

The Tata Power Company Ltd		<i>OPEN TENDER NOTIFICATION</i>
<i>Tender Reference: CC25AA017</i>		<i>Document Date: 17th March 2025</i>

OPEN TENDER NOTIFICATION

FOR

Procurement of 96 Core OPGW & Accessories for Mumbai Transmission.

Tender Enquiry No.: CC25AA017
(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 (Rs.)	Last date and time for Payment of Tender Participation Fee*	Last date and time for bid submission
CC25AA017	Procurement of 96 Core OPGW & Accessories for Mumbai Transmission.	1,76,000/-	2,000/-	26 th March 2025, 1500 Hrs	07 th April 2025, 1500 Hrs

* 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

Account No – 00600110000763

Account type – CC

IFSC Code – HDFC0000060

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E-mail with necessary attachment of 1 and 2 above to be send to anubhav.anand@tatapower.com with copy to vivek.mittal@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.

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 corrigendum’s to the said tender, if any, will be informed on Tender section on website <https://www.tatapower.com>

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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

Reference Number	CC25AA017
Description	Procurement of 96 Core OPGW & Accessories for Mumbai Transmission.
Type of Tender	Purchase Order.
Period	Till the completion of work.
Tender Fee	Rs 2,000/-
Earnest Money Deposit (EMD)	Rs 1,76,000 /- Rs One Lakh Seventy-Six Thousand Only. PLEASE NOTE THAT IT IS MANDATORY TO SUBMIT EMD IN BANK GUARANTEE FORMAT ONLY
Price Basis	Firm Price
Executive Handling this Tender*	Name: Mr. Anubhav Anand E-Mail ID: anubhav.anand@tatapower.com

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

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1.2 Calendar of Events

(a)	Payment of Tender Fee and Submission of letter nominating authorized person by Interested Bidder indicating their intent to Buy Tender.	Till 26/03/2025 1500 Hrs.
(b)	Access to Tender Documents through E-Tender system to authorized person of Interested Bidder.	By 17/03/2025 to 07/04/2025
(c)	Date & Time of Pre-Bid Meeting (if applicable).	Pre-Bid Meeting: 27/03/2025 Through MS Teams. Link shall be shared separately.
(d)	Last Date of receipt of pre-bid queries, if any.	By 29/03/2025 1500 Hrs.
(e)	Last Date of Posting Consolidated replies to all the pre-bid queries as received	By 31/03/2025 1500 Hrs.
(f)	Last date and time of receipt of Bids	07/04/2025 up to 1500 Hrs.*

Note: - *These date and time 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 formats are 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.

Checklist of Document Submission

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Stage of Tendering	Document	Type of Format	Mode of submission
Before last date of Pre-Bid Query	Query / Clarification / Deviation (QCD) Format. (F1) Separate Excel sheet to be used for Technical and Commercial Pre-Bid Query	Editable Excel Format	Through message in E-tender system
Bid Submission Envelope 1 (First Part)	Earnest Money Deposit	Original Bank Guarantee	In Sealed Envelope
Bid Submission Envelope 2 (Second Part)	Documents to be uploaded in Ariba only. 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 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 Vendor Code in Tata Power and factory/supply address 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.

1.9 Supplier Confidentiality

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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

Tata Power's Bank Details for submitting EMD BG:
Bank Name & Address - ICICI Bank, 163 HT Marg,

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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 though 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.

SECOND and THIRD PARTS of the Bid must be submitted in E-Tender System and Hard Copy received in any form for Second & Third Part shall not be accepted.

Bidders have to mandatorily submit SECOND & THIRD PARTS (Technical, Un-priced commercial and Price Bids) only through E-Tender system of Tata Power. Bids submitted through any other form/ 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.

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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 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)

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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

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

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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 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.

The Tata Power Company Ltd		<i>OPEN TENDER NOTIFICATION</i>
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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.

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.

