>Qualification-</b> Supervisor shall possess ITI/ Diploma in relevant field. PDIS is desirable, but not mandatory. Require knowledge of Local language.</p> <p><b>Experience-</b> Minimum 5-year experience in relevant field as mentioned in the job in PR.</p> <p><b>Training –</b> Trained and certified by Tata power Skill development Institute or equivalent institute in relevant safety procedures.</p> <p><b>Note:</b> On request of the Business Associate /Users -TPDSI should vet &amp; certify the skilled &amp; experienced Technician if Technical Qualification is not adequate.</p> | 5  |  |
|                                   | <p><b>Qualified Technician (Skilled workers as electrician, rigger, fitter, welder, cable jointer, line men etc.)</b></p>  | <p><b>Experience-</b> Minimum 2-year experience (or experience prescribed by state government) in relevant field as mentioned in the job in PR.</p> <p><b>Training –</b> Trained and certified by TPSDI or equivalent institute in relevant safety procedures.</p>   | 5  |  |
| <p><b>Tools &amp; Tackles</b></p> | <p>Equipment / Machines/ Tools &amp; Tackles (lifting and shifting tools)</p>  | <p>The list of Equipment /Machines / Tools and tackles to be used for job to be submitted by the Business Associate .</p> <p>Evaluation of the list will be carried out based on</p> <p>1) Suitability as per the relevant job</p>   | 15 |  |

|  |   |   |
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|  |  |  |  |  |
|--|--|--|--|--|
|  |  | 2) Make and age of the tools from authorized agencies defined by the user.<br>3) Certification by the competent authority of respective state. |  |  |
|--|--|--|--|--|

**CSM F8 - PPE requirements**

The Business Associate shall ensure that the following PPE of Approved standards shall be always available and shall be used by his employees with no exception whatsoever. • PPE shall be conforming to BIS/DGMS/DIN specifications, in good condition and shall be comfortable to his employees, when used. This is indicative. For better clarification refer PPE procedure- **TPSMS/GSP/PPE/023**. as per safety terms and condition Appendix 3 CFM 3 in detail.

**PPE Requirement**

|   |  |   |
|---|--|---|
| 1 | All Business Associate 's employees at site        | Safety Florescent Jacket (orange color), Safety helmet & safety shoes with composite or steel toe cap   |
| 2 | Workers mixing asphalt, cement, lime / concrete    | Safety goggle & protective Hand gloves and footwear, Nose mask.   |
| 3 | Welders / Grinders/Gas cutters                     | Welding screen/goggles, safety shoes, leather hand gloves, aprons, leg guard  |
| 4 | Stone breaker                                      | Protective goggle, hearing protection, anti-vibration hand gloves and Protective clothing.  |
| 5 | Electricians / Linemen                             | Rubber hand gloves <i>with correct voltage rating and expiry date normally one year from Manufacturing date-( )</i> & Electrical resistant shoes, Safety helmet with induction strip to alert about presence of voltage for those linemen who climb the poles or work on electrical equipment |
| 6 | Workers working at a height of 1.8 Meter or above. | Double lanyard full body harness, fall arrestor and safety net made of reinforced nylon fiber ropes firmly supported with steel structures, Work positioning attachment   |

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**PPE Type and Testing Frequency**

| Sl. No. | Name of PPE  | IS / EN Standard          | Testing Frequency  | Remarks  |
|---------|--|---------------------------|--|--|
| 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. |  |
| 02      | HDPE Safety helmet with chin strap and ratchet type for adjustment for non-Electrical work | IS:2925-1984              | Monthly and visual check every day for any crack in shell.                         |  |
| 03      | Full body harness (Safety belt)  | EN 361                    | Monthly and visual check every day of the bends and the harness.                   |  |
| 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.                         |
| 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.           |
| 06      | Fireproof jacket for chest protection  |                           | Monthly and visual check every day.  |  |
| 07      | Safety helmet with induction Strip for linemen and working for electrical work-Class E     | EN 397/2012               | Monthly and visual check everyday  | Induction Strip alerts presence of voltage                 |
| 08      | Shorting clamps, crocodile clamps, Discharge Rod and Neon tester                           |                           | Monthly and visual check everyday  | For discharging the residual voltage and test before touch |

**Pictorial View of PPEs 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 for Nonelectrical work and electrical work   | IS:2925-1984/ EN 397/2012                                       |     |
| 03 | Full body harness (Safety belt)<br><br>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<br>EN 358 : 2000<br>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 | Fireproof jacket for chest protection   |   |   |

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|    |                                   |                            |   |
|----|-----------------------------------|----------------------------|---|
| 08 | Reflective jacket to each workman | As per Tata Power standard |  |
|----|-----------------------------------|----------------------------|---|

**These pictures are indicative. Actual product may vary.**

**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 company.
3. Safety Representative of the BA must 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. Company 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.

**CSM F9 - Site Safety Management Plan / Method Statement**

**Site Safety Plan / Method Statement (Template)**

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

|                         |  |
|-------------------------|--|
| Project/Job Name        |  |
| <b>Scope of work: -</b> |  |
| Drawing References: -   |  |

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|  |                  |             |
|--|------------------|-------------|
| Detail of Sub Business Associate s involved: -                         |                  |             |
| Method Statement Prepared By: -<br>Designation: - (e.g., Site Manager) | <u>Signature</u> | <u>Date</u> |

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

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

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

**5.0 Role & Responsibilities of Personnel/Parties Involved in activities:** *Clearly define roles and responsibilities of all personnel involved in activity i.e., Site management staff including sub-Business Associate s’ staff, Project Manager/Site Manager of principal Business Associate , Sub Business Associate Site Manager, Project Engineer, Safety officer, Competent Supervisory Staff etc.)*

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

**6.1 Pre-Working Checks**

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

**Tools required for work:**

| Sr.No | Tools /Equipment /Machine | UOM | Required Qty. | Remark |
|-------|---------------------------|-----|---------------|--------|
| 1     |                           |     |               |        |
| 2     |                           |     |               |        |
| 3     |                           |     |               |        |
| 4     |                           |     |               |        |
| 5     |                           |     |               |        |
| 6     |                           |     |               |        |

|    |  |  |  |  |
|----|--|--|--|--|
| 7  |  |  |  |  |
| 8  |  |  |  |  |
| 9  |  |  |  |  |
| 10 |  |  |  |  |

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

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

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

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

**Attachment:** - Specific Risk Assessment

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

|   |  |
|---|--|
| <b>Fall Protection Measures: (Where Work at height cannot be avoided)</b> |  |
|---|--|

|   |   |   |   |  |   |   |   |
|---|---|---|---|--|---|---|---|
| <b>Control Measures for Electrical Hazards</b>                              |   |   |   |  |   |   |   |
| <b>Others Hazard if any (please provide details)</b>                        |   |   |   |  |   |   |   |
| <b>Hazardous Substances to be used in job:</b><br>(Attach MSDS if required) |  |  |  |  |  |  |  |
|   | Y/N   | Y/N   | Y/N   | Y/N  | Y/N   | Y/N   | Y/N   |

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

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

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

|                                  |  |   |  |
|----------------------------------|--|---|--|
| <i>Safety Helmet / Hard Hats</i> |  | <i>Safety Shoe / Safety Boots</i>                                     |  |
| <i>Gum Boot</i>                  |  | <i>Double Lanyard Safety Harness with work positioning attachment</i> |  |
| <i>Electrical Hand gloves</i>    |  | <i>Other hand gloves</i>  |  |
| <i>Eye protection</i>            |  | <i>Respiratory protection</i>   |  |
| <i>Ear Protection</i>            |  | <i>Electrical Arc flash suit</i>                                      |  |
| <i>Chemical resistant suit</i>   |  | <i>Reflective Jackets</i>   |  |
| <i>Any Other</i>                 |  | <i>Any Other</i>  |  |

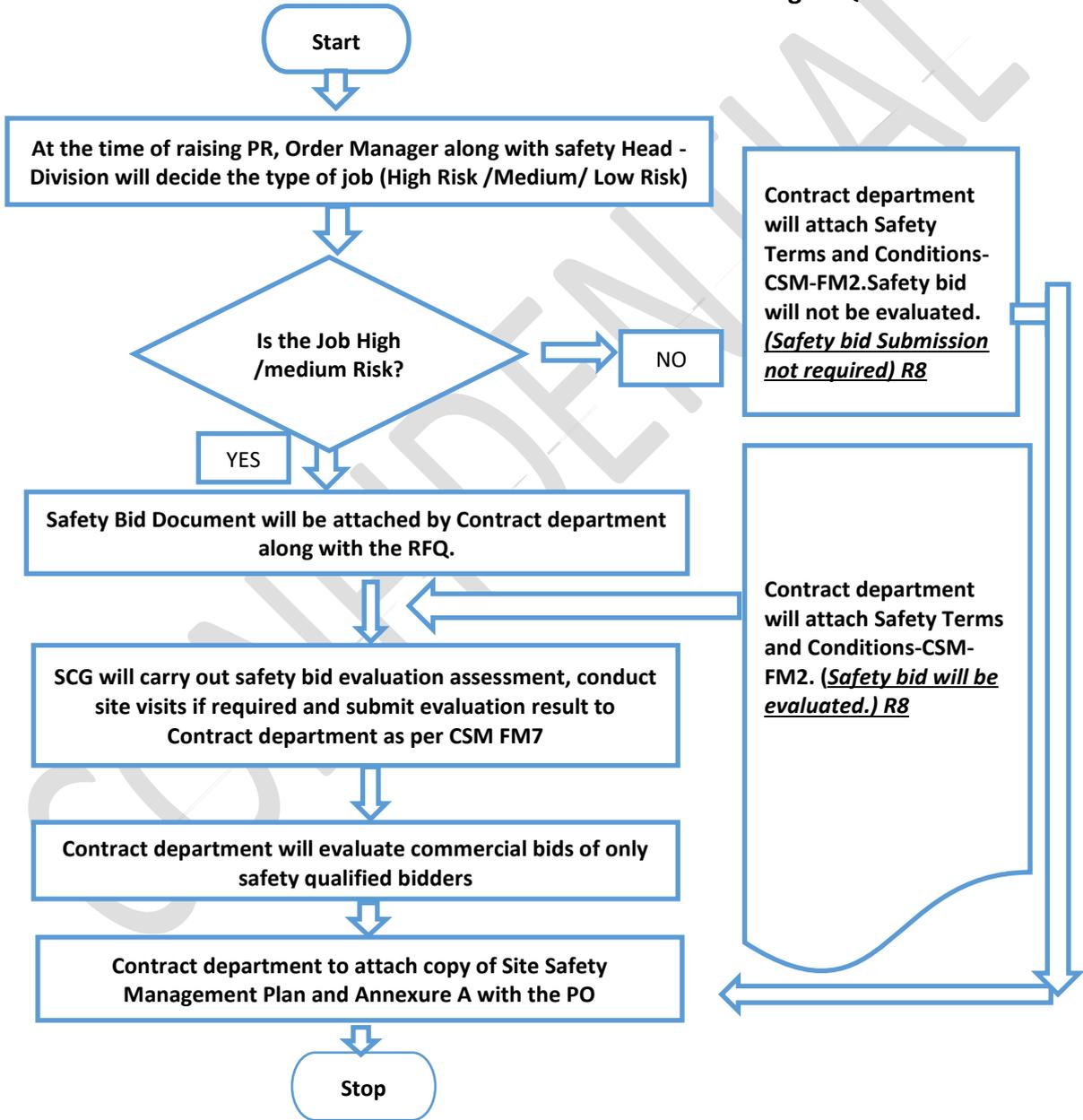
**10.0 First Aid facilities and Nearby Hospitals Details**

- Name of On Site First Aider
- First Aid Box Location
- Location of nearest hospital

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

- Please give a brief writeup / methodology of your organization’s plan to avoid impact of the COVID-19 pandemic at Tata Power working site.
- Please give brief details of occupational health and hygiene related interventions planned by your organisation to ensure good health and fitness of workforce at Tata Power site.

**4.3 Contract Award - refer CSM F5 Process Flow Chart for issuing RFQ and PO.**



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**4.4 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 Division /Discoms Safety department will audit Business Associates training and related documentation to assure its adequacy.

**4.4.1 Before issuing gate pass:**

**For Odisha Discom/New Business:** All Tata Power Business Associate and sub Business Associate workforce is required to attend 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 Job rules, personal safety, and conduct, Hazard's reporting, reporting of injuries, Emergency procedures, Safety Activities and Program including disciplinary measure and incentives, Critical safety procedure relevant to the job

**For Tata Power Divisions:** All Tata Power Business Associate and sub Business Associate workforce is required to attend L1 Training to receive a Safety Training Card, which is required to obtain a Gate Pass to the site, prior to entry.

**4.4.2 Before start of actual work:**

- Appropriate practical training such as SHE L1, L2& L3 (As per Competency Skill Matrix Annexure - 15 of BASCC) 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 followed by Post Assessment on the list of 15 critical Safety procedures mentioned under safety procedures. Duration of course is as specified by Division/Discom
- Business Associate 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 employees who meet the minimum required competency will be provided with Certificate (Card), which will be valid for 3 years, post which the workmen have to reappear for assessment.
- *BA Employee who Fail in assessment to be removed from work.(R6)*
- *BA Employee who achieved Bronze card can work for assisting Silver and Gold.(R6)*
- *BA Employee who achieved Silver card can Work under competent supervisors.(R6)*
- *BA Employee who achieved Gold card can Work independently.(R6)*
- *BA Supervisor who achieved Bronze card can be treated as Learner & can only supervise low Risk Job.(R6)*
- *BA Supervisor who achieved Silver can not take permit, Tata Power employee will take permit in such cases.(R6)*
- *BA Supervisor who achieved Gold card can take permit & supervise work.(R6)*
- *BA Safety Supervisor who achieved Bronze card can be treated as Learner.(R6)*
- If the workman is not able to qualify the assessment, he/she will be given 3 additional attempts to clear in 3-month time failing which he/she will not be allowed to work in the Division /Discoms.

- After expiry of Certificate or Training /Competency Card again one day recertification of L1, L2 and L3 skill training will be provided.
- Quarterly /Half yearly(For Odisha and New business) Revalidation Test - “SHE L1 Revalidation test” will be conducted for the Business Associate ’s employees to revalidate their safety awareness and knowledge.
- Order Manager and Safety In charge of the Division/Site /Plant will conduct a Competency Assessment of all workforces, going to be deployed at site / plant for high-Risk job.
- The Contactor shall bear the conveyance and food expenses of his staff for attending training sessions and capability building sessions in new business-like Odisha Discom.
- The Contactor shall bear the entire cost of L1/L2/L3, the costs towards training, salaries/wages, boarding and lodging of his staff for attending training sessions and capability building sessions. These trainings are offered on nominal chargeable basis payable by Business Associate and rates shall be decided by TPSDI from time to time in case of training through TPSDI. Generally, L0 is of one day, L1 is for 2 days for each critical procedure and L3 is for one day. Around Rs 700+GST is approx. cost /Day/Candidate.
- Competency assessment of all critical workforce to be carried out for all who has taken L2 training.

#### 4.4.3 Recognition to the Prior Learning in Safety

If “Order Manager” recommends and “Head of the Safety Department of Discom” is satisfied with the safety knowledge and competency of the employee of Business Associate , a test may be conducted by Tata power Skill development Institute/ other recognized institute to assess the prior learning in safety. If employees of the Business Associate s pass in such test, he will be exempted from appearing in SHE L1 training. This assessment is on nominal chargeable basis and rates are decided by TPSDI from time to time.

#### 4.5 Managing Work:

Order Manger shall -

- 1) Comprehensively assess and ensure field Safety implementation against Contract requirements and the Safety Management Plan.
- 2) Maintain a follow up process that drives continuous improvement in Safety practices and avoids repetition of common errors.
- 3) Order Manager and BA should aim at optimizing Safety performance of the Contract by working in a collaborative manner during the execution of the work.

This can be achieved by:

- Ensure that potential safety hazards are identified and controlled before any contracted work starts. Hazard identification should be conducted using multi-disciplinary teams which includes members from competent safety professional/execution team/competent BA supervisor & workforce to understand and identify project-specific safety hazards.

- Monthly inspection and replacement of damaged Personal Protective equipment -PPE & Critical Equipment, lifting Tools & Tackles and hand tools used at site.
- **PTW** - PTW procedure must be adhere and implement at site.
- Reviewing the Safety Management Plan (**CSM F9– Site Safety Management Plan**) before each stage of work begins.
- **TBT & Mass Meeting**: Every day Tool box talks to be conducted based on JSA/SOP with maximum participation of BA Workforce & Safety points to be shared by BA employee & line manager and 100% participation of BA employee & workmen in to mass meeting/communication.
- **BA Self safety audit**: BA Safety Supervisor will carry out daily safety audit and inspections of tools, tackles, equipment and PPEs. They will identify and help in correcting the unsafe acts and unsafe conditions created while executing job at site with the help of BA's supervisors.
- All respective **Critical safety Rules & Procedures and General safety Rules & Procedures** to be use and implement at site during job.
- "**Suraksha Samwad**" also known as Safety Interaction is a proactive safety initiative. In this program, leadership engages with BA workmen and employees in a scheduled 30-minute session to discuss and observe safety practices in the workplace.
- **Reporting safety observations by BA employee**: This involves the active participation of the workforce in identifying and reporting safety observations, which can help prevent accidents and improve safety performance.
- **Felt Leadership for Business Associates Proprietor /Co-ordinators**: This program aims to develop leadership skills within the Business Associates Proprietor/Co-ordinators. It encourages individuals to take ownership of their work and fosters a culture of responsibility and accountability.
- **Behavior based safety program (Jivan Ki Aur)**: It aims to create regular awareness among all ground staff. It seeks to sensitize them, establish relationships, foster teamwork, enhance communication, motivate and empower everyone, promote good health, and enable a happy and safe life. The program will cover various activities such as morning meetings, home visits, personal meetings, group meetings, short training sessions, games, and other forms of engagement.

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**4.6 Periodic Evaluation:**

1. During the time of job execution, regular site inspection will be carried out by the Tata Power-Division /DISCOM officials **mainly Line manager (R6)** to evaluate monthly safety performance of the Business Associate as per **CSM F11 Safety Performance Evaluation Report (R6)** and monthly score will be maintained by the Order Manager. Violations will be dealt as per **CSM F12 Safety Violation Penalty Criteria**. Please refer **CSM F10 Process Flow Chart for Safety Performance Evaluation**. Percentage of retention amount is usually mentioned in safety terms and conditions.
2. The evaluation criteria include Lead Indicators such as percentage of workers trained in TPSDI, inspection of critical equipment. Lag indicators such as Fatalities, LWDC and man-days lost.
3. In case of job stoppage due to safety violations / unsafe observations at the site, no time extension from PO completion date shall be given to the Business Associate, if such delays are attributable to Business Associate.
4. In case of fatality, limb loss or loss of property, vendor must pay for liability, legal, statutory, and additional mutually agreed settlement charges imposed by the appointed committee by Division Chief/CEO. This charge is over and above the retention amount. The committee will finalize penalty amount based on factors such as advice by statutory authorities, contract value and impact of accident etc.
5. Order Manager, Head of Business and functional Chief have the authority to terminate the contract as per **CSM F12 Safety Violation Penalty Criteria** Through contract department.
6. Site contract team will arrange Quarterly meeting with Order Manager to take feedback for Safety performance of Business Associates In-turn Site Leadership and Site Contract team will give feedback of safety performance so as to take Corrective actions (R6).
7. CSM F11 Safety Performance Evaluation Report (R8) to be used to evaluate Star Rating of Business Associate for lead & Lag Indicator.

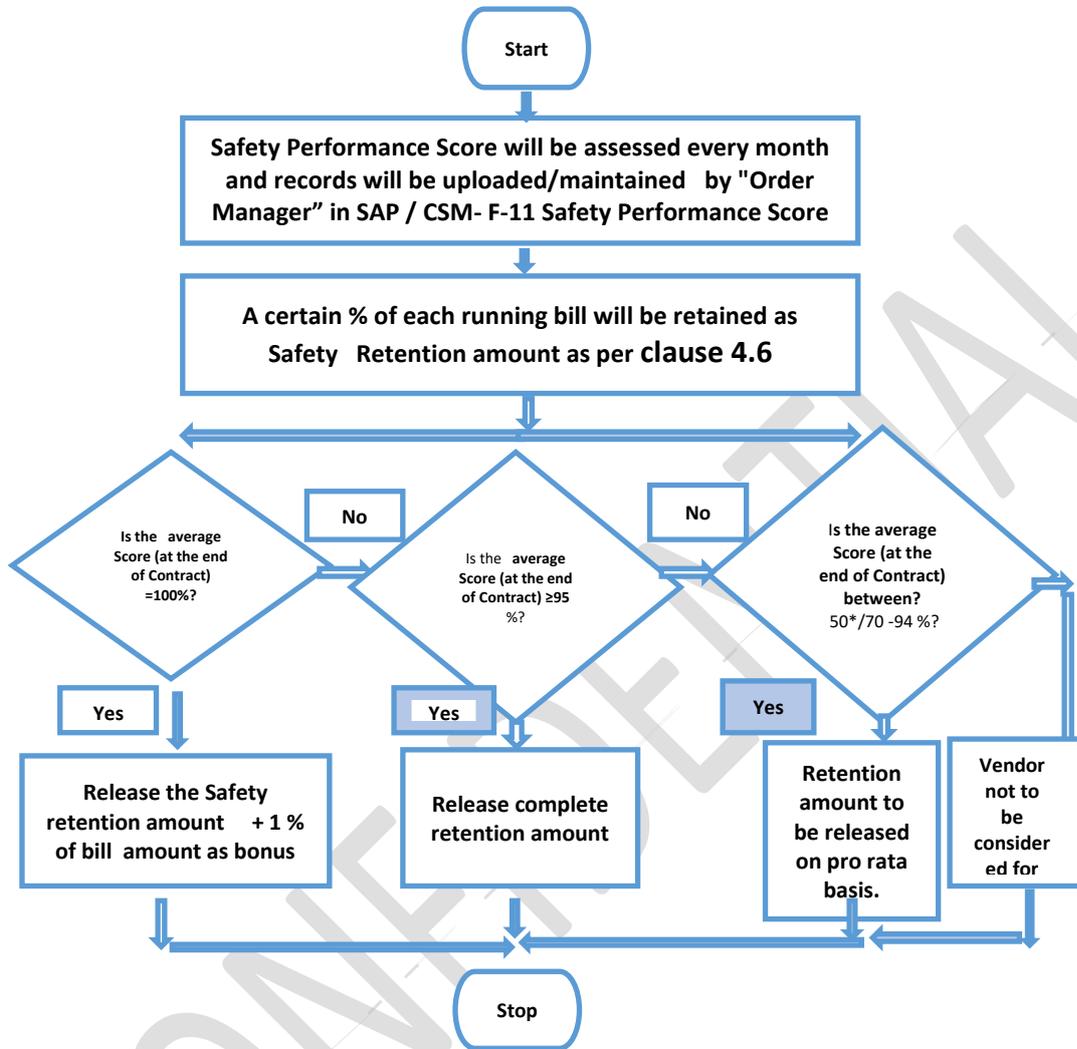
**4.6.1 Safety performance retention:** A certain percentage of the bill value will be retained against every running bill as safety performance retention. The amount will be released with the last invoice or every six-month based on Safety Performance Score of Business Associate s. The retention amount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

| Risk Category                             | Contract Value | Retention Amount (%) |
|---|----------------|----------------------|
| Very high/High risk job/ Medium Risk jobs | Up to 10 Lakhs | 2.5                  |
| Very high/High risk job/ Medium Risk jobs | 10 – 50 Lakhs  | 2                    |
| Low/Very Low Risk jobs                    | 10 – 50 Lakhs  | 1                    |
| Very high/High risk job                   | 0.5 to 10 Cr   | 2                    |
| Medium Risk jobs                          | 0.5 to 10 Cr   | 1.5                  |

|                         |              |     |
|-------------------------|--------------|-----|
| Low/Very Low Risk jobs  | 0.5 to 10 Cr | 1   |
| Very high/High risk job | >10 Cr       | 1.5 |
| Medium Risk jobs        | >10 Cr       | 1   |

1. The safety retention amount will not be applicable if there is clause of Contract Performance Bank Guarantee (CPBG) and safety performance of Business Associate is as per desired criteria.
2. If safety performance of Business Associate is not as per desired criteria (as per Appendix 10 – CSM F10 – Process Flow Chart for Safety Performance Evaluation and Appendix 11: CSM F11 - Safety Performance Evaluation Criteria)-then safety retention percentage as mentioned in table above will be deducted from running bill.
3. Bidder to give understanding that if there are any deductions required to be made for safety non-performance as per the Safety Performance Score, then Tata Power shall recover any such deductions against safety non-performance directly from the monthly bills / final settlement or it shall be within its right to recover such sum from accounts payable or the CPBG or the retention of the Business Associate available with Tata Power for the said contract between the Business Associate and Tata Power.
4. The retention amount against non-safety performance saved and Penalty will go to a separate Safety Improvement Fund.
5. 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.
6. 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%

**CSM F10 – Process Flow Chart for Safety Performance Evaluation**



**CSM F11 - Safety Performance Evaluation Criteria (R6)**  
**Safety Performance Evaluation Report- CSM F11**

| <b>BA field safety audit (Safety Performance Evaluation for BA).</b> |   |                      |  |                 |          |          |                            |
|--|---|----------------------|--|-----------------|----------|----------|----------------------------|
| Division   |   | Function             |  |                 |          |          |                            |
| Name of BA   |   | Month                |  |                 |          |          |                            |
| Nature of Work   |   | PO                   |  |                 |          |          |                            |
|  | <b>A. <u>Lead Indicators</u></b>  |                      | <b>100</b><br>(for star rating score will dividend scale of 2.5) |                 |          |          | <b>0</b>                   |
|  | -   | UOM                  | <b>Target</b>  |                 |          |          | Actual score for the month |
| 1  | % of employees certified in Skill development institute/ authorized agency/Card issued.   | % Workforce covered  | 100%   | 51% to 99%      | 50%      | <50%     |                            |
|  | <b>Score</b>  |                      | <b>10</b>  | <b>Pro-rata</b> | <b>5</b> | <b>0</b> |                            |
| 2  | Business Associate Safety Field Audit score   | Severity score       | 2 to 3   | 3 to 4          | >4       |          |                            |
|  | <b>Score</b>  |                      | <b>10</b>  | <b>5</b>        | <b>0</b> |          |                            |
| 3  | Monthly inspection and replacement of damaged Personal Protective equipment -PPE by contractor(Safety shoes, Induction helmet, full body safety harness with work positioning lanyard, rubber insulated gloves, reflective jacket etc.as per Job requirement) | % of total workforce | 100%   | 99% to 50%      | <50%     |          |                            |
|  | <b>Score</b>  |                      | <b>10</b>  | <b>5</b>        | <b>0</b> |          |                            |
| 4  | Monthly inspection and replacement of damaged Critical Equipment, lifting Tools & Tackles and hand tools used at site by BA (Neon Tester, Discharge rod,  | % Total T&T          | 100%   | 99% to 50%      | <50%     |          |                            |

|    |   |                                |           |          |          |  |  |
|----|---|--------------------------------|-----------|----------|----------|--|--|
|    | ladders Vehicle, Tools & tackles carried out and defective equipment replaced as required.  |                                |           |          |          |  |  |
|    | <b>Score</b>  |                                | <b>10</b> | <b>7</b> | <b>0</b> |  |  |
| 5  | Unsafe Conditions/Acts (Potential Hazards), near miss(Close calls), minor injury(First aid cases and MTC) cases reported  | Observation / Nos of workforce | 0.50      | 0.25     | <0.25    |  |  |
|    | <b>Score</b>  |                                | <b>10</b> | <b>7</b> | <b>0</b> |  |  |
| 6  | Monthly R&R for workforce along with Tata power reparative monthly  | % of total workforce           | 10%       | 5%       | <b>0</b> |  |  |
|    | <b>Score</b>  |                                | <b>10</b> | <b>5</b> | <b>0</b> |  |  |
| 7  | Nos of workforce covered under program under Jivan Ki Aur/Ghar se Ghar tak/Surkshishit Pariwar ki aur   | % of total workforce           | 10%       | 5%-10%   |          |  |  |
|    | <b>Score</b>  |                                | <b>10</b> | <b>0</b> |          |  |  |
| 8  | Safe (designated way) Disposal of Waste generated, Records of waste (Hazardous Waste – Oily cotton waste – E-waste etc.) generation. No effluents to drain/discharges to ground |                                | YES       | NO       |          |  |  |
|    | <b>Score</b>  |                                | <b>10</b> | <b>0</b> |          |  |  |
| 9  | <u>Daily Toolbox talk and Weekly Mass communications covering 100 % workforce and records maintained or not(R6).</u>  | % of total workforce           | 100%      | 50-100 % |          |  |  |
|    | <b>Score</b>  |                                | <b>10</b> | <b>5</b> |          |  |  |
| 10 | <u>Check for housekeeping at site(R6)</u>   | At least 3S.                   | YES       | NO       |          |  |  |
|    | <b>Score</b>  |                                | <b>10</b> | <b>0</b> |          |  |  |

|              |                          |  |   |    |          |
|--------------|--------------------------|--|---|----|----------|
|              | <b>B. Lag Indicators</b> |  | <b>50</b><br>(for star rating score will dividend scale of 2.5) |    | <b>0</b> |
|              |                          |  | <b>Target</b>   |    |          |
| 1            | Number of Fatalities     |  | 0   | >0 |          |
| <b>Score</b> | <b>Score</b>             |  | 30  | 0  |          |
| 2            | No of LWDC - Reportable  |  | 0   | >0 |          |
| <b>Score</b> | <b>Score</b>             |  | 10 /<br>20*   | 0  |          |
| 3            | Major Fire               |  | 0   | >0 |          |
| <b>Score</b> | <b>Score</b>             |  | 10 /<br>0*  | 0  |          |
|              | <b>Total score</b>       |  | <b>150</b>  |    | <b>0</b> |
|              | * Odisha                 |  |   |    | %        |
|              |                          |  |   |    | <b>0</b> |

**CSM F12 - Safety Violation Penalty Criteria**

**Major Violations and Escalation matrix-**

| Consequence of safety violation observed not related to incidents or accidents |  | Violations |          |          |          |   |
|--|--|------------|----------|----------|----------|---|
| Sl. No.  | <u>Safety Violation</u>  | 1st        | 2nd      | 3rd      | 4th      | <u>Subsequent violation</u>   |
| 1  | Working without required PPE such as Helmet/gloves/safety shoes/Safety harness etc.    | <b>A</b>   | <b>B</b> | <b>C</b> | <b>D</b> | Will Attract the same penalty as 4th violation  |
| 2  | Working without proper tools and tackles   | <b>A</b>   | <b>B</b> | <b>C</b> | <b>D</b> |   |
| 3  | Poor or bad condition of Crane/Hydra/Vehicle and/or Incompetent driver and/or helper). | <b>B</b>   | <b>C</b> | <b>D</b> | <b>E</b> | Termination of Contract and blacklisting after repetition of violations (3 to 4 times as the case may be) |
| 4  | Improper Working at Height   | <b>B</b>   | <b>C</b> | <b>D</b> | <b>E</b> |   |
| 5  | Untrained /unauthorized workman engaged in high-risk jobs                              | <b>B</b>   | <b>C</b> | <b>D</b> | <b>E</b> |   |
| 6  | Violation of SOP or WI or LOTO   | <b>C</b>   | <b>D</b> | <b>E</b> |          |   |
| 7  | Working without PTW or LC / Without authorization / Without creating Safe Zone         | <b>C</b>   | <b>D</b> | <b>E</b> |          |   |

| Legend | Action to be Taken | Responsibility | Penalty (INR) | Repeat Violations |
|--------|--------------------|----------------|---------------|-------------------|
|        |                    |                |               |                   |

|          |   |                     |        |  |
|----------|---|---------------------|--------|--|
| <b>A</b> | Levy of Penalty   | Order manager / EIC | 5000   | The no. of repeat violations shall be calculated cumulative during the FY and deduction will be done from the monthly bills.(R6) |
| <b>B</b> | Memo to BA and Levy of Penalty                                  | Order manager / EIC | 10000  |  |
| <b>C</b> | Memo to BA and Levy of Penalty                                  | Order manager / EIC | 25000  |  |
| <b>D</b> | Memo to BA and Levy of Penalty                                  | Order Manager / EIC | 50000  |  |
| <b>E</b> | Memo to BA, Levy of Penalty, Termination of Contract, Blacklist | Order Manager / EIC | 100000 |  |

### Other Violations and Penalty

Penalty shall be imposed on the Business Associates under the following circumstances for breaching the contractual agreements. The list is not exhaustive, but indicative.

| Sl. No | Description of Violation  | Severity | Penalty (INR) |
|--------|---|----------|---------------|
| 1.     | Unhygienic/Bad condition of PPE   | 2        | 500           |
| 2.     | Unsafe Act/Condition of Severity 4  | 4        | 4000          |
| 3.     | Unsafe Act/Condition of Severity 5  | 5        | 5000          |
| 4.     | No Earthing of Electrical equipment   | 5        | 5000          |
| 5.     | Working without efficient supervision   | 4        | 4000          |
| 6.     | Non-reporting of incidents  | 3        | 3000          |
| 7.     | Starting the job without Toolbox Talk   | 4        | 4000          |
| 8.     | Electric cable tied with metal wire / Use of damaged electrical cable / Use of two core cable | 3        | 3000          |
| 9.     | Rubber mat not available in front of electrical panels.                                       | 3        | 3000          |
| 10.    | Inserting naked wire into the socket instead of a plug  | 5        | 5000          |
| 11     | Inflammable materials stored inside PSS/FCC/Distribution Room                                 | 5        | 5000          |
| 12     | Water accumulation found near electrical panels / equipment                                   | 5        | 5000          |
| 13     | Grinding wheel/ Coupling/ Piling winch/other rotating parts without guard                     | 4        | 4000          |
| 14     | Inadequate illumination of working area   | 3        | 3000          |

|    |  |   |  |
|----|--|---|--|
| 15 | Bringing inside PSS/FCC or any other work area any chemicals without approval.   | 5 | 5000   |
| 16 | Loose materials in work area which can fall down or fly during a storm   | 5 | 5000   |
| 17 | Misusing emergency facilities like fire hydrant line/ hose box/ spray system/ eye wash etc.  | 3 | 3000   |
| 18 | Entering restricted areas like switch yard, hazardous material storage room etc. without authorization   | 3 | 3000   |
| 19 | Not using 24 V lamp inside confined spaces   | 3 | 3000   |
| 20 | Bypassing/overriding safety interlocks   | 5 | 5000   |
| 21 | Working besides road without proper barricading and monitoring of traffic  | 5 | 5000   |
| 22 | Smoking in prohibited area (Closed Go-downs, Storage of flammable material, Storage of Gas cylinders, PSS , Offices etc.)  | 3 | 3000   |
| 23 | Improper stacking of materials in Storage Yard   | 4 | 4000   |
| 24 | Sleeping at workplace  | 3 | 3000   |
| 25 | First aid box not available / in locked condition  | 2 | 2000   |
| 26 | Appointment of subBusiness Associate without his Safety Bid Evaluation and/or without the permission of engineer in charge or Order manager.   | 5 | 5% of order value  |
| 27 | Bad Housekeeping with respect to <b>TPSMS/GSP/GHK/022</b> <ul style="list-style-type: none"> <li>• 1st Instant</li> <li>• 2nd instant</li> <li>• 3rd instant</li> <li>• 4th instant</li> <li>• Subsequent instants</li> </ul>  | 2 | <ul style="list-style-type: none"> <li>• 1000</li> <li>• 2000</li> <li>• 5000</li> <li>• 10000</li> <li>• 10000</li> </ul> |
| 28 | Violations related to vehicles with respect to <b>TPSMS/CSP/RSP/015.</b> <ul style="list-style-type: none"> <li>• Parking without wheel choke</li> <li>• Parking in undesignated area</li> <li>• Heavy vehicle without helper or co-driver</li> <li>• Seat belt not available / not used</li> <li>• Driver without license</li> <li>• Heavy vehicles without reverse horn</li> <li>• Using mobile phone while driving</li> <li>• Lights/mirrors not working /broken</li> </ul> | 3 | 1000 per each violation  |

|    |   |   |                         |
|----|---|---|-------------------------|
| 28 | <p>Violation in Gas cutting and Gas cylinder handling</p> <ul style="list-style-type: none"> <li>• Cylinder valve without guard</li> <li>• No flashback arrester</li> <li>• Leaky DA/Oxygen hose</li> <li>• Cylinders not kept in secured manner</li> <li>• Cylinder trolley not available</li> <li>• Cylinders are transported by manual rolling</li> </ul>  | 5 | 2000 per each violation |
| 29 | <p>Violations in Lifting Operations w.r.t. to TPSMS/CSP/HEMS/005</p> <ul style="list-style-type: none"> <li>• Hook latch missing</li> <li>• Load raised or swung over people or occupied areas of building</li> <li>• Persons standing within the swing area of the crane</li> <li>• No barricading of crane working area</li> <li>• Use of damaged lifting tools and tackles</li> <li>• Lifting tools and tackles not tested / Test certificate expired</li> <li>• Crane operator without proper license</li> <li>• Angular loading</li> <li>• Lifting / shifting heavy material without guide rope</li> <li>• Using mobile phone during loading and unloading jobs</li> </ul> | 5 | 2000 per each violation |
| 30 | <p>Violation in Scaffolding work w.r.t. to TPSMS/CSP/SCAF/007</p> <ul style="list-style-type: none"> <li>• Unstable scaffolding/nonstandard Scaffolding in use</li> <li>• Handrails/mid rails/toe guards missing</li> <li>• Safety harness not anchored on fixed structure</li> <li>• Opening found in working platform</li> </ul>  | 5 | 2000 per violation      |
| 31 | <p>Violation in Excavation Work w.r.t. to TPSMS/CSP/EXS/002</p> <ul style="list-style-type: none"> <li>• Loose material falling into excavated pit</li> <li>• Water logging in excavated pits / trenches</li> <li>• Inadequate or no barricading</li> <li>• Undercut / cave in found on sides of excavated pits</li> </ul>  | 4 | 2000 per violation      |
| 32 | <p>Caution boards, danger signs (luminescent /red) along with emergency contact number are not found displayed.</p>   | 3 | 3000                    |
| 34 | <p>Spillage of hazardous material/chemicals during transportation</p>   | 4 | 4000                    |

**Penalty for Incidents / Accidents-( )**

| Consequence of incident / Accident |   | Incident / Accident |     |     |     | Action Required    |
|------------------------------------|---|---------------------|-----|-----|-----|--------------------|
| Sr.No.                             | Type of Injury  | 1st                 | 2nd | 3rd | 4th |                    |
| <b>1</b>                           | Major Injury (Bone injury or burn or hospitalization >48 hrs.) Non-fatal                                      | F                   | F   | G   | G   | <b>Intolerable</b> |
| <b>2</b>                           | Major Injury (Bone injury or burn or hospitalization >48 hrs.) Non-Fatal (Two or more non-Fatal in one event) | G                   | G   | H   |     |                    |
| <b>3</b>                           | Single fatality   | G                   | H   |     |     |                    |
| <b>4</b>                           | Multiple fatalities (Two or more fatalities in one event). Anywhere in Tata power.                            | H                   |     |     |     |                    |

| Legend | Action to be taken   | Responsibility                      | Penalty (INR) | The no. of violations shall be calculated cumulative during FY and deduction will be done just after Consequence of incident / Accident(R6) |
|--------|--|-------------------------------------|---------------|---|
| F      | Memo to BA and Levy of Penalty   | Order<br>Manager/Engineer in charge | 200000        |   |
| G      | Memo to BA and Levy of Penalty   | Order<br>Manager/Engineer in charge | 500000        |   |
| H      | Memo to BA, Levy of Penalty, Termination of Contract and Blacklisting the BA | Order<br>Manager/Engineer in charge | 1000000       |   |

**5.0 Tools and Tackles**

- 5.1 Tools & Tackles used to carry out the job shall be checked and inspected by Order Manager and safety Officer.
- 5.2 Vendor must submit a valid Certificate from Competent person under the Factories Act 1948 and State Factories Rule for all Lifting Tools and Tackles (like Hoist, D

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Shackles, chain Block, wire ropes etc.).