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The Tata Power Company Ltd



OPEN TENDER NOTIFICATION

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Section B: Format of Technical & Commercial Pre bid Queries

CONFIDENTIAL

The Tata Power Company Ltd



OPEN TENDER NOTIFICATION

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Document Date: 17th March 2025

Section C.1: Pre-Qualification requirement

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FORMAT C.1

Technical Pre-Qualification Requirement and Submission Format

Tender No

Package Name

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 must be an OEM of OPGW with manufacturing facility / assembly in India.	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 100 kms of OPGW in last 5 years as on date of bid submission . Out of which 50 kms of OPGW shall be in satisfactory service for last 2 years as on the date of bid submission.</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>In case the bidder has a previous association with any of Tata Power Group companies for similar products and services, the performance feedback of the bidder by the Tata Power Group companies shall only be considered for evaluation purpose, irrespective of performance certificates issued by any third organization.</p>	<p>Supply List / 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 equipment / material quoted under this package.</p> <p>The type tests should have been conducted within 5 years prior to the date of bid opening. Time period for type test may 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 dispatch 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. Type Test reports shall be submitted before despatch of the equipment / material or within 3 months from the date of PO, whichever is earlier, 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	Average Annual turnover of the bidder for last three years shall not be less than Rs 5.30 Crs.	Copy of audited Balance Sheet and P&L Account to be submitted in this regard.		

The Tata Power Company Ltd	 TATA	<i>OPEN TENDER NOTIFICATION</i>
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Section D.1: General Terms & 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

Rev. date: 25 July 2017

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.

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
- 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
Organization			
1	Does your Company have Sustainability Policy at Organization Level? 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		
Governance			
1	Is diversity taken into consideration when appointing board members/ senior management? Do you have an independent director/s?		
2	Has your company taken initiatives to ensure ethical practices at workplace? Please share the details, Policies etc.		
3	Does your company have a formal process to address data security or privacy issues? Please share the details, Policies etc.		
4	Does your company have grievance mechanism for stakeholder issues and track resolution?		
Environment/ Planet			
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?		
Green Technology/ Innovation			
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.)?		
Social/ People			
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		
Certifications: Does your company have following certifications (valid till date-please mention validity)			
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: 15th 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.

The same can also be raised through our 3rd party ethics helpline facility:

1. Email id: tatapower@ethics-line.com ; Website: 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

The Tata Power Company Ltd	 TATA	<i>OPEN TENDER NOTIFICATION</i>
<i>Tender Reference: CC25AA017</i>	TATA POWER	<i>Document Date: 17th March 2025</i>

Section D.2: STC additional for Open Tender

CONFIDENTIAL

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.

The Tata Power Company Ltd	 TATA	<i>OPEN TENDER NOTIFICATION</i>
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Section D.3: Special Conditions of Contract

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Procurement of 96 Core OPGW & Accessories for Mumbai Transmission. Ref. No. CC25AA017	THE TATA POWER COMPANY LIMITED	SHEET 1 OF 5
	D.3 SPECIAL CONDITIONS OF CONTRACT	

Sr. No.	TOPIC	PRINCIPLES OF TERMS & CONDITIONS
1	GENERAL	<p>The following Special Conditions of Contract (SCC) shall supplement the "General Terms and Conditions - Supply".</p> <p>Wherever there is a conflict, the provisions herein shall prevail over those in the "General Terms and Conditions - Supply".</p>
2	CONTRACT PRICE AND CONTRACT STRUCTURE	<p>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.</p> <p>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.</p> <p>BA (Business Associate) to quote for the package on Firm Price basis. The prices shall remain firm during the entire contract period and no price variation is applicable.</p>
3	COMMENCEMENT / EFFECTIVE DATE (Note: It is to be noted that commencement date, effective date and notice to proceed are one and the same.)	<p>The BA 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.</p> <p>No equipment shall be delivered without specific dispatch clearance from project Manager TATA POWER.</p>
4	CONTRACT PERFORMANCE BANK GUARANTEE	<p>This is as per General Terms & Conditions - Supply Cl. 9.0</p> <p>BA shall submit CPBG cum PBG for 10% of Contract Value in format specified by Tata Power within 15 days after placement of confirmed Purchase Order, valid till the completion of warranty period plus additional 06 months claim period.</p>
5	TERMS OF PAYMENT	<p>This is further to General Terms & Conditions - Supply Cl. 6.0</p> <p>A. No Advance Payment shall be made.</p> <p>B. Payment Terms shall be as follows: -</p> <p>100% after completion of delivery at Tata Power site / stores / location & submission of invoice with a credit period of 60 days.</p> <p>For MSME BA, credit period shall be 45 days, provided valid MSME certificate is received along with bid submission.</p>
6	INSURANCE	<p>This is further to General Terms & Conditions - Supply Cl. 5.0</p> <p>Complete In-Transit Insurance will be in BA's scope.</p>