5.3 All Electrical Hand Tools must be tested for leakage of current by a person /agency authorized by Tata Power Division /Discoms. Electrical power must be taken through RCCB of 30mA. Electrical hand tools should not have cord more than 3 meters in length. If power source is at > 3 meters, extension boards with RCCB of 30 mA and ON/OFF switch, shall be used.

5.4 Removal or inclusion of tools any new tool /tackles / machinery / equipment at site should only be done with concurrence of the order Manager / Head Safety.

## 6.0 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. All safety rules and procedures developed from time to time shall be mandatorily followed by the vendor and his employees while working at Site.

## 7.0 Critical safety Rules and Procedures:

Following is the list of Tata Power's critical Safety Rules and Procedures. Business Associate shall refer to approved Rules and Procedures for detailed requirements and ensure conformance

### 7.1 Lock Out and Tag Out Procedure.

This procedure is intended to be used for the protection of Personnel while servicing or performing maintenance on distribution network/ 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**

### 7.2 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**

### 7.3 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**.

### 7.4 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

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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.

**7.5 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.

**7.6 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 must 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.

**7.7 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.

**7.8 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.

**7.9 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.

**7.10 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' regarding operation maintenance and testing of electrical equipment. For complete procedure kindly refer Procedure Document No- TPSMS/CSP/ELEC/010

**7.11 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/ELEC/011

**7.12 Hazard Identification & Risk Assessment (HIRA) Procedure:**

Objective of this procedure is to define guidelines for Hazard identification, Risk assessment and determination of controls. For complete procedure kindly refer Procedure Document No - TPSMS/CSP/HIRA/012.

**7.13 Management Of Change (MOC) Procedure:**

The objective of this document is to establish the procedures necessary to ensure that HSE risks are managed to an acceptable level in Tata Power Management of Change (MOC) process. For complete procedure kindly refer Procedure Document No - TPSMS/CSP/MOC/013.

**7.14 Pre-Start-up Safety Review (PSSR) Procedure.**

Objective of this procedure is to provide guidelines for safe initial startup of a new facility or restart of a modified facility. The PSSR process verifies that the new/modified facility meets the original design and operating parameters. The intent is to prevent incidents caused by inadequate, incomplete, unauthorized design, construction, installation, and/or commissioning. For complete procedure kindly refer Procedure Document No - TPSMS/CSP/MOC/014.

**7.15 Road Safety procedure:**

To provide Safety Rules for road travel management and safe usage of all types of vehicles viz. passenger/ commercial, owned/ hired by company, driven by employees or Business Associate s. For complete procedure kindly refer Procedure Document No - TPSMS/CSP/RSP/015.

**8.0 General safety Rules and Procedure:****8.1 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,

**8.2 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/003

**8.3 Batteries Handling & Disposal**

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

**8.4 Material Handling and Storage Procedure:**

The purpose of this document is to provide procedures to assist the safe handling

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of materials (manual handling and mechanical handling). For complete procedure kindly refer Procedure Document No – **TPSMS/GSP/MATL/004**.

**8.5 Office Safety Procedure:**

The objective is to provide a safe working environment to those working in office premise, who may be exposed to emergency situations and other chronic / cumulative risks that may arise due to various reasons of unsafe act, unsafe condition, fire and or pandemic crisis like COVID-19 etc. For complete procedure kindly refer Procedure Document No - **TPSMS/GSP/OFS/006**

**8.6 Earth Leakage Circuit Breaker (ELCB) Testing Procedure):**

The objective of this procedure is to define the minimum requirements for testing of Earth Leakage Circuit Breaker (ELCB). For complete procedure kindly refer Procedure Document No - **TPSMS/GSP/ELCB/008**.

**8.7 Occupational Health & Safety Legal Compliance Procedure:**

Objective of this procedure is provide guidelines for compliance of Occupational Health & Safety (OH&S) legal requirements and all ratified protocols and agreements are incorporated in Tata Power Safety Management System (SMS). For complete procedure kindly refer Procedure Document No - **TPSMS/GSP/LEGL/009**.

**8.8 Incident Reporting & Investigation Procedure:**

Objective of this procedure is to outline the process for reporting, recording and investigating an incident, recommending corrective and preventive actions and to communicate the lessons learned to prevent recurrence of similar incidents. For complete procedure kindly refer Procedure Document No - **TPSMS/GSP/IRI/011**.

**8.9 Business Associate Safety Management Procedure.**

The purpose of this document is to engage with Business Associate s 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**.

**8.10 Tree Trimming Procedure:**

The objective of this procedure is to define guidelines and minimum requirements for Tree trimming. For complete procedure kindly refer Procedure Document No – **TPSMS/GSP/TTRM/017**

**8.11 Safe Lone Working Procedure:**

Objective of this procedure is to lay down guidelines for reduction and safe managing of any additional risk arising from lone working. For complete procedure kindly refer Procedure Document No – **TPSMS/GSP/LONE/019**.

**8.12 Good Housekeeping(5S) Procedure:**

Objective of this procedure is to explain the meaning, importance and provide guidelines for implementation of Good Housekeeping(5S) at workplaces across organization. For complete procedure kindly refer Procedure Document No – **TPSMS/GSP/GHK/022**.

**8.13 Personal Protective Equipment:**

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This procedure describes the basic requirements, applicability, minimum specifications of Personal Protective Equipment (PPE). For complete procedure kindly refer Procedure Document No – **TPSMS/GSP/PPE/023**.

#### **8.14 Process Safety Management Procedure:**

The objective of this document is to provide a standardized & uniform guideline to implement Process Safety Management in Tata Power, its JVs, and subsidiaries to prevent or minimize the consequences of releases of toxic, flammable, pressurized or uncontrolled chemicals/Steam/Water or any other material which may result in toxic, fire, explosion, burn or flood like situation. For complete procedure kindly refer Procedure Document No – **TPSMS/GSP/PSM/024**

The above procedures will be updated time to time 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.

#### **9.0 Pre-Employment and Periodic Medical check-up:**

Business Associate 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 Business Associate shall be able to produce the certificate prior to the employment. The Business Associate shall also organize to conduct periodical medical checkup (six monthly) for the following category of employees:

- Drivers (Check for Vision & Hearing)
- HEM 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 (Chest X-ray and Lung Function T)
- Workforce in high Noise area (> 90 Decibel), Check for Hearing
- Workforce handling radiography equipment for conducting NDT.
- Workforce, working in specific areas requiring specific medical attention should conduct the medical tests test as laid down in the respective Site Safety Management Plan.

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**10.0 Other Conditions:**

**10.1** The manpower/vehicles/Tools & Tackles/Equipment provided shall be as per mutually

| Sr. No | Type of Audit  | Frequency   |
|--------|--|-------------|
| 1      | Tool Bag and PPE audit   | Weekly      |
| 2      | First Aid Box Maintenance Record   | Fortnightly |
| 3      | Fire Extinguisher Record (Applicable for the BA involved in major construction works and have storage of flammable material at worksite) | Monthly     |
| 4      | Safety Talk Register   | Weekly      |
| 5      | Site Safety Audit  | Daily       |

agreed SLA.

**10.2** No Supervision No work policy should strictly be followed.

**10.3** Test Before Touch must be ensured every time a job is being carried out in electrical network.

**10.4** HIRA /JSA as per the job scope must be prepared in detail and submitted along with Site Safety Plan by the successful bidder.

**10.5** Personal protective equipment (PPE) must always be checked before use to ensure that they are in good condition and clean. Replace them if necessary.

**10.6** All relevant PPE shall be provided by the vendor while working at the site.

**10.7** Housekeeping shall be maintained all the time while execution of work. All the unwanted material shall be removed from the site at the end of the day's work. Old/damaged parts if taken out of the system shall be kept at identified place and it shall be shifted to scrap yard or disposed of as per instruction of order manager.

**10.8** Site Safety Plan shall be prepared by successful bidder along with order manager. Appendix 1 to be filled by successful bidder and submitted to Tata Power safety in-charge, before mobilization of team at site and start of the work.

**10.9** The Owner or Proprietor of BA must visit worksite at least once in a month and meet Order Manager every month. In case of incidents, the Owner or Proprietor of BA is required to attend Time Out Meetings to understand the gaps that contributed to the incident.

**11.0 Schedule of Safety Audits by BA Safety Staff**

**Safety Undertaking of BA 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 **Business Associate [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 and shall be valid till the date of termination of the said contract by either party. The undertaking is binding on me (Business Associate) as well as my sub-Business Associate and its employees, representatives etc.
2. That I (the Business Associate ) 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 Discom to achieve its goal of Zero for on-site incidences.
3. That the Business Associate shall be fully responsible for ensuring occupational health and safety of its employees, representatives, agents as well as of its subBusiness Associate '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 Business Associate 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 Discom specifically. , failing which Discom shall be entitled, but not obliged, to provide the same and recover the actual cost thereof from the Business Associate 's payments.
5. That the Business Associate 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 Business Associate 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.
7. That the Business Associate shall immediately replace supervisor in case it is found to be not up to the level of skill and experience required, but any such replacement shall be only with the prior concurrence of the Discom representative.
8. That the Business Associate and its sub Business Associate s shall abide by all the safety guidelines as per Safety Manual, Contract Safety Management and other guidelines issued from time to time by Discom during the contract period.

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9. That in case the Business Associate and/or any of its Sub Business Associate fail to ensure the compliance as required in terms of this undertaking the Business Associate shall keep and hold Discom / 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 Discom or to which Discom might get exposed to as a result of any breach /wilful negligence /deliberate default on the part of the Business Associate /Sub Business Associate in complying with the same. Business Associate shall also furnish any press release, clarification etc. if sought by Discom for any near miss or safety violations, accidents, which are attributable to fault of Business Associate .

DEPONENT

VERIFICATION

Verified at .....on this \_Day of \_\_\_\_\_ 20\_\_ that the contents of the above affidavit are true and correct and nothing material has been concealed therefrom.

## 12.0 General Safety Conditions for various contracts Specific to Odisha Discom

### 12.1 Safety Conditions for maintenance of STS (Sub Transmission System) Network.

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:

- Availability of Discharge Rods - Minimum 6 Nos. in each maintenance vehicle, fit for purpose and in good conditions and defective rods are removed from service.
- Availability of Neon tester - Minimum one Neon Tester in each Maintenance Vehicle, in good and working condition and defective or non-standard neon testers are removed from service.
- Electrical hand Gloves - Minimum two sets of 33 KV and two sets of 11 KV in maintenance vehicles.
- The BA linemen must be having required ELBO certification for the voltage level involved.
- BA shall provide Safety Policy, Safety Objectives, Organogram showing structure and responsibility of Safety management of his company and shall document the work practices and procedures in terms of Safety Management.
- BA shall comply with all statutory requirements like applicable acts, regulations, codes of practice, OHSAS Standards, Labour laws, etc.
- The BA shall participate in Safety promotional activities like celebration of Lineman day on 4<sup>th</sup> March, National Fire Service Day on 14<sup>th</sup> April and Theme based safety campaigns undertaken by the Discoms every month.
- BA shall abide by Safety manuals and guidelines of Discom issued from time to time.

|  |   |   |
|--|---|---|
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- BA shall ensure safety training and induction program for the employees. The BA employees must carry safety training card / competency card to the worksite and produce the card on demand.
- All BA employees must be given valid ID card issued by BA cell of Discom who will check statutory compliances before issuing ID cards.
- BA shall not employ a new workman without training and issue of ID card.
- BA shall conduct safety audits & inspections as per Discom procedures.
- BA shall provide proper PPEs as per CSM F-8 ensure periodic inspection of PPE, Tools and tackles to ensure their serviceability.
- BA shall ensure the adherence to standard operating procedures or guidelines laid down by the Discoms.
- BA shall ensure that no job shall be carried out without efficient supervision.
- BA shall ensure reporting of any unsafe act, unsafe conditions, near miss, incident, or accident to engineer in-charge and SAFETY team of the Discom.
- BA shall provide safety performance and Safety MIS to engineer in-charge and Discom 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 safety staff shall work as per the guidance of the Discom safety department and functionally report Safety Head of Discom. Any leaves by safety staff of the BA shall have to approved by Discom Safety Department.
- BA shall ensure to depute Safety Staff for managing safety in worksites. In case the BA has been awarded work in more than one area power system, then the following safety structure will be adopted.
- Safety manager and Safety engineer must be having PDIS or ADIS.



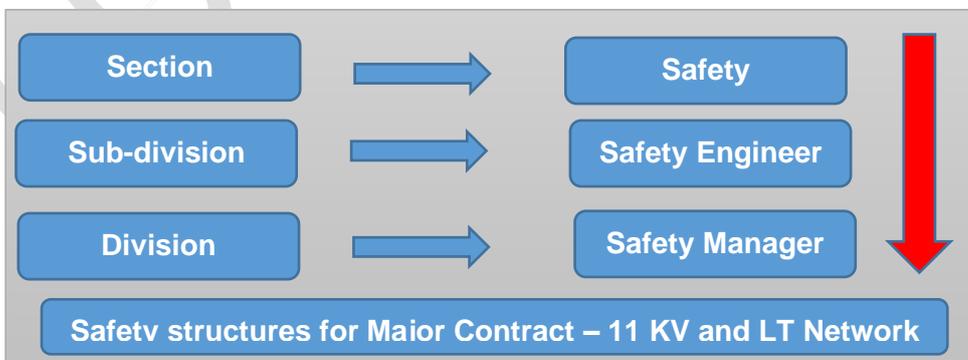
## 12.2 Safety Conditions for maintenance of 11 KV and LT Network.

A BA awarded a major contract work of maintenance of 11 KV and LT Network in area of a power system will be required to fulfil the following conditions:

- Availability of Discharge Rods - Minimum 6 Nos. in each PSS/FCC and maintenance vehicle, fit for purpose and in good conditions and defective rods are removed from service.
- Availability of Neon tester - Minimum one Neon Tester in each PSS/FCC/ Maintenance Vehicle, in good and working condition and defective or non-standard neon testers are removed from service.
- Electrical hand Gloves - Minimum two sets of 33 KV and two sets of 11 KV in each PSS/Maintenance vehicles and two sets of LT hand gloves at each FCC.
- The BA linemen must be having required ELBO certification for the voltage level involved.

|  |   |   |
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- BA shall provide Safety Policy, Safety Objectives, Organogram showing structure and responsibility of Safety management of his company and shall document the work practices and procedures in terms of Safety Management.
- BA shall comply with all statutory requirements like applicable acts, regulations, codes of practice, OHSAS Standards, Labour laws, etc.
- BA shall abide by Safety manuals and guidelines of Discom issued from time to time.
- BA shall ensure safety training and induction program for the employees. The BA employees must carry safety training card / competency card to the worksite and produce the card on demand.
- All BA employees must be given valid ID card issued by BA cell of Discom who will check statutory compliances before issuing ID cards.
- BA shall not engage new workman without training and issue of ID card.
- PSS operator shall not be involved in maintenance activities.
- BA shall conduct safety audits & inspections as per Discom procedures.
- BA shall provide proper PPEs as per CSM F-8 ensure periodic inspection of PPE, Tools and tackles to ensure their serviceability.
- The BA shall participate in Safety promotional activities like celebration of Lineman day on 4<sup>th</sup> March, National Fire Service Day on 14<sup>th</sup> April and Theme based safety campaigns undertaken by the Discoms every month.
- BA to ensure that all LT complaints are routed through Call Centre and recorded in FCC. Rectification of fault shall be done only after call centre logging and with the knowledge of BA supervisor.
- No one will work alone or unsafely under public pressure or otherwise.
- BA shall ensure the adherence to standard operating procedures or guidelines laid down by the Discoms.
- BA shall ensure that no job shall be carried out without efficient supervision.
- BA shall ensure reporting of any unsafe act, unsafe conditions, near miss, incident, or accident to engineer in-charge and SAFETY team of the Discom.
- BA shall provide safety performance and Safety MIS to engineer in-charge and Discom 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 safety staff shall work as per the guidance of the Discom safety department and functionally report Safety Head of Discom. Any leaves by safety staff of the BA shall have to approved by Discom Safety Department.
- BA shall ensure to depute Safety Staff - One safety supervisor per section, One safety engineer per sub-division and one safety manager per Division Safety manager and Safety engineer must be having PDIS or ADIS.



|  |   |   |
|--|---|---|
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### 12.3 Safety Conditions for the major contract work in Civil Projects:

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

- BA shall provide Safety Policy, Safety Objectives, Organogram showing structure and responsibility of Safety management of his company and shall document the work practices and procedures in terms of Safety Management.
- BA shall comply with all statutory requirements like applicable acts, regulations, codes of practice, OHSAS Standards, Labour laws, etc.
- BA shall abide by Safety manuals and guidelines of Discom issued from time to time.
- BA shall ensure safety training and induction program for the employees. The BA employees must carry safety training card / competency card to the worksite and produce the card on demand.
- All BA employees must be given valid ID card issued by BA cell of Discom who will check statutory compliances before issuing ID cards.
- BA shall not employ a new workman without training and issue of ID card.
- BA shall conduct safety audits & inspections as per Discom procedures.
- BA shall provide proper PPEs as per CSM F-8 ensure periodic inspection of PPE, Tools and tackles to ensure their serviceability.
- BA shall ensure the adherence to standard operating procedures or guidelines laid down by the Discoms.
- BA shall ensure that no job shall be carried out without efficient supervision.
- BA shall ensure reporting of any unsafe act, unsafe conditions, near miss, incident, or accident to engineer in-charge and SAFETY team of the Discom.
- The BA shall participate in Safety promotional activities like celebration of Lineman day on 4<sup>th</sup> March, National Fire Service Day on 14<sup>th</sup> April and Theme based safety campaigns undertaken by the Discoms every month.
- BA shall provide safety performance and Safety MIS to engineer in-charge and Discom 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 safety staff shall work as per the guidance of the Discom safety department and functionally report Safety Head of Discom. Any leaves by safety staff of the BA shall have to approved by Discom Safety Department.
- BA shall refer Construction Safety Manual of the Discom for details.
- BA shall ensure to depute a Safety Supervisor (for workforce up to 100 at site) / a safety engineer (for workforce up to 250 at site) / safety manager (for more than two safety engineers) for managing safety at the project site. In case the BA has been awarded more than one major contracts, then the following safety structure will be adopted.
- Safety Engineers and Safety Managers must be having PDIS or ADIS.

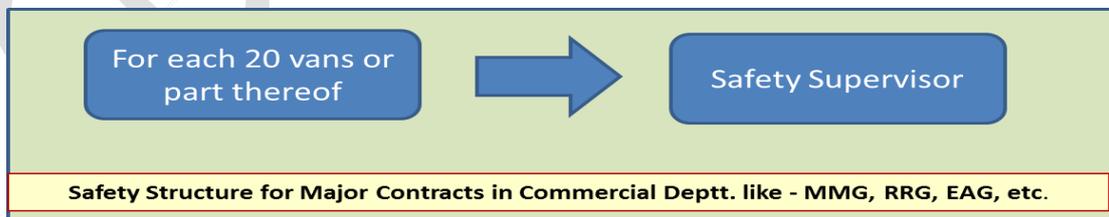


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**12.4 Safety Conditions for the major contract work in Commercial Department like - MMG, RRG, EAG, etc.:**

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, Safety Objectives, Organogram showing structure and responsibility of Safety management of his company and shall document the work practices and procedures in terms of Safety Management.
- BA shall comply with all statutory requirements like applicable acts, regulations, codes of practice, OHSAS Standards, Labour laws, etc.
- BA shall abide by Safety manuals and guidelines of Discom issued from time to time.
- BA shall ensure safety training and induction program for the employees. The BA employees must carry safety training card / competency card to the worksite and produce the card on demand.
- All BA employees must be given valid ID card issued by BA cell of Discom who will check statutory compliances before issuing ID cards.
- BA shall not employ a new workman without training and issue of ID card.
- BA shall conduct safety audits & inspections as per Discom procedures.
- The BA shall participate in Safety promotional activities like celebration of Lineman day on 4<sup>th</sup> March, National Fire Service Day on 14<sup>th</sup> April and Theme based safety campaigns undertaken by the Discoms every month.
- BA shall provide proper PPEs as per CSM F-8 ensure periodic inspection of PPE, Tools and tackles to ensure their serviceability.
- BA shall ensure the adherence to standard operating procedures or guidelines laid down by the Discoms.
- BA shall ensure that no job shall be carried out without efficient supervision.
- BA shall ensure reporting of any unsafe act, unsafe conditions, near miss, incident, or accident to engineer in-charge and SAFETY team of the Discom.
- BA shall provide safety performance and Safety MIS to engineer in-charge and Discom 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 safety staff shall work as per the guidance of the Discom safety department and functionally report Safety Head of Discom. Any leaves by safety staff of the BA shall have to approved by Discom Safety Department.
- BA shall ensure to depute a Safety Supervisor for managing safety at worksite.
- The BA for the RRG work shall depute one Safety supervisor.

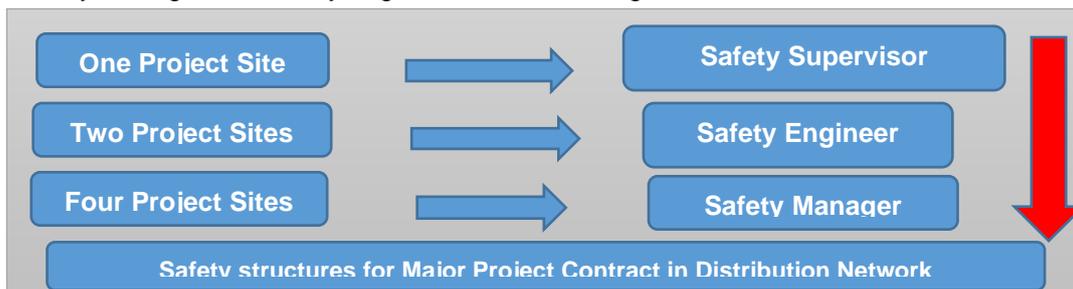


**12.5 Safety Conditions for Major Projects in Distribution Network**

A BA awarded a major Projects in Distribution Network shall be required to fulfil the following conditions:

|  |   |   |
|--|---|---|
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- Availability of Discharge Rods - Minimum 6 Nos. for each project site, fit for purpose and in good conditions and defective rods are removed from service.
- Availability of Neon tester - Minimum one Neon Tester in each project site, in good and working condition and defective or non-standard neon testers are removed from service.
- Electrical hand Gloves - Minimum one sets of 33 KV, 11 KV and LT in each project site.
- The BA linemen must be having required ELBO certification for the voltage level involved.
- BA shall provide Safety Policy, Safety Objectives, Organogram showing structure and responsibility of Safety management of his company and shall document the work practices and procedures in terms of Safety Management.
- BA shall comply with all statutory requirements like applicable acts, regulations, codes of practice, OHSAS Standards, Labour laws, etc.
- BA shall abide by Safety manuals and guidelines of Discom issued from time to time.
- BA shall ensure safety training and induction program for the employees. The BA employees must carry safety training card / competency card to the worksite and produce the card on demand.
- The BA shall participate in Safety promotional activities like celebration of Lineman day on 4<sup>th</sup> March, National Fire Service Day on 14<sup>th</sup> April and Theme based safety campaigns undertaken by the Discoms every month.
- All BA employees must be given valid ID card issued by BA cell of Discom who will check statutory compliances before issuing ID cards.
- BA shall not employ a new workman without training and issue of ID card.
- BA shall conduct safety audits & inspections as per Discom procedures.
- BA shall provide proper PPEs as per CSM F-8 ensure periodic inspection of PPE, Tools and tackles to ensure their serviceability.
- BA shall ensure the adherence to standard operating procedures or guidelines laid down by the Discoms.
- BA shall ensure that no job shall be carried out without efficient supervision.
- BA shall ensure reporting of any unsafe act, unsafe conditions, near miss, incident, or accident to engineer in-charge and SAFETY team of the Discom.
- BA shall provide safety performance and Safety MIS to engineer in-charge and Discom 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.
- The BA shall participate in Safety promotional activities like celebration of Lineman day on 4<sup>th</sup> March, National Fire Service Day on 14<sup>th</sup> April and Theme based safety campaigns undertaken by the Discoms every month.
- BA safety staff shall work as per the guidance of the Discom safety department and functionally report Safety Head of Discom. Any leaves by safety staff of the BA shall have to approved by Discom Safety Department.
- BA shall ensure to depute Safety Staff for managing safety in worksites. One safety supervisor per project site or 100 persons, one safety engineer for 2 project sites of 250 persons, and one safety manager for four project sites or 500 persons.
- Safety manager and Safety engineer must be having PDIS or ADIS.





## Price Bid Format

CONFIDENTIAL

**Price Bid Format : Design, Manufacturing, Supply and Supervisory services of 800 kVA, 22kV & 33kV Distribution Type Transformers – 7 Nos in Mumbai Operations area for various Tata Power Receiving Stations.**

| Sr. No.                       | Item Description  | Qty | UoM      | GST | Basic Price | Total Basic Price | Applicable Taxes | All Incl Price |
|-------------------------------|---|-----|----------|-----|-------------|-------------------|------------------|----------------|
| <b>SUPPLY PART</b>            |   |     |          |     |             |                   |                  |                |
| 1                             | 800 kVA, 22/0.415 kV, Dyn11 DISTRIBUTION TRANSFORMER and Supply of Mandatory spares with the transformer. (Qty 01 for each type) @ <b>Kalyan</b>    | 1   | Nos.     | 18% |             | -                 | -                | -              |
| 2                             | 800 kVA, 22/0.415 kV, Dyn11 DISTRIBUTION TRANSFORMER and Supply of Mandatory spares with the transformer. (Qty 01 for each type) @ <b>Ambarnath</b> | 1   | Nos.     | 18% |             | -                 | -                | -              |
| 3                             | 800 kVA, 22/0.415 kV, Dyn11 DISTRIBUTION TRANSFORMER and Supply of Mandatory spares with the transformer. (Qty 01 for each type) @ <b>Mankhurd</b>  | 2   | Nos.     | 18% |             | -                 | -                | -              |
| 4                             | 800 kVA, 22/0.415 kV, Dyn11 DISTRIBUTION TRANSFORMER and Supply of Mandatory spares with the transformer. (Qty 01 for each type) @ <b>Salsette</b>  | 2   | Nos.     | 18% |             | -                 | -                | -              |
| 5                             | 800 kVA, 33/0.415 kV, Dyn11 DISTRIBUTION TRANSFORMER and Supply of Mandatory spares with the transformer. (Qty 01 for each type) @ <b>Karanjade</b> | 1   | Nos.     | 18% |             | -                 | -                | -              |
| <b>Total Supply</b>           |   |     |          |     |             | -                 |                  | -              |
| <b>SERVICE PART</b>           |   |     |          |     |             |                   |                  |                |
| 1                             | Supervisory services by competent engineer for commissioning of transformer   | 21  | Man Days | 18% |             | -                 | -                | -              |
| <b>Total Service</b>          |   |     |          |     |             | -                 |                  | -              |
| <b>TOTAL SUPPLY + SERVICE</b> |   |     |          |     |             | -                 |                  | -              |

**Note : Bidder to consider only the quantities of Transformers mentioned in the D.6 Price Bid Format and shall prevail over any other/additional quantities of transformer mentioned elsewhere in the tender.**

FORMAT D.5

Price Bid Format

Tender No- CC26NK004

Package Name - 800 kVA, 22/0.415 kV, Dyn11 DISTRIBUTION TRANSFORMER @ Kalyan

**Bill of Material Transformer & supervisory services for commissioning**

| Sr No.   | Item Description   | Unit | Quantity | Unit Rate | Applicable Taxes and Duties | Total All Inclusive Unit Rate (Rs) | Total All Inclusive Value (Rs) | Mention HSN Code |
|----------|--|------|----------|-----------|-----------------------------|------------------------------------|--------------------------------|------------------|
| <b>1</b> | <b>Supply of Transformer</b>   |      |          |           |                             |                                    |                                |                  |
| a        | Design, manufacture, factory testing, packing, route survey, delivery of 3 phase, Oil filled, 50 Hz, 800 kVA, 22/0.415 kV, Dyn11 transformer including all accessories as per the specific and general requirements and complete with bushings, cable box, conservator etc. with 10% extra oil (filling of transformer, conservator and radiators + 10% extra) | EA   | 1        |           | -                           | -                                  | -                              |                  |
| <b>2</b> | <b>Supply of spares with the transformer. (Qty 01 for each type)</b>   |      |          |           | -                           | -                                  | -                              |                  |
| a        | HV phase bushing   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| b        | LV Phase bushing   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| c        | LV Neutral bushing   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| d        | Complete set of gaskets  | EA   | 1        |           | -                           | -                                  | -                              |                  |
| f        | Complete set of winding temperature indicating equipment   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| g        | Complete set of oil temperature indicating equipment   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| h        | Pressure Release Device  | EA   | 1        |           | -                           | -                                  | -                              |                  |
| i        | Silica gel breather  | EA   | 1        |           | -                           | -                                  | -                              |                  |
| j        | One valve of each type (Total ...Nos. of valves)   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| k        | Buchholz relay   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| l        | Magnetic oil guage   | EA   | 1        |           | -                           | -                                  | -                              |                  |
|          | <b>Total value of Supply Part</b>  |      |          |           | -                           | -                                  | -                              |                  |
| <b>3</b> | <b>Supervisory Services for commissioning</b>  |      |          |           |                             |                                    |                                |                  |
| a        | Supervisory services for unloading, erection, installation, testing and commissioning of transformer being supplied as above   | Days | 3        |           | -                           | -                                  | -                              |                  |
|          | <b>Total Value of Supply + Service</b>   |      |          |           |                             |                                    | -                              |                  |

**Note :** Bidder to consider only the quantities of Transformers mentioned in the D.6 Price Bid Format and shall prevail over any other/additional quantities of transformer mentioned elsewhere in the tender.

Seal of the Company:

FORMAT D.5

Price Bid Format

Tender No- CC26NK004

Package Name - 800 kVA, 22/0.415 kV, Dyn11 DISTRIBUTION TRANSFORMER @ Ambernath

**Bill of Material Transformer & supervisory services for commissioning**

| Sr No.   | Item Description   | Unit | Quantity | Unit Rate | Applicable Taxes and Duties | Total All Inclusive Unit Rate (Rs) | Total All Inclusive Value (Rs) | Mention HSN Code |
|----------|--|------|----------|-----------|-----------------------------|------------------------------------|--------------------------------|------------------|
| <b>1</b> | <b>Supply of Transformer</b>   |      |          |           |                             |                                    |                                |                  |
| a        | Design, manufacture, factory testing, packing, route survey, delivery of 3 phase, Oil filled, 50 Hz, 800 kVA, 22/0.415 kV, Dyn11 transformer including all accessories as per the specific and general requirements and complete with bushings, cable box, conservator etc. with 10% extra oil (filling of transformer, conservator and radiators + 10% extra) | EA   | 1        |           | -                           | -                                  | -                              |                  |
| <b>2</b> | <b>Supply of spares with the transformer. (Qty 01 for each type)</b>   |      |          |           |                             |                                    |                                |                  |
| a        | HV phase bushing   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| b        | LV Phase bushing   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| c        | LV Neutral bushing   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| d        | Complete set of gaskets  | EA   | 1        |           | -                           | -                                  | -                              |                  |
| f        | Complete set of winding temperature indicating equipment   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| g        | Complete set of oil temperature indicating equipment   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| h        | Pressure Release Device  | EA   | 1        |           | -                           | -                                  | -                              |                  |
| i        | Silica gel breather  | EA   | 1        |           | -                           | -                                  | -                              |                  |
| j        | One valve of each type (Total ...Nos. of valves)   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| k        | Buchholz relay   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| l        | Magnetic oil guage   | EA   | 1        |           | -                           | -                                  | -                              |                  |
|          | <b>Total value of Supply Part</b>  |      |          |           | -                           |                                    | -                              |                  |
| <b>3</b> | <b>Supervisory Services for commissioning</b>  |      |          |           |                             |                                    |                                |                  |
| a        | Supervisory services for unloading, erection, installation, testing and commissioning of transformer being supplied as above   | Days | 3        |           | -                           | -                                  | -                              |                  |
|          | <b>Total Value of Supply + Service</b>   |      |          |           |                             |                                    | -                              |                  |

**Note :** Bidder to consider only the quantities of Transformers mentioned in the D.6 Price Bid Format and shall prevail over any other/additional quantities of transformer mentioned elsewhere in the tender.

Seal of the Company:

FORMAT D.5

Price Bid Format

Tender No- CC26NK004

Package Name - 800 kVA, 22/0.415 kV, Dyn11 DISTRIBUTION TRANSFORMER @ Mankhurd

**Bill of Material Transformer & supervisory services for commissioning**

| Sr No.   | Item Description   | Unit | Quantity | Unit Rate | Applicable Taxes and Duties | Total All Inclusive Unit Rate (Rs) | Total All Inclusive Value (Rs) | Mention HSN Code |
|----------|--|------|----------|-----------|-----------------------------|------------------------------------|--------------------------------|------------------|
| <b>1</b> | <b>Supply of Transformer</b>   |      |          |           |                             |                                    |                                |                  |
| a        | Design, manufacture, factory testing, packing, route survey, delivery of 3 phase, Oil filled, 50 Hz, 800 kVA, 22/0.415 kV, Dyn11 transformer including all accessories as per the specific and general requirements and complete with bushings, cable box, conservator etc. with 10% extra oil (filling of transformer, conservator and radiators + 10% extra) | EA   | 2        |           | -                           | -                                  | -                              |                  |
| <b>2</b> | <b>Supply of spares with the transformer. (Qty 01 for each type)</b>   |      |          |           | -                           |                                    | -                              |                  |
| a        | HV phase bushing   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| b        | LV Phase bushing   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| c        | LV Neutral bushing   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| d        | Complete set of gaskets  | EA   | 1        |           | -                           | -                                  | -                              |                  |
| f        | Complete set of winding temperature indicating equipment   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| g        | Complete set of oil temperature indicating equipment   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| h        | Pressure Release Device  | EA   | 1        |           | -                           | -                                  | -                              |                  |
| i        | Silica gel breather  | EA   | 1        |           | -                           | -                                  | -                              |                  |
| j        | One valve of each type (Total ...Nos. of valves)   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| k        | Buchholz relay   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| l        | Magnetic oil guage   | EA   | 1        |           | -                           | -                                  | -                              |                  |
|          | <b>Total value of Supply Part</b>  |      |          |           | -                           |                                    | -                              |                  |
| <b>3</b> | <b>Supervisory Services for commissioning</b>  |      |          |           |                             |                                    |                                |                  |
| a        | Supervisory services for unloading, erection, installation, testing and commissioning of transformer being supplied as above   | Days | 6        |           | -                           | -                                  | -                              |                  |
|          | <b>Total Value of Supply + Service</b>   |      |          |           |                             |                                    | -                              |                  |

**Note :** Bidder to consider only the quantities of Transformers mentioned in the D.6 Price Bid Format and shall prevail over any other/additional quantities of transformer mentioned elsewhere in the tender.

Seal of the Company:

FORMAT D.5

Price Bid Format

Tender No- CC26NK004

Package Name - 800 kVA, 22/0.415 kV, Dyn11 DISTRIBUTION TRANSFORMER @ Salsette

**Bill of Material Transformer & supervisory services for commissioning**

| Sr No.   | Item Description   | Unit | Quantity | Unit Rate | Applicable Taxes and Duties | Total All Inclusive Unit Rate (Rs) | Total All Inclusive Value (Rs) | Mention HSN Code |
|----------|--|------|----------|-----------|-----------------------------|------------------------------------|--------------------------------|------------------|
| <b>1</b> | <b>Supply of Transformer</b>   |      |          |           |                             |                                    |                                |                  |
| a        | Design, manufacture, factory testing, packing, route survey, delivery of 3 phase, Oil filled, 50 Hz, 800 kVA, 22/0.415 kV, Dyn11 transformer including all accessories as per the specific and general requirements and complete with bushings, cable box, conservator etc. with 10% extra oil (filling of transformer, conservator and radiators + 10% extra) | EA   | 2        |           | -                           | -                                  | -                              |                  |
| <b>2</b> | <b>Supply of spares with the transformer. (Qty 01 for each type)</b>   |      |          |           | -                           |                                    | -                              |                  |
| a        | HV phase bushing   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| b        | LV Phase bushing   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| c        | LV Neutral bushing   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| d        | Complete set of gaskets  | EA   | 1        |           | -                           | -                                  | -                              |                  |
| f        | Complete set of winding temperature indicating equipment   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| g        | Complete set of oil temperature indicating equipment   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| h        | Pressure Release Device  | EA   | 1        |           | -                           | -                                  | -                              |                  |
| i        | Silica gel breather  | EA   | 1        |           | -                           | -                                  | -                              |                  |
| j        | One valve of each type (Total ...Nos. of valves)   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| k        | Buchholz relay   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| l        | Magnetic oil guage   | EA   | 1        |           | -                           | -                                  | -                              |                  |
|          | <b>Total value of Supply Part</b>  |      |          |           | -                           |                                    | -                              |                  |
| <b>3</b> | <b>Supervisory Services for commissioning</b>  |      |          |           |                             |                                    |                                |                  |
| a        | Supervisory services for unloading, erection, installation, testing and commissioning of transformer being supplied as above   | Days | 6        |           | -                           | -                                  | -                              |                  |
|          | <b>Total Value of Supply + Service</b>   |      |          |           |                             |                                    | -                              |                  |

**Note :** Bidder to consider only the quantities of Transformers mentioned in the D.6 Price Bid Format and shall prevail over any other/additional quantities of transformer mentioned elsewhere in the tender.