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7	LIQUIDATED DAMAGES FOR DELAYS, NON – PERFORMANCE & OVERALL CAP	<p>This is further to General Terms & Conditions - Supply Cl. 10.0</p> <p>LD Clause for not achieving timely delivery completion: 1% of Contract Price per week of delay shall be charged, subject to maximum of 10% of Contract Price.</p>
8	WORK COMPLETION PERIOD	<p>Post PO placement: -</p> <p>a. BA to submit MDL, drawings, data sheets etc along with all necessary documents to Tata Power Engineering team within 1 week from PO placement.</p> <p>b. Tata Power Engineering team to provide the necessary approvals / manufacturing clearance within next 1 week from the date of receipt of complete set of documents from BA.</p> <p>c. BA to deliver the equipment at Tata Power site / stores / location in Mumbai within 08 weeks from the date of manufacturing clearance OR 10 weeks from the date of Order placement.</p>
9	WARRANTY PERIOD	<p>This is further to General Terms & Conditions - Supply Cl. 11.0</p> <p>BA to provide 66 months warranty period from the date of supply or 60 months warranty period from the date of commissioning whichever period concludes earlier.</p> <p>The Performance Bank Guarantee shall be submitted accordingly by the bidder.</p>
10	Total Compliance to TCOC, SHE and International Safety standards	Tata Power Contractor Safety Management (CSM) checklist is enclosed as Annex CSM format. Bidder shall have to abide fully without any deviation.
11	BID SUBMISSION (In Ariba)	<p>Bidders are requested to submit their offer in line with this Tender document. Bids shall be submitted in 3 (three) parts: -</p> <p>FIRST PART: “EMD” of Rs. 1,76,000 /- (Rupees One Lakh Seventy-Six Thousand only) valid for 180 days from the due date of bid submission in the form of Bank Guarantee ONLY 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.</p> <p>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.</p> <p>First Part must be submitted in Sealed Envelope.</p>

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		<p><u>SECOND PART: "TECHNICAL / UN-PRICED COMMERCIAL BID"</u> shall contain the following documents:</p> <p>a) Documentary evidence in support of Technical, Commercial and Safety qualifying criteria</p> <p>b) Technical literature / GTP / Type test reports / Details of Qualified Manpower Available / Testing Facility available etc. (<i>complete in all respect as desired and detailed in Technical Specification and Technical Requirement Section</i>)</p> <p>c) Duly filled up Acceptance to Commercial Terms and Condition Form.</p> <p>d) Duly filled formats like Authorization affidavit form, Letter of Undertakings etc. in section F of covering tender document.</p> <p>e) Unpriced Commercial Bid.</p> <p>The technical / un-priced commercial bid shall be properly indexed and is to be submitted in Soft Copy though E-Tender system of Tata Power. Hard Copy of Technical Bids need not be submitted.</p> <p>Second Part must be submitted through E-Tender system only.</p> <p><u>THIRD PART: "PRICE BID"</u> shall contain only the price details and strictly in Price Bid Format along with explicit break up of explicit prices, Taxes & duties, Freight etc.</p> <p>Third Part must be submitted through E-Tender system only.</p> <p>ONLY First part of the bid shall be in sealed envelope which shall be clearly marked as below: -</p> <p style="text-align: center;">EMD - BG "CC25AA017"</p> <p>Please mention above Tender Ref Number on the envelope and drop the same in our Tender Box located at,</p> <p style="text-align: center;">The Tata Power Company Limited Corporate Contracts, Smart Center of Procurement Excellence, 3rd Floor, Sahar Receiving Station, Near Hotel Leela, Sahar Airport Road, Andheri (E), Mumbai 400 059.</p>
12	Reverse Auction	Tata Power reserves the right to conduct the reverse auction 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

Procurement of 96 Core OPGW & Accessories for Mumbai Transmission. Ref. No. CC25AA017	THE TATA POWER COMPANY LIMITED	SHEET 4 OF 5
	D.3 SPECIAL CONDITIONS OF CONTRACT	

		<p>of e-auction will be intimated through E-Tender system to Authorized Person of Interested Bidder.</p> <p>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.</p> <p>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.</p>
13	TPSDI Training (If Applicable)	<p>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 enrol his and sub-contractors work force to the respective skills / crafts training (Levels L1/L2/L3) offered by TPSDI.</p> <p>This is further to General Conditions of Contract Clause 3.54.23.</p> <p>In order 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 enrol his and sub-contractors work force to the respective skills / crafts training (Levels L1/L2/L3) offered by TPSDI.</p> <p>In addition to all prevailing safety practices bidder to take special note of following (If Applicable): -</p> <ol style="list-style-type: none"> 1. TPSDI training is mandatory. Each employee must undergo L1 training for 3 days. Depending on competency certain workmen will need L2 training which is for 2 days and L3 training which is for 3 days. 2. As per safety standards at Tata Power, Hydra is banned and Farhana or regular crane is accepted along with all statutory approvals i.e., Form 11 for tools and tackles, Driver Licence, PUC, Insurance etc 3. Electric chippers are not allowed in wet / waterlogged areas 4. Electric Submersible Pump Operation is not allowed when people are in the pit.
14	OTHER POINTS	<p>In case of award, the Purchase Order shall be issued digitally through Ariba Commerce Automation portal. In all such cases, further transaction such as Order Acceptance, SES / GRN preparation,</p>

Procurement of 96 Core OPGW & Accessories for Mumbai Transmission. Ref. No. CC25AA017	THE TATA POWER COMPANY LIMITED	SHEET 5 OF 5
	D.3 SPECIAL CONDITIONS OF CONTRACT	

	<p>Invoicing etc. needs to be conducted in the Ariba Commerce Automation system.</p> <p>Rest all Commercial Terms & Conditions shall be in accordance with Tata Power General Terms and Conditions - Supply.</p>
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The Tata Power Company Ltd



OPEN TENDER NOTIFICATION

Tender Reference: CC25AA017

Document Date: 17th March 2025

Section D.4: Price Bid Format

CONFIDENTIAL

Price Bid Format : Procurement of 96 Core OPGW & Accessories for Mumbai Transmission

Sr No	Item Description	Qty	UoM	GST	Basic Price** (INR / K.M.)	Total Basic Price (INR)	Applicable Taxes (INR)	All Incl Price (INR)
1	OPGW Conductor, 96 Core	69.3	KM	18%		-	-	-
2	Tension J Type Assembly for 96 Core OPGW	196	Set	18%		-	-	-
3	Suspension Assembly for 96 Core OPGW	170	Set	18%		-	-	-
4	Vibration Damper / Suspension Assembly for 96 Core OPGW	672	Nos.	18%		-	-	-
5	Clamps Down Lead for 96 Core OPGW	440	Nos.	18%		-	-	-
6	Suspension Bonding Assembly for 96 Core OPGW	168	Set	18%		-	-	-
7	Tension Bonding Assembly for 96 Core OPGW	194	Set	18%		-	-	-
8	Box Joint Termination U/G FOP I/D for 96 Core OPGW	43	Set	18%		-	-	-

Grand Total

-

-

** Basic Price is inclusive of Freight & In-Transit Insurance to Mumbai

The Tata Power Company Ltd



OPEN TENDER NOTIFICATION

Tender Reference: CC25AA017

Document Date: 17th March 2025

Section E.1: Technical Specification

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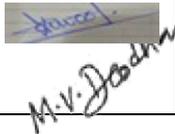
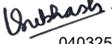
THE TATA POWER COMPANY LIMITED

STANDARD
TECHNICAL SPECIFICATION
FOR
OPTICAL GUARD WIRE WITH ACCESSORIES

(DOCUMENT NO - ENGG/STD-SPEC/108/21)



Tata Power
Engineering (T&D)