Seal of the Company:

FORMAT D.5

Price Bid Format

Tender No- CC26NK004

Package Name - 800 kVA, 33/0.415 kV, Dyn11 DISTRIBUTION TRANSFORMER @ Karanjade

**Bill of Material Transformer & supervisory services for commissioning**

| Sr No.   | Item Description   | Unit | Quantity | Unit Rate | Applicable Taxes and Duties | Total All Inclusive Unit Rate (Rs) | Total All Inclusive Value (Rs) | Mention HSN Code |
|----------|--|------|----------|-----------|-----------------------------|------------------------------------|--------------------------------|------------------|
| <b>1</b> | <b>Supply of Transformer</b>   |      |          |           |                             |                                    |                                |                  |
| a        | Design, manufacture, factory testing, packing, route survey, delivery of 3 phase, Oil filled, 50 Hz, 800 kVA, 33/0.415 kV, Dyn11 transformer including all accessories as per the specific and general requirements and complete with bushings, cable box, conservator etc. with 10% extra oil (filling of transformer, conservator and radiators + 10% extra) | EA   | 1        |           | -                           | -                                  | -                              |                  |
| <b>2</b> | <b>Supply of spares with the transformer. (Qty 01 for each type)</b>   |      |          |           |                             |                                    |                                |                  |
| a        | HV phase bushing   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| b        | LV Phase bushing   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| c        | LV Neutral bushing   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| d        | Complete set of gaskets  | EA   | 1        |           | -                           | -                                  | -                              |                  |
| f        | Complete set of winding temperature indicating equipment   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| g        | Complete set of oil temperature indicating equipment   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| h        | Pressure Release Device  | EA   | 1        |           | -                           | -                                  | -                              |                  |
| i        | Silica gel breather  | EA   | 1        |           | -                           | -                                  | -                              |                  |
| j        | One valve of each type (Total ...Nos. of valves)   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| k        | Buchholz relay   | EA   | 1        |           | -                           | -                                  | -                              |                  |
| l        | Magnetic oil guage   | EA   | 1        |           | -                           | -                                  | -                              |                  |
|          | <b>Total value of Supply Part</b>  |      |          |           | -                           |                                    | -                              |                  |
| <b>3</b> | <b>Supervisory Services for commissioning</b>  |      |          |           |                             |                                    |                                |                  |
| a        | Supervisory services for unloading, erection, installation, testing and commissioning of transformer being supplied as above   | Days | 3        |           | -                           | -                                  | -                              |                  |
|          | <b>Total Value of Supply + Service</b>   |      |          |           |                             |                                    | -                              |                  |

**Note :** Bidder to consider only the quantities of Transformers mentioned in the D.6 Price Bid Format and shall prevail over any other/additional quantities of transformer mentioned elsewhere in the tender.

Seal of the Company:



# Technical Specifications

CONFIDENTIAL

# THE TATA POWER COMPANY LIMITED

## TECHNICAL SPECIFICATIONS FOR DESIGN, MANUFACTURING AND SUPPLY OF DISTRIBUTION TYPE TRANSFORMERS

### TECHNICAL SPECIFICATIONS FOR

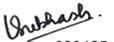
Various Distribution Transformers at Tata Power

(DOCUMENT NO – TE/SP/0040/FY25)



**Tata Power**

**Engineering T & D**

| Revision | Date       | Description            | Approvals  |   |  |
|----------|------------|------------------------|--|---|--|
|          |            |                        | Prepared By  | Checked By  | Approved By  |
| A        | 18-03-2025 | Initial specifications | RT<br> | VK<br> | SKV<br><br>020425 |

|   |  |                                       |
|---|--|---------------------------------------|
| TE/SP/0040/FY25<br>Rev: A<br>Date: 18.03.2025 | <b>TECHNICAL SPECIFICATIONS FOR<br/>DESIGN, MANUFACTURING AND SUPPLY OF<br/>DISTRIBUTION TYPE TRANSFORMERS</b> | Section-A<br>Contents<br>Page 2 of 10 |
|   | <b>Specifications for various distribution type<br/>transformers</b>   |                                       |

**CHECK LIST FOR DOCUMENTS TO BE SUBMITTED ALONG WITH THE BID**

| <b>S No</b> | <b>Document Name</b>  | <b>Submitted by Bidder<br/>Yes / No</b> |
|-------------|---|---|
| <b>1</b>    | Signed copy of bid document as a token of acceptance  |   |
| <b>2</b>    | Dully filled in schedules, listed in section 'C'. i.e. Schedule C1 to C9 – Attached                     |   |
| <b>3</b>    | Qualifying Requirement in Format C1 – Attached as Annexure 1  |   |
| <b>4</b>    | Quality Assurance Plan (QAP), Manufacturing Quality Plan (MQP), Field Quality Plan (FQP) as applicable. |   |
| <b>5</b>    | General Arrangement Drawings for equipment offered  |   |
| <b>6</b>    | Filled up Data Sheets in Format E2 – Attached as Annexure   |   |
| <b>7</b>    | Type Test Reports as applicable.  |   |

**Name of Bidder:****Signature & Stamp:****Date:**

|   |  |                                       |
|---|--|---------------------------------------|
| TE/SP/0040/FY25<br>Rev: A<br>Date: 18.03.2025 | <b>TECHNICAL SPECIFICATIONS FOR<br/>DESIGN, MANUFACTURING AND SUPPLY OF<br/>DISTRIBUTION TYPE TRANSFORMERS</b> | Section-A<br>Contents<br>Page 3 of 10 |
|   | <b>Specifications for various distribution type<br/>transformers</b>   |                                       |

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| <b>A</b>          | <b>SPECIFICATION</b>  |
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| A2                | PROJECT INFORMATION   |
| A3                | SCOPE OF WORK   |
| A4                | TERMINAL POINTS   |
| A5                | EXCLUSIONS  |
| A6                | CODES AND STANDARDS   |
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| Section-B         | STANDARD SPECIFICATIONS FOR DISTRIBUTION TRANSFORMERS UPTO 2.5MVA, 33KV |

|   |  |                           |
|---|--|---------------------------|
| TE/SP/0008/FY23<br>Rev: A<br>Date: 18.03.2025 | <b>TECHNICAL SPECIFICATIONS FOR<br/>DESIGN, MANUFACTURING AND SUPPLY OF<br/>DISTRIBUTION TYPE TRANSFORMERS</b> | Section-A<br>Page 4 of 10 |
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## **A1 INTENT OF SPECIFICATION**

The equipment offered against this specification shall meet the requirements and shall be based on the latest technologies in the respective fields and imitate to the relevant Indian / International Standards and codes of practices.

The document covers the requirements for Design, engineering, manufacture, stage inspection, factory testing, packaging, route survey, delivery, supervisory services for installation, testing and commissioning of transformers at various receiving sub-stations as per IS and IEC standards.

All equipment, systems and services covered under this specification shall comply with all current applicable statutory regulations and safety codes in the locality where the equipment is proposed to be installed. The equipment and systems shall also conform to the latest version of applicable codes and standards on the date of offer made by the Bidder unless otherwise indicated. The specification is covered by two sections viz. Section-A & Section-B. The Section-A covers the specific requirement to the station while Section-B is the Standard specification of the equipment. Bidder shall consider the scope combining both the sections. In case of conflict between Section-A & B, the Section-A will supersede. Nothing in this specification shall be discarded to relieve the Bidder of his responsibility.

|   |  |                           |
|---|--|---------------------------|
| TE/SP/0008/FY23<br>Rev: A<br>Date: 18.03.2025 | <b>TECHNICAL SPECIFICATIONS FOR<br/>DESIGN, MANUFACTURING AND SUPPLY OF<br/>DISTRIBUTION TYPE TRANSFORMERS</b> | Section-A<br>Page 5 of 10 |
|   | <b>Specifications for various distribution type<br/>transformers</b>   |                           |

**A2 PROJECT INFORMATION**

| Sr. No         | Node     | Location  | kVA rating | Voltage rating | HV Connection | LV Connection | QTY |
|----------------|----------|-----------|------------|----------------|---------------|---------------|-----|
| 1              | Kalyan   | Kalyan    | 800        | 22kV/415V      | Cable box     | Cable box     | 1   |
| 2              | Kalyan   | Ambernath | 800        | 22kV/415V      | Cable box     | Cable box     | 1   |
| 3              | Salsette | Salsette  | 800        | 22kV/415V      | Cable box     | Cable box     | 2   |
| 4              | Vikhroli | Mankhurd  | 800        | 22kV/415V      | Cable box     | Cable box     | 2   |
| 5              | Kalyan   | Karanjade | 800        | 33kV/415V      | Cable box     | Cable box     | 2   |
| Total Quantity |          |           |            |                |               |               | 8   |

Table-1: Details of required transformers

Note: At Kalyan, Ambernath, Salsette and Mankhurd existing transformer need to be replaced. At Karanjade new transformers are proposed.

- 1.0 Location of the plant As per table-1
- 2.0 Nearest Rail head CSMT Mumbai, Panvel & Kalyan
- 3.0 Transport Access roads are available for movement of materials to site. Movement of heavy materials would be through existing roads/rail up to respective location.
- 4.0 Climatic conditions
- 4.1 Temperatures :
- (a) Maximum dry bulb temperature 50°C
- (b) Minimum dry bulb temperature 8°C
- (c) Design temperature for 50°C

|   |  |                           |
|---|--|---------------------------|
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|   | <b>Specifications for various distribution type<br/>                 transformers</b>  |                           |

electrical equipment / devices

- (d) Design humidity 100%
- 4.2 Relative humidity
  - (a) Maximum during monsoon 100%
  - (b) Minimum during December to January 22%
- 5.0 Rainfall Annual average rainfall is about 3000 mm (most of which occurs during the monsoon season from June to September)
- 6.0 Wind data
 

Calculations for wind effect shall be in accordance with IS:875 -1987 (Part-3) considering the following:

  - (i) Basic wind speed = 44 m/sec
  - (ii) Factor K1, K2, K3 = as per IS 875 Part-3
  - (iii) Category of terrain = as per IS 875
- 7.0 Seismic conditions The proposed site is located in Seismic Zone III as per IS:1893-2002 (BIS, 2002) and importance factor of 1.75
- 8.0 Air Quality Atmosphere polluted with industrial gases and wastes because of proximity to nearby industrial area.
- 9.0 System earthing Effectively earthed
- 10.0 Auxiliary Power Supply: 3 phase 415 V auxiliary power supply is available
  - (a) Lighting fixtures and space heaters 240V, 1 phase, 2 wire, 50Hz AC supply with neutral lead earthed.
  - (b) SCADA Supply Not applicable

|   |  |                           |
|---|--|---------------------------|
| TE/SP/0008/FY23<br>Rev: A<br>Date: 18.03.2025                                 | <b>TECHNICAL SPECIFICATIONS FOR<br/>         DESIGN, MANUFACTURING AND SUPPLY OF<br/>         DISTRIBUTION TYPE TRANSFORMERS</b> | Section-A<br>Page 7 of 10 |
| <b>Specifications for various distribution type<br/>         transformers</b> |  |                           |

(c) Construction supply 415V, 3 phase, 4 wire, 50Hz AC supply may or may not be available depending on site conditions

(d) The above voltages may vary as follows:

All devices shall be suitable for continuous operation over the entire range of voltage and frequency indicated below without any change in their performance.

|           |   |
|-----------|---|
| AC supply | Voltage variation $\pm 10\%$<br>Frequency variation $\pm 5\%$<br>Combined voltage & frequency variation 10% |
| DC supply | Voltage variation $\pm 10\%$  |

### A3 SCOPE OF WORK

- Design, engineering, manufacture, stage inspection, factory testing, packaging, route survey, delivery, supervisory services for installation, testing and commissioning of these transformers at various receiving sub-stations as per IS and IEC standards.
- Transformers are proposed to be erected by removing existing transformer of similar rating. Matching the outer dimensions, wheel to wheel distances and HV & LV side orientations of existing transformer is in bidder's scope.
- Dimensions and details of existing transformers are attached as ANNEXURE no A1. In case of further details required, bidder shall conduct site visit and collect the data.
- General scope of work is as per Section-B Standard Technical Specifications for 3-Ph Oil filled Distribution transformer Document - ENGG/ELECT/STD-SPECS/81-point number-3.

### A4 TERMINAL POINTS

- HV and LV cable box of transformer.

### A5 EXCLUSIONS

|   |  |                           |
|---|--|---------------------------|
| TE/SP/0008/FY23<br>Rev: A<br>Date: 18.03.2025                                 | <b>TECHNICAL SPECIFICATIONS FOR<br/>         DESIGN, MANUFACTURING AND SUPPLY OF<br/>         DISTRIBUTION TYPE TRANSFORMERS</b> | Section-A<br>Page 8 of 10 |
| <b>Specifications for various distribution type<br/>         transformers</b> |  |                           |

- Unloading and erection of transformers will be done by Tata Power under supervision of bidder's engineer.
- Removal of existing transformer at site will be done by Tata Power.
- Transformer grid side earthing is excluded from bidder's scope.
- Any civil work at site is excluded from bidder's scope.

#### **A6 CODES AND STANDRS**

Refer Section-B Standard Technical Specifications for 3-Ph Oil filled Distribution transformer Document - ENGG/ELECT/STD-SPECS/81-point number 4.

#### **A7 BIDDER'S QUALIFICATION REQUIREMENTS**

Refer Section-B Standard Technical Specifications for 3-Ph Oil filled Distribution transformer Document - ENGG/ELECT/STD-SPECS/81-point number 2.

#### **A8 PROJECT SCHEDULE / MILESTONES**

Bidder shall submit with the bid, a detailed Project Schedule covering the following based on the milestones as follows:

- a. Start of 'Engineering' – Within 2 weeks after PO
- b. Submission of drawings – Within 3 weeks after PO
- c. Completion of 'Engineering' – Within 6 weeks after PO
- d. Commencement of Manufacturing process – Within 7 weeks after PO
- e. Factory Inspection – Within 15 weeks of PO
- f. Completion of Supply – Within 16 weeks after PO

#### **A9 SUBMISSIONS BY BIDDERS**

Refer Section-B Standard Technical Specifications for 3-Ph Oil filled Distribution Transformer Document - ENGG/ELECT/STD-SPECS/81-point number 12.

#### **A10 DETAILED TECHNICAL SPECIFICATIONS**

|   |  |                           |
|---|--|---------------------------|
| TE/SP/0008/FY23<br>Rev: A<br>Date: 18.03.2025                                 | <b>TECHNICAL SPECIFICATIONS FOR<br/>         DESIGN, MANUFACTURING AND SUPPLY OF<br/>         DISTRIBUTION TYPE TRANSFORMERS</b> | Section-A<br>Page 9 of 10 |
| <b>Specifications for various distribution type<br/>         transformers</b> |  |                           |

- a. The complete transformer shall be designed as per Standard Technical Specifications for 3-Ph Oil filled Distribution Transformer Document - ENGG/ELECT/STD-SPECS/81. The kVA rating and voltage rating is shown in Table1.
- b. For the detailed insulation withstand, clearances and other ratings please refer standard specifications Section-B.
- c. Both HV & LV cable box shall be provided with thermostat and heaters despite having louvers.
- d. For all the transformers, turret / bushing CT shall be provided as per Section-B specs.

#### **A11 LAYOUT REQUIREMENTS**

1. For General layout arrangements, please refer standard specifications ENGG/ELECT/STD-SPECS/81 and ANNEXURE -A1.
2. Some of the transformers are proposed to be erected by removing existing transformer of similar rating as per Annexure-A1. Bidder shall match the new transformer with existing foundation, transformer pit, HV and LV orientations, wheel distances and outer dimensions, etc.

#### **A12 QUALITY REQUIREMENTS**

Refer standard specifications ENGG/ELECT/STD-SPECS/81.

#### **A13 PERFORMANCE REQUIREMENTS**

Refer standard specifications ENGG/ELECT/STD-SPECS/81.

#### **A14 SPARES**

Please refer bill of material.

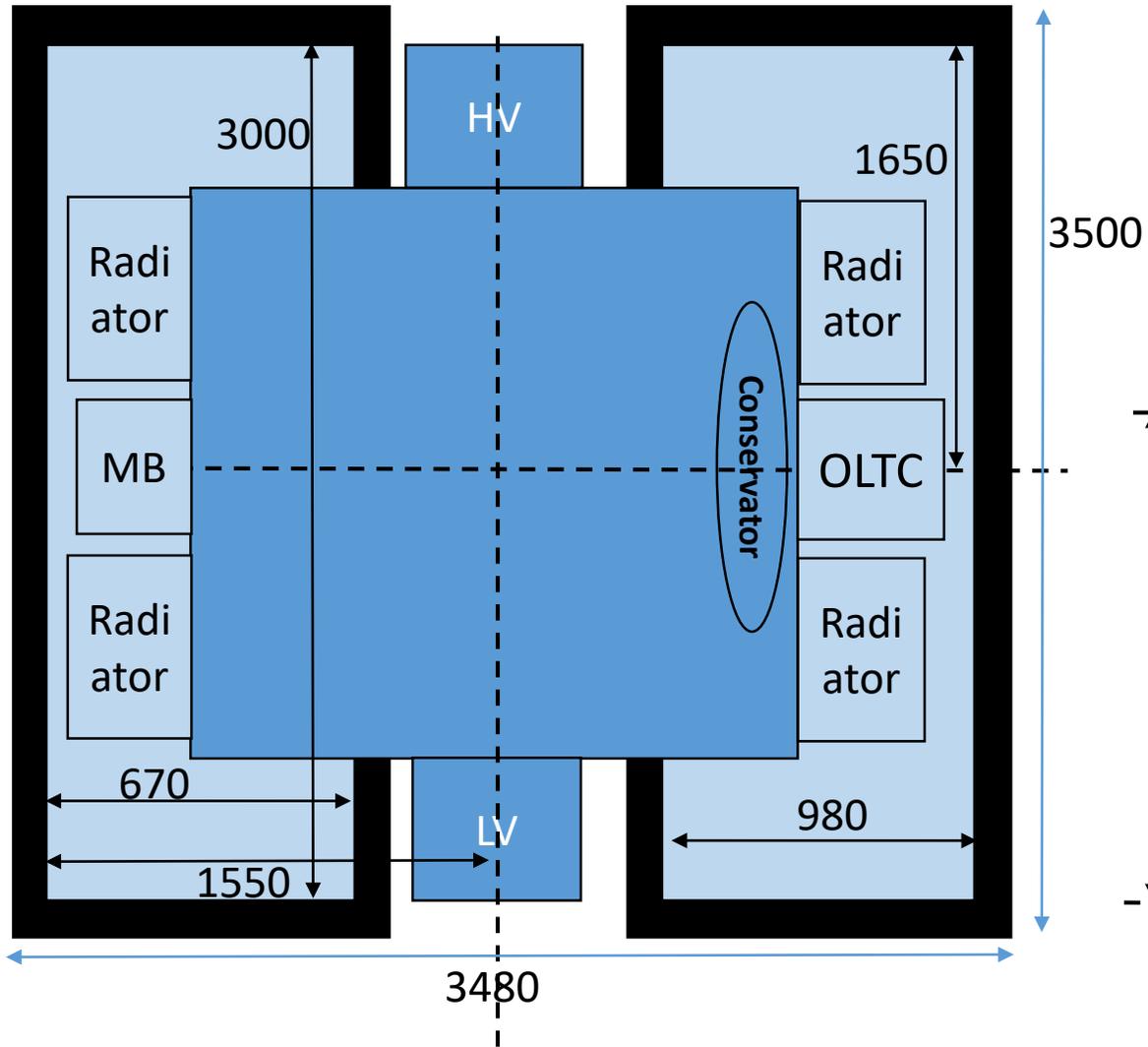
#### **A15 – DATA SHEET**

|   |  |                            |
|---|--|----------------------------|
| TE/SP/0008/FY23<br>Rev: A<br>Date: 18.03.2025 | <b>TECHNICAL SPECIFICATIONS FOR<br/>DESIGN, MANUFACTURING AND SUPPLY OF<br/>DISTRIBUTION TYPE TRANSFORMERS</b> | Section-A<br>Page 10 of 10 |
|   | <b>Specifications for various distribution type<br/>transformers</b>   |                            |

Data sheet – General Technical shall be filled by bidder as per Standard Technical Specifications for 3-Ph Oil filled Distribution transformer Document - ENGG/ELECT/STD-SPECS/81-point number-8.

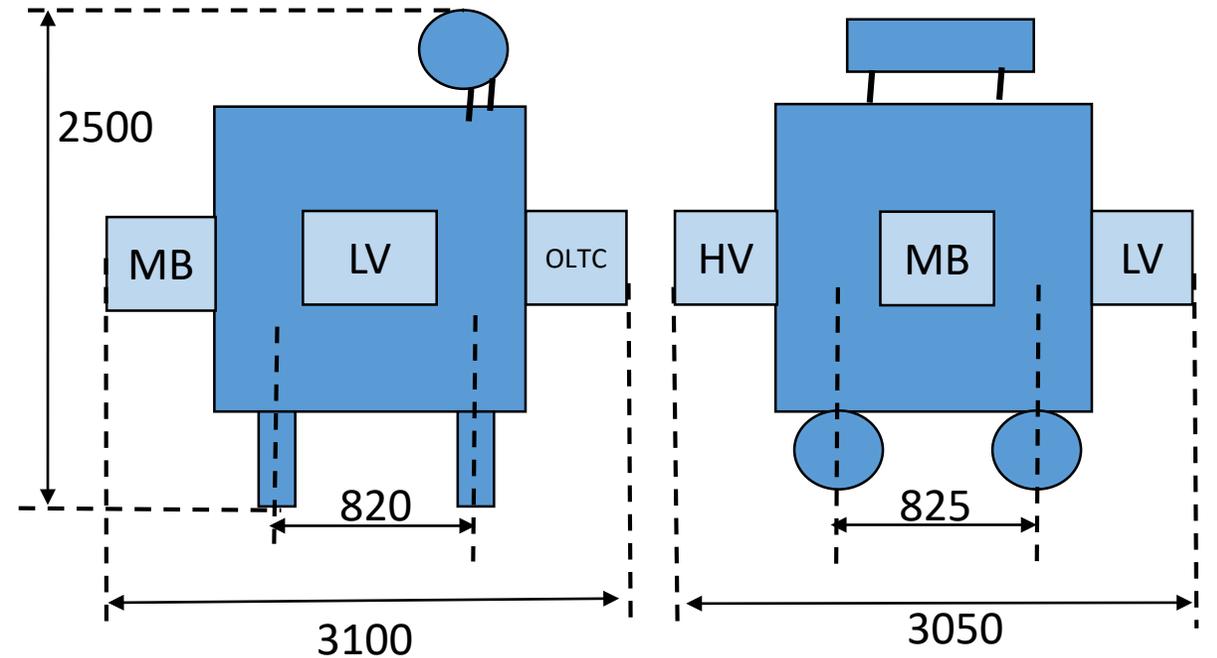
**A16**      **ANNEXURES**

1. Kalyan - 800kVA, 22kV/415V - ST1

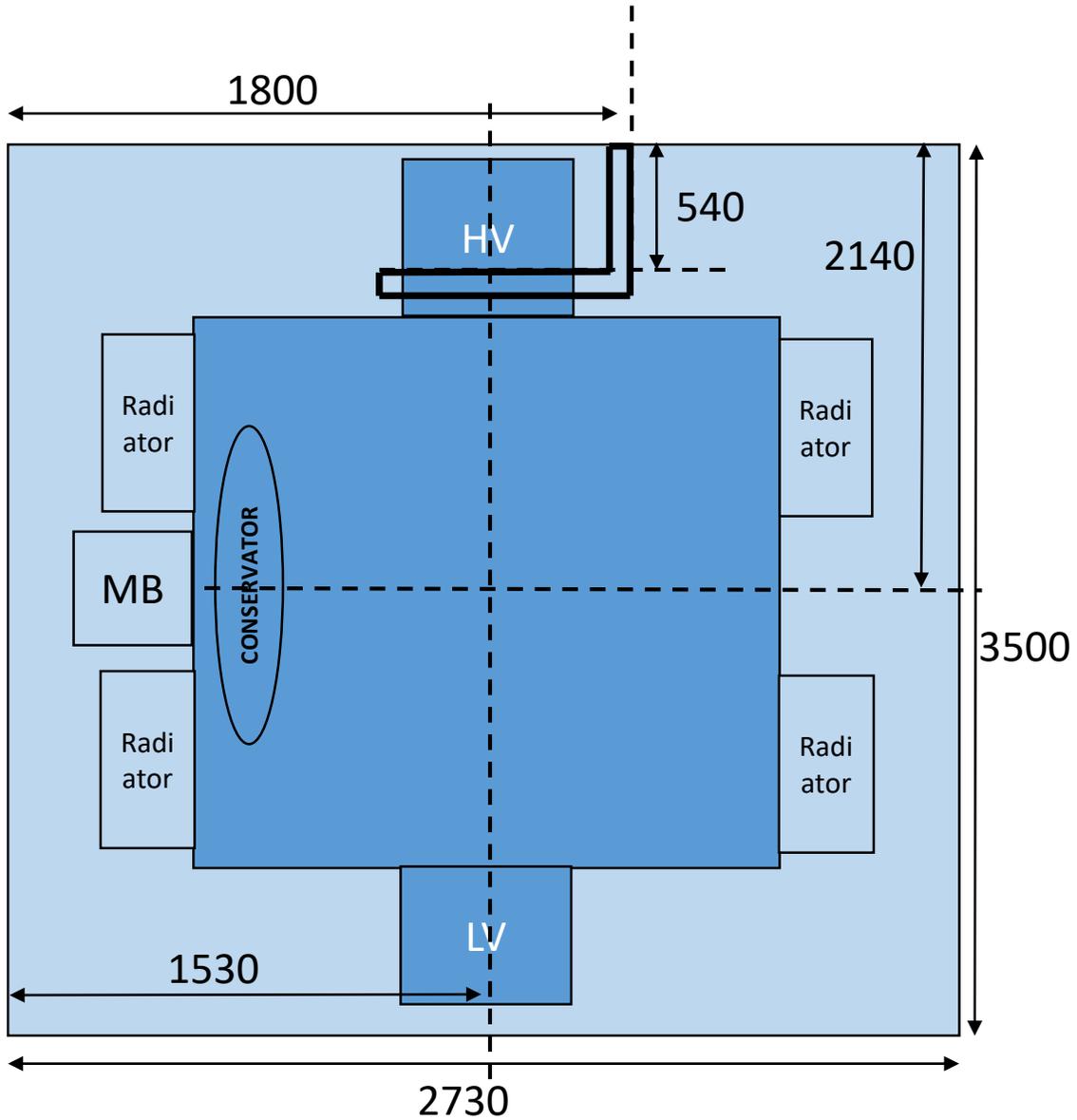


1. Replacement at Existing foundation.
2. Existing transformer rating: 750 KVA, 22kV/433V  
**(CROPMTON make)**
3. Wheels type: Flat
4. Conductor/Cable: Cable

*All dimensions are in mm*

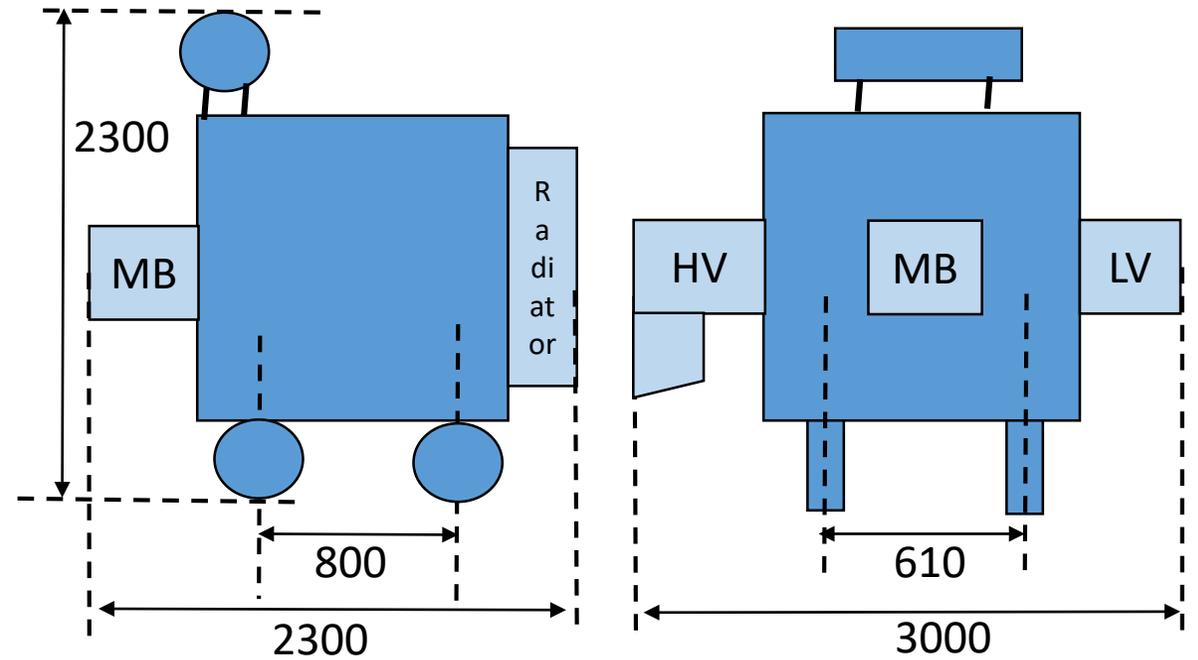


## 2. Ambernath- 800kVA, 22kV/415V - ST1

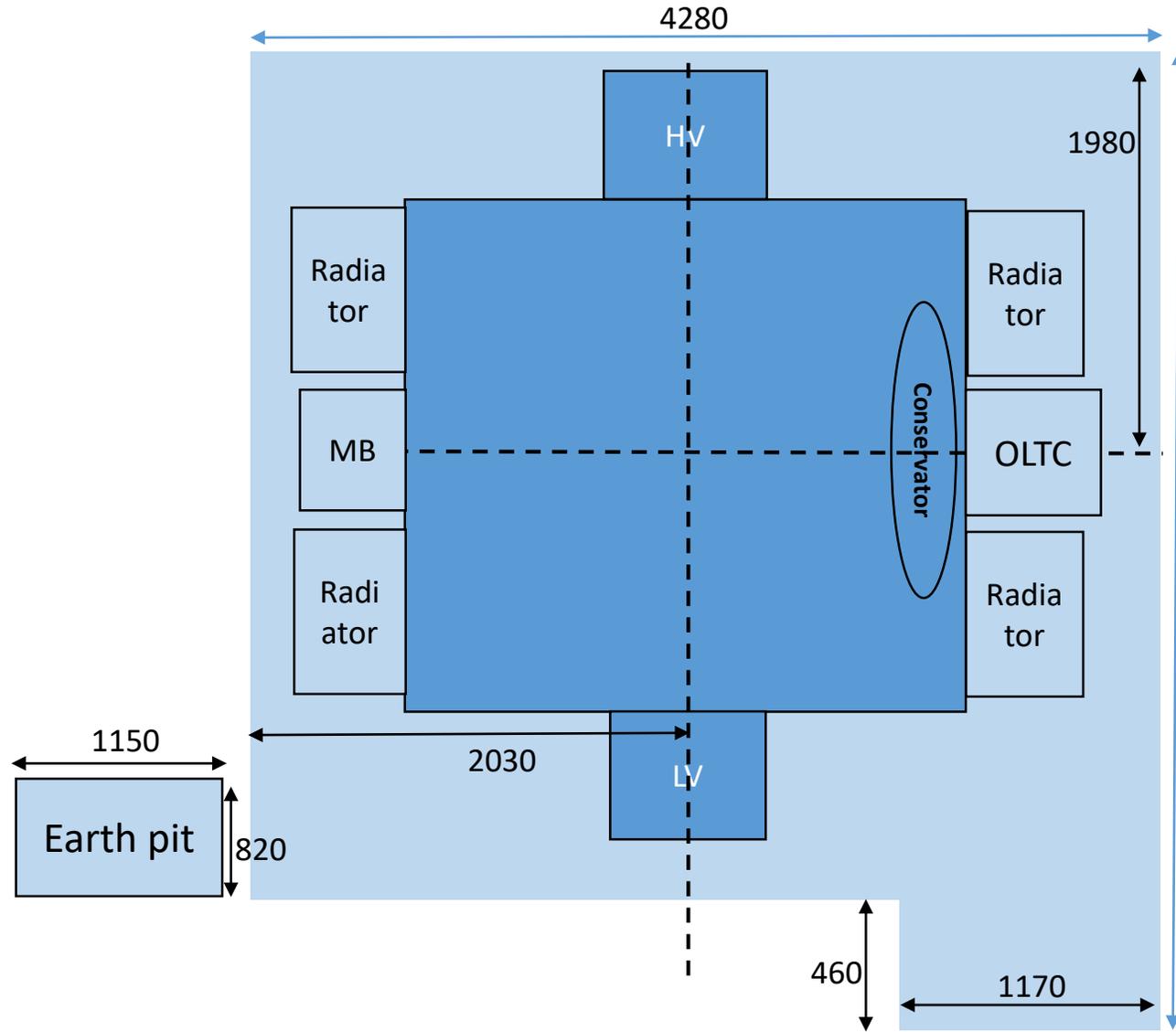


1. Replacement at Existing foundation.
2. Existing transformer rating: 750 KVA, 22kV/433V (**VOLTAS make**)
3. Wheels type: Flat
4. Conductor/Cable: Cable

*All dimensions are in mm*

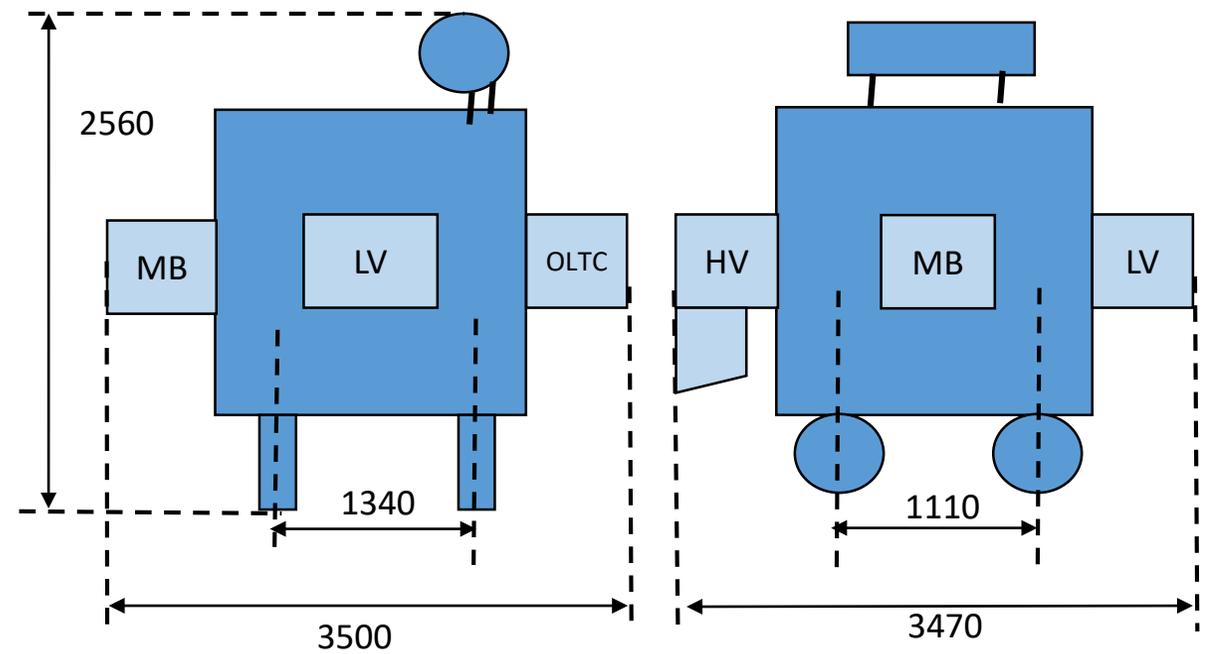


### 3. Mankhurd - 800kVA, 22kV/415V – ST1

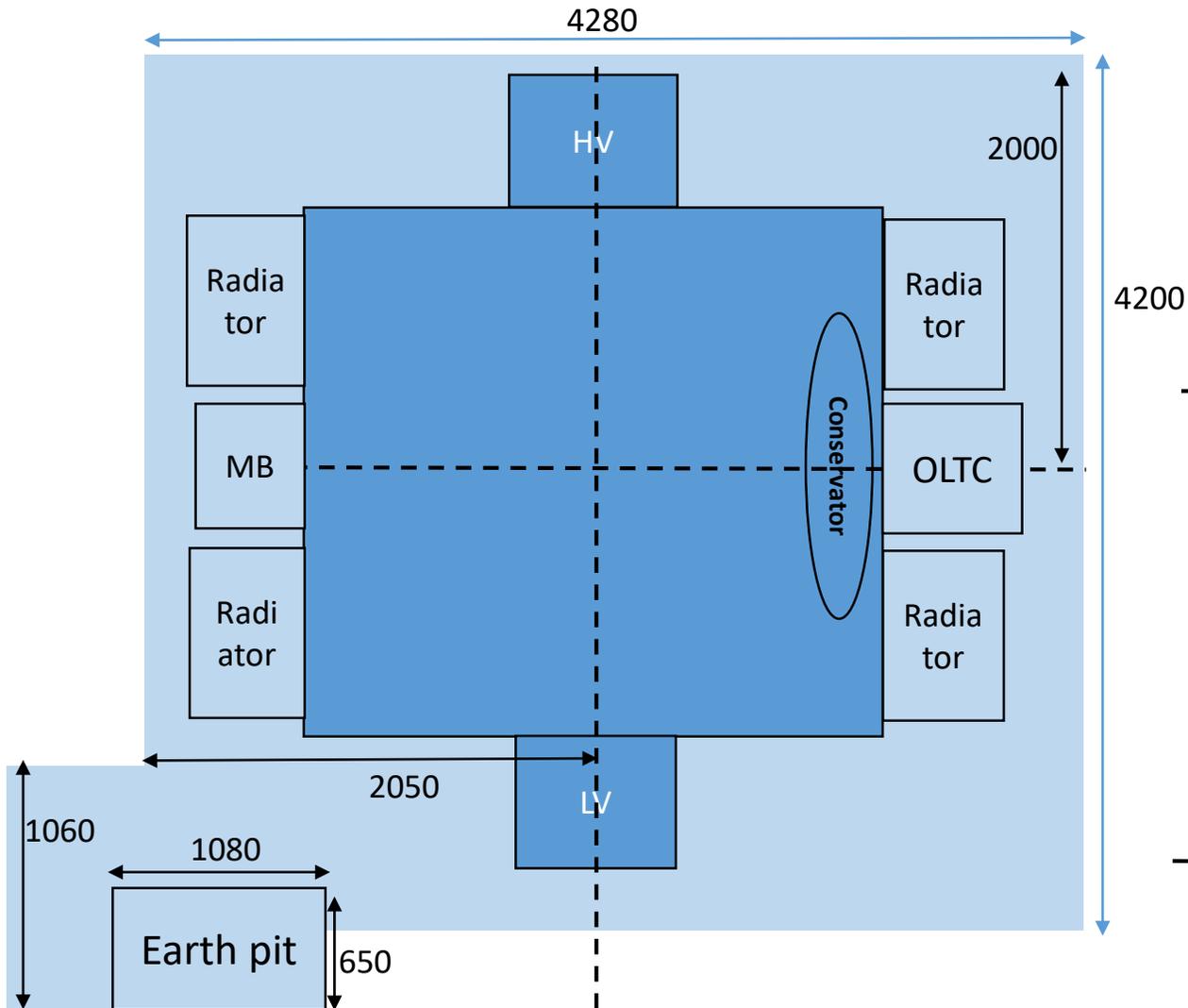


1. Replacement at Existing foundation.
2. Existing transformer rating: 500 KVA, 22kV/433V  
*(Crompton make, 1998)*
3. Wheels type: Flat
4. Conductor/Cable: Cable