Rev.No	Date	Revision History	Prepared By	Checked By	Approved By
A	11.05.2021	First Issue	RS	PBT / SVD	AM
B	23.05.2022	OPGW with 2 SS tubes design added. Revised PQR added	RS / PSA	PBT	AAB
C	03.03.2025	Revised based on Past learnings	RS 	SMR / MVD 	SKV  040325

TE Scroll No: ENGG/STD-SPEC/108/21

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4. [Codes & Standards.](#)
5. [Design Requirements](#)
6. [Layout Requirements for the equipment](#)
7. [Safety Requirements](#)
8. [Operational Requirements](#)
9. [Technical Parameters of Equipment including data sheet and make list for bought out items.](#)
10. [Quality Requirements \(including SQP and FQP\)](#)
11. [Inspection, Testing and Performance Requirements along with Warranty](#)
12. [Mandatory Spares](#)
13. [Data Submission by Bidder](#)
 - 13.1 With the Bid (including list of key drawings with dates/period which are part of commercial compliance)
 - 13.2 After award of contract

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1. Introduction

TATA Power has OPGW network which is strung on the Transmission Line towers and connects to its Generating / Receiving Stations to cater to the need of SCADA, Protection & Communication system.

It is proposed to procure OPGW (48/96/144 Core) and its accessories for installation on the existing / upcoming Transmission network.

2. Pre-Qualifying Requirements

Please refer attached Annexure - 1

3. System Description and Scope

The brief scope of work covers:

- a) Design, Construction, Manufacturing of 48/96/144 core Mono Mode OPGW, with Corning / Sumitomo / Furukawa / Sterlite make of fibers spools which are approved in Tata Power. In-case bidder wishes to offer fiber spools of other makes, then it will be evaluated and accepted subject to compliance to Tata Power specifications. Bidder will have to arrange for all the test, certification reports, factory visits as applicable for evaluation of offered spools. The OPGW shall be delivered on non-returnable wooden conductor drums. The drums shall be sturdy enough to withstand minimum two monsoon seasons.
- b) Design, Construction, Manufacturing of 48/96/144 core Fiber Optic Cable
- c) Design, Construction, Manufacturing of accessories for 48/96/144 core OPGW and FoP cable
- d) Weather, insect and rodent proof, anti-corrosive metal outdoor Joint Boxes for 48/96/144 Core OPGW with all accessories viz: cable adaptors, cable glands, fiber splitter tube assembly, cassettes, splice holders, metal crimps & heat shrinkable splice protection sleeves with min 4 cable entries.
- e) Transmission Line accessories for OPGW which shall include Suspension Assembly, Tension Assembly, Vibration Dampers for suspension and tension locations, Suspension and Tension Bonding assemblies and Down Lead Clamps
- f) Type testing and Acceptance tests of OPGW, FoP cable and accessories in the presence of the owner
- g) The quantities to be supplied for the above items are mentioned in the schedule of quantities - Section C1 of the project specification.
- h) Supply and transport of all the above items (including loading and unloading) to Tata Power designated stores in Mumbai / Panvel / Kalyan.

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4. Codes & Standards

The composite overhead optical Fiber-ground wire (OPGW) shall conform to the following Standards which shall mean latest revisions, with amendments/changes adopted and published, unless specifically stated otherwise in the Specification.

In the event of the supply of composite overhead optical Fiber-ground wire (OPGW) conforming to standards other than specified, the Bidder shall confirm in his bid that these standards are equivalent to those specified. In case of award, salient features of comparison between the standards proposed by the Contractor and those specified in this document will be provided by the Contractor to establish their equivalence.