*All dimensions are in mm*

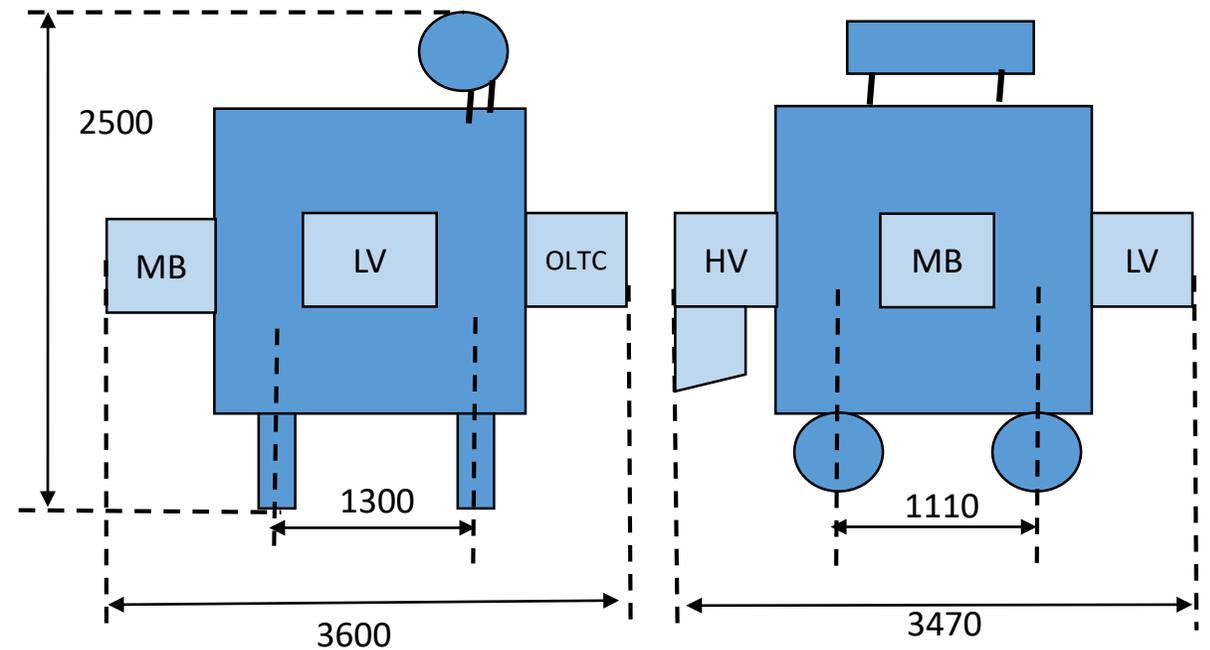


#### 4. Mankhurd - 800kVA, 22kV/415V – ST2



1. Replacement at Existing foundation.
2. Existing transformer rating: 500 KVA, 22kV/433V  
*(Crompton make, 1996)*
3. Wheels type: Flat
4. Conductor/Cable: Cable

*All dimensions are in mm*







7. Karanjade (2 nos.) - 800kVA, 33kV/415V

Details:

1. At new location
2. Wheels type: Flat
3. Conductor/Cable: Cable

# SECTION-B

THE TATA POWER COMPANY LIMITED

STANDARD TECHNICAL SPECIFICATIONS  
FOR

“3-PH OIL FILLED DISTRIBUTION TRANSFORMERS UPTO 33KV AND 2.5MVA”

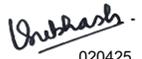
(DOCUMENT NO - ENGG/ ELECT/STD-SPECS/81)



**Tata Power  
Engineering T & D**

| Rev. No | Date       | Revision History  | Prepared By | Checked By | Approved By (HOD) |
|---------|------------|---|-------------|------------|-------------------|
| R0      | 25-06-2019 | First Copy  | VK/VAS      | SBL        | AM                |
| R1      | 23-04-2020 | Revision due to standard PQR  | VK/VAS      | SVD        | AM                |
| A       | 10-06-2021 | Revised TB, 2 valves for BZ, system FL, loss for non-standard kVA Xmer, MOG etc   | VK/VAS      | SVD        | AM                |
| B       | 20-07-2021 | CTR changed, Point no 8 -Included Creepage distance for bushing   | SC          | VK         | AM                |
| C       | 04-05-2022 | Transformer efficiency level modification, CT accuracy change, addition of supporting structure to hold HV and LV side cables, addition of approved sub-vendor list, tap percentage modifications | SB          | VK         | AM/UGP            |
| D       | 14-11-2022 | LV side voltage level updating to 415V, Canopy requirement modification, addition of sub vendor list for OCTC   | SB          | VK         | UGP               |

|   |   |              |
|---|---|--------------|
| ENGG/ELECT/STD-SPECS/81<br>Rev- E<br>Date: 18-03-2025 | <b>Standard Technical Specifications</b>                                  | Page 2 of 31 |
|   | <b>3-PH OIL FILLED DISTRIBUTION TRANSFORMERS<br/>UPTO 33kV AND 2.5MVA</b> |              |

|   |            |                                  |  |   |  |
|---|------------|----------------------------------|--|---|--|
| E | 18-03-2025 | Modifications based on learnings | RT<br> | VK<br> | SKV<br><br>020425 |
|---|------------|----------------------------------|--|---|--|

|   |   |              |
|---|---|--------------|
| ENGG/ELECT/STD-SPECS/81<br>Rev- E<br>Date: 18-03-2025 | <b>Standard Technical Specifications</b>                                  | Page 3 of 31 |
|   | <b>3-PH OIL FILLED DISTRIBUTION TRANSFORMERS<br/>UPTO 33kV AND 2.5MVA</b> |              |

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| 2.0     | Approved Vendor List and Qualifying Requirements   |
| 2.1     | Approved Vendor List   |
| 2.2     | Qualifying Requirements  |
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| 4.0     | Codes & Standards  |
| 5.0     | Design Requirements  |
| 6.0     | Layout Requirements for the Equipment / System   |
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| 7.1     | Operational Requirements   |
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| 7.3     | Safety Requirements  |
| 8.0     | Technical Parameters of Equipment (incl. Data Sheet)   |
| 9.0     | Quality Requirements, Inspection and Testing (incl. SQP & SFP)   |
| 10.0    | Performance Requirements   |
| 11.0    | Mandatory Spares and Special Tools & Tackles   |
| 11.1    | Mandatory Spares   |
| 11.2    | Special Tools & Tackles  |
| 12.0    | Data Submission by Bidder  |
| 12.1    | Along with Bid   |
| 12.2    | After Award of Contract  |
| 13.0    | Annexures  |
|         | Annexure-1 Bidders Pre-qualification requirements  |
|         | Annexure-1 Standard Quality Plan   |
|         | Annexure-2 Standard Field Quality Plan   |
|         | Annexure-4 Acceptance of Similarity certificate for Type test reports of a similar transformer as per IS-2026 Part-5 |
|         | Annexure-5 Parameters for transformer oil  |

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## 1. INTRODUCTION :

This specification has defined the detailed technical requirements for general "Up to 2.5MVA, 6.6kV to 33kV/415V, Dyn11, ONAN, 3-ph Oil filled distribution transformers ".

The specifications scope covers requirements for Design, engineering, manufacture, stage inspection, factory testing, packaging, route survey, delivery, supervisory services for installation, testing and commissioning of transformers at various receiving sub-stations as per IS and IEC standards.

## 2. BIDDER'S QUALIFICATION REQUIREMENTS

Please refer Annexure-1 for bidders qualification requirement.

## 3. SYSTEM DESCRIPTION AND SCOPE:

3.1.1 Design, engineering, manufacture, stage inspection, factory testing, packaging, route survey, delivery, supervisory services for installation, testing and commissioning of oil immersed, naturally cooled, three phase type transformer as below.

3.1.2 Service Conditions:

Maximum ambient air temperature - 50 deg C

Minimum Ambient air temperature - - 5 deg C

Maximum average daily ambient air temperature - 40 deg C

Environmental conditions - Highly corrosive, Pollutive, Humid, Industrial environment

3.1.3 The transformer shall be oil immersed, naturally cooled with Dyn11 vector group. One of the voltage rating shall apply as per site requirements: 6.6kV/415V, 11kV/415V, 22kV/415V, 33kV/415V.

Transformer shall meet following technical requirement:

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| Sr. No. | Rating                                     | TYPE-A:<br>6.6kV/415V                                 | TYPE-B:<br>11kV/415V                                  | TYPE-C:<br>22kV/415V                                  | TYPE-D:<br>33kV/415V                                  |
|---------|--|---|---|---|---|
| 1.      | HV winding highest System Voltage (kV)     | 7.2   | 12  | 24  | 36  |
| 2.      | HV winding nominal voltage rating (kV)     | 6.6   | 11  | 22  | 33  |
| 3.      | HV winding Impulse withstand voltage (kVp) | 60  | 75  | 125   | 170   |
| 4.      | HV winding power frequency withstand (kV)  | 20  | 28  | 50  | 70  |
| 5.      | HV bushing nominal voltage (kV)            | 12  | 17.5  | 36  | 52  |
| 6.      | HV bushing Impulse withstand voltage (kVp) | 75  | 95  | 170   | 250   |
| 7.      | HV bushing power frequency withstand (kV)  | 28  | 38  | 70  | 95  |
| 8.      | LV rated voltage (V)                       | 415   | 415   | 415   | 415   |
| 9.      | Frequency                                  | 50Hz $\pm$ 5%   | 50Hz $\pm$ 5%   | 50Hz $\pm$ 5%   | 50Hz $\pm$ 5%   |
| 10.     | Number of phases                           | 3   | 3   | 3   | 3   |
| 11.     | HV connection                              | Delta   | Delta   | Delta   | Delta   |
| 12.     | LV connection                              | Star<br>(Neutral brought out and grounded externally) |
| 13.     | Vector Group                               | Dyn11   | Dyn11   | Dyn11   | Dyn11   |
| 14.     | Cooling                                    | ONAN  | ONAN  | ONAN  | ONAN  |

3.1.4 HV & LV cable connection or overhead conductor connection will be specified in the Section-A part of the project specification.

#### 4. CODES AND STANDARDS:

Given below are the acceptable code and standards. The Bidder shall take Owners approval for use of other codes & standards

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| Sr. No. | Particular   | Applicable Standards                   |
|---------|--|--|
| 1       | Power Transformer Fittings and Accessories<br>Distribution transformer | IS: 1180, IS:2026, BS:171, IEC 176     |
| 2       | Loading of oil immersed transformer                                    | IS:3639                                |
| 3       | Oil  | IS:1180, IEC 60076                     |
| 4       | Winding Conductor  | IS: 191, IS: 1897, IS: 7404, IS: 12444 |
| 5       | Bushing for > 1000 V, AC   | IS:6600, BS:CP:1010, IEC 60076-7       |
| 6       | Bushing for ≤ 1000 V, AC Degree of protection                          | IS:7421, BS: 148 IEC:326               |
| 7       | Tests & tolerances on guaranteed particulars                           | IS:2099, BS: 223, IEC:60137            |
| 8       | Buchholz relay   | IS:7421                                |
| 9       | Electrical insulation classified by thermal stability                  | IS:1271, IEC:144                       |
| 10      | Climate proofing   | IS:2026, BS:171, IEC:176               |
| 11      | Current transformers   | IS:3637                                |
| 12      | Tap changers   | IS:3637                                |
| 13      | Insulating Kraft Paper   | IS:9335 / IS:1576                      |
| 14      | Insulating Press board   | IS:6600                                |
| 15      | Guide for loading of Oil immersed transformers                         | IS:2026-7                              |

## 5. DESIGN REQUIREMENTS

- 5.1 This section covers the detailed requirements regarding design, supply, installation and commissioning of transformers required for substation. The design, manufacture and performance of equipment shall comply with all currently applicable statues, regulations and safety codes in the locality where the equipment will be installed. Nothing in this specification shall be construed to relieve the BIDDER of this responsibility.
- 5.2 The equipment shall conform to the latest edition of applicable standards. In case of conflict between applicable standards and this specification, this specification shall govern.
- 5.3 Each transformer shall be rated to take care of the entire load on the respective switchgear considering the outage of the other transformer. An appropriate load factor with a minimum of 0.9 for continuously running loads and 0.4 for intermittent loads like cranes, plug points, sump pumps, etc., shall be considered.
- 5.4 The rating established shall be taken into account, load variations during the course of engineering. Due consideration for reduction in capacity due to transformer regulation shall

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be given. Spare capacity of at least 20% shall be available in each transformer at the time of handing over the plant.

- 5.5 Transformers shall operate without injurious heating at the rated KVA at any voltage within  $\pm 10$  percent of the rated voltage of that particular tap.
- 5.6 Transformer shall be capable of withstanding the mechanical and thermal effects of short circuits resulting from different types of system faults that can arise during service.
- 5.7 Creepage distance for transformer bushing shall be 31mm/kV at rated bushing voltage.
- 5.8 Losses:
- 5.9 The bidder shall guarantee individually that the no-load loss and load losses furnished are **without any positive tolerances**. The bidder shall also guarantee the total losses at 50% and 100% load condition (at rated voltage and frequency and at 75 deg C).
- 5.10 It is mandatory that proposed transformer has energy efficiency of **Level-2 as per latest IS1180 (as on date of bid submission)**.
- 5.11 Losses mentioned in latest IS 1180 (as on date of bid submission) shall be maximum without any positive tolerances.
- 5.12 Penalty for Non-performance:  
During testing at bidder's works, if it is found that the actual measured losses are more than the values quoted by the Bidder, the purchaser shall reject the transformer and shall have the right to reject the complete lot. The Purchaser shall reject the entire lot during test at bidder's works, if the temperature rise exceeds the specified values. The Purchaser shall reject any transformer during the test at bidder's works, if the impedance values differ from the guaranteed values including tolerance.
- 5.13 The impedance of the transformers shall be chosen such that the fault level shall not exceed 50 kA on 415 V switchgear including the motor contributions and also voltage dip while starting any auxiliary does not exceed the limit acceptable for the equipment concerned but not exceeding 15%.
- 5.14 General Construction:  
The transformer shall be double-wound, copper coil, oil immersed, naturally cooled (ONAN) and non-sealed type with plain rectangular tank. The transformer and its Accessories shall be designed to facilitate operation, inspection, maintenance and repairs. The design shall incorporate every precaution and provision for the safety of equipment as well as staff engaged in operation and maintenance of equipment. All apparatus, including bushing insulators with their mountings, shall be designed so as to avoid any

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accumulation of water. All devices on transformer shall be provided with canopy for protection from rain. This canopy shall cover the equipment from top as well as from all sides except bottom of the equipment for adequate monsoon protection. Shed type canopy is not acceptable.

#### 5.14.1 Core:

The core shall be stack type of high-grade cold rolled, non-ageing, grain oriented, annealed silicon steel lamination (CRGO), having low loss & good grain properties, coated with hot oil proof insulation, bolted together to the frames firmly to prevent vibration or noise. Scrap CRGO material shall not be used for transformers. The grade of core shall be M3 or better. The core shall be stress relieved by annealing under inert atmosphere if required. All core clamping bolts (If any) shall be effectively insulated. Only one grade and one thickness of core shall be accepted and no mixing of different grades shall be allowed. The complete design of the core must ensure permanency of the core losses with continuous working of the transformers. The value of the maximum flux density allowed in the design & grade of laminations used shall be clearly stated in the offer. Antirust paint on the edges of lamination shall be applied. The successful bidder is required to submit the following documents about the procurement of core material

- a) Invoice of supplier
- b) Mill's test certificate
- c) Packing list
- d) Bill of landing
- e) Bill of entry certificate by custom
- f) Description of material, electrical analysis, physical inspection certificate for surface defects, thickness and width of the material.

The core shall be earthed at only one location outside the tank through bushing and anti-rust paint/varnish on non-coated side of lamination shall be provided. The bidder shall offer the core for inspection and approval of the Purchaser during manufacturing stage.

Owner shall impose heavy penalty or blacklist the bidders using seconds/defective CRGO sheets.

The transformer shall be suitable for continuous service without damage under conditions of over fluxing' (due to combined effect of voltage and frequency) where the ratio of voltage over frequency exceeds the corresponding ratio at rated voltage and rated frequency up to 12.5% and the core shall not get saturated.

The insulation between core and bolts and core and clamps shall withstand 1 kV at any point of time. The core shall be externally grounded through tank mounted bushing.

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The maximum flux density in any part of the core and yoke at rated voltage and frequency shall be such that the flux density with +12.5% combined voltage and frequency does not exceed 1.9 Tesla.

No-load current shall not exceed 2% of full load current and same will be measured by purchase by energising the transformer from either side. Increase of voltage by 12.5% shall not increase the no load current by 5% (maximum) of full load current.

#### 5.14.2 Windings:

Primary and secondary windings shall be constructed from high- conductivity, Double Paper Covered (DPC) copper conductor. The winding shall be designed for better voltage regulation and mechanical strength. The coil shall be circular in shape and their construction shall be such that there is no possibility of any distortion under likely conditions of service. The Winding to be done on cylindrical press board for additional strength, with spacer locking.

LV winding shall be strip type copper conductor. HV coil shall be wound over LV coil as crossover coils or continuous disc coils.

Inter layer insulation for both HV and LV windings shall be Epoxy dotted Kraft/Kraft paper and pressboard of standard make or any other superior material subject to approval of Purchaser.

All spacers, axial wedges/runners used in windings shall be made of pre-compressed solid press board. In case of cross-over coil winding of HV, all spacers shall be properly sheared, and dovetail punched to ensure proper locking.

All axial wedges/runners shall be properly milled to dovetail shape Operations shall be carried out in such a way, that there should not be any burr and dimensional variations. Proper bonding of inter layer insulation with the conductor shall be ensured. Test for bonding strength shall be conducted as per standards. The dimensional tolerances for windings shall be within limits and as specified in the GTP. All turns of windings shall be adequately supported to prevent movement. The core/coil assembly shall be securely held in position to avoid any movement under short circuit conditions.

The joints in the winding shall be avoided but if it is necessary then, these shall be properly brazed, and the resistance of the joints shall be less than that of parent conductor.

The current density for HV and LV winding should be maximum 2.6 Ampere per sq.mm at any tap of transformer. The bidder shall submit characteristics of insulation paper with the offer.

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- 5.14.3 Taps:  
Tapping shall be provided on the higher voltage winding for variation of HV voltage within range of (+) 10% to (-) 10% in steps of 2.5%. Tap changing shall be carried out by means OCTC on HV side of transformer. Provision shall be made for locking of tap changing switch handle in position.
- 5.14.4 Oil:  
For transformer oil, bidder shall supply Unused Inhibited High Grade Insulating Oil. The oil parameters shall be as per Annexure-5.
- 5.14.5 Temperature Rise  
The temperature rises over ambient of 50 deg C shall not exceed the limits described as per IS-1180 below:
- |   |          |
|---|----------|
| Top oil temperature rise measured by thermometer: | 40 deg C |
| Winding temperature rise measured by resistance:  | 45 deg C |
- 5.14.6 Transformer Tank:  
The transformer tank shall be of robust construction, plain rectangular in shape and shall be built up of electrically tested welded mild steel plates of thickness 6 mm (minimum) for bottom and top and not less than 5 mm (minimum) for the sides. Tolerances as per IS 1852 shall be applicable.

The four walls of transformer shall be made of two "L" shape sheets (without joints) fully welded at corners from inside and outside of the tank. Joints and cuts in tank side walls or its bottom and top cover will not be accepted. In addition the cover of the main tank shall be provided with an air release plug. The tank plates shall be of such strength that the complete transformer when filled with oil may be lifted by means of the lifting lugs provided.

Under operating conditions, the pressure generated inside the tank should not exceed 0.4 Kg/sq.cm positive or negative. The tank shall be reinforced by welded flats on all the outside walls on the edge of the tank. The permanent deflection when the tank without oil is subjected to a vacuum of 525mm of mercury for rectangular tank shall not be more than 5mm up to 750mm horizontal length of flat plate and 6.5mm up to 1250mm horizontal length of flat plate.

Pressure test shall be performed carefully at the time of 1st stage inspection only to confirm the adequacy of reinforcement angle & gauge of the tank. The tank shall be further capable of withstanding a pressure of 0.8 Kg/sq.cm (g) and a vacuum of 0.7 Kg/sq.cm (g) without any deformation.

The internal clearance of tank shall be such that it shall facilitate easy lifting of core with coils from the tank without dismantling LV bushings. All joints of tank and fittings shall be

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oil tight and no bulging shall occur during service. Inside of tank shall be painted with hot oil resistant paint. The top cover of the tank shall be slightly sloping to drain rainwater approximately 5° to 10° towards HV bushing.

The tank plate and the lifting lugs shall be of such strength that the complete transformer filled with oil may be lifted by means of lifting shackle. Bidder shall carry out all welding operations as per relevant ASME standards and submit a copy of the welding procedure and welder performance qualification certificates to the Purchaser.

All matching faces of joints to be made oil tight with a smooth surface finish ensuring that the gasket material shall make a satisfactory joint. Bolts shall be spaced at sufficiently close intervals to avoid buckling of either flange or covers and provide reasonably uniform compression of the gasket.

The transformer shall be provided with a minimum of two welded heavy duty closed lifting lugs of MS plate of 8mm thickness suitably reinforced by vertical supporting flat welded edgewise below the lug on the side walls up to reinforcing angle. They shall be so extended that cutting bend plate is not required. The lifting lugs shall be capable of withstanding the total weight of the transformer, fully filled with oil. The transformer shall be provided with four pulling lugs of MS plate of 8mm thick to pull the transformer horizontally.

Transformer top cover shall be sloped tilting towards HV winding for avoiding accumulation of rainwater.

#### 5.14.7 Surface preparation and Painting:

All paints, when applied in a normal full coat, shall be free from runs, sags, wrinkles, patchiness, brush marks or other defects. All primers shall be well marked into the surface, particularly in areas where painting is evident and the first priming coat shall be applied as soon as possible after cleaning. The paint shall be applied by airless spray. However, wherever airless spray is not possible, conventional spray be used with prior approval of purchaser.

After all machining, forming and welding completes, all steel work surfaces shall be thoroughly cleaned of rust, scale, welding slag or spatter and other contamination prior to any painting. Steel surfaces shall be prepared by shot blast cleaning (IS: 9954) to grade Sq.2.5 of ISO 8501-1 or chemical cleaning including phosphating of the appropriate quality (IS: 3618). Chipping, scraping and steel wire brushing using manual or power driven tools cannot remove firmly adherent mill-scale. These methods shall only be used where blast cleaning is impractical. Manufacturer to explain such areas in the technical offer. After cleaning and subsequently drying for four hours, they shall be given suitable anti-corrosion protection.

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Heat resistant (Hot oil proof) paint shall be used for the inside surface and whereas for external surface one coat of thermosetting powder paint or one coat of epoxy primer (zinc chromate) followed by two coats of synthetic enamel/polyurethane base paint. The two coats shall be of oil and weather- resistant nature with final coat as glossy and non-fading paint of shade RAL 7035. (These paints can be either air drying or stoving).

All prepared steel surfaces should be primed before visible re-rusting occurs or within 4 hours, whichever is sooner. Chemical treated steel surfaces shall be primed as soon as the surface is dry and while the surface is still warm.

Where the quality of film is impaired by excess film thickness (wrinkling, mud cracking or general softness) the bidder shall remove the unsatisfactory paint coating and apply another coating.

As a rule, dry film thickness shall not exceed the specified minimum dry film thickness by more than 25%. Any damage occurring to any part of a painting scheme shall be made good to the same standard of corrosion protection and appearance as that was originally applied.

Any damaged part shall be cleaned to bare metal with an area extending 25 mm around its boundary. A priming coat shall be immediately applied followed by full paint finish equal to that originally applied and extending 50 mm around the perimeter of the original damage.

The repainted surface shall present a smooth surface which shall be obtained by carefully chamfering the paint edges before and after priming. The coats shall be applied as a continuous film of uniform thickness and free of pores. Overspray, skips, runs, sags and drips shall be avoided. Each coat of paint shall be allowed to harden before the next is applied. The thickness of the film shall not be lesser at the edges.

The requirements for the dry film thickness (DFT) of paint and the materials to be used shall be as given below:

| Sr No. | Paint Type                  | Area to be Painted | No. Of Coats | Total Dry film thickness (min.) (Microns) |
|--------|-----------------------------|--------------------|--------------|---|
| 1      | Thermosetting powder paint  | Inside             | 01           | 30  |
|        |                             | Outside            | 01           | 60  |
| 2      | Liquid Paint Epoxy (Primer) | Outside            | 01           | 30  |
|        | P.U Paint (Finish coat)     | Outside            | 02           | 25 Each                                   |

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|  |                         |        |    |    |
|--|-------------------------|--------|----|----|
|  | Hot oil paint Resistant | Inside | 01 | 35 |
|--|-------------------------|--------|----|----|

The painted surface shall be tested for paint thickness. The painted surface shall pass the cross hatch adhesion test and impact test as acceptance tests and salt spray test and Hardness test as type test as per relevant ASTM standards. The supplier shall provide the painting performance warranty for a period of not less than 5 years.

5.14.8 Radiators:

Radiators of pressed steel type conforming to the design requirement should be used in vertical formation without any bending. Thickness of sheet for radiators shall be 1.20mm. The mounting of the radiators shall be non-detachable. These radiators shall be individually tested for leakage and pressure test etc. before welding with the main tank. The number / cross section / length / fixing arrangement of radiators shall be indicated in the general assembly drawing.

5.14.9 Conservator:

The conservator shall be provided on all transformers. The oil conservator shall be fitted with MOG device. The MOG shall be clearly visible for oil level indicator with oil level Low and Low-Low alarm visible indication marking as well as potential free contacts for annunciating. Separate valve / detachable arrangement shall be provided for MOG for easy replacement during service. The conservator shall be supported / fixed on the main body of the transformer tank.

Conservator shall be provided with drain and oil filling hole with plugs. The diameter of the oil filling hole shall be 32mm.

The capacity of the conservator tank shall be designed keeping in view the total quantity of oil and its contraction and expansion due to temperature variations. The total volume of conservator shall be such as to contain 10% quantity of the oil. Normally 3% quantity of the oil shall be contained in the conservator.

The cover of the main tank shall be provided with an air release plug to enable air trapped within to be released, unless the conservator is so located as to eliminate the possibility of air being trapped within the main tank. The inside diameter of the pipe connecting the conservator to the main tank shall be within 20 to 50 mm and it shall be projected into the conservator so that its end is approximately 20mm above the bottom of the conservator to create a sump for collection of impurities. The minimum oil level should be above the sump level. The minimum oil level (corresponding to -5 deg C) should be above sump level.

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5.14.10 Gasket:

Gaskets provided with the transformers shall be suitable for making oil tight joints, and there shall be no deleterious effects on either gaskets or oil when the gaskets are continuously in contact with hot oil. The gasket provided in between top cover plate and tank shall be neoprene rubberized oil resistant cork sheets conforming to type C as per IS: 4253, Part III to maintain the seal at extremes of operating temperature. Exterior gaskets shall be weatherproof and shall not be affected by strong sunlight.

5.14.11 Terminal connector:

On LV side of Transformers, suitable Copper lugs shall be provided for connection of 1.1 kV class cable. Provision for disconnecting LT cables to be made for testing purpose. Detachable flexible Cu links to be provided between LV bus bar & all bushings. Also a window above these links should be provided on LV terminal box for accessibility to these links. Terminal connectors shall be type tested as per IS 5561. The terminal connector Drawings shall be provided by the bidder and shall be submitted for Purchaser’s approval. Following terminal clearances as per air connection mentioned in CBIP manual shall be provided. Even though cable box is considered, the clearances shall be as per following table only since cable will be with louvers:

| <b>Minimum clearances in air or Cable box</b> |                                |                                |
|---|--------------------------------|--------------------------------|
| Nominal voltage                               | Phase to phase clearance in mm | Phase to earth clearance in mm |
| Up to 1.1kV                                   | 75                             | 40                             |
| 11kV  | 280                            | 140                            |
| 22kV  | 350                            | 320                            |
| 33kV  | 350                            | 320                            |

5.14.12 Terminal marking:

All transformers shall have the primary and secondary terminal markings plainly and indelibly marked on the transformer adjacent to the relevant terminal. (Vendor to specify the type of marking in the GTP. It should be such that if it comes out should not cause reduction in clearances). High voltage phase windings shall be marked both in the terminal boards inside the tank and on the outside with capital letter 1U, 1V, 1W and low voltage winding for the same phase marked by corresponding small letter 2U, 2V, 2W. The neutral point terminal shall be indicated by the letter 2N. Sequence of marking should be 1U, 1V, 1W and 2N, 2U, 2V, 2W).

5.14.13 Cable boxes:

The cable boxes shall be made of Mild Steel (M.S.) Sheet. The cable box front cover & bottom cable gland plate shall be removable for cable termination purpose. Suitable handle shall be provided on front cover of cable box. Size of the cable cover shall be

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moderate so that only 2 people is enough to lift it. Suitable canopy shall be provided over the connection of cable Box to the Transformer Tank.

To avoid moisture inside cable box and easy ventilation, louvers of enough dimension shall be provided on diagonally opposite sides of the cable box. Louvers shall be provided with fine, protective, non-corrosive screen so that ingress of rodent is avoided. Louvers shall be guided downwards and shall have proper monsoon protection so that seepage of rainwater inside cable box is not possible. Full size canopy shall be provided over each louver to avoid water ingress inside cable box. Cable box shall be manufactured considering louver design. Despite providing louvers, the thermostats and heaters of suitable rating shall also be provided inside cable box.

The HV & LV cable box shall be provided with tinned copper palm connector with copper bus bar and suitable Copper lugs to be provided for cable termination for HV and LV cable sizes mentioned in Section A. The gland plate shall be of non-magnetic material with suitable brass gland (It can be MS with suitable cut to prevent flux). The LV bus bar shall be supported using porcelain insulators from the top side inside the LV dividing box. Permanent connection of wire mesh installed inside louvers of cable boxes and doors by (sliding into special channels and fixed thereafter) permanent bolting arrangement or welding is required. The HV/LV cable box shall be designed such that the stress cone of cable at least 750mm accommodates inside cable box. Epoxy insulators/bushings should not be used only porcelain bushing & insulators are acceptable.

The neutral of the star connected winding shall be brought out to a separate bushing terminal of 1.1KV class. Neutral CT should be installed before bifurcation. The neutral bushing shall be provided outside body of transformer to facilitate lead the earth conductor down to ground level.

The aluminium gland plate for cable entry shall be provided with 8-10 mm thickness. Cable box shall be suitable for heat shrunk cable termination. Suitable gasket of no deteriorating rubber cork or similar material shall be provided at all joints to ensure tightness. Suitable clamping arrangement for supporting LV cable shall be provided. The complete cable box shall be removable with the nuts and bolts.

Cable supporting structure is required to support the HV and LV side cable cleats. This supporting structure should be connected to tank and should have cleating arrangement to hold the cable. Material of this structure should be same as transformer tank's material. The size of this supporting structure should be such that it will give adequate support to the cable without any bending.

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5.14.14 Marshalling Box:

All the TBs in marshalling box shall be of disconnecting type. All the devices and auxiliary wiring inside and outside marshalling box shall be through 1.1kV, FRLSH, multistrand copper cables. The TB shall be Elmex make, KLTD4 model with 1.1kV, 40A rating. TBs should be horizontally mounted so that link falls by gravity after making lose. Metal plate having circuit diagram of this marshalling box shall be provided inside the marshalling box. It should have non-corrosive Aluminium canopy for Monsoon protection. 1kV insulated, 4-core, 4sqmm armoured Polycab make cable shall be used for providing 1-ph power supply in marshalling box from transformer LV cable box. The tapping of LV supply shall be done through bolted connection. Screw type arrangement is not acceptable. Proper clearances and cable tying shall be carried out in LV cable box, so that there are no chances of flashover due to tapping of supply. In marshalling box, 16A rated MCB shall be provided and 15A, 3-pin socket of Anchor make shall be provided for connecting load. Heater shall be provided in marshalling box which shall draw supply from this arrangement.

5.14.15 Current Transformer:

2 nos of phase CTs (on all 3 phases) of HV side of transformer and 1 nos of LV Neutral CTs shall be provided. WTI CTs shall be provided on the W phase. These phase and neutral side CTs shall be mounted inside the oil tank. The CT secondary wires shall be terminated in marshalling box for field use. The current transformer shall comply with IS 2705. CT terminal box for secondary of CT shall be provided of suitable size on the side of transformer. Box shall have shorting link. CT secondary cable core from terminal box to marshalling box shall be 2.5sqmm for 1Amp CT secondary and 4sqmm for 5Amp CT secondary. CT earthing to be done by green wires 2.5 sq mm. The CTs shall have following parameters.

| Voltage rating | kVA rating       | Proposed HV CTR-1** | Proposed HV CTR-2** |
|----------------|------------------|---------------------|---------------------|
| 6.6kV/415V     | Up to 400 kVA    | 100/1, 5P20, 15VA   | 60/1, 0.2S, 15VA    |
|                | 401 to 800 kVA   | 200/1, 5P20, 15VA   | 120/1, 0.2S, 15VA   |
|                | 801 to 2500 kVA  | 400/1, 5P20, 15VA   | 320/1, 0.2S, 15VA   |
| 11kV/415V      | Up to 400 kVA    | 50/1, 5P20, 15VA    | 30/1, 0.2S, 15VA    |
|                | 401 to 800 kVA   | 100/1, 5P20, 15VA   | 60/1, 0.2S, 15VA    |
|                | 801 to 2500 kVA  | 200/1, 5P20, 15VA   | 160/1, 0.2S, 15VA   |
| 22kV/415V      | Up to 500 kVA    | 50/1, 5P20, 15VA    | 25/1, 0.2S, 15VA    |
|                | 501 to 1600 kVA  | 100/1, 5P20, 15VA   | 50/1, 0.2S, 15VA    |
|                | 1601 to 2500 kVA | 150/1, 5P20, 15VA   | 100/1, 0.2S, 15VA   |
| 33kV/415V      | 315 to 630 kVA   | 50/1, 5P20, 15VA    | 50/1, 0.2S, 15VA    |
|                | 631 to 2500 kVA  | 100/1, 5P20, 15VA   | 50/1, 0.2S, 15VA    |

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|                            | kVA rating       | Neutral CTR**      |
|----------------------------|------------------|--------------------|
| Neutral CT<br>on 415V side | 160 to 315kVA    | 500/1, 5P20, 15VA  |
|                            | 316 to 630 kVA   | 1000/1, 5P20, 15VA |
|                            | 631 to 1250 kVA  | 2000/1, 5P20, 15VA |
|                            | 1251 to 1600 kVA | 2500/1, 5P20, 15VA |
|                            | 1601 to 2500kVA  | 3500/1, 5P20, 15VA |

\*\* CT secondary of 1Amp is indicative. The selection of CT secondary rating of 1Amp or 5Amp will be done during detailed engineering depending on availability of relay in substation.

5.14.16 Earthing connection:

The provision for tank earthing connection shall be provided at least at 2 locations for 50x6 mm tinned Copper strip. The bolts shall be located on the lower side of the transformer and be of M12 size for tank earthing. The LV neutral shall be brought out through bushing for external grounding. The LV neutral internal grounding or tank grounding is not acceptable. Neutral CT shall be mounted before neutral-earth bifurcation.

Transformer top cover shall be connected at two diagonal places with the tank by tinned copper earthing strip. All plates which have insulating gaskets in between shall be provided with tinned copper earthing strips.

5.14.17 Radio Interference:

When operated at voltages up to 12.5% in excess of the normal system rating, transformers shall be substantially free from partial discharges (i.e. corona discharges in either internal or external insulation) which are likely to cause interference with radio or telephone communication.

5.14.18 Overload capacity:

The transformer shall be suitable for loading as per IS 6600.

5.14.19 Pressure Relief Device:

Standard type of spring operated pressure relief device shall be provided with alarm and trip contacts. The explosion vent is not acceptable.

5.14.20 Drain Valve:

The drain valve shall be of mild steel (M.S.) with gate type of valve. The drain valve and filter valve shall be provided with embossed name plate stating drain valve and filter valve. The valves shall be covered with a MS box by welding on tank. Locking rod shall be provided to stop movement of hand wheel.

5.14.21 Filter Valve:

|   |   |               |
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The filter valve shall be provided at the top of the tank. The filter valve shall be of same type as that of drain valve.

5.14.22 Dehydration Breather:

The volume of breather shall be 1 Kg of silica gel for 3000 kVA conforming to IS 3401. The breather pipe shall enter the conservator from the upper side of the conservator. The silica gel shall be Orange coloured (non-toxic and pollutant-free.) and shall be as per IS: 3401 – 1992. The silica gel shall be 3-4 Mesh size. The body of the breather shall be UV protected seamless acrylic tube. The top cover shall be of die cast aluminium and powder coated or polyurethane painted. The oil cup shall be of UV protected acrylic or polycarbonate.

5.14.23 Oil Temperature Indicator (OTI):

Suitable Dial Type Oil temperature indicator shall be provided on the top cover of the transformer. Dial size shall be 4” of stainless steel, range 0- 120 deg C, accuracy + 2 deg C & suitable for mounting with maximum indicator pointer. Fixing union shall be of female thread. This OTI shall have micro switch instead of mercury switch. The 4-20mA transducer of same make as that of OTI shall be provided for reporting OTI temperature analog values to station SCADA.

5.14.24 Winding Temperature Indicator (WTI):

The WTI shall be indicating type, responsive to the combination of top oil temperature and winding current, calibrated to follow the hottest spot temperature of the transformer winding. Dial size shall be 4” of stainless steel, range 0- 120 deg C, accuracy + 2 deg C & suitable for mounting with maximum indicator pointer. The winding temperature detector shall operate a remote alarm in the event of hottest spot temperature approaches a dangerous level. The 4-20mA transducer of same make as that of WTI shall be provided for reporting WTI temperature analog values to station SCADA.

5.14.25 Buchhloz Relay:

It shall be magnetic reed type of relay.  
 Rated current: 3A ac or dc (max admitted)  
 Rated voltage: 24-240 V ac (50Hz) or ac  
 Breaking capacity: 400VA ac or 250W ac

5.14.26 Bidder shall follow the following sub vendor list for the items specified below:

| Sr no. | Equipment                     | Vendor list                                    |
|--------|-------------------------------|--|
| 1      | PRD (Pressure release device) | Qualitrol<br>Sukrut Udyog<br>ATVUS<br>Easun MR |

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|   |                                |   |
|---|--------------------------------|---|
| 2 | Buchholz Relay (REED Type)     | ATVUS<br>Sukrut<br>Qualitrol<br>Instrument & Control<br>Press N Forge<br>CEDASPE with magnetic reed relays  |
| 3 | WTI/OTI                        | Precimeasure<br>Perfect Control   |
| 4 | HV Bushing                     | Baroda Bushings & Insulators<br>CJI Porcelain<br>Genesis  |
| 5 | LV Bushing                     | Baroda Bushings & Insulators<br>CTR Manufacturing Industries<br>Power Tech India<br>BHEL<br>Modern insulators<br>Insulators And Electricals Company (IEC) |
| 6 | Bushing Current Transformer    | BHEL<br>Narayan Powertech Pvt. Ltd.<br>Bharti Electricals   |
| 7 | Off circuit tap changer (OCTC) | Paragon<br>BHEL<br>Always   |

5.14.27 Fasteners:

All bolts, studs, screw threads, pipe threads, bolt heads and nut bolts shall comply within the appropriate Indian standards for metric threads. Bolts or studs shall not be less than 6mm in diameter except when used for small wiring terminals. All nuts and pins shall be adequately locked. Wherever possible bolts shall be fitted in such a manner that in the event of failure of locking resulting in the nuts working loose and falling off, the bolt will remain in position. All ferrous bolts, nuts and washers placed in positions shall be treated to prevent corrosion, by hot dip galvanizing, except high tensile steel bolts and spring washers which shall have electrolytic action between dissimilar metals. Each bolt shall project at least one thread but more than three threads through the nut. If bolts and nuts are placed so that they are inaccessible by means of ordinary spanners, special spanners shall be provided. The length of the screwed portion of the bolts shall be such that no screw thread may form part of a shear plane between members. Taper washers shall be provided where necessary. Protective washers of suitable material shall be provided on front and back of the securing screws.

5.14.28 Packing:

Transformers shall be delivered filled with oil and supplied with all accessories mounted. Screws and bolts shall be thoroughly tightened to ensure no leakage of oil. Bidder shall

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ensure that all the equipment covered under this specification shall be prepared for rail/road transport in a manner to protect the equipment from damage in transit.

#### 5.14.29 Fittings:

5.14.29.1 The transformer shall be complete with the following accessories:

- a. Winding temperature indicator complete with thermostat and annunciator (Alarm and trip)
- b. Diagram, rating plate, terminal marking plate non detachable. Separate plate for guarantee period & date of dispatch.
- c. Two earthing terminals with lugs at the centre of the bottom channels supporting the transformer.
- d. Lifting lugs for main tank & top cover.
- e. Air release device
- f. HV bushings
- g. LV bushings
- h. Pulling lugs
- i. Stiffener angle
- j. Radiators
- k. Oil filling hole having p. 1-1/4 "thread with plug and drain plug on conservator.
- l. Top filter valve
- m. Silica gel Breather
- n. Explosion Vent
- o. An extended pipe connection on upper end with welded cover to enable use of are filling/siphon connection.
- p. Four bi-directional rollers with distance between wheels (centre to centre)
- q. Marshalling box with OTI and WTI
- r. Separate neutral bushing with earth bar supported on insulator
- s. Off load tap changer for 33 kV primary voltage
- t. Neutral CT
- u. Prismatic Oil level gauge indicating the positions of oil on tank marked as follows:
  - i. Min: (-5 deg.C)
  - ii. Normal: (30 deg.C)
  - iii. Max: (98 deg.C)
- v. Drain cum sampling valve and filter with locking arrangement
- w. Base channel – 2 nos.
- x. Inspection Cover Conservator
- y. Unit directional flat rollers
- z. MS plate of size 125 mm x 125 mm for identification

5.14.29.2 The transformer shall be suitable for tropical climate with ambient temperature of 50°C and 80% relative humidity.

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5.14.30 Name plate and marking:

5.14.30.1 Rating plate:

A stainless steel rating plate, of at least 1 mm thickness, shall be fitted to each transformer in a visible position and shall carry all the information as specified in the standards. The letters on the rating plate shall be engraved black on the white/silver back ground. Fixing screws for use shall be of stainless steel or any other corrosion resistant metals. Danger notice shall have red lettering on a white background, or they may be pictorial as approved by the Purchaser. The name plate shall contain following information:

- a. PO Reference number
- b. Type of transformer
- c. Relevant standard.
- d. Manufacturer's Name
- e. Manufacturer's Serial No.
- f. Year of Manufacture
- g. No. of phases
- h. Rated kVA
- i. Rated frequency
- j. Rated Voltage
- k. Rated current
- l. Connection symbol
- m. Percentage impedance voltage at rated current
- n. Type of cooling
- o. Total mass
- p. Mass and volume of insulating Oil
- q. BIL
- r. No load loss @ Rated voltage and Frequency
- s. Load loss @ Principal tap @ Rated Frequency and Rated MVA
- t. In addition to the above information the rating plate shall also contain the following:
  - i. Guaranteed values of no load losses and full load losses at Rated Frequency and at principal tap for 50% & 100 % load
  - ii. Temperature rise
  - iii. Table giving the tapping voltage, tapping current and tapping power of each tap.
  - iv. Indication of winding which is fitted with tapings.
  - v. Value of short circuit impedance on extreme tapping and on principal tapping and indication of winding to which impedance is related.
  - vi. Actual losses of transformer
  - vii. Overall dimensions.
  - viii. Weight of copper used.

5.14.30.2 Label:

|   |   |               |
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The label shall be affixed on the front of the transformer near the name plate, so as to be prominently visible. The label shall be non-detachable weather proof type with the following shall be displayed on its label, namely:

- a. The "Level" Energy Efficiency marks
- b. That the equipment is a distribution transformer
- c. That it is oil filled, naturally cooled type
- d. Name of the manufacturer and brand
- e. Capacity in KVA as tested
- f. Voltage
- g. Total losses at 50% loading in watts
- h. Total losses at 100% loading in watts
- i. Star level
- j. Model and year of manufacturing
- k. Bureau's authorization number

## **6. LAYOUT REQUIREMENTS FOR THE EQUIPMENT / SYSTEM**

- 6.1 Following shall be provided as per applicable safety and regulatory guidelines:
- 6.1.1 Soak pit
  - 6.1.2 Dedicated 2 nos. earthing pit for Transformer neutral
  - 6.1.3 Fire wall
  - 6.1.4 Fencing
  - 6.1.5 Adequate cable supporting structure for primary and secondary cables
- 6.2 Bidder shall maintain necessary clearances as per statutory and safety requirements as applicable.

## **7. OPERATIONAL AND MAINTENACE REQUIRMENT**

### **7.1 OPERATIONAL REQUIRMENT**

- 7.1.1 Equipment shall give continuous service under specified site conditions.
- 7.1.2 The similar ratio transformers shall operate satisfactorily in parallel.

### **7.2 MAINTENACE REQUIRMENT**

- 7.2.1 O& M manuals for the installation, operation and maintenance of transformers shall be furnished at least three months before despatch of equipment.
- 7.2.2 The manual should contain minimum following details: a) General description of equipment. b) Approved Technical Data Sheet c) Salient constructional features. d) Technical leaflets of fittings/ important parts. e) All drawings. f) Type and routine test certificates. g) Instructions to be followed on receipt of equipment at site & for storage. h) Instructions for foundation arrangement. i) Erection procedures and checks. j) Pre-commissioning checks. k) Commissioning procedures. l) Withdrawal arrangement/

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material handling instructions. m) Operation instructions. n) Maintenance instructions. o) Trouble-shooting. p) Safety instructions.

### 7.3 SAFETY REQUIREMENT

The transformer and allied auxiliary components provided with the transformer shall conform to highest safety standards. Manufacturer shall provide earthing arrangements for tank, neutral and marshalling box at 2 locations at least. It shall avoid all sharp edges of the tank and marshalling box. Safety aspect shall reflect into design of the transformer.

## 8. DATA SHEET – GENERAL TECHNICAL PARTICULARS

| Sr. No. | Description  | Unit         | Specification                                    |
|---------|--|--------------|--|
| 1       | <b>GENERAL</b>   |              |  |
| 1.1     | Application/Designation  |              | Distribution Transformer                         |
| 1.2     | Quantity required  | Nos.         | As per Section-A                                 |
| 1.3     | Installation (Indoor/Outdoor)  |              | Outdoor  |
| 1.4     | Degree of protection as per IS:13947   |              | IP-55  |
| 1.6     | Manufacturer's Name  |              | Bidder to specify                                |
| 1.5     | Bidder agrees to provide 36 months warranty from date of supply  |              | Yes  |
| 1.6     | Type test reports (max 5 years from bid date) on similar design transformer with similar capacity is available with                            |              | Yes  |
| 1.7     | Bidder agrees to carry out Impulse tests on all transformer and heat run on typical same rated transformer without additional cost to customer |              | Yes  |
| 1.8     | Exact turns ratio of transformer   |              | Bidder to confirm values as per spec point 3.1.3 |
| 1.9     | Transformer "TYPE" as per spec point 3.1.3   | A, B, C or D | Bidder to specify                                |
|         | a. kVA rating of transformer   | kVA          | Bidder to specify as per Section-A               |
|         | b. HV winding highest System Voltage   | kV           | Bidder to confirm values as per spec point 3.1.3 |
|         | c. HV winding nominal voltage rating   | kV           | Bidder to confirm values as per spec point 3.1.3 |
|         | d. HV winding Impulse withstand voltage  | kVp          | Bidder to confirm values as per spec point 3.1.3 |
|         | e. HV winding power frequency withstand  | kV           | Bidder to confirm values as per spec point 3.1.3 |

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|   |  |                             |  |
|---|--|-----------------------------|--|
|   | f. HV bushing nominal voltage  | kV                          | Bidder to confirm values as per spec point 3.1.3   |
|   | g. HV bushing Impulse withstand voltage                                | kVp                         | Bidder to confirm values as per spec point 3.1.3   |
|   | h. HV bushing power frequency withstand                                | kV                          | Bidder to confirm values as per spec point 3.1.3   |
|   | i. Bushing Short circuit withstand rating                              |                             | For 415V = 50kA for 1 sec<br>For 6.6kV = 50kA for 1 sec<br>For 11kV = 40 kA for 1 sec<br>For 22 & 33kV = 31.5 kA for 1 sec |
|   | j. LV rated voltage  | V                           | 415  |
|   | k. Frequency   | Hz                          | 50   |
|   | l. Number of phases  |                             | 3  |
|   | m. HV connection   |                             | Delta  |
|   | n. LV connection   |                             | Star   |
|   | o. Vector Group  |                             | 11   |
|   | p. Cooling   |                             | ONAN   |
|   | q. Application / Direction of Power Flow                               |                             | From HV towards 0.415 kV   |
|   | r. Percentage Impedance at principal tap                               | %                           | As per latest IS 1180. (as of date on bid opening)   |
|   | s. Maximum Flux Density  | Tesla                       | 1.9  |
|   | t. HV and LV winding material  |                             | Copper   |
|   | u. Maximum Current density for HV and LV Windings                      | A/mm <sup>2</sup>           | 2.6  |
|   | v. Type of HV winding  | Continuous disc / Crossover | As per short circuit type test design of bidder.   |
|   | w. Type of LV winding  | Strip Copper / Foil         | As per short circuit type test design of bidder.   |
|   | x. Transformer LV Neutral  |                             | Solid earthed / Effectively earthed  |
|   | y. Creepage distance at highest rated line to line voltage for bushing | mm/kV                       | 31   |
|   |  |                             |  |
| 2 | <b>SYSTEM PARAMETERS</b>   |                             |  |
|   | a. Fault level at LV system  | kA                          | 50 kA for 1 sec  |
|   | b. Fault level at HV system  | kA                          | For 6.6kV = 50kA for 1 sec   |

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|          |  |                       |   |
|----------|--|-----------------------|---|
|          |  |                       | For 11kV = 40 kA for 1 sec<br>For 22 & 33kV = 31.5 kA for 1 sec |
|          | c. HV System Neutral   |                       | Effectively earthed   |
| <b>3</b> | <b>TRANSFORMER PARAMETERS</b>                                      |                       |   |
|          | a. Neutral CT ratio  | CTR                   | As per spec point 5.14.15                                       |
|          | b. HV CT ratio   | CTR                   | As per spec point 5.14.15                                       |
|          | c. Transformer efficiency class                                    | Level-2               | Level-2 as per latest IS 1180. (as on date of bid submission)   |
|          | d. Maximum guaranteed losses including all tolerances at 50% load  | Watts                 | Bidder to mention   |
|          | e. Maximum guaranteed losses including all tolerances at 100% load | Watts                 | Bidder to mention   |
| <b>4</b> | <b>TEMPERATURE RISE</b>  |                       |   |
|          | a. Reference Ambient   | °C                    | 50  |
|          | b. Oil by thermometer  | °C                    | 40  |
|          | c. Winding by resistance   | °C                    | 45  |
| <b>5</b> | <b>TAP CHANGING GEAR</b>   |                       |   |
|          | a. Taps (off load) required  | Yes/No                | Yes   |
|          | b. Tapping's on windings   | HV/LV                 | HV  |
|          | c. Total tapping range   |                       | +10% to -10%  |
|          | d. Steps   | %                     | 2.5   |
|          | e. Number of taps (including principal)                            | Nos.                  | 9   |
| <b>6</b> | <b>Clearances</b>  |                       |   |
|          | a. HV Terminal arrangement   | Air terminal or Cable | As per Section-A  |
|          | b. Minimum clearances in Air                                       | As applicable         | Bidder to confirm as per spec point 5.14.11                     |
|          | c. Minimum clearances in HV Cable box                              | As applicable         | Bidder to confirm as per spec point 5.14.11                     |
|          | d. Minimum clearances in LV Cable box                              |                       | Bidder to confirm as per spec point 5.14.11                     |

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|   |  |        |   |
|---|--|--------|---|
| 7 | <b>TANK AND NEUTRAL EARTHING TERMINAL</b>  |        |   |
|   | a. Tank earthing material of conductor   |        | Copper                                    |
|   | b. Size of conductor   |        | By Bidder followed by purchaser approval  |
|   | c. Tinned copper strip considered for transformer neutral earthing   |        | Yes                                       |
|   | d. Size of neutral earth conductor   |        | 50x6mm tinned copper                      |
|   |  |        |   |
| 8 | <b>MISCELLANEOUS</b>   |        |   |
|   | a. Wheels  |        | Plain and bi-directional                  |
|   | b. Transformer tank air pressure withstand   |        | 80 kPa for 30 min                         |
|   | c. Transformer tank vacuum withstand   |        | 500mm mercury for 30 min                  |
|   | d. Transformer pressure withstand with all accessories including bushing   |        | 35 kPa for 10 min without any oil leakage |
|   | e. Colour shade of final painting  |        | RAL 7035                                  |
|   | f. Bolted joint near base of tank  |        | Not Required                              |
|   | g. 1kV insulation is provided between core to ground, core bolt to core and core bolt to frame complete assembly   | Yes/No | Yes                                       |
|   | h. Core external grounding through bushing is considered.  | Yes/No | Yes                                       |
|   | i. Primary and secondary windings are made of high conductivity Double paper covered (DPC) copper  | Yes/No | Yes                                       |
|   | j. Conservator oil level gauge provided with minimum oil marking   | Yes/No | Yes                                       |
|   | k. Gasket for transformer provided is neoprene rubberized oil resistant cork sheet   | Yes/No | Yes                                       |
|   | l. Water protective canopy providing coverage from top and all sides of equipment except bottom and of MS material is provided for all accessories viz. Buchholz relay, PRD, CT terminal block, marshalling box etc. | Yes/No | Yes                                       |

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|          |   |        |     |
|----------|---|--------|-----|
|          | m. Louvers with protective mesh at diagonally opposite side of LV cable box is considered             | Yes/No | Yes |
|          | n. Thermostat with heater arrangement considered for cable boxes                                      | Yes/No | Yes |
|          | o. Transformer top cover is sloped tilting towards HV winding for avoiding accumulation of rain water | Yes/No | Yes |
|          | p. MOG with potential free contacts for oil level low are considered                                  | Yes/No | Yes |
|          | q. Cable support structure provided to hold cable cleats  | Yes/No | Yes |
|          | r. Pressure relief device is considered instead of explosion vent                                     | Yes/No | Yes |
|          |   |        |     |
| <b>9</b> | <b>FITTINGS REQUIRED</b>  |        |     |
|          | a. Dial type thermometer with two contacts for oil temp. alarm and trip                               | Yes/No | Yes |
|          | b. Magnetic oil level gauge with low oil level alarm contact  | Yes/No | Yes |
|          | c. Gas and oil actuated (i.e. BUCHHOLZ) relay   | Yes/No | Yes |
|          | d. Gas sampling device  | Yes/No | Yes |
|          | e. Winding temperature indicator with two contacts for alarm and trip                                 | Yes/No | Yes |
|          | f. All control cables considered as 1.1kV, FRLS, multistrand, copper cables                           | Yes/No | Yes |
|          | g. Valves   | Yes/No | Yes |
|          | h. 01 valve each before and after buchholz relay provided   | Yes/No | Yes |
|          | i. Four plain rollers in place of fixing channels   | Yes/No | Yes |
|          | j. Pressure release device is considered instead of explosion vent                                    | Yes/No | Yes |
|          | k. Transformer marshalling box TBs of Elmex make, KLTD4, 1.1kV 40Amp rating are considered            | Yes/No | Yes |
|          | l. On LV side of transformer, suitable Copper lug for connection of                                   |        | Yes |

|   |   |               |
|---|---|---------------|
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|   | <b>3-PH OIL FILLED DISTRIBUTION TRANSFORMERS<br/>UPTO 33kV AND 2.5MVA</b> |               |

|    |   |         |                   |
|----|---|---------|-------------------|
|    | suitable rating 1.1kV class cable will be provided.         |         |                   |
| 10 | <b>MANDATORY SPARES</b>                                     |         |                   |
|    | a. Complete set of gaskets                                  | One set | Bidder to agree   |
|    | b. Bushing of each type                                     | One set | Bidder to agree   |
|    | c. CT of each type  | One set | Bidder to agree   |
|    | d. Dial type thermometer                                    | One set | Bidder to agree   |
|    | e. Magnetic Oil level gauge                                 | One set | Bidder to agree   |
|    | f. Complete set of winding temperature indicating equipment | One set | Bidder to agree   |
|    | g. Pressure relief device                                   | One set | Bidder to agree   |
|    | h. Silica-gel breather                                      | One set | Bidder to agree   |
|    | i. Buchholz relay or fault pressure relay                   | One set | Bidder to agree   |
|    | j. One valve of each type                                   | One set | Bidder to agree   |
|    | k. Any other essential spares recommended by bidder         | One set | Bidder to specify |

**9. QUALITY REQUIREMENTS, INSPECTION & TESTING (INCL. SQP & SFP)**

9.1 The Quality Control Plan shall list and define in sequential order all process control activities, inspection and tests proposed to be performed on the equipment/material starting from component procurement and from testing stages to product dispatch. The Quality Control Plan shall indicate and identify the applicable standards, detailed description with diagram the procedure, acceptance criteria, extent of check and record to be generated. This QAP shall be submitted by bidder and approved by Owner.

9.2 All erection and installation activities shall be performed in line of approved FQP by Owner.

9.3 All test routine test, performance test, special tests and acceptance test as per the relevant standards and approved MQP shall be carried out on each Transformer. Minimum shop testing requirements are specified in the attached Standard Quality Plans. All applicable Type test report shall be submitted with the bid and shall not be older than 5 years.

9.4 Standard SQP and SFP are as follows:

9.4.1 (Standard Quality plan) SQP document no.: TPQAI-QAXX-00-EX-SQP-186

9.4.2 (Standard Field Quality plan) SFP document number: TPQAIT-QAXX-00-EX-SFP-269

**10. PERFORMANCE REQUIREMENTS:**

10.1 Transformer shall be capable of feeding continuous load under specified site conditions within specified limits of oil and winding temperature rise

|   |   |               |
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|   | <b>3-PH OIL FILLED DISTRIBUTION TRANSFORMERS<br/>UPTO 33kV AND 2.5MVA</b> |               |

- 10.2 Maximum total losses of the transformer shall be within limits as specified in latest IS1180 (as on date of bid opening) for the desired energy efficiency level.
- 10.3 Bidder must agree for handing over, to Owner, all project related drawings in AutoCAD format only. The pdf versions of above drawings shall be submitted through Wrench for formal approval process.
- 10.4 Bidder shall confirm at least 36 months warranty form date of supply.
- 10.5 Acceptance of minimum quality requirements defined in technical specifications.

## 11. SPARES AND SPECIAL TOOLS & TACKLES

### 11.1 MANDATORY SPARES

The spares supplied shall be strictly interchangeable with parts for which they are intended for replacement. The spares shall be treated and packed for long storage (minimum 5 years) under the climatic conditions prevailing at the site. Following is the mandatory spares list which shall be supplied by bidder:

| Sr No | Description  | Quantity |
|-------|--|----------|
| 1.    | HV phase bushing   | 1 no     |
| 2.    | LV Phase bushing   | 1 no     |
| 3.    | LV Neutral bushing                                       | 1 no     |
| 4.    | Complete set of gaskets                                  | 1 Set    |
| 5.    | Complete set of winding temperature indicating equipment | 1 no     |
| 6.    | Complete set of oil temperature indicating equipment     | 1 no     |
| 7.    | Pressure Release Device                                  | 1 no     |
| 8.    | Silica gel breather                                      | 1 no     |
| 9.    | One valve of each type                                   | 1 Set    |
| 10.   | Buchholz relay   | 1 no     |
| 11.   | Magnetic oil guage                                       | 1 no     |

|   |   |               |
|---|---|---------------|
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|---|---|---------------|

## 11.2 Recommended Spares

In addition to the spares mentioned above, the Bidder shall also furnish in his bid a list of recommended spares with unit prices. The Owner reserves the right to buy any of the recommended spare parts as considered necessary by him. The prices of recommended spares shall be consistent with those of start-up/essential spares. Purchase of these spare parts will be covered by a separate order or an amendment to the contract.

The Bidder shall provide a list of recommended spares for a period of five years from the date of Site Acceptance Test (SAT) and confirm that the shelf-life of these spares is such as to last for at least 7 years from the date of SAT.

The Bidder shall provide the MTBF of various components, sub-assemblies, assemblies etc. (recommended as spares) and the relationship between MTBF and spare quantities recommended.

The Bidder shall submit the product life cycle details of the all hardware offered under this RFP.

The table below indicate the minimum requirement of the owner, bidder to include the spares, which are not part of this table, but required for maintenance and upkeep of the system

## 11.3 SPECIAL TOOLS & TACKLES

11.3.1 Commissioning spares are those, which may be required during commissioning of the equipment. Bidder to furnish list of commissioning spares (price deemed to be included in the total bid price) along with technical offer.

11.3.2 The bidder shall supply with the equipment, one unused complete set of all special tools & tackles required for the erection, assembly, disassembly and proper maintenance of the equipment. A list of such tools & tackles (price deemed to be included in the total bid price) shall be submitted by the bidder along with the offer.

## 12. DATA SUBMISSION BY BIDDER:

### 12.1 ALONGWITH BID

Following drawings and documents shall be prepared based on Owner specifications and statutory requirements and shall be submitted with the bid:

12.1.1 Filled Data Sheet – General Technical Particulars

12.1.2 General description of the equipment and all components including brochures.

12.1.3 General arrangement for Transformer

12.1.4 Foundation plan

12.1.5 Bill of material

12.1.6 Experience List

|   |   |               |
|---|---|---------------|
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12.1.7 Type test certificates

## 12.2 AFTER AWARD OF CONTRACT

| Sr. No | Descriptions  | For Approval | For Review Information | Final submission |
|--------|---|--------------|------------------------|------------------|
| 1      | Data Sheet – General Technical parameters                                 | √            |                        | √                |
| 2      | GA Drawing of Transformer   | √            |                        | √                |
| 3      | HV and LV connection view with terminal connector                         | √            |                        | √                |
| 4      | Internal coil arrangement with Dimensions                                 | √            |                        | √                |
| 5      | Breather Drawing  | √            |                        | √                |
| 6      | Rating Plate  | √            |                        | √                |
| 7      | Cooling calculation with no. of radiators and fins mentioned specifically | √            |                        | √                |
| 8      | Prismatic oil level gauge drawing   | √            |                        | √                |
| 9      | Foundation Plan   |              | √                      | √                |
| 10     | Installation Instruction  |              | √                      | √                |
| 11     | Transport / Shipping dimension drawing                                    |              | √                      | √                |
| 12     | QA & QC Plan  | √            | √                      | √                |
| 13     | Test Certificates   | √            | √                      | √                |
| 14     | Final AUTOCAD Copy of drawing   |              |                        | √                |

### 13. ANNEXURES :

- 13.1 Annexure-1: Bidders Pre-qualifying requirements
- 13.2 Annexure-2: (Standard Quality plan) SQP document no.: TPQAI-QAXX-00-EX-SQP-186
- 13.3 Annexure-3: (Standard Field Quality plan) SFP document number: TPQAIT-QAXX-00-EX-SFP-269
- 13.4 Annexure-4: Acceptance of Similarity certificate for Type test reports of a similar transformer as per IS-2026 Part-5
- 13.5 Annexure-5: Parameters for transformer oil

## Annexure-1 PQR

| Technical Prequalification Requirement |                       |   |   |
|--|-----------------------|---|---|
| Sr no                                  | Parameter             | Tata Power Requirement  | Documents To be submitted by Bidder to ascertain meeting of Pre-qualification requirement   |
| 1                                      | Infrastructure        | Bidder shall be an OEM of power transformer of 220kV Voltage level and above with manufacturing facility / assembly in India. The bidder must have in-house routine and acceptance testing facilities for acceptance as per relevant IS/IEC.  | Self-undertaking to be submitted in this regard. Tata Power reserves the right to inspect the said manufacturing facility as a proof of compliance to this parameter.   |
| 2                                      | Supply and Experience | <p>Bidder shall have supplied minimum 50 nos 3-phase, 800kVA, 33kV, mineral oil filled transformers OR higher rating transformers in last 5 years. Out of which, minimum 10 nos. of transformer of 800 kVA or higher capacity should have been in satisfactory commercial operation for a minimum period of two years as on the date of bid opening.</p> <p>"In case the bidder has a previous association with Tata Power for similar products and services, the performance feedback for that bidder by Tata Power shall only be considered irrespective of performance certificates issued by any other organization. Technical performance, delivery timelines, service and support records of past executed projects in Tata Power will be considered for technical evaluation of bidder."</p> <p>Indian Subsidiaries of global companies having plant in India are also eligible to bid if the qualification requirements stated above are met independently or in combination with the parent company. Declaration from parent company needs to be submitted.</p>  | <p>Supply List &amp; Performance Certificates from the utilities / clients</p> <p>Self-undertaking to be submitted in this regard. TATA Power reserves the right to inspect the said manufacturing facility as a proof of compliance to this parameter.</p>   |
| 3                                      | Type Test             | <p>The bidder shall submit Type test reports obtained from NABL/ International Accredited Lab for the equipment / material offered. The type tests should have been conducted on the 800 kVA or higher rating equipment / material of the same design. Dynamic short circuit withstand type test report of similar design with same or higher rating transformer are also to be mandatorily submitted with similarity certificate.</p> <p>The type tests should have been conducted within 5 years prior to the date of bid opening. Time period for type test can be extended by another 5 years as a special case, if there is no change in design / material of construction (MOC).</p> <p>In case the type test reports furnished are not for the quoted equipment / material but for the equipment / material with higher voltage class and/or different capacity, then type test shall be carried out for the offered equipment / material from NABL / International Accredited Lab without any cost implication to the owner and the Type Test reports shall be submitted before despatch of the equipment / material.</p> | <p>Type Test Report.</p> <p>Undertaking that there is no change in design / material of construction (MOC) if Type Test Report older than 5 years but less than 10 years prior to date of bid opening has to be considered (if applicable)</p> <p>Undertaking that type test shall be carried out for the offered equipment / material from NABL / International Accredited Lab without any cost implication to the owner and the Type Test reports shall be submitted before despatch of the equipment / material, in case type test reports furnished are not for the quoted equipment / material but for the equipment / material with higher voltage class and/or different capacity, (if applicable)</p> |
| 4                                      | Commercial Capability | To be added by contract team  | Copy of audited Balance Sheet and P&L Account to be submitted in this regard.   |

| TATA POWER                        |  | The Tata Power Company Limited<br>Corporate Engineering - Quality Assurance & Inspection. |   | <br>Date of Issue:<br>May 2016. |  |
|-----------------------------------|--|---|---|--|--|
| TPQAI-QAXX-00-EX-SQP-186<br>REV.0 |  | STANDARD QUALITY PLAN FOR DISTRIBUTION &<br>AUXILIARY TRANSFORMERS (upto 10 MVA, 33KV).   |   |  |  |
| Sr. No.                           | COMPONENT / OPERATION.                   | CHARACTERISTICS CHECKED.  | TYPE / METHOD OF CHECK.   | REMARKS.   |  |
| 1                                 | 2  | 3   | 4   | 5  |  |
| 1.0                               | MATERIAL:                                | (All material shall be as per approved drawing/ data sheet).                              |   |  |  |
| 1.1                               | Winding Conductor.                       | 1   | Conductor Diameter/strand.  | Measurement.   | Review of Supplier TC during Final Inspection. |
|                                   |  | 2   | Resistivity/Conductivity & purity of copper.                            | Review.  |  |
|                                   |  | 3   | Paper Width & Thikness.   |  |  |
|                                   |  | 4   | Paper Overlapping uniform.  |  |  |
|                                   |  | 5   | Electric & Mechanical Strength (Tensile).                               | Visual inspection.   |  |
| 1.2                               | Core Material.                           | 1   | Grade of CRGO/Composition.  | Measurement.   |  |
|                                   |  | 2   | Thickness of sheet & Varnish coat.                                      |  |  |
| 1.3                               | Insulation Material.                     | 1   | Dimension, Density & Oil Absorption.                                    | Review.  |  |
|                                   |  | 2   | Electric Strength in Oil & Air.   |  |  |
|                                   |  | 3   | Moisture & Ash Content.   |  |  |
| 1.4                               | Gasket.                                  | 1   | Dimension, Hardness & Nitrile content/ Cork (As applicable).            | Review.  |  |
| 1.5                               | Kraft paper.                             | 1   | Visual checks.  | Review.  |  |
|                                   |  | 2   | Electrical, mechanical properties & Moisture content.                   |  |  |
| 1.6                               | Press Wood.                              | 1   | Density & Compressive strength perpendicular to lamination, flexibility | Review.  |  |
|                                   |  | 2   | Flexibility strength perpendicular to lamination.                       |  |  |
|                                   |  | 3   | Electrical strength at 20 deg C parallel & perpendicular to lamination. |  |  |
|                                   |  | 4   | Oil Absorption & Moisture Content.                                      |  |  |
| 1.7                               | Tank, Radiator, Conservator              | 1   | Overall Dimension.  | Review.  |  |
|                                   |  | 2   | Sheet steel Chemical & Mechanical properties.                           |  |  |
|                                   |  | 3   | Surface Preparation.  |  |  |
|                                   |  | 4   | Leak Proofness Test, DP test.   | CHP for 1 sample per rating per lot or as per mutual agreement.  |  |
|                                   |  | 5   | Vacuum Test.  |  |  |
|                                   |  | 6   | Permanent Deflection of Tank during Pressure and vacuum test.           |  |  |
|                                   |  | 7   | Weld finising.  |  |  |
| 1.8                               | Buchholz Relay & Pressure Relief Valve.  | 1   | Type / Model / Size.  | Review.  |  |
|                                   |  | 2   | Pressure test, contact check & IP test.                                 |  |  |
| 1.9                               | Temperature Indicatore (OTI, WTI) & MOG. | 1   | Type / Model / Size.  | Review.  |  |
|                                   |  | 2   | Switch setting & continuity.  |  |  |
|                                   |  | 3   | Calibration & functional test.  |  |  |
| 1.10                              | Silicagel breather                       | 1   | Type / Model / Size & color.  | Visual   |  |
| 1.11                              | Valves                                   | 1   | Type / size / Model.  | Review.  |  |
|                                   |  | 2   | Leak test & functional check.   |  |  |
| 1.12                              | Tap Changer (OLTC/OCTC).                 | 1   | Type / Rating / Model.  | Visual.  |  |
|                                   |  | 2   | Physical condition, Visual & dimensonal checks.                         |  |  |
|                                   |  | 3   | Locking Arrangement.  | Review.  |  |
|                                   |  | 4   | Make before break validation test for OLTC.                             |  |  |
| 1.13                              | Bushing.                                 | 1   | Dimension.  | Measurement.   |  |
|                                   |  | 2   | IR Test.  | Review.  |  |
|                                   |  | 3   | Creepage Distance.  |  |  |
|                                   |  | 4   | Power frequency withstand Voltage test for bushing.                     |  |  |



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**STANDARD QUALITY PLAN FOR DISTRIBUTION & AUXILIARY TRANSFORMERS (upto 10 MVA, 33KV).**

Date of Issue:  
May 2016.

| Sr. No. | COMPONENT / OPERATION.  | CHARACTERISTICS CHECKED.   | TYPE / METHOD OF CHECK.                            | REMARKS.                           |
|---------|---|--|--|------------------------------------|
| 1       | 2   | 3  | 4  | 5                                  |
| 1.14    | M. Box.   | 1 Dimensions.  | Measurement.                                       |                                    |
|         |   | 2 Verification as per GA & BOM   | Review.  |                                    |
|         |   | 3 Completeness, Label fixing & wiring quality.   |  |                                    |
|         |   | 4 IR & HV Test.  |  |                                    |
|         |   | 5 IP Degree Verification.  |  |                                    |
| 1.15    | Current Transformer (BCT).  | 1 Dimensions, type & Finish.   | Review.  |                                    |
|         |   | 2 Routine tests.   |  |                                    |
| 1.16    | Transformer oil.  | 1 Tests as per IS 335.   |  |                                    |
| 2.0     | <b>IN PROCESS INSPECTION:</b> (Generally in line with manufacturer standard).   |  |  |                                    |
| 2.1     | Core coil assembly.   | 1 Visual checks for correctness of complete assembly including leads for bushings, windings, tap changers.   | Visual.  | Verification of Inprocess Records. |
|         |   | 2 Core and Frame Earthing arrangement.   |  |                                    |
|         |   | 3 Winding interlocking arrangement.  |  |                                    |
|         |   | 4 Joint Checks (Brazing, Lugs).  | Operational.                                       |                                    |
|         |   | 5 Smooth operation of OLTC/Off Ckt. TAP Switch.  |  |                                    |
|         |   | 6 IR test on winding.  | Testing  |                                    |
| 2.2     | Tanking.  | 7 IR for core/Frame/Tank Insulation (before and after HV test at 2KV)<br>1. Core & Yoke Bolts.<br>2. Core & core clamps.<br>3. Core Clamps & Yoke Bolts.   | Testing  |                                    |
|         |   | 1 Electrical Clearances verification.  | Measurement.                                       |                                    |
|         |   | 2 Core Locking Arrangement.  |  |                                    |
| 3.0     | Final inspection and factory tests of the assembled transformer (As per IS 2026)<br>Transformer shall be offered with fully assembled condition with all its own accessories. |  |  |                                    |
| 3.1     | Routine tests.  | 1 Checks including Visual, Dimensional, BOM check, GA, Centre punch marking on <u>completely assembled</u> transformer as per approved drawing (incl phase marking, name plates, piping, welding joints, oil level gauges, conservator, bushings, turret CTs, WTI, OTI etc). | Visual Checks.                                     |                                    |
|         |   | 2 Measurement of IR for 10, 60 & 600 Sec and PI calculation ( $\geq 1.3$ ) of all winding wrt ground at 5 kV.  | Measurement.                                       |                                    |
|         |   | 3 Measurement of IR of Core, Frame at 1.0 kV wrt tank (min 2.0 M Ohm).   |  |                                    |
|         |   | 4 Measurement of Voltage Ratio error at all taps.  | Match Name plate detail.                           |                                    |
|         |   | 5 Verification of Voltage Vector group.  |  |                                    |
|         |   | 6 Magnetic balance test of all winding on 415 V with magnetising current measurement from all winding.   | Sudden increase in the Current shall not be there. |                                    |
|         |   | 7 Tan Delta & Capacitance test on each winding in all possible mode ( $<0.5\%$ (winding) at 20 dec C).   | Measurement.                                       |                                    |
|         |   | 8 Separate source Power frequency Voltage withstand test for one minute on all winding.  | Testing.   |                                    |

CHP.

Not compulsory for ratings less than 2MVA.  
Shall be discussed at the time of pre-bid.



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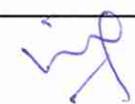
**STANDARD QUALITY PLAN FOR DISTRIBUTION & AUXILIARY TRANSFORMERS (upto 10 MVA, 33KV).**

Date of Issue:  
May 2016.

| Sr. No.          | COMPONENT / OPERATION.  | CHARACTERISTICS CHECKED. | TYPE / METHOD OF CHECK.   | REMARKS.                                 |  |
|------------------|---|--------------------------|---|--|--|
| 1                | 2   | 3                        | 4   | 5  |  |
|                  |   | 9                        | Measurement of no load loss and no load current at 90%, 100% & 110%. Of voltages.                               |  |  |
|                  |   | 10                       | Measurement of short circuit Impedance Voltage and Load loss at 100% of rated current at Normal & extreme taps. |  |  |
|                  |   | 11                       | Induced Over voltage withstand test.  |  |  |
|                  |   | 12                       | Calculation of regulation at lagging PF.  |  |  |
|                  |   | 13                       | Zero phase sequence test at reduced current.  |  |  |
|                  |   | 14                       | Measurement of winding Resistance at all TAPS in Ascending and Descending direction.                            | Testing and Measurement.                 |  |
|                  |   | 15                       | Calibration/verification of Temperature Indicators, PRD, MOG,BZ, Relays etc (Device trials).                    | TC review.                               |  |
|                  |   | 16                       | Check for lifting hooks (weld finish & location).   | Measurement & Visual.                    |  |
|                  |   | 17                       | Paint Shade & Thickness verification.   | Measurement & Visual.                    |  |
| 18               | Oil Tests (BDV, moisture content).  | Measurement.             |   |  |  |
| 19               | Oil Leakage test of completely assembled transformer.   | Visual, Measurement.     |   |  |  |
| 3.2              | Type Tests.   | 1                        | Temperature Rise test with all accessories installed on minimum tap.  | Thermal scanning to be done during test. | Type test will be decided during discussions with vendor in pre-ordering stage or Approved type test report shall be made available during final inspection for reference. |
|                  |   | 2                        | DGA of Oil before and after Temperature Rise test.  | Measurement.                             |  |
|                  |   | 3                        | Degree of protection of panel, marshalling box, cable box etc.  | Review.                                  |  |
|                  |   | 4                        | Full wave and Chopped wave Impulse test on all bushing terminal.  | Review.                                  |  |
|                  |   | 5                        | Any other special / type testing as per technical specifications.   | Review.                                  |  |
| 4.0              | <b>PACKING, PRE-SHIPMENT &amp; DISPATCH:</b>  |                          |   |  |  |
|                  |   | 1                        | Completeness of accessories & fittings.   | Measurement & Visual.                    | Placement of impact recorder, as applicable for the project.   |
|                  |   | 2                        | Adjustment of Oil Level.  |  |  |
|                  |   | 3                        | Submission of document/ dossier for IRN.  |  |  |
| N<br>O<br>T<br>E | A) ALL MATERIAL SHALL BE AS PER APPROVED DRAWING/ DATA SHEET.<br>B) STATUTORY REQUIREMENTS WILL BE COMPLIED BY THE CONTRACTOR<br>C) TATA POWER / ITS REP IDENTIFICATION STAMP ON MATERIALS WILL BE PRESERVED, IF REQD, SAME SHALL BE TRANSFERRED BY TATA POWER / ITS REP ONLY FOR MATERIAL TRACEABILITY.<br>D) FINAL INSPECTION OF THE MAJOR ACTIVITIES ARE WITNESSED BY CLIENT AND IT IS HOLD POINT (AT THE DISCRETION TATA POWER)<br>E) MANUFACTURER SHALL PREPARE AND SUBMIT COMPLETE MANUFACTURING QUALITY PLAN IN PRESCRIBED FORMAT OR THEIR REGULAR FORMAT INDICATING THEIR REGULAR PRACTICES, TAKING CARE OF MINIMUM REQUIREMENT AS INDICATED ABOVE.<br>F) INSPECTION OF THE MAINTAINCE SPARES SHALL BE OFFERED ALONG WITH THE MAIN SUPPLY AS PER THE INSPECTION STAGES<br>G) SPARES SHALL BE MANUFACTURED & INSPECTED AS PER THE APPLICABLE CLAUSES OF THIS QUALITY PLAN SPARES OFFERED FOR INSPECTION SHALL BE PREFERRED ALONG WITH MAIN ITEMS (IF ORDERED)<br>H) CALIBRATION CERTIFICATES OF THE EQUIPMENT USED FOR TESTING SHALL BE PROVIDED FOR REVIEW.<br>I) TATA POWER RESERVES THE RIGHT TO DEMAND / VERIFY/ AUDIT/ WITNESS ANY OF THE CHECK POINTS MENTIONED IN THE SCOPE OF SUPPLIER<br>J) TYPE TEST REQUIREMENT: REVIEW OF PREVIOUS TEST REPORT OF REPUTED LAB OR WITNESS BY REPUTED AGENCY. IN CASE, VALID TYPE TEST REPORTS ARE NOT AVAILABLE, TYPE TEST NEEDS TO BE CONDUCTED. |                          |   |  |  |
|                  |   |                          |   |  |  |
|                  | Rev. No   | Reason for Revision      | Prepared By & Date  | Checked By & Date                        | Approved By & Date.  |
|                  | R0  | ISSUE FOR USE            | SR / 25.05.2016   | CB/ 30.05.2016                           | SS   |

Annexure-3

|  | The Tata Power Company Limited<br>Corporate Engineering-Quality Assurance Inspection & Testing. |                         |   |               |                             |  |                            |                                    |  |
|---|---|-------------------------|---|---------------|-----------------------------|---|----------------------------|------------------------------------|--|
| TPQAIT-QAXX-00-EX-SFP-269<br>REV.0  | STANDARD FQP FOR DISTRIBUTION & AUXILIARY TRANSFORMERS<br>(upto 10 MVA, 33KV).                  |                         |   |               |                             | Date of Issue:<br>March, 2017.  |                            |                                    |  |
| Sr. No  | COMPONENT / OPERATION   | CHARACTERISTICS CHECKED | CLASS OF CHECK  | TYPE OF CHECK | EXTENT / FREQUENCY OF CHECK | REFERENCE DOCUMENTS / ACCEPTANCE NORM   | FORMAT OF RECORD           | REMARKS                            |  |
| 1   | 2   | 3                       | 4   | 5             | 6                           | 7   | 8                          | 9                                  |  |
| 1.0   | <b>MATERIAL RECEIPT &amp; STORAGE:</b>  | 1                       | Availability of Instruction manuals, drawings for storage and erection.   | Major         | Physical                    | At the Time of Receipt.   | Manufacturer's O&M Manual. | site log book.                     | Any shortfall/ damage shall be reported through joint protocol with FQC. |
|   |   | 2                       | Verification of main unit and accessories for any visual damage during transit.   | Major         | Physical                    |   | MDCC/ Packing list, BOM    | site log book.                     |  |
|   |   | 3                       | Check for shortage of accessories & items fitted on Main Transformer.   | Major         | Physical                    |   | As per shipping list., BOM | site log book.                     |  |
|   |   | 4                       | <b>For Oil Filled Shipment:</b> Check Oil level as per the marking. Ensure no leakages and all valves closed.   | Major         | Visual                      | Weekly.   | No leakage.                | site log book.                     |  |
|   |   | 5                       | Check Core-Frame-Tank isolation (IR) test with 1000V DC IR tester when transformer is on trailer before unloading.  | Major         | Measurement                 | Before unloading from trailer   | Healthy IR                 | Site Test Report.                  |  |
|   |   | 6                       | Check for all loose accessories like Radiators, conservator, pipes, Marshalling Box etc.  | Major         | Physical                    | At the Time of Receipt.   | No damages.                | site log book.                     |  |
|   |   | 7                       | Check the level of transformer foundation, rails are leveled and exact location of roller assembly locking is marked.   | Major         | Physical / Measurement      | Once before erection.   | Site Approved Drawing.     | Inter dept. handing over protocol. |  |
|   |   | 8                       | If Permanent location is not ready for placing the Transformer Tank, ensure availability of temporary storage at suitable location (elevated surface, no water logging, pollution free atmosphere). | Major         | Physical                    | At the time of storage.   | Storage Type 2.            | site log book.                     | PI refer note 'storage type'   |



| Sr. No | COMPONENT / OPERATION       | CHARACTERISTICS CHECKED | CLASS OF CHECK   | TYPE OF CHECK | EXTENT / FREQUENCY OF CHECK | REFERENCE DOCUMENTS / ACCEPTANCE NORM | FORMAT OF RECORD                   | REMARKS                       |   |
|--------|-----------------------------|-------------------------|--|---------------|-----------------------------|---------------------------------------|------------------------------------|-------------------------------|---|
| 1      | 2                           | 3                       | 4  | 5             | 6                           | 7                                     | 8                                  | 9                             |   |
| 1.0    | MATERIAL RECEIPT & STORAGE: | 9                       | Check Impact Recorder and send it to Manufacturer for analysis.  | Major         | Visual                      | After Storage.                        | No significant impact.             | Manufacturer Analysis Report. | Impact Recorder analysis shall reach site within 7 Days. (TATA Power Reserves the right to witness the Analysis). |
|        |                             | 10                      | In case of Radiator flange sealing's are missing, radiators to be flushed thoroughly to prevent any foreign object & provide new flange seals till final erection. | Major         | Physical                    | During storage                        | Manufacturer's Instruction Manual. | site log book.                | Any shortfall/ damage shall be reported through joint protocol with FQC.  |
|        |                             | 11                      | Check for storage of Instruments, Marshalling Box, Bushings, Flow Indicators, Oil circulating pumps & Metal Accessories.   | Major         | Physical                    | At the Time of Receipt.               | Type -3 storage.                   | site log book.                | PI refer note 'storage type'.   |
|        |                             | 12                      | Transformer oil drums.   | Major         | Physical.                   |                                       | Type-1 storage.                    | site log book.                |   |
|        |                             | 13                      | Reporting & Analysis of transit damage, if any.  | Major         | Physical                    |                                       | No damage / defect.                | site log book.                | Jointly with FQC.   |
| 2.0    | PRE-ERECTION:               | 1                       | Check availability of all tools & tackles required for erection works are available.   | Major         | Visual                      | Once before erection.                 | Manufacturer's Instruction Manual. | site log book.                |   |
|        |                             | 2                       | Check the availability of Oil filtration plant of adequate capacity..  | Major         | Visual                      | Once before erection.                 |                                    | site log book.                |   |
|        |                             | 3                       | Check facilities for operation of filter machine like power source availability, length of hose pipe etc.  | Major         | Visual                      |                                       |                                    | site log book.                |   |



| Sr. No | COMPONENT / OPERATION | CHARACTERISTICS CHECKED | CLASS OF CHECK   | TYPE OF CHECK | EXTENT / FREQUENCY OF CHECK | REFERENCE DOCUMENTS / ACCEPTANCE NORM | FORMAT OF RECORD                   | REMARKS           |  |
|--------|-----------------------|-------------------------|--|---------------|-----------------------------|---------------------------------------|------------------------------------|-------------------|--|
| 1      | 2                     | 3                       | 4  | 5             | 6                           | 7                                     | 8                                  | 9                 |  |
| 2.0    | PRE ERECTION          | 4                       | Check for availability of fire protection system.  | Major         | Visual                      | Once before erection.                 | Manufacturer's Instruction Manual. | site log book.    |  |
|        |                       | 5                       | Check rollers are available and greased properly for free movement.  | Major         | Visual                      |                                       |                                    | site log book.    |  |
|        |                       | 6                       | Check air cell (pressure test).  | Major         | Visual                      |                                       |                                    | site log book.    |  |
|        |                       | 7                       | Check IR between core-earth, core-tank & tank-clamp with 1000 V DC IR tester   | Major         | Measurement                 |                                       | Manufacturer's Test Certificate.   | Site Test Report. |  |
|        |                       | 8                       | Check bushing CT's (Insulation Resistance, winding resistance of secondary winding, Ratio test, knee point voltage for PS class as well as 5P20 & Metering cores. Confirm right cores have been provided). | Critical      | Testing                     | Once before erection.                 | Data sheet / Factory test Report.  | Site Test Report. |  |
|        |                       | 9                       | Check bushings for any damage.   | Major         | Visual                      |                                       |                                    | site log book.    |  |
| 3.0    | ERECTION:             | 1                       | Check that transformer is jacked up using only the jacking pads provided for the purpose.  | Major         | Physical                    | During erection.                      | Manufacturer's Instruction Manual. | Site log book.    |  |
|        |                       | 2                       | Check that rollers are assembled under the transformer main tank suitably.   | Major         | Visual                      | During erection.                      | General Arrangement                |                   |  |
|        |                       | 3                       | Place the main tank on transformer foundation centering on both axes. All device connectivity cables are properly numbered and supported by cable trays.   | Major         | Physical                    |                                       | General Arrangement                |                   |  |
|        |                       | 4                       | Check that items to be mounted are cleaned without leaving any loose fibers with dry cloth.  | Minor         | Visual                      | Once before erection.                 | Erection protocol                  |                   |  |



| Sr. No | COMPONENT / OPERATION | CHARACTERISTICS CHECKED | CLASS OF CHECK  | TYPE OF CHECK | EXTENT / FREQUENCY OF CHECK | REFERENCE DOCUMENTS / ACCEPTANCE NORM | FORMAT OF RECORD                   | REMARKS        |   |
|--------|-----------------------|-------------------------|---|---------------|-----------------------------|---------------------------------------|------------------------------------|----------------|---|
| 1      | 2                     | 3                       | 4   | 5             | 6                           | 7                                     | 8                                  | 9              |   |
| 3.0    | ERECTION              | 5                       | Check IR Value of transformer windings using 1000 V DC.   | Major         | Measurement                 | During erection                       | Manufacturer's Instruction Manual. | Site log book. |   |
|        |                       | 6                       | Replace all O rings, gaskets with new.  | Minor         | Physical.                   | During final box up.                  | Erection protocol                  | Site log book. |   |
|        |                       | 7                       | Install Bushing CT's.   | Major         | Physical                    | During erection                       | General Arrangement                |                |   |
|        |                       | 8                       | Install Bushings.   |               |                             |                                       |                                    |                |   |
|        |                       | 9                       | Prepare new oil in a tank using filter machine and check BDV and moisture content of Oil.   | Major         | Physical / Testing          | Once before filling Oil.              | Instruction Manual.                | Site log book. | Shall be carried out in advance, before exposing the transformer, through NABL accredited lab |
|        |                       | 10                      | Connect the winding leads to bushings, as per the connection diagram.   | Major         | Physical                    | Once                                  | Manufacturer's Drawing.            | Site log book. |   |
|        |                       | 11                      | Erect Radiators, Oil circulation pump, Marshalling box, Conservator, Bucholz relay, PRV, associated piping (equalizer piping), OTI, WTI, NGR, SPR, and other accessories as per GA drg. | Major         | Physical                    | Once for each Unit.                   | General Arrangement.               |                |   |
| 3.0    | ERECTION              | 12                      | Push Oil into transformer, radiators & conservator by releasing air from top side and from all the air vent plugs of main tank.   | Major         | Physical                    | Once for each Unit.                   |                                    |                |   |
|        |                       | 13                      | For Transformer shipped with Oil: Check Oil BDV & Moisture content. Filter the Oil and fill filtered oil into transformer.  | Major         | Physical                    | Once                                  |                                    |                | Moisture content testing should be through NABL accredited lab                                |



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(upto 10 MVA, 33KV).**

Date of Issue:  
March, 2017.

| Sr. No | COMPONENT / OPERATION   | CHARACTERISTICS CHECKED | CLASS OF CHECK   | TYPE OF CHECK | EXTENT / FREQUENCY OF CHECK | REFERENCE DOCUMENTS / ACCEPTANCE NORM | FORMAT OF RECORD     | REMARKS          |
|--------|-------------------------|-------------------------|--|---------------|-----------------------------|---------------------------------------|----------------------|------------------|
| 1      | 2                       | 3                       | 4  | 5             | 6                           | 7                                     | 8                    | 9                |
|        |                         | 14                      | Circulate the oil inside the transformer. (Check IR of winding during the process)   | Major         | Physical                    | 100%                                  |                      |                  |
|        |                         | 15                      | Ensure oil filling inside the conservator (with air cell), as per the manufacturer's instruction. Check functioning of MOG before oil filling. | Major         | Physical                    |                                       |                      |                  |
|        |                         | 16                      | Check the working of PRV's.  | Major         | Physical                    | 100%                                  |                      |                  |
|        |                         | 17                      | Check manual operation of Tap Changer.   | Major         | Physical                    | 100%                                  |                      |                  |
|        |                         | 18                      | Verify Earthing of Transformer.  | Major         | Visual                      | Once                                  |                      |                  |
|        |                         | 19                      | Check transformer Oil BDV, Moisture content & DGA from any NABL approved lab.  | Major         | Testing                     | Once before site acceptance testing.  |                      |                  |
| 4.0    | PRE-COMMISSIONING TESTS | 1                       | IR of core and frame with respect to tank (earth point) at 1000 kV   | Critical      | Testing                     | 100%                                  | Factory test report. | Site Test Report |
|        |                         | 2                       | Magnetic Balance test with 230V.(From star side).  |               |                             |                                       |                      |                  |
|        |                         | 3                       | Turns ratio test on each tap.  |               |                             |                                       |                      |                  |
|        |                         | 4                       | Vector Group test.   |               |                             |                                       |                      |                  |



| Sr. No | COMPONENT / OPERATION   | CHARACTERISTICS CHECKED | CLASS OF CHECK | TYPE OF CHECK | EXTENT / FREQUENCY OF CHECK | REFERENCE DOCUMENTS / ACCEPTANCE NORM                   | FORMAT OF RECORD | REMARKS   |   |
|--------|-------------------------|-------------------------|----------------|---------------|-----------------------------|---|------------------|---|---|
| 1      | 2                       | 3                       | 4              | 5             | 6                           | 7   | 8                | 9   |   |
| 4.0    | PRE-COMMISSIONING TESTS | 5                       | Critical       | Testing       | 100%                        | Factory test report.                                    | Site Test Report |   |   |
|        |                         | 6                       |                |               |                             |   |                  | IR and PI Tan Delta & capacitance measurement of each winding   |   |
|        |                         | 7                       |                |               |                             |   |                  | Tan delta & capacitance measurement (HV- tap and tap- flange) and IR (tap to E) of HV busings               |   |
|        |                         | 8                       | Critical       | Testing       | 100%                        | Factory test report.                                    | Site Test Report | Deviation within 1% of factory value.   |   |
|        |                         | 9                       |                |               |                             |   |                  | Winding Resistance measurement at all taps in ascending & descending order.                                 |   |
|        |                         | 10                      |                |               |                             |   |                  | IR & PI of windings with 1000V DC IR tester   |   |
|        |                         | 11                      |                |               |                             |   |                  | Tap changer Oil BDV & Moisture content.   | Moistue content from NABL accredited lab only |
|        |                         | 12                      |                |               |                             |   |                  | Check IR at 1000V DC , Winding Resistance of fan and pump motors  |   |
|        |                         | 13                      |                |               |                             |   |                  | Check direction of Rotation of Oil pumps & Cooling Fans and auto changeover.                                |   |
|        |                         | 14                      |                |               |                             |   |                  | Check thermometer pockets, silica gel breather oil seal cup are filled with Oil.                            |   |
|        |                         | 14                      |                |               |                             |   |                  | Check interlocks/ device trials on OTI, WTI, PRD, Bucholz Relay, OLTC/OCTC & functioning of M.Box circuits. |   |
|        |                         |                         |                |               |                             | Manufacturer's Instruction Manual. AND Approved scheme. |                  | Buchholz shall not operate on operation of circulation oil pumps.   |   |



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|--------|--|-------------------------|----------------|---------------|-------------------------------|---|-----------------------|---|
| 1      | 2  | 3                       | 4              | 5             | 6                             | 7   | 8                     | 9   |
| 4.0    | PRE-COMMISSIONING TESTS  | 15                      | Critical       | Testing       | 100%                          | Manufacturer's Instruction Manual. AND Approved scheme. | Site Test Report      | Check for shorting of unused CT secondary terminals.  |
|        |  | 16                      |                |               |                               |   |                       | Check for Upstream & Downstream Breaker Interlocks.<br>(Check for differential stability if Turret CTs are used). |
|        |  | 17                      |                |               |                               |   |                       | Check Silica gel breather colour & Condition.   |
|        |  | 18                      |                |               |                               |   |                       | Check condition of breather, Oil seal cup, Buchholz, WTI/OTI, indicators.   |
| 5.0    | Post COMMISSIONING<br>(These tests shall be performed by Commissioning team where Testing will be a member). | 1                       | Major          | Measurement.  | Immediate after commissioning | Data sheet.   | Commissioning Report. | Check for Noise.  |
|        |  | 2                       |                |               |                               |   |                       | Check for Vibration.  |
|        |  | 3                       |                |               |                               |   |                       | Check for Temperature of Oil & windings.  |
|        |  | 4                       | Critical       | Testing       | Once.                         | As per specifications.                                  | Test Report.          | DGA of oil from NABL approved Lab after 24 hrs of charging.   |

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A) STATUTORY REQUIREMENTS WILL BE COMPLIED WITH BY THE CONTRACTOR.  
 B) FOR STAGES WITNESSED / DOCUMENTS REVIEWED BY TATA POWER, COPIES OF RELEVANT DOCUMENTS WILL BE FURNISHED TO TATA POWER.  
 C) TATA POWER / ITS REP. IDENTIFICATION STAMP ON MATERIALS WILL BE PRESERVED / GOT TRANSFERRED BY TATA POWER / IT'S REP AT APPROPRIATE STAGES.( IF REQUIRED).  
 D). THE EXTENT INDICATED IN COLUMN 6 IS IN CONTRACTOR'S SCOPE.TATA POWER MAY INSPECT AS PER THIS COLUMN OR RANDOM SAMPLES AT IT'S DESCRETION.  
 E). COLUMN 7 WILL BE AS PER TATA POWER APPROVED DRAWINGS / DATA SHEETS / CONTRACT DOCUMENTS WHEREVER APPLICABLE.  
 F). INSTRUMENTS FOR LEAK TESTS AND PERFORMANCE TESTS WILL HAVE VALID CALIBRATION CERTIFICATE WITH TRACEABILITY TO NATIONAL LEVEL.



|                                    |  |   |
|------------------------------------|--|---|
| <b>TATA POWER</b>                  | <b>The Tata Power Company Limited</b><br>Corporate Engineering-Quality Assurance Inspection & Testing. |  |
| TPQAIT-QAXX-00-EX-SFP-269<br>REV.0 | <b>STANDARD FQP FOR DISTRIBUTION &amp; AUXILIARY TRANSFORMERS</b><br>(upto 10 MVA, 33KV).              | Date of Issue:<br>March, 2017.  |

| Sr. No | COMPONENT / OPERATION            | CHARACTERISTICS CHECKED   | CLASS OF CHECK | TYPE OF CHECK | EXTENT / FREQUENCY OF CHECK | REFERENCE DOCUMENTS / ACCEPTANCE NORM | FORMAT OF RECORD | REMARKS |
|--------|----------------------------------|---|----------------|---------------|-----------------------------|---------------------------------------|------------------|---------|
| 1      | 2                                | 3   | 4              | 5             | 6                           | 7                                     | 8                | 9       |
|        | Critical Category is HOLD point. | This activity required inspection / Verification & acceptance by inspection authority responsible for this stage before further processing is permitted., 24 Hrs advance notice to be given to TATA POWER FQC. Contractor /sub contractor shall not process activity beyond HOLD point without written permission by TATA POWER FQC. This activity shall be performed by Main & Sub- Contractor (Execution + FQC) & witnessed jointly by TATA POWER (Execution + FQC). (Surveillance by Head FQC / Project Head). |                |               |                             |                                       |                  |         |
|        | Major Category is Witness point. | This activity required inspection / Verification & acceptance by inspection authority responsible for this stage before further processing. 24 Hrs advance notice to be given to TATA POWER (Execution) . Contractor /sub contractor shall not process activity beyond Witness point without written permission by TATA POWER (Execution). This activity shall be performed by Main and Sub- Contractor (Execution + FQC) & witnessed by TATA POWER Execution & Surveillance by FQC.                              |                |               |                             |                                       |                  |         |
|        | Minor Category is Review point.  | This activity required review of documents by TATA POWER for the compliance & acceptance. However 24 Hrs advance intimation to be given to TATA power (Execution). This activity shall be performed by Main and Sub- Contractor (Execution +FQC) . ( Surveillance by Execution / Project Head ).  |                |               |                             |                                       |                  |         |
|        |                                  | TATA POWER reserves the right to carryout surveillance at any point of time through FQC.  |                |               |                             |                                       |                  |         |

**STORAGE TYPE:**

TYPE-1: OPEN AREA, ABOVE GROUND ON WOODEN PLANK WITH SLOPE FOR WATER DISPOSITION.  
 TYPE-2: OPEN AREA, ABOVE GROUND ON WOODEN PLANK WITH SLOPE FOR WATER DISPOSITION AND COVERED WITH TARPAULIN.  
 TYPE-3: OPEN SHED WITH FULLY FORMED FLOORING/CEMENT FLOORING.  
 TYPE-4: COVERED SHED/STORE ROOM ON RACKS & IDENTIFIED LOCATION.  
 TYPE-4A: CLOSED CHAMBER WITH TEMPERATURE & HUMIDITY CONTROL.  
 NOTE: Items/equipments having shelf life like paints, alumina, desiccant etc. are to be stored separately for identification purpose.

|         |                     |                    |                   |                    |            |
|---------|---------------------|--------------------|-------------------|--------------------|------------|
| Rev. No | Reason for Revision | Prepared By & Date | Checked By & Date | Approved By & Date | Issued By. |
| R0      | ISSUE FOR USE       | SR / 15.03.2017    | CB/ 15.03.2017    | SS                 |            |

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Annexure-4- Acceptance of similarity certificate as per IS 2026 part 5

**ACCEPTANCE OF SIMILARITY CERTIFICATE FOR TYPE TEST REPORTS OF A  
SIMILAR TRANSFORMER AS PER IS-2026 PART-5**

| Sr No. | Particulars   | Type Tested Reference Unit | Proposed Unit | Remarks |
|--------|---|----------------------------|---------------|---------|
| 1      | Same type of operation, as the reference unit (Distribution type)   |                            |               |         |
| 2      | Same conceptual design, for example dry- type, oil immersed type, core type with concentric windings, sandwich type, shell type, circular coils, non-circular coils as the reference unit                                     |                            |               |         |
| 3      | Same arrangement of main windings and geometrical sequence as the reference unit  |                            |               |         |
| 4      | Same type of winding conductors, for example, aluminium, aluminium alloy, annealed or hardened copper, metal foil, wire, flat conductor, continuously transposed conductors and epoxy bonding, if used, as the reference unit |                            |               |         |
| 5      | Same type of main windings for example, helical, disc, layer, pancake, as the reference unit;   |                            |               |         |
| 6      | Absorbed power at short-circuit (rated power/per unit short-circuit impedance) between 30 % and 130 % of that of the reference unit; i.e = $MVA/Z_{pu}$   |                            |               |         |
| 7      | Axial forces and relative winding stresses (ratio of actual stress to critical stress) at short circuit not exceeding 120 % of those in the reference unit  |                            |               |         |
| 8      | Same manufacturing processes as the reference unit  |                            |               |         |
| 9      | Same clamping and supporting arrangement.   |                            |               |         |

## Annexure-L

## I. UNUSED INHIBITED HIGH GRADE INSULATING OIL PARAMETERS

| Sl. No.  | Property   | Test Method  | Limits  |
|----------|--|--|---|
| <b>A</b> | <b>Function</b>  |  |   |
| 1a.      | Kinematic Viscosity at 40 °C   | IS 1448 Part 25 or ISO 3104 or ASTM D7042  | 12 mm <sup>2</sup> /s (Max.)  |
| 1b.      | Kinematic Viscosity at -30 °C  |  | 1800 mm <sup>2</sup> /s (Max.)  |
| 2.       | Appearance   | A representative sample of the oil shall be examined in a 100 mm thick layer, at ambient temperature | The oil shall be clear and bright, transparent and free from suspended matter or sediment   |
| 3.       | Pour point   | IS 1448 Part 10/Sec 2 or ISO 3016  | -40 °C (Max.)   |
| 4.       | Water content<br>a) for bulk supply<br>b) for delivery in drums              | IEC 60814  | 30 mg/kg (Max.)<br>40 mg/kg (Max.)  |
| 5.       | Electric strength (breakdown voltage)  | IS 6792 or IEC 60156   | Minimum 30 kV (new unfiltered oil) / 70 kV (after treatment)                                |
| 6.       | Density at 20 °C   | IS 1448 Part 16 or ISO 12185 or ISO 3675 or ASTM D7042   | 895 kg/m <sup>3</sup> (Max.)  |
| 7.       | Dielectric dissipation factor (tan delta) at 90 °C                           | IS 16086 or IEC 60247 or IEC 61620   | 0.0025 (Max.)   |
| 8.       | Negative impulse testing KVp @ 25 °C   | ASTM D3300   | 145 (Min.)  |
| 9.       | Carbon type composition (% of Aromatic, Paraffins and Naphthenic compounds ) | IEC 60590 and IS 13155 or ASTM D2140   | Maximum Aromatic : 4 to12 %<br>Paraffins : <50%<br>& balance shall be Naphthenic compounds. |
| <b>B</b> | <b>Refining/Stability</b>  |  |   |
| 1.       | Colour   | ISO 2049   | L0.5 (less than 0.5)  |

|   |  |  |  |
|---|--|--|--|
| 2.  | Appearance   | –  | Clear, free from sediment and suspended matter   |
| 3.  | Neutralization Value (Total Acidity)                 | IEC 62021-1 or IEC 62021-2   | 0.01 mg KOH/g (Max.)   |
| 4.  | Interfacial tension at 27°C                          | IEC 62961 or ASTM D971   | 0.043 N/m (Min.)   |
| 5.  | Total sulphur content                                | ISO 14596 or ISO 8754  | 0.05 % (Max.) (before oxidation test)  |
| 6.  | Corrosive sulphur                                    | DIN 51353  | Not Corrosive  |
| 7.  | Potentially corrosive sulphur                        | IEC 62535  | Not Corrosive  |
| 8.  | Presence of oxidation inhibitor                      | IS 13631 or IEC 60666  | 0.08% (Min.) to 0.4% (Max.)  |
| 9.  | DBDS   | IEC 62697-1  | Not detectable (<5 mg/kg)  |
| 10.   | Metal passivator additives                           | IEC 60666  | Not detectable (<5 mg/kg)  |
| 11.   | 2-Furfural and related compound content              | IS 15668 or IEC 61198  | Not detectable (<0.05 mg/kg) for each individual compound  |
| 12.   | Stray gassing under thermo-oxidative stress          | Procedure in Clause A.4 of IEC 60296-2020 (oil saturated with air) in the presence of copper | Non stray gassing:<br>< 50 µl/l of hydrogen (H <sub>2</sub> ) and < 50 µl/l methane (CH <sub>4</sub> ) and < 50 µl/l ethane (C <sub>2</sub> H <sub>6</sub> ) |
| <b>C Performance</b>                          |  |  |  |
| 1.  | Oxidation stability                                  | IEC 61125 (method c)<br>Test duration: 500 hours   |  |
|   | -Total acidity*                                      | 4.8.4 of IEC 61125:2018  | 0.3 mg KOH/g (Max.)  |
|   | -Sludge*   | 4.8.1 of IEC 61125:2018  | 0.05 % (Max.)  |
|   | -Dielectric Dissipation Factor* (tan delta) at 90 °C | 4.8.5 of IEC 61125:2018  | 0.05 (Max.)  |
|   | *values at the end of oxidation stability test       |  |  |
| <b>D Health, safety and environment (HSE)</b> |  |  |  |

|    |   |                             |                            |
|----|---|-----------------------------|----------------------------|
| 1. | Flash point                             | IS 1448 Part 21 or ISO 2719 | 135 °C(Min.)               |
| 2. | Poly Cyclic Aromatic (PCA) content      | IP 346                      | <3%                        |
| 3. | Poly Chlorinated Biphenyl (PCB) content | IS 16082 or IEC 61619       | Not detectable (< 2 mg/kg) |

# Section - C

| <b>C1 - SCHEDULE OF QUANTITIES &amp; PRICES</b>           |             |      |             |       |             |
|---|-------------|------|-------------|-------|-------------|
| S No  | Description | Unit | Unit Price  | Taxes | Total Price |
|   |             |      |             |       |             |
| Bidders to attach copy of unpriced copy of price schedule |             |      |             |       |             |
|   |             |      |             |       |             |
|   |             |      |             |       |             |
|   |             |      |             |       |             |
|   |             |      |             |       |             |
|   |             |      |             |       |             |
| Seal of the Company                                       |             |      | Signature   |       |             |
|   |             |      |             |       |             |
| Date  |             |      | Name        |       |             |
|   |             |      |             |       |             |
|   |             |      | Designation |       |             |

**C2 - PROJECT TIME SCHEDULE**

|  |  |  |             |  |  |  |  |  |  |  |
|--|--|--|-------------|--|--|--|--|--|--|--|
|  |  |  |             |  |  |  |  |  |  |  |
|  |  |  |             |  |  |  |  |  |  |  |
|  |  |  |             |  |  |  |  |  |  |  |
| Bidders to attach copy of Project schedule   |  |  |             |  |  |  |  |  |  |  |
|  |  |  |             |  |  |  |  |  |  |  |
|  |  |  |             |  |  |  |  |  |  |  |
|  |  |  |             |  |  |  |  |  |  |  |
|  |  |  |             |  |  |  |  |  |  |  |
| Seal of the Company  |  |  | Signature   |  |  |  |  |  |  |  |
|  |  |  |             |  |  |  |  |  |  |  |
| Date   |  |  | Name        |  |  |  |  |  |  |  |
|  |  |  |             |  |  |  |  |  |  |  |
|  |  |  | Designation |  |  |  |  |  |  |  |
|  |  |  |             |  |  |  |  |  |  |  |
| Note: The bidder shall indicate schedule of milestones and also attach/furnish a detailed bar chart identifying customer inputs. |  |  |             |  |  |  |  |  |  |  |















**FORMAT D.5****Price Bid Format**

Tender No-

Package Name - 800 kVA, 22/0.415 kV, Dyn11 DISTRIBUTION TRANSFORMER @ Kalyan

**Bill of Material Transformer & supervisory services for commissioning**

| Sr No. | Item Description   | Unit | Quantity | Unit Rate | Applicable Taxes and Duties | Total All Inclusive Unit Rate (Rs) | Total All Inclusive Value (Rs) | Mention HSN Code |
|--------|--|------|----------|-----------|-----------------------------|------------------------------------|--------------------------------|------------------|
| 1      | Design, manufacture, factory testing, packing, route survey, delivery of 3 phase, Oil filled, 50 Hz, 800 kVA, 22/0.415 kV, Dyn11 transformer including all accessories as per the specific and general requirements and complete with bushings, cable box, conservator etc. with 10% extra oil (filling of transformer, conservator and radiators + 10% extra) | Set  | 1        |           |                             |                                    |                                |                  |
| 2      | Supply of spares as per Section B clause no. 11.1  | Set  | 1        |           |                             |                                    |                                |                  |
| 3      | Supervisory services for unloading, erection, installation, testing and commissioning of transformer being supplied as above   | Days | 3        |           |                             |                                    |                                |                  |

**FORMAT D.5**

Price Bid Format

Tender No-

Package Name - 800 kVA, 22/0.415 kV, Dyn11 DISTRIBUTION TRANSFORMER @ Ambernath

**Bill of Material Transformer & supervisory services for commissioning**

| Sr No. | Item Description   | Unit | Quantity | Unit Rate | Applicable Taxes and Duties | Total All Inclusive Unit Rate (Rs) | Total All Inclusive Value (Rs) | Mention HSN Code |
|--------|--|------|----------|-----------|-----------------------------|------------------------------------|--------------------------------|------------------|
| 1      | Design, manufacture, factory testing, packing, route survey, delivery of 3 phase, Oil filled, 50 Hz, 800 kVA, 22/0.415 kV, Dyn11 transformer including all accessories as per the specific and general requirements and complete with bushings, cable box, conservator etc. with 10% extra oil (filling of transformer, conservator and radiators + 10% extra) | Set  | 1        |           |                             |                                    |                                |                  |
| 2      | Supply of spares as per Section B clause no. 11.1  | Set  | 1        |           |                             |                                    |                                |                  |
| 3      | Supervisory services for unloading, erection, installation, testing and commissioning of transformer being supplied as above   | Days | 3        |           |                             |                                    |                                |                  |

**FORMAT D.5**

Price Bid Format

Tender No-

Package Name - 800 kVA, 22/0.415 kV, Dyn11 DISTRIBUTION TRANSFORMER @ Mankhurd

**Bill of Material Transformer & supervisory services for commissioning**

| Sr No. | Item Description   | Unit | Quantity | Unit Rate | Applicable Taxes and Duties | Total All Inclusive Unit Rate (Rs) | Total All Inclusive Value (Rs) | Mention HSN Code |
|--------|--|------|----------|-----------|-----------------------------|------------------------------------|--------------------------------|------------------|
| 1      | Design, manufacture, factory testing, packing, route survey, delivery of 3 phase, Oil filled, 50 Hz, 800 kVA, 22/0.415 kV, Dyn11 transformer including all accessories as per the specific and general requirements and complete with bushings, cable box, conservator etc. with 10% extra oil (filling of transformer, conservator and radiators + 10% extra) | Set  | 2        |           |                             |                                    |                                |                  |
| 2      | Supply of spares as per Section B clause no. 11.1  | Set  | 1        |           |                             |                                    |                                |                  |
| 3      | Supervisory services for unloading, erection, installation, testing and commissioning of transformer being supplied as above   | Days | 6        |           |                             |                                    |                                |                  |

**FORMAT D.5**

Price Bid Format

Tender No-

Package Name - 800 kVA, 22/0.415 kV, Dyn11 DISTRIBUTION TRANSFORMER @ Karanjade

**Bill of Material Transformer & supervisory services for commissioning**

| Sr No. | Item Description   | Unit | Quantity | Unit Rate | Applicable Taxes and Duties | Total All Inclusive Unit Rate (Rs) | Total All Inclusive Value (Rs) | Mention HSN Code |
|--------|--|------|----------|-----------|-----------------------------|------------------------------------|--------------------------------|------------------|
| 1      | Design, manufacture, factory testing, packing, route survey, delivery of 3 phase, Oil filled, 50 Hz, 800 kVA, 33/0.415 kV, Dyn11 transformer including all accessories as per the specific and general requirements and complete with bushings, cable box, conservator etc. with 10% extra oil (filling of transformer, conservator and radiators + 10% extra) | Set  | 2        |           |                             |                                    |                                |                  |
| 2      | Supply of spares as per Section B clause no. 11.1  | Set  | 1        |           |                             |                                    |                                |                  |
| 3      | Supervisory services for unloading, erection, installation, testing and commissioning of transformer being supplied as above   | Days | 6        |           |                             |                                    |                                |                  |

**FORMAT D.5**

Price Bid Format

Tender No-

Package Name - 800 kVA, 22/0.415 kV, Dyn11 DISTRIBUTION TRANSFORMER @ Salsette

**Bill of Material Transformer & supervisory services for commissioning**

| Sr No. | Item Description   | Unit | Quantity | Unit Rate | Applicable Taxes and Duties | Total All Inclusive Unit Rate (Rs) | Total All Inclusive Value (Rs) | Mention HSN Code |
|--------|--|------|----------|-----------|-----------------------------|------------------------------------|--------------------------------|------------------|
| 1      | Design, manufacture, factory testing, packing, route survey, delivery of 3 phase, Oil filled, 50 Hz, 800 kVA, 22/0.415 kV, Dyn11 transformer including all accessories as per the specific and general requirements and complete with bushings, cable box, conservator etc. with 10% extra oil (filling of transformer, conservator and radiators + 10% extra) | Set  | 2        |           |                             |                                    |                                |                  |
| 2      | Supply of spares as per Section B clause no. 11.1  | Set  | 1        |           |                             |                                    |                                |                  |
| 3      | Supervisory services for unloading, erection, installation, testing and commissioning of transformer being supplied as above   | Days | 6        |           |                             |                                    |                                |                  |

**SECTION-B : DATASHEET - GENERAL TECHNICAL PARTICULARS FOR ALL DT'S**

| Sr. No.  | Description  | Unit         | Specification Requirements                         | Compliance by bidder (Shall be filled station wise) |  |
|--|--|--------------|--|---|--|
| 1  | <b>GENERAL</b>   |              |  |   |  |
| 1.1  | Application/Designation  |              | Distribution Transformer                           |   |  |
| 1.2  | Quantity required  | Nos.         | As per Section-A                                   |   |  |
| 1.3  | Installation (Indoor/Outdoor)  |              | Outdoor  |   |  |
| 1.4  | Degree of protection as per IS:13947   |              | IP-55  |   |  |
| 1.6  | Manufacturer's Name  |              | Bidder to specify                                  |   |  |
| 1.5  | Bidder agrees to provide 36 months warranty from date of supply  |              | Yes  |   |  |
| 1.6  | Type test reports (max 5 years from bid date) on similar design transformer with similar capacity is available with bidder                     |              | Yes  |   |  |
| 1.7  | Bidder agrees to carry out Impulse tests on all transformer and heat run on typical same rated transformer without additional cost to customer |              | Yes  |   |  |
| 1.8  | Exact turns ratio of transformer   |              | Bidder to confirm values as per spec point 3.1.3   |   |  |
| 1.9  | Transformer "TYPE" as per spec point 3.1.3   | A, B, C or D | Bidder to specify                                  |   |  |
|  | a. kVA rating of transformer   | kVA          | Bidder to specify as per Section-A                 |   |  |
|  | b. HV winding highest System Voltage   | kV           | Bidder to confirm values as per spec point 3.1.3   |   |  |
|  | c. HV winding nominal voltage rating   | kV           | Bidder to confirm values as per spec point 3.1.3   |   |  |
|  | d. HV winding Impulse withstand voltage  | kVp          | Bidder to confirm values as per spec point 3.1.3   |   |  |
|  | e. HV winding power frequency withstand  | kV           | Bidder to confirm values as per spec point 3.1.3   |   |  |
|  | f. HV bushing nominal voltage  | kV           | Bidder to confirm values as per spec point 3.1.3   |   |  |
|  | g. HV bushing Impulse withstand voltage  | kVp          | Bidder to confirm values as per spec point 3.1.3   |   |  |
|  | h. HV bushing power frequency withstand  | kV           | Bidder to confirm values as per spec point 3.1.3   |   |  |
|  | i. Bushing Short circuit withstand rating  |              |  | For 415V = 50kA for 1 sec                           |  |
|  |  |              |  | For 6.6kV = 50kA for 1 sec                          |  |
|  |  |              |  | For 11kV = 40 kA for 1 sec                          |  |
|  |  |              |  | For 22 & 33kV = 31.5 kA for 1 sec                   |  |
|  | j. LV rated voltage  | V            | 415  |   |  |
|  | k. Frequency   | Hz           | 50   |   |  |
|  | l. Number of phases  |              | 3  |   |  |
|  | m. HV connection   |              | Delta  |   |  |
|  | n. LV connection   |              | Star   |   |  |
|  | o. Vector Group  |              | 11   |   |  |
|  | p. Cooling   |              | ONAN   |   |  |
| q. Application / Direction of Power Flow                               |  |              | From HV towards 0.415 kV                           |   |  |
| r. Percentage Impedance at principal tap                               | %  |              | As per latest IS 1180. (as of date on bid opening) |   |  |
| s. Maximum Flux Density  | Tesla  |              | 1.9  |   |  |
| t. HV and LV winding material  |  |              | Copper   |   |  |
| u. Maximum Current density for HV and LV Windings                      | A/mm <sup>2</sup>  |              | 2.6  |   |  |
| v. Type of HV winding  | Continuous disc / Crossover  |              | As per short circuit type test design of bidder.   |   |  |
| w. Type of LV winding  | Strip Copper / Foil  |              | As per short circuit type test design of bidder.   |   |  |
| x. Transformer LV Neutral  |  |              | Solid earthed / Effectively earthed                |   |  |
| y. Creepage distance at highest rated line to line voltage for bushing | mm/kV  |              | 31   |   |  |

|   |  |                       |   |  |
|---|--|-----------------------|---|--|
| 2 | <b>SYSTEM PARAMETERS</b>   |                       |   |  |
|   | a. Fault level at LV system  | kA                    | 50 kA for 1 sec   |  |
|   | b. Fault level at HV system  | kA                    | For 6.6kV = 50kA for 1 sec                                    |  |
|   |  |                       | For 11kV = 40 kA for 1 sec                                    |  |
|   |  |                       | For 22 & 33kV = 31.5 kA for 1 sec                             |  |
|   | c. HV System Neutral   |                       | Effectively earthed   |  |
| 3 | <b>TRANSFORMER PARAMETERS</b>  |                       |   |  |
|   | a. Neutral CT ratio  | CTR                   | As per spec point 5.14.15                                     |  |
|   | b. HV CT ratio   | CTR                   | As per spec point 5.14.15                                     |  |
|   | c. Transformer efficiency class  | Level-2               | Level-2 as per latest IS 1180. (as on date of bid submission) |  |
|   | d. Maximum guaranteed losses including all tolerances at 50% load  | Watts                 | Bidder to mention   |  |
|   | e. Maximum guaranteed losses including all tolerances at 100% load   | Watts                 | Bidder to mention   |  |
| 4 | <b>TEMPERATURE RISE</b>  |                       |   |  |
|   | a. Reference Ambient   | °C                    | 50  |  |
|   | b. Oil by thermometer  | °C                    | 40  |  |
|   | c. Winding by resistance   | °C                    | 45  |  |
| 5 | <b>TAP CHANGING GEAR</b>   |                       |   |  |
|   | a. Taps (off load) required  | Yes/No                | Yes   |  |
|   | b. Tapping's on windings   | HV/LV                 | HV  |  |
|   | c. Total tapping range   |                       | +10% to -10%  |  |
|   | d. Steps   | %                     | 2.5   |  |
|   | e. Number of taps (including principal)  | Nos.                  | 9   |  |
| 6 | <b>Clearances</b>  |                       |   |  |
|   | a. HV Terminal arrangement   | Air terminal or Cable | As per Section-A  |  |
|   | b. Minimum clearances in Air   | As applicable         | Bidder to confirm as per spec point 5.14.11                   |  |
|   | c. Minimum clearances in HV Cable box  | As applicable         | Bidder to confirm as per spec point 5.14.11                   |  |
|   | d. Minimum clearances in LV Cable box  |                       | Bidder to confirm as per spec point 5.14.11                   |  |
| 7 | <b>TANK AND NEUTRAL EARTHING TERMINAL</b>  |                       |   |  |
|   | a. Tank earthing material of conductor   |                       | Copper  |  |
|   | b. Size of conductor   |                       | By Bidder followed by purchaser approval                      |  |
|   | c. Tinned copper strip considered for transformer neutral earthing   |                       | Yes   |  |
|   | d. Size of neutral earth conductor   |                       | 50x6mm tinned copper  |  |
| 8 | <b>MISCELLANEOUS</b>   |                       |   |  |
|   | a. Wheels  |                       | Plain and bi-directional                                      |  |
|   | b. Transformer tank air pressure withstand   |                       | 80 kPa for 30 min   |  |
|   | c. Transformer tank vacuum withstand   |                       | 500mm mercury for 30 min                                      |  |
|   | d. Transformer pressure withstand with all accessories including bushing   |                       | 35 kPa for 10 min without any oil leakage                     |  |
|   | e. Colour shade of final painting  |                       | RAL 7035  |  |
|   | f. Bolted joint near base of tank  |                       | Not Required  |  |
|   | g. 1kV insulation is provided between core to ground, core bolt to core and core bolt to frame complete assembly | Yes/No                | Yes   |  |
|   | h. Core external grounding through bushing is considered.  | Yes/No                | Yes   |  |
|   | i. Primary and secondary windings are made of high conductivity Double paper covered (DPC) copper                | Yes/No                | Yes   |  |
|   | j. Conservator oil level gauge provided with minimum oil marking   | Yes/No                | Yes   |  |
|   | k. Gasket for transformer provided is neoprene rubberized oil resistant cork sheet                               | Yes/No                | Yes   |  |

|    |  |         |                 |  |
|----|--|---------|-----------------|--|
|    | l. Water protective canopy providing coverage from top and all sides of equipment except bottom and of MS material is provided for all accessories viz. Buchholz relay, PRD, CT terminal block, marshalling box etc. | Yes/No  | Yes             |  |
|    | m. Louvers with protective mesh at diagonally opposite side of LV cable box is considered  | Yes/No  | Yes             |  |
|    | n. Thermostat with heater arrangement considered for cable boxes   | Yes/No  | Yes             |  |
|    | o. Transformer top cover is sloped tilting towards HV winding for avoiding accumulation of rain water  | Yes/No  | Yes             |  |
|    | p. MOG with potential free contacts for oil level low are considered   | Yes/No  | Yes             |  |
|    | q. Cable support structure provided to hold cable cleats   | Yes/No  | Yes             |  |
|    | r. Pressure relief device is considered instead of explosion vent  | Yes/No  | Yes             |  |
| 9  | <b>FITTINGS REQUIRED</b>   |         |                 |  |
|    | a. Dial type thermometer with two contacts for oil temp. alarm and trip  | Yes/No  | Yes             |  |
|    | b. Magnetic oil level gauge with low oil level alarm contact   | Yes/No  | Yes             |  |
|    | c. Gas and oil actuated (i.e. BUCHHOLZ) relay  | Yes/No  | Yes             |  |
|    | d. Gas sampling device   | Yes/No  | Yes             |  |
|    | e. Winding temperature indicator with two contacts for alarm and trip  | Yes/No  | Yes             |  |
|    | f. All control cables considered as 1.1kV, FRLS, multistrand, copper cables  | Yes/No  | Yes             |  |
|    | g. Valves  | Yes/No  | Yes             |  |
|    | h. 01 valve each before and after buchholz relay provided  | Yes/No  | Yes             |  |
|    | i. Four plain rollers in place of fixing channels  | Yes/No  | Yes             |  |
|    | j. Pressure release device is considered instead of explosion vent   | Yes/No  | Yes             |  |
|    | k. Transformer marshalling box TBs of Elmex make, KLTD4, 11kV 40Amp rating are considered  | Yes/No  | Yes             |  |
|    | l. On LV side of transformer, suitable Copper lug for connection of suitable rating 1.1kV class cable will be provided.  |         | Yes             |  |
| 10 | <b>MANDATORY SPARES</b>  |         |                 |  |
|    | a. Complete set of gaskets   | One set | Bidder to agree |  |
|    | b. Bushing of each type  | One set | Bidder to agree |  |
|    | c. CT of each type   | One set | Bidder to agree |  |
|    | d. Dial type thermometer   | One set | Bidder to agree |  |

**ACCEPTANCE OF SIMILARITY CERTIFICATE FOR TYPE TEST REPORTS OF A SIMILAR TRANSFORMER**

| Sr No. | Particulars   | Type Tested Reference Unit | Proposed Unit | Remarks |
|--------|---|----------------------------|---------------|---------|
| 1      | Same type of operation, as the reference unit (Distribution type)   |                            |               |         |
| 2      | Same conceptual design, for example oil immersed type, core type with concentric windings, circular coils etc. as the reference unit  |                            |               |         |
| 3      | Same arrangement of main windings and geometrical sequence as the reference unit  |                            |               |         |
| 4      | Same type of winding conductors, for example, aluminium, aluminium alloy, wire, flat conductor, continuously transposed conductors and epoxy bonding etc. as the reference unit |                            |               |         |
| 5      | Same type of main windings for example, helical, disc, layer, pancake, as the reference unit;   |                            |               |         |
| 6      | Absorbed power at short-circuit (rated power/per unit short-circuit impedance) between 30 % and 130 % of that of the reference unit; i.e = $MVA/Z_{pu}$                         |                            |               |         |
| 7      | Axial forces and relative winding stresses (ratio of actual stress to critical stress) at short circuit not exceeding 120 % of those in the reference unit                      |                            |               |         |
| 8      | Same manufacturing processes as the reference unit  |                            |               |         |
| 9      | Same clamping and supporting arrangement.   |                            |               |         |



**C2 - PROJECT TIME SCHEDULE**

Bidders to attach copy of Project schedule

Seal of the Company

Signature

Date

Name

Designation

Note: The bidder shall indicate schedule of milestones and also attach/furnish a detailed bar chart identifying customer inputs.















**FORMAT F.1**

**AFFIDAVIT (ON LETTER HEAD)**

I, ..... S/o ..... Director of M/s.....  
..... having its registered office at ..... do hereby solemnly affirm and  
declare as follows:

1. That I have been authorized to execute this affidavit on behalf of this company by the Board of Directors vide its resolution passed on .....
2. That Tata Power vide advertisement published in ..... had invited offers for Tender Reference No \_\_\_\_\_.
3. That in response to the said advertisement as stated in paragraph (2) above, our firm has submitted its proposal to Tata Power.
4. That the proposals of our firm M/s ..... containing necessary information and particulars furnished as response to the Tender Document.
5. That our firm have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award against our firm, nor our firm have been expelled from any project or contract by any public authority or private firm nor have had any contract terminated by any public authority or private firm for breach of our part.
6. That our firm during the last three years, neither failed to perform on any agreement, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award against us.

That the statements made in paragraph 1 to 6 of the foregoing affidavit as above are true to my knowledge and belief and if anything is found contrary, I stand liable to be prosecuted under appropriate Act / laws in force.

Stamp:

Sign:

Name:

Place and date:

Note: In case of any arbitration / judicial proceeding / legal litigation initiated against or by the bidder in last three years then the same have to Annexed to this Affidavit

**FORMAT F.2**

**PROFROMA OF LETTER OF UNDERTAKINGS  
(To be submitted by the Bidder along with his Bid)**

**ON BIDDER'S LETTER HEAD**

**Ref..... Date.....**

To

Head – Procurement

The Tata Power Company Limited, Smart Center of Procurement Excellence, 2nd Floor, Sahar Receiving Station, Near Hotel Leela, Sahar Airport Road, Andheri East, Mumbai-400059

Dear Sir,

I / We have read and examined the entire Tender Document to the ..... (Full scope of work)

I / We hereby submit our Bid and undertake to keep our Bid Valid for a period of 180 days from the date of bid opening i.e. up to .....

I / We hereby further undertake that during said period.

I / We shall not vary/alter or revoke my / our Bid.

This undertaking is in consideration of Tata Power agreeing to open my Bid and consider and evaluate the same for the purpose of award of work in terms of provision of tender specifications.

Should this Bid be accepted, **I / We** also agree to abide by and fulfill all the terms & conditions of provision of the above mentioned bid documents.

Signature along with Seal of Co.....

(Duly authorized to sign the Tender on behalf of the Bidder)

Name .....

Designation .....

E-mail (used in E-Tender):

Name of Co. ....

(In Block Letters.)

## **FORMAT F.3**

### **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, Tata Power intends to use the reverse auctions through E-Tender system 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. Tata Power shall log-in to the authorized representative of the bidder.
2. Tata Power will make every effort to make the bid process transparent. However, the award decision including sharing of work would be final and binding on the supplier.
3. The bidder agrees to non-disclosure of trade information regarding the purchase, identity of Tata Power, 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 Tata Power.
6. Tata Power has sole discretion to extend or restart the auction event in case of any glitches in infrastructure observed which has restricted the bidders to submit the bids to ensure fair & transparent competitive bidding. In case of an auction event is restarted, the best bid as already available in the system shall become the start price for the new auction.
7. In case the bidder fails to participate in the auction event due any reason whatsoever, it shall be presumed that the bidder has no further discounts to offer and the initial bid as submitted by the bidder as a part of the tender shall be considered as the bidder's final no regret offer. Any offline price bids received from a bidder in lieu of non-participation in the auction event shall be out-rightly rejected by Tata Power.
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 Tata Power 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 Tata Power.
12. Detailed price split of E-auction price will be submitted within 24 hours from completion of E-auction. If not submitted, 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**



**BG Format (EMD BG , PBG/ CPBG)**

CONFIDENTIAL

#### **FORMAT F.4**

Format of BID BG / EMD

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 Mumbai branch and claim will also be payable at Mumbai Branch. **(To be confirmed by Mumbai Branch by a letter to that effect)**

Notwithstanding anything contained herein above:

- a) Our liability under this Bank Guarantee shall not exceed Rs. \_\_\_\_\_/-(Rupees \_\_\_\_\_ only).
- b) This Bank Guarantee shall be valid upto ----- 200.
- 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 ----- 200.

**FORMAT OF PERFORMANCE BANK GUARANTEE**

- 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 signatories to the guarantee on the Bank's letter head.
- 

The Tata Power Co Ltd  
34, Sant Tukaram Road  
Carnac Bunder,  
Mumbai 400 009

**Our Letter of Guarantee No.....**

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

- 1.0 You have entered into a Contract No..... with.....  
.....(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.
- 2.0 In accordance with the terms of the said contract, " the Vendor" has  
agreed to furnish you with an irrevocable and unconditional bank  
guarantee in a form and from a bank acceptable to you as security for the  
due performance by " the Vendor" of all his contractual obligations under  
the said contract in an amount equal to 10% (ten percent) of the total value  
of the contract to be valid from the date of contract and up to 12 months  
from the date of satisfactory commissioning of the said equipment into  
service or 18 months from the date of delivery whichever is earlier.
- 3.0 In consideration thereof, we, ..... hereby irrevocably and  
unconditionally guarantee to pay to you on demand and without demur and  
without reference to " the Vendor" such amount or amounts not exceeding  
the sum of Rs.....(Rupees .....  
only) being 10% (ten 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-fulfilment and " the  
Vendor" shall have no right to question such judgement.

- 4.0 You shall have the right to file/make your **claim** on us under the guarantee for a **further period of six months** from the said date of expiry.
- 5.0 This guarantee shall not be revoked without your 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 of any powers vested in you or any right which you may have against “ the Vendor” and to exercise the same in any manner at any time and either to enforce or forbear to enforce 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.
- 6.0 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.
- 7.0 This guarantee shall not be affected by any change in the constitution of our Bank or “ the Vendor” or for any other reason whatsoever.
- 8.0 Any claim/extension under the guarantee can be lodged at issuing outstation branch or at Mumbai branch and also become payable at our issuing outstation bank or at the Mumbai branch as per confirmatory letter/letters of the concerned bank branches as attached. **(This Confirmatory letter is to be obtained from Mumbai Branch by the vendor and submitted along with the Performance Bank Guarantee and is applicable for PBG submitted from Banks located outside Mumbai).**
- 9.0 Notwithstanding anything herein contained, our liability under this guarantee is limited to Rs..... (Rupees ..... only ) and the guarantee will remain in force up to and including .....(Date) and shall be extended from time to time for such period or periods as may be desired by “ the Vendor” .
- 10.0 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 end date) we shall be discharged from all liabilities under this guarantee thereafter.
- 11.0 For any correspondence in relation to extension / invocation / discharge of bank guarantee contact us at Tel No. \_\_\_\_\_ and Bank branch email id \_\_\_\_\_

Dated at ..... , this ..... day of .....2020 .





## Vendor Registration Form

## Corporate Contracts

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

**MATERIAL** 
**SERVICE** 
**COMPOSITE** 
**CONSULTANT**

|  |               |                           |            |            |            |  |  |
|--|---------------|---------------------------|------------|------------|------------|--|--|
| Title (M/S., Mr., Mrs., Dr.) *   |               |                           |            |            |            |  |  |
| Company Name (35 Char) *   |               |                           |            |            |            |  |  |
| Country code - Mobile No *   |               |                           |            |            |            |  |  |
| Country Code - Tel. No *   |               |                           |            |            |            |  |  |
| Country Code - Fax No  |               |                           |            |            |            |  |  |
| Email ID *   |               |                           |            |            |            |  |  |
| Street / House No *  |               |                           |            |            |            |  |  |
| Country *  |               | State *                   |            | District * |            |  |  |
| City *   |               | Pin code *                |            | Language   |            |  |  |
| Category   | General       |                           | MOEF       |            | SC / ST    |  |  |
|  | Related Party |                           | MSME / SSI |            | OBC/Others |  |  |
| <b>Bank Details (all details to be filled for enabling NEFT Transfer)</b>  |               |                           |            |            |            |  |  |
| Name of Bank *   |               |                           |            |            |            |  |  |
| Bank Details ID *  |               | PAN Number *              |            |            |            |  |  |
| Account No. *  |               | Account Holder *          |            |            |            |  |  |
| Bank Key *   |               | Bank Country *            |            |            |            |  |  |
| MICR Code *<br>(Attach Cancelled Cheque)   |               |                           |            |            |            |  |  |
| IFSC Code *  |               |                           |            |            |            |  |  |
| IBAN *   |               |                           |            |            |            |  |  |
| Payment thro RTGS/NEFT*  |               |                           |            |            |            |  |  |
| <b>Quality / Safety Systems (Mandatory for Service and Composite Vendor Registration)</b>  |               |                           |            |            |            |  |  |
| OHSAS 18001 Certified  |               | Risk Management Process   |            |            |            |  |  |
| ISO 9001 Certified   |               | ISO 14001 / EMS Certified |            |            |            |  |  |
| <b>Declaration and Vendor Authorized Signature</b>   |               |                           |            |            |            |  |  |
| <p>I / We certify that the information furnished above is correct and complete to the best of my/our knowledge and belief. If at any time, I / We are found to have concealed any material information or given any false details, my/our registration shall be liable to summary termination without notice or compensation. I / We are not related to any employee of Tata Power .</p> <p>We have also received a copy of your Tata Code Of Conduct. We hereby confirm that we have read the same and understand the need to follow the same in Spirit and Letter. If we have any concerns we shall bring the same to the notice of your Chief Ethics Officer. Email: <a href="mailto:cecounsellor@tatapower.com">cecounsellor@tatapower.com</a>, * Copy also available on our website <a href="http://www.tatapower.com/aboutus/code-of-conduct.aspx">http://www.tatapower.com/aboutus/code-of-conduct.aspx</a></p> |               |                           |            |            |            |  |  |
| Name *   |               |                           |            |            |            |  |  |
| Designation *  |               |                           |            |            |            |  |  |
| Email *  |               |                           |            |            |            |  |  |
| Signature & Company Seal *   |               |                           |            |            |            |  |  |



### ERP Vendor India Requirement - Taxation Registration Details

|                               |  |
|-------------------------------|--|
| LST / VAT Registration No.    |  |
| LST / VAT Registration Date   |  |
| CST / TIN Registration No.    |  |
| CST / TIN Registration Date   |  |
| Service Tax Registration. No. |  |
| Service Tax Registration Date |  |
| Excise Registration No.       |  |
| Excise Registration. Date     |  |
| Provident Fund No.            |  |
| ESI Registration No.          |  |
| MSME / SSI Registration No.   |  |
| MSME / SSI Registration Date  |  |

### Mandatory For SERVICE & COMPOSITE (Material + Service) Vendor Registration

|   |     |  |    |  |       |  |
|---|-----|--|----|--|-------|--|
| Annexure 1 - CSM F1-'Safety Category Qualification Form | YES |  | NO |  | N / A |  |
| OSHAS 18001 Certificate                                 | YES |  | NO |  | N / A |  |
| ISO 9001 Certificate                                    | YES |  | NO |  | N / A |  |
| ISO 14001 / EMS Certificate                             | YES |  | NO |  | N / A |  |
| Safety Organization Structure                           | YES |  | NO |  | N / A |  |
| Safety Training Process                                 | YES |  | NO |  | N / A |  |
| Safety Policy   | YES |  | NO |  | N / A |  |
| Safety Statistics                                       | YES |  | NO |  | N / A |  |
| Address of sites where WIP                              | YES |  | NO |  | N / A |  |

### Check List of Documents enclosed (To be filled by the Vendor)

|  |     |  |    |  |       |  |
|--|-----|--|----|--|-------|--|
| PAN Card Copy  | YES |  | NO |  | N / A |  |
| VAT / CST / TIN Registration Certificate             | YES |  | NO |  | N / A |  |
| Service Tax Registration Certificate (for services)  | YES |  | NO |  | N / A |  |
| Certificate of Incorporation / Partnership Deed etc  | YES |  | NO |  | N / A |  |
| Signed Conflict of Interest Declaration              | YES |  | NO |  | N / A |  |
| MSME Industry Registration (Mandatory if applicable) | YES |  | NO |  | N / A |  |



## Evaluation Sheet

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

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

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



## ANNEXURE – 1 (CSM F1 - Safety Category Qualification Form)

Type of Vendor - Service / Composite (Material + Service)

Name of the Vendor -

| No       | Safety Information  | Remarks  | Attachments   |               |               |
|----------|---|----------|---------------|---------------|---------------|
| <b>1</b> | <b>Certificate</b>  |          |               |               |               |
| 1A       | OHSAS : 18001   | Yes / No |               |               |               |
| 1B       | ISO : 14001   | Yes / No |               |               |               |
| 1C       | ISO : 9001  | Yes / No |               |               |               |
| <b>2</b> | <b>Safety Statistics for Last Three (03) Years</b>                            |          | <b>Year 1</b> | <b>Year 2</b> | <b>Year 3</b> |
| 2A       | LTIFR – Lost Time Injury Frequency Rate                                       | Yes / No |               |               |               |
| 2B       | LTISR – Lost Time Injury Severity Rate  | Yes / No |               |               |               |
| <b>3</b> | <b>Safety Training Process</b>  | Yes / No |               |               |               |
| <b>4</b> | <b>Safety Organization Structure</b>  | Yes / No |               |               |               |
| <b>5</b> | <b>Safety Policy</b>  | Yes / No |               |               |               |
| <b>6</b> | <b>Name and Address of Sites where work are in Progress or worked earlier</b> | Yes / No |               |               |               |

Name, Signature & Company Seal

To be filled by the Tata Power Requestor

Vendor to be registered for CATEGORY

**A**

**B**

**C**

- 1) **Category A**- Vendors eligible to carry out High risk Jobs
- 2) **Category B**- Vendors eligible to carry out technical jobs that are low risk
- 3) **Category C**- Vendors eligible to carry out administrative and office jobs

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



## **ANNEXURE – 2 (Conflict of Interest Certification)**

### **Objective**

The intent of this disclosure is NOT to prevent an aspirant supplier from making an application, but rather to provide the decision making authorities with information on which Tata Power can make its own judgements and ensure that dealing with such parties is done fairly and transparently by ensuring that people / parties in conflict of interests are involved in the transactions / decision making process.

While requesting a registration, a supplier MUST disclose any actual or potential conflict of interest by giving the details of the person/s within the supplier's company (whether a director or an employee) who may be in actual or potential conflict of interest as per the above referred clause 20 of Tata Code of Conduct.

### **Conflict of Interest**

An actual or potential conflict of interest with supplier's may arise where, directly or indirectly.

- a. A proprietor or partner or director or employee (who is party to a transaction) of the supplier is also a member of family or relative of a Tata Power employee.
- b. A proprietor or partner or director or employee (who is party to a transaction) of the supplier is also a director of family or relative of a Tata Power or Tata Group of companies or a person of influence within Tata Power.
- c. A proprietor or partner or director of the company is also a proprietor or partner or director in another company already registered with Tata Power and competing for similar products and / or services.
- d. A company has subsidiary or associate companies already registered with Tata Power and competing for similar products and / or purpose.

For detailed explanation on when an actual or potential conflict of interest may arise, please refer to the clause 20 of Tata Code of Conduct available on the Tata Power website

[www.tatapower.com/aboutus/code-of-conduct.aspx](http://www.tatapower.com/aboutus/code-of-conduct.aspx)

### **Format for declaration**

Supplier's willing to register with Tata Power need to print the enclosed form which should be printed on the Letter Head of their company and be signed by proprietor / partner / executive directors / person authorized by the company for giving such declaration affixing his name, designation below the signature along with seal of the company.



To

Corporate Contracts  
The Tata Power Company Ltd  
Technopolis Knowledge Park, CENTEC,  
Mahakali Caves Road, Chakala,  
Andheri (E), Mumbai 400 093

**Declaration on Conflict of Interest**

This is to certify that we, M/s \_\_\_\_\_ are having the following entities / persons in actual or potential conflict of interest while dealing with Tata Power within the spirit of Clause 20 of Tata Code of Conduct.

| Name & Designation of the entity / person in conflict of interest | Name of Tata Power person to whom related to | Nature of relationship / conflict |
|---|--|-----------------------------------|
|   |  |                                   |
|   |  |                                   |
|   |  |                                   |
|   |  |                                   |
|   |  |                                   |

Note – In case there is no conflicts to be declared, please clarify state as NIL in the first row and strike out the balance lines)

This is to further certify that, we M/s \_\_\_\_\_

- a. Are not dealing with Tata Power under any other name or through any other subsidiary / associate companies other than the list disclosed above.
- b. None of our other directors / partners / other proprietors is dealing with Tata Power under any other company name.
- c. None of the other directors / partners / proprietors / employees holding a position of responsibility and / or authorized to transact with Tata Power has any significant financial interest or other relationship i.e., (Father, Mother, Brother, Sister or any other close family relationship) with any other Tata Power employee or directors of Tata Power or directors of Tata group of companies.

We further declare that as and when there is any change to the above certification, we shall intimate to Tata Power about such changes in the status. We also declare that we have read and understood the Tata Code of Conduct – latest version hosted on Tata Power website [www.tatapower.com/aboutus/code-of-conduct.aspx](http://www.tatapower.com/aboutus/code-of-conduct.aspx) and shall abide by all the provisions of the same and will bring any concerns regarding this to the notice of your chief ethics officer on the email id [cecounsellor@tatapower.com](mailto:cecounsellor@tatapower.com)

This is to certify that the above said information is true to the best of my knowledge and that I have the requisite authority to sign above said declaration in my capacity as \_\_\_\_\_ (ID No. \_\_\_\_\_)

Regards,

Name, Signature and Company Seal

## 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!



## 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



## CORPORATE SUSTAINABILITY POLICY

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

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

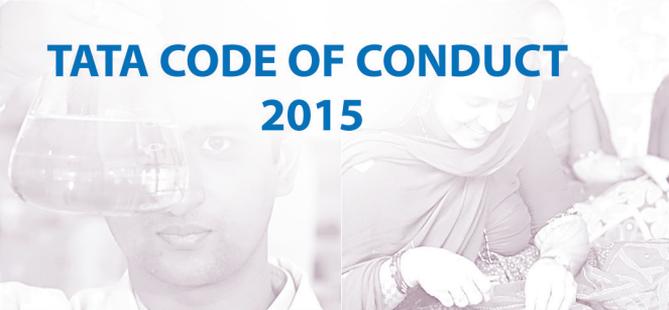
The management will commit all the necessary resources required to meet the goals of Corporate Sustainability.



(Praveer Sinha)  
CEO & Managing Director

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





**TATA 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)

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## 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:



### INTEGRITY

We will be fair, honest, transparent and ethical in our conduct; everything we do must stand the test of public scrutiny.

### UNITY

We will invest in our people and partners, enable continuous learning, and build caring and collaborative relationships based on trust and mutual respect.

### RESPONSIBILITY

We will integrate environmental and social principles in our businesses, ensuring that what comes from the people goes back to the people many times over.

### PIONEERING

We will be bold and agile, courageously taking on challenges, using deep customer insight to develop innovative solutions.

### EXCELLENCE

We will be passionate about achieving the highest standards of quality, always promoting meritocracy.

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-authorised, 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)



**SUPPLIER MANUAL ANSWERING  
TO  
E-BIDDING & E-AUCTION**

CELEBRATING 100 YEARS OF INVISIBLE GOODNESS

**TATA POWER**

|                      |                    |
|----------------------|--------------------|
|                      | <b>Version 1.1</b> |
| Company Confidential | DEC - 2016         |

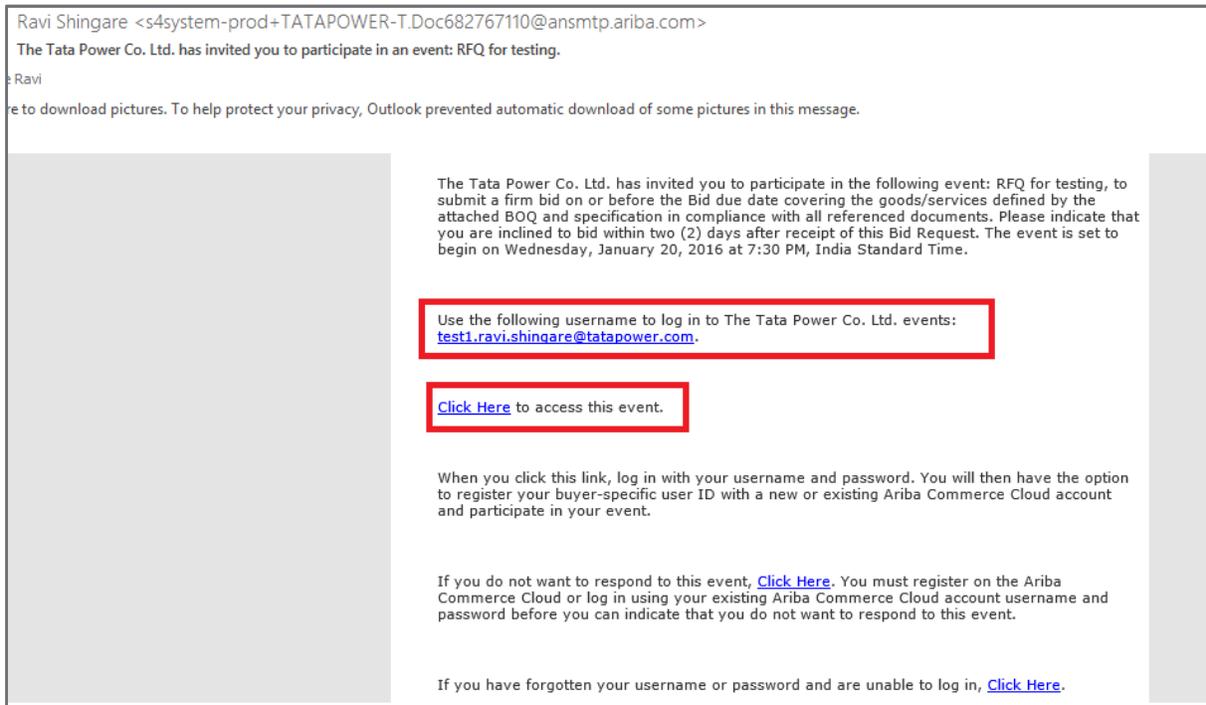
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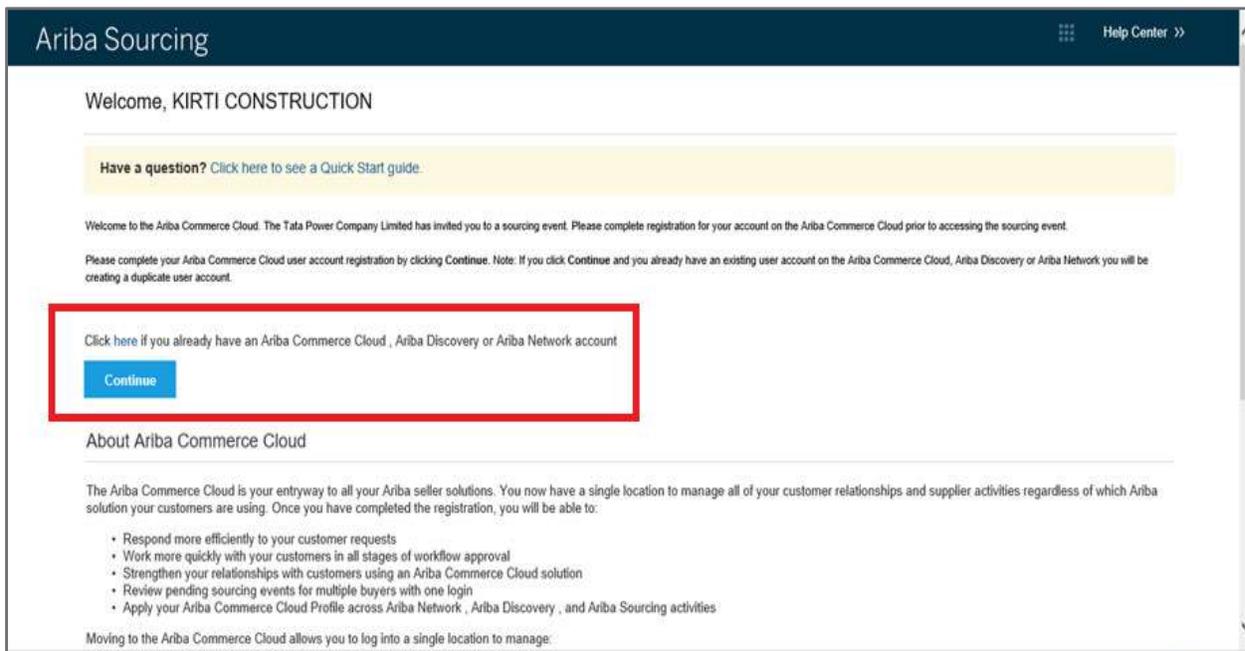
# 1- Accessing Ariba Sourcing

**Step 1:** You will get an invitation to your email from Ariba System. Keep this email, it contains your login Information and a direct link to Ariba.

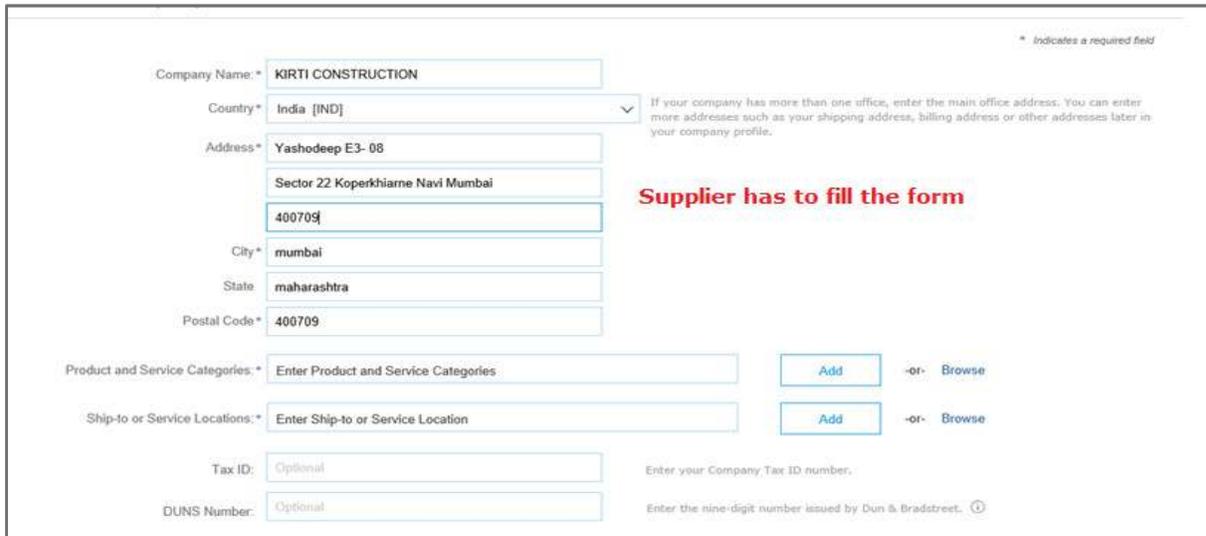
**Step 2:** Click "Click Here" to access the Ariba Web Site.



**Step 3:** Supplier has to click on "Continue"



**Step 4:** The registration process only takes a few moments, with a simple one-page registration. Define your password and secret question. Click “OK”

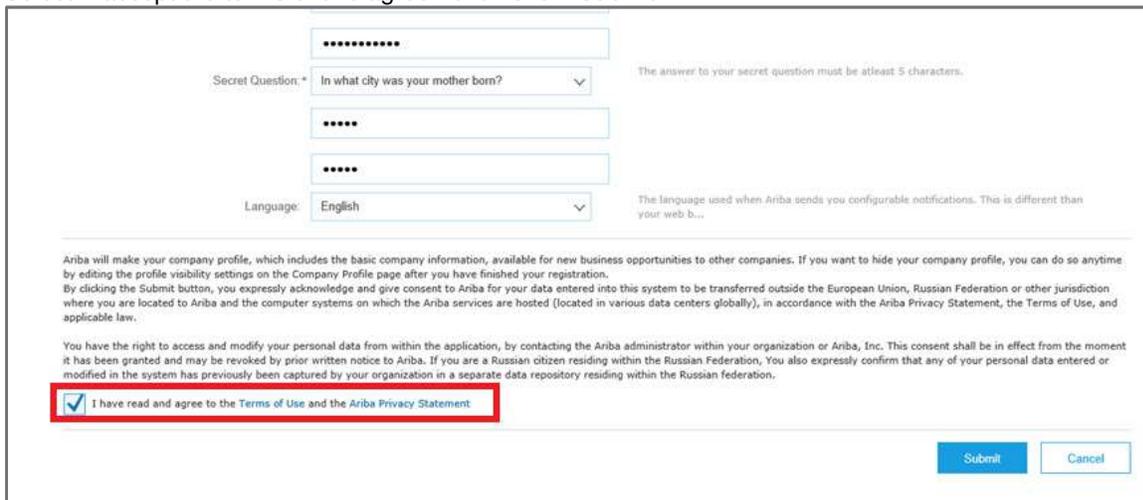


The form is for a supplier named KIRTI CONSTRUCTION. It includes fields for Country (India), Address (Yashodeep E3-08, Sector 22 Koperkhaima Navi Mumbai, 400709), City (mumbai), State (maharashtra), and Postal Code (400709). There are also fields for Product and Service Categories, Ship-to or Service Locations, Tax ID, and DUNS Number. A red box highlights the text "Supplier has to fill the form".



The screen shows the "Expired Password" section. It includes instructions for creating a new password and selecting a secret question. The new password is masked with dots, and the secret question is "Who is your favorite sports team?" with the answer "lives". A red box highlights the password and secret question fields. Another red box highlights the "OK" button at the bottom.

**Step 5:** If it's the first time you are invited to use UPM Ariba, you'll need to accept the “Participant Terms”. Select “I accept the terms of this agreement”. Click “Submit”.



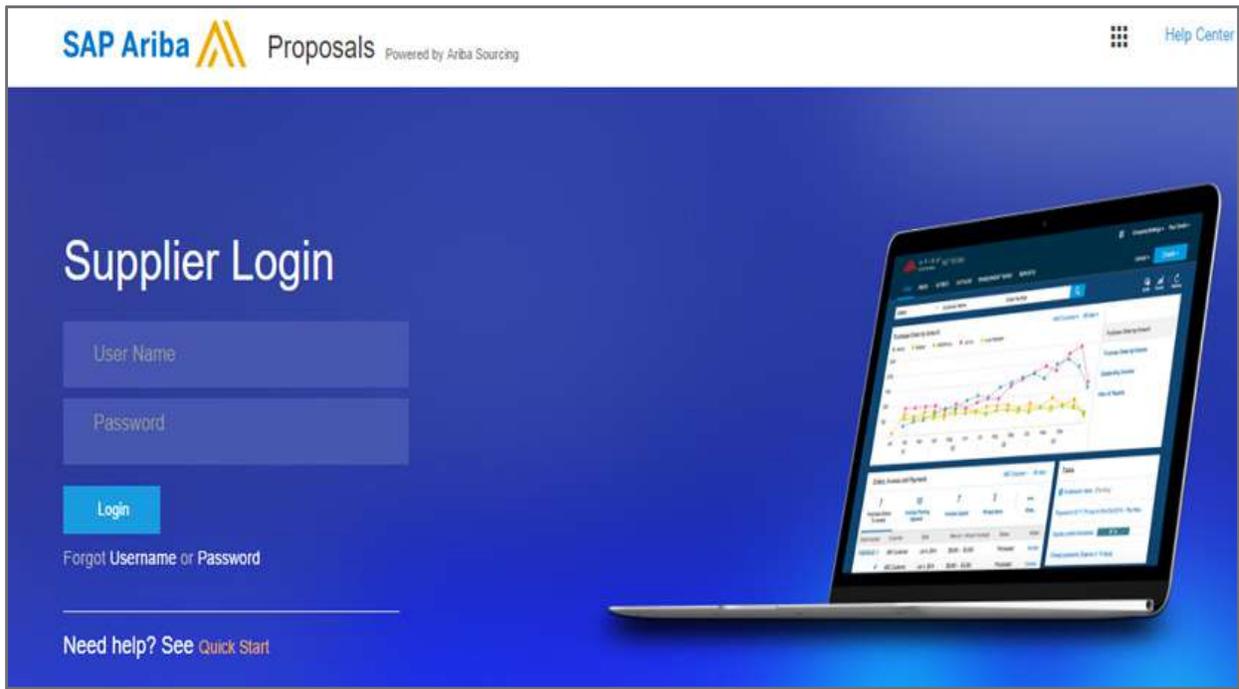
The screen displays the "Terms of Use and Privacy Statement" section. It includes a secret question "In what city was your mother born?" and a language selection dropdown set to "English". A red box highlights the checkbox "I have read and agree to the Terms of Use and the Ariba Privacy Statement". The "Submit" and "Cancel" buttons are at the bottom right.

## 2 Vendor Screen

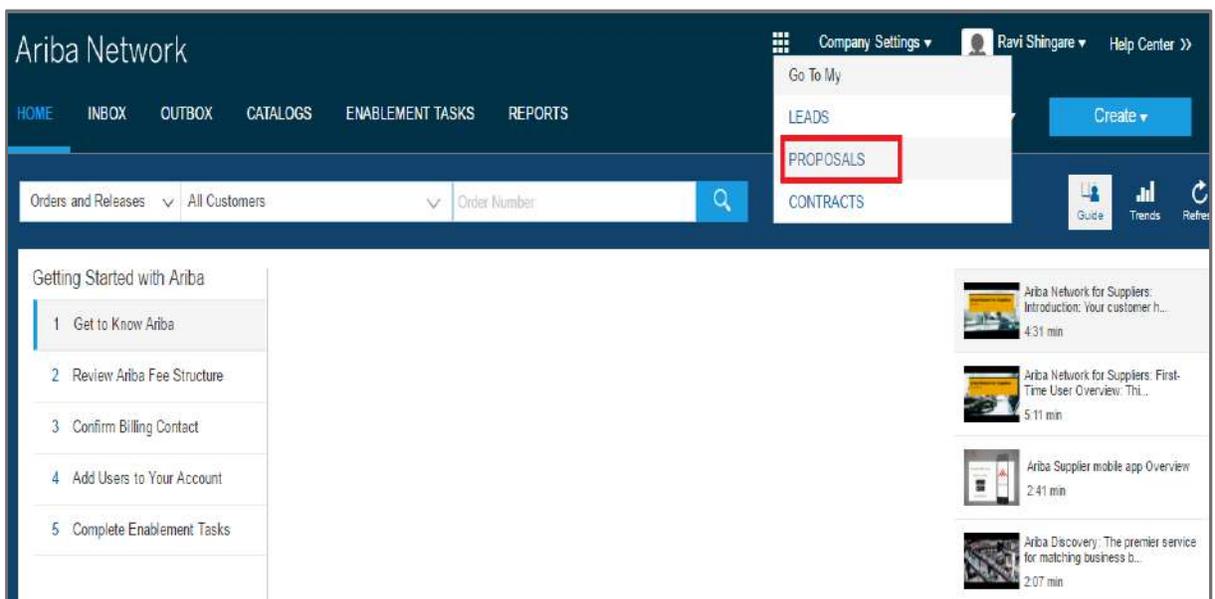
2.1.1 If vendor goes through mail invitation then directly Screen 3.1.1 will appear, but if you have used Ariba before and have already accessed an event for the buyer-specific account with your current log in ID, click the **Login** button to continue. Log in with your Ariba username and password in order to participate in the event OR you have to follow the following steps.

Step 1 - Log on [supplier.ariba.com](https://supplier.ariba.com)

Step 2 - Put your USER ID and Password in following screen



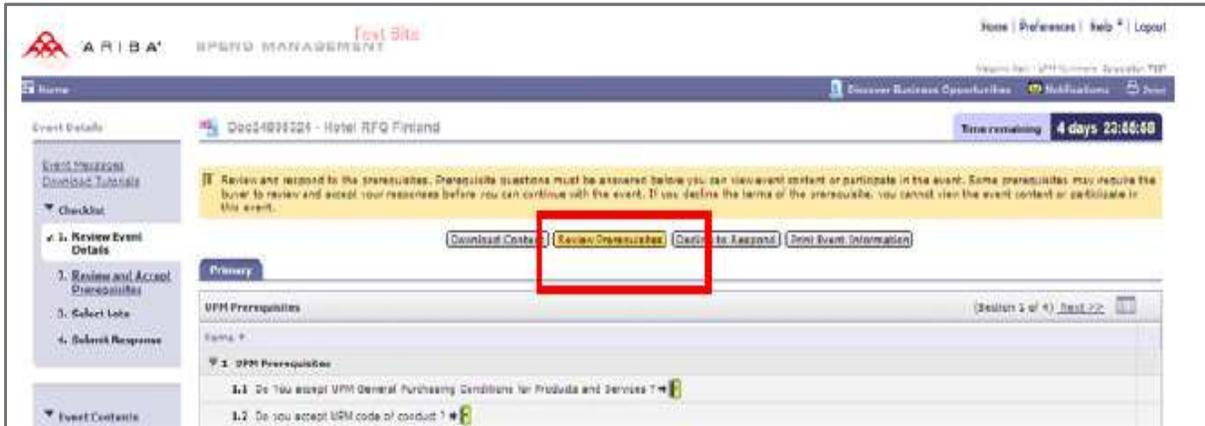
Step 3 - Go to ARIBA APPS  and click on Proposals.



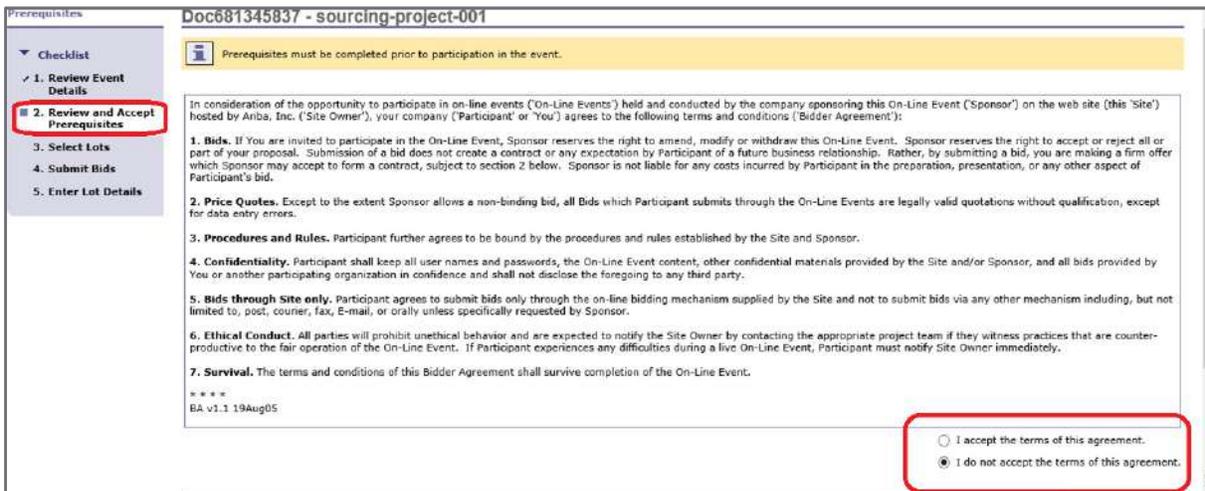
### 3 Submitting Your Answers / Proposal

#### 3.1.1 Review and Approve “Prerequisites”

**Step 1:** Review and download all documents & then Click on “Review Prerequisites”



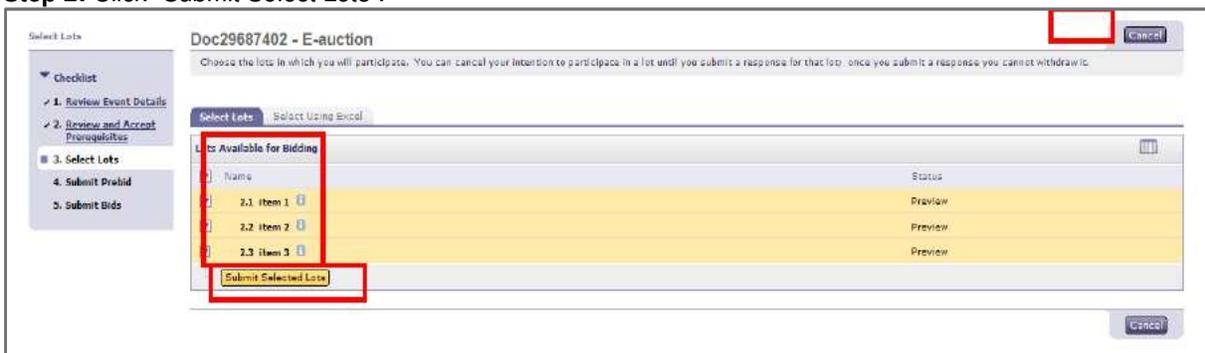
**Step 2:** Review and accept “Bidder Agreement”.



#### 3.1.2 Select Items or Lots

**Step 1:** Select Items. - If you do not want to quote for any items/lots then you do not select that lot / items and then go ahead for select and submit lot.

**Step 2:** Click “Submit Select Lots”.



### 3.1.3 Entering your offer for RFQ

**Step 1:** as per following screen Vendor Dashboard will appear where RFQ from TATA Power will be visible.

**THE TATA POWER COMPANY LIMITED-TEST**

Welcome to the Ariba Spend Management site. This site assists in identifying world class suppliers who are market leaders in Ariba, Inc. administers this site in an effort to ensure market integrity.

**Events**

| Title                            | ID           | End Time           |
|----------------------------------|--------------|--------------------|
| ▶ Status: Completed (104)        |              |                    |
| ▼ Status: Open (1)               |              |                    |
| RFQ-Test 11th Aug 2016           | Doc905524000 | 12/16/2015 6:35 PM |
| ▶ Status: Pending Selection (80) |              |                    |

**Tasks**

| Name     | Status | Due Date | Completion Date |
|----------|--------|----------|-----------------|
| No Items |        |          |                 |

**Vendor has to complete the vendor registration FORM**

Step 2 - Follow all the steps of 3.1.1 to 3.1.3

Step 3 - Vendor has to submit their techno commercial offer in 2.1. In this field Do No attach any price content. For Price Bid put all the unit price and taxes and duties in provided field. Put "0" (ZERO) in not applicable field.

2. Review and Accept Prerequisites

3. Select Lots

4. Submit Response

- 1.4.1 Contract Safety Manual [Annexure I \(Contract Safety M](#)
- 1.4.2 TATA Code of Conduct [Annexure III \(TCOC\).pdf](#)
- ▼ 1.5 Technical Specification
  - 1.5.1 Technical Specification Details [Attach a file](#)
  - ▼ 2 Techno Commercial bid
    - 2.1 Please attach the Techno-Commercial Bid [Attach a file](#)
  - ▼ 3 Price Bid

▼ 3 Price Bid

3.1 Bidder to specify the prices either in terms of percentage ( %) or Value where the options are available for both. In case price is specified in percentage ( % ) , please Specify Zero ( 0 ) in the amount field and vice-versa.

|                                   |           |   |           |     |          |
|-----------------------------------|-----------|---|-----------|-----|----------|
| 3.2 Bearingfor motor 1.90991      | More... + | * | 15,000.00 | INR | 30 each  |
| 3.3 AMC 20,000 IS-U/CCS CONTRACTS | More... + | * | 35,000.00 | INR | 35 month |
| 3.4 ANALYSIS TAILRACE WTR SAMPLE  | More... + | * | 35,000.00 | INR | 45 each  |

Step 4 - After successfully putting Techno commercial offer and price part then click on "Submit Entire Response"

Requested Delivery Date: Sat, 24 Sep, 2016

(\*) indicates a required field

**Submit Entire Response** | Update Totals | Save | Compose Message

### 3.1.4 Entering Your Prebid for e-auction

**Before participation to the e-auction you must place a pre-bid. If you haven't placed a Prebid in the Prebid time you won't be able to participate to the auction itself.**

**Step 1:** Populate Your Answers.

**Step 2:** Click "Submit Entire Response".

The screenshot shows the 'Tata Power Company Limited-TEST Dashboard' for document Doc681345837 - sourcing-project-001. A yellow banner at the top right indicates 'Time remaining in preview 1 day 04:05:05'. A message states: 'The event owner has requested that you submit a prebid before the end of the preview period. You have not yet submitted a prebid.' The left sidebar contains a checklist with '4. Submit Bids' highlighted in red. The main content area shows a table with columns 'Name' and 'Extended Price'. The table includes sections for '1 Introduction', '2 Commercial Terms' (with a sub-item '2.1 lot-1' for '4 core cable' at a price of 5000 INR), and '3 Pricing' (with a sub-item '3.1 FOR SITE DELIVERY P&F INCLUSIVE' and an attached file 'COMP-1.xlsx'). At the bottom, the 'Submit Entire Response' button is highlighted in red.

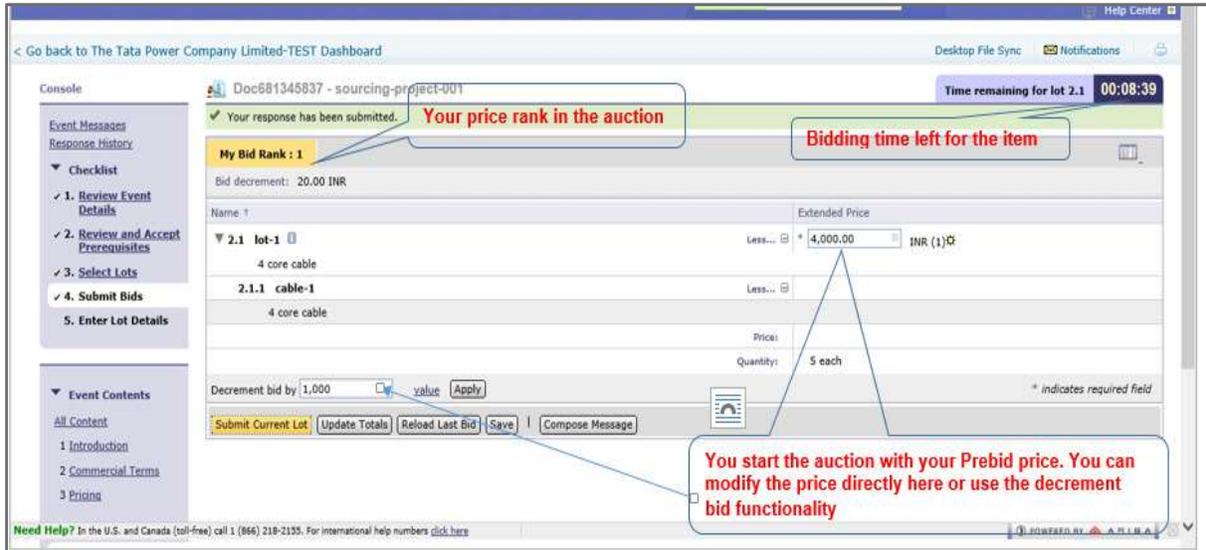
When the Prebid time is still open you can still modify your Prebid:

Click on "revise Prebid" and repeat in step 1 and step 2.

The screenshot shows the same dashboard after a prebid has been submitted. A green banner at the top right indicates 'Time remaining in preview 1 day 04:02:39'. A message states: 'Your prebid has been submitted. You will be notified when the event is open for bidding.' The left sidebar checklist now has '4. Submit Bids' highlighted in red. The main content area table is updated with the 'Extended Price' for '2.1 lot-1' as '5,000.00 INR' and for '3.1 FOR SITE DELIVERY P&F INCLUSIVE' as '5,000.00 INR'. The 'Revise Prebid' button is highlighted in red.

### 3.1.5 Participate to the e-auction

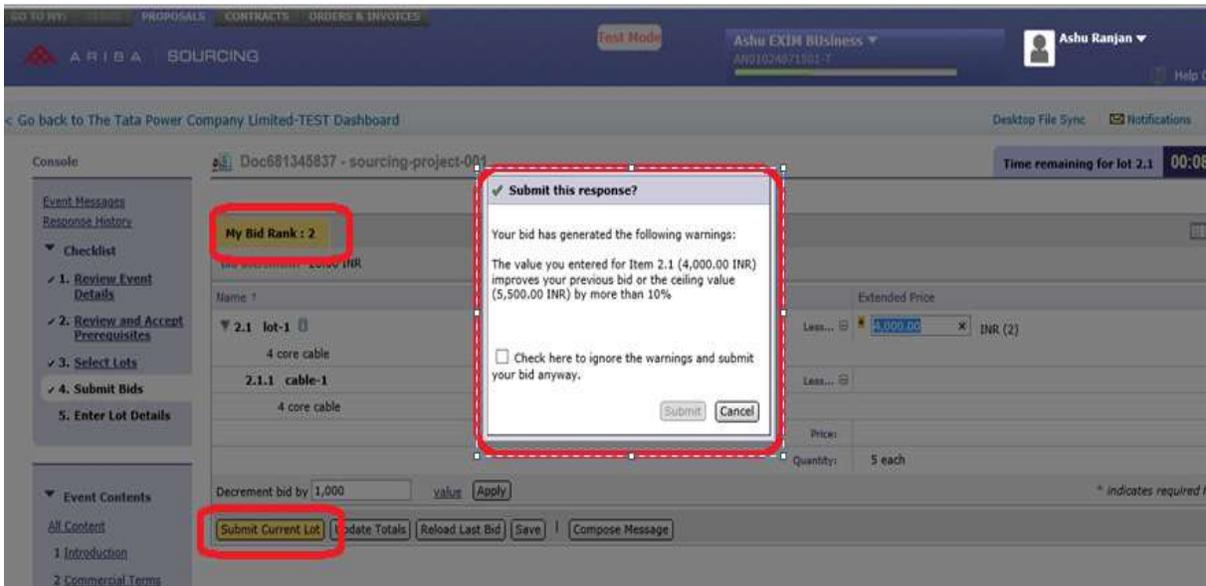
If you have placed a bid in the Prebid time you will be able to participate to the e-auction. E-auctions are rather sort in time (usually less than 20 min per item). Once the time is closed you won't be able to bid anymore.



When you want to submit your price presses "submit current lot"

In case the new price you submit is lower by 10% of the starting price (Prebid Price) the following warning Message will be displayed.

To submit the new price, check the box and press submit. If you made a mistake press cancel so that you Mistake would not be submitted.



### 3.1.5.2 What to do if you have a problem during the e-auction?

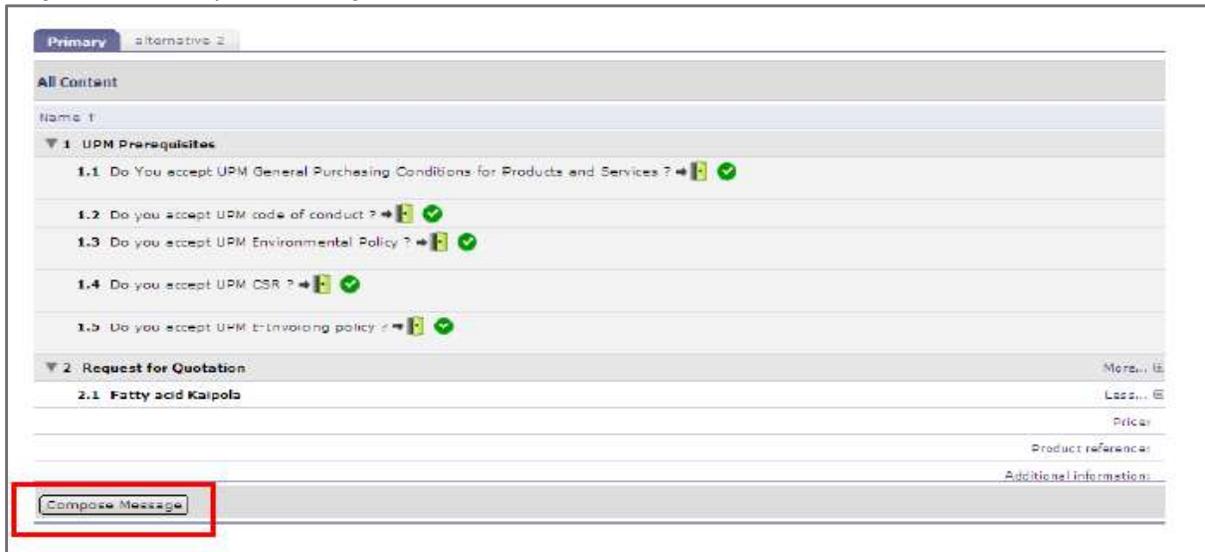
If you have any problem related the system: - **Call first Tata Power e- Bidding / Auction Cell**

#### ➤ **e- Bidding /Auction Cell details:-**

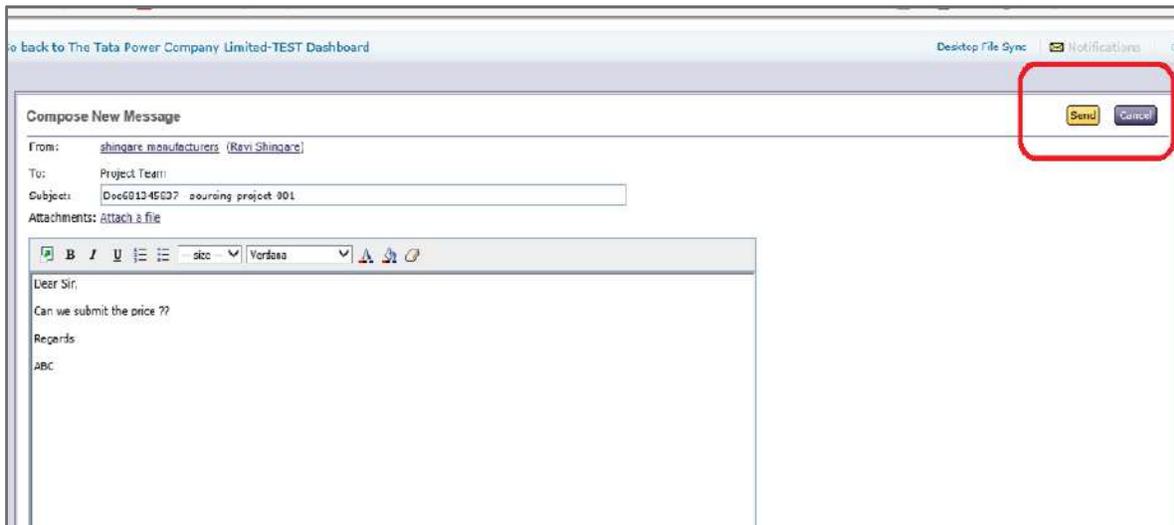
| <b>Core team</b>         |  |                        |
|--------------------------|--|------------------------|
| <b>Contact Person</b>    | <b>E-Mail Id</b>   | <b>Contact Details</b> |
| Ravi Shingare            | <a href="mailto:ravi.shingare@tatapower.com">ravi.shingare@tatapower.com</a> | 9029004168             |
| Himanshu Ranjan          | <a href="mailto:himanshur@tatapower.com">himanshur@tatapower.com</a>         | 9820339961             |
| <b>Escalation Matrix</b> |  |                        |
| Paresh Bhatt             | <a href="mailto:pareshbhatt@tatapower.com">pareshbhatt@tatapower.com</a>     |                        |
| C T Prakash              | <a href="mailto:ctprakash@tatapower.com">ctprakash@tatapower.com</a>         | 9223545185             |

## **4 Communicating with Tata Power Buyer & Auction team during auction / e- bidding**

**Step 1:** Click “Compose Message”.



**Step 2:** Compose Your Message and click “Send”.



# SUPPLIER FREQUENTLY ASKED QUESTIONS

## **If I registered on my buyer's Ariba Sourcing site in the past, do I need to register again?**

**Answer- Yes.** Although you have registered on your buyer's Ariba Sourcing site in the past, registering on the Ariba Commerce Cloud is required. The registration process only takes a few moments, with a simple one-page registration. Registering on the Ariba Commerce Cloud gives you access to all your buyer relationships with one username and password.

## **What is the Ariba Commerce Cloud?**

**Answer: -** The Ariba Commerce Cloud is your entry point to all of your seller solutions. Rather than managing log in information for multiple buyers' sites, you will have one log in and one account. This means fewer passwords to remember, easier user maintenance for your company, and a unified profile for your organization.

## **Do I need to add Product and Service Categories during registration?**

**Answer:-Yes;** this is a required field. Product and Service Categories classify what your company sells, and the system uses this information to match potential business opportunities with your products and services.

Click **Add Product and Service Categories** to select one or more categories from the list of options. During registration, you only need to choose one category, preferably related to the event you are joining. You can add, refine, or remove categories any time after the registration process.

## **Do I need to add ship-to or service locations during registration?**

**Answer: - Yes;** this is a required field. Ship-to or Service locations inform buyers where your company sells its products or provides its services, and the system uses this information to match potential business opportunities with your products and services.

Click **Add Ship-to or Service Locations** to select one or more sales territories from a list. You can add, refine, or remove ship-to or service locations any time after the registration process.

## **Do I need to enter a D-U-N-S number when I register?**

**Answer: - No;** this is an optional field. You are only required to complete the fields marked with an asterisk (\*). If you enter a D-U-N-S number, and you get a message that the value is already in use, leave the field blank, as D-U-N-S numbers must be unique within the Ariba Commerce Cloud. Your company can have multiple Ariba accounts, but only one account can use the D-U-N-S number.

**Additional Information: -** D-U-N-S is a registered trademark of Dun & Bradstreet or its subsidiaries in the United States and other countries.

## **Do I need to enter a Tax ID when I register?**

**Answer: - No,** the Tax ID is an optional field. You are only required to fill in the fields marked with an asterisk (\*).

## **What is the difference between the Email and Username fields in my profile?**

**Answer: -** The Email field represents the email address where you wish to receive email notifications. The Username field is the identifier that you use to access your account. The Username field must be in email format, but you do not have to use a valid email address.

**Note:** Leave the **This is my username** box checked if you want your email address to be the same as your username.

#### **How do I participate in my buyer's event using an email invitation?**

**Answer:** - Use the **Click here** link in the email notification to access the sourcing event.

While buyers might customize the email content you receive, all email invitations contain a link to access the event.

Depending on your previous experience with Ariba solutions, do one of the following to access the event after you click the link:

- If you are new user, click **Continue** on the welcome page. You continue to register an Ariba account to link with your buyer and participate in the event.
- If you have used Ariba before and have already accessed an event for the buyer-specific account with your current log in ID, click the **Login** button to continue. Log in with your Ariba username and password in order to participate in the event.
- If you already have an existing Ariba Network, Ariba Discovery, or Ariba Sourcing supplier account, but you have not accessed any events for the inviting buyer's site, use the **Click here if you already have an Ariba Commerce Cloud, Ariba Discovery or Ariba Network account** link. After clicking the link, log in with your existing account to move your information to your buyer's site.

Additional Information :- Registering an Ariba account provides you with a consolidated view of all your customer relationships. With this one profile, you can view business opportunities, participate in sourcing events, participate in contract negotiations, and manage orders, catalogs, and invoices.

#### **Why doesn't the link in the email invitation to participate in a sourcing event work?**

**Answer:-**If you cannot click the link, or the link does not open the log in page, highlight and copy the Uniform Resource Locator (URL), and then paste the URL into your web browser.

#### **Can my company have multiple accounts?**

**Answer:-**Your Company can have multiple Ariba accounts, depending on your business needs. For example, if your company has several locations around the world, you might want a separate account for each region.

Most companies choose to have one account with multiple customer relationships, which provides a centralized location to maintain their company profile information and all of their customer relationships.

#### Additional Information

Consider the following items when deciding whether to have more than one account:

- **Administrators:** For each account, you can have only one account administrator, but the account administrator can provide access to multiple users. All users from your company have their own **Username** and **Password** to access the account.
- **DUNS** (data universal numbering system) **numbers:** You can add your company's DUNS number to only one account. If you plan to have multiple accounts, leave the DUNS number blank during registration.

## **How do I complete registration if my username already exists?**

**Answer:** - This message means that you already have an Ariba Network, Ariba Discovery, or Ariba Sourcing supplier account registered under username you entered. You can either register a new account by creating a new username, or access one of the following sites to request a password reset for the registered username:

- [Ariba Network](#) (This login page is used for all Ariba Network, Ariba Sourcing, or Ariba Contracts suppliers).
- [Ariba Discovery login page](#)

To reset your password, click the **Having trouble logging in?** Link on the Login page.

## **Nothing happens when I click Forgot Username and enter my email address**

**Issue:** - Nothing happens when I click the **Forgot Username** link and enter my email address.

**Cause:** - After you submit your request to retrieve your username, the Ariba Network sends an email notification with usernames that match the email address you submitted.

Some possible reasons why you may not receive this username retrieval email notification:

- The email address on your account does not match the email address you entered when submitting the request.
- Your buyer-specific account was deactivated before you could move it to the Ariba Commerce Cloud. Generally, that means you probably have not participated in an event with that buyer for a while.

### **Solution:** -

- To ensure you receive this email notification:
- Make sure you type the email address configured within your account.

If your buyer-specific account has been deactivated, contact your buyer to determine how to proceed.

## **Where is my password reset email?**

**Answer:** - After you submit your request for a password reset, Ariba sends instructions to the email address associated with your account. If you didn't receive a password reset email, check the following scenarios to troubleshoot.

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The username you entered is in the wrong format, or it isn't associated with the email address you are checking.

- Keep in mind, your username is in the format of a full email address, but it can be associated with any email address you entered previously.
  - Your username is also case-sensitive.
  - To confirm that you are using the correct username and format, return to the Ariba login page, and click the **Having trouble logging in?** link (**Forgot Username** if you're working in Ariba Discovery).
    - Choose **I forgot my username**, and click **Continue**.
    - Enter the email address associated with your account, and click **Submit**.
    - You will receive an email that lists the exact format of the username associated with the email you entered.
-

You entered the correct username, but you still didn't receive the password reset email notification.

- This can occur if the configured email address is different from the account you are checking.
- You might have multiple accounts for your company, so make sure you are attempting to access the correct account.

Your email configuration or company's security settings might also prevent you from receiving the password reset email. To find out, check your junk mail folder or email filter settings to verify that automated emails from Ariba are not blocked from your email account.

 **Why do I get this message on the SAP Ariba Login page: "The username and password pair you entered was not found"?**

**Answer: -** You entered an incorrect **Username** or **Password**. You might receive this message if you entered a previous **Username** or **Password**. Remember that your **Username** has the format of an email address, and both the **Username** and **Password** are case sensitive.

Click the **Having trouble logging in?** Link on the Login page if you don't remember your log in information.