Sr. No.	Standard	Title
1	IEEE Std1138	Standard Construction of Composite Fiber Optic Overhead Ground Wire (OPGW) for use on Electric Utility Power Lines
2	IEC 60793	Optical Fibers - Part 1: Generic Specification Part 2: Product Specifications
3	IEC 60794-4-1	Optical Fiber cables Aerial optical cables for high-voltage power lines
4	IEC 60104 A	Aluminium-magnesium-silicon alloy wire for overhead line conductors
5	IEC 61089	Round wire concentric lay overhead electrical stranded conductors
6	IEC 61232	Aluminum Clad-Steel Wire for Electrical Purposes
7	ASTM B398M	Standard Specification for Aluminum-Alloy 6201-T81 Wire for Electrical Purposes
8	ASTM B415	Standard Specification for Hard-Drawn Aluminum-Clad Steel Wire
9	ASTM B416	Specification for Concentric-Lay-Stranded Aluminum Clad-Steel Conductors
10	EIA 492A	Generic Specification for Optical Waveguide Fibers
11	EIA 472A	Sectional Specification for Fiber Optic Communication Cables for Outside Aerial Use
12.	ITU-T G.652	Characteristics of a Single-Mode Optical Fiber Cable

The latest version of above cited codes and standards shall be used. In case of conflict between the standards precedence is given to the IEC standards.

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5. Design Requirements

5.1 General

The composite overhead optical fiber-ground wire shall be of manufacturer's standard design but shall meet the requirements of this Specification in all respects.

Manufacturer's drawings, as required shall show the outline of the composite overhead optical fiber-ground wire together with all pertinent dimensions. Any variations in these dimensions due to manufacturing tolerances shall be indicated.

Sample of the proposed OPGW shall be provided for PURCHASER's evaluation.

5.2 Design Criteria

The maximum ambient temperature (50°C) shall be regarded as the basic temperature for the service conditions specified herein.

The composite OPGW shall be designed in which the integral optical Fiber are used for transmission of optical signals, and in which the metallic materials are used for conduction of surge currents attributed to lightning and electrical faults.

5.3 Stranded Metallic Wires

The type of stranded metallic wires shall be hard drawn aluminum-alloy wire or aluminium-clad steel wire, or combination of both, for general use for electrical purposes.

The rated breaking strength of the completed OPGW shall be taken as 90% of the sum of the rated breaking strength of the individual wire, calculated from their nominal diameter and the approximate specified minimum tensile strength. The central Fiber optical unit shall not be considered a load bearing tension member when determining the total rated breaking strength of the composite OPGW.

The basic construction shall have bare concentric-lay stranded metallic wires with the outer layer having left hand-lay and wound around the metallic or non-metallic pipe or channelled rod. The stranded wires may be of multiple layers with a combination of various metallic wires within each layer. The direction of lay shall be reversed in successive layers.

The preferred length of lay of the various layers of wires is 13.5 times the outside diameter of that layer, but the length of lay shall neither be less than 10 nor more than 16 times this diameter.

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Stranding shall be close to ensure no significant reduction in diameter or compression on metallic or non-metallic channelled rod or spacer, when stressed to 10 percent of minimum rated tensile strength.

There shall be no joints of any kind made in the finished wires composing the strand. There shall be no joints or splices in any length of the completed OPGW. Electric welded butt joints are only permitted to be made prior to start of cold drawing to final size.

All wires shall lie naturally in their true positions in the completed composite OPGW. The wires shall be so stranded that when the composite OPGW is cut at any point the individual wires can be readily regrouped and then held in place by one hand.

When aluminum-alloy wires are used, the wires shall be made in accordance with the requirements specified in ASTM B398M or IEC 1089.

When aluminum-clad steel wires are used, the thickness of aluminum-clad at any points shall not be less than ten (10) percent of the nominal wire radius. The aluminum-clad shall be smooth, continuous and of reasonably uniform thickness.

The base metal of aluminum-clad steel wires shall be steel made by the open-hearth, basic-oxygen or electric-furnace process.

The steel wires shall be clad uniformly and continuously with aluminum conforming to the following impurity limits specified in Table 1 below:

Table 1

Metals	Percentage (%)
Copper, max.	0.10
Iron, max.	0.50

5.4 Central Fiber Optical Unit

The central fiber optical unit shall be designed to encase and protect the optical Fibers from damage due to forces such as crushing, bending, twisting, tensile stress and moisture.

The central fiber optical unit, including the outer stranded metallic wires, shall protect the optical fibers from degradation due to vibration, wind loading, wide temperature variations, lightning and fault currents as well as any other effects that may produce hydrogen.

The central fiber should include a metallic tube.

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Stainless Steel Tube

The central fiber optical unit shall include a Stainless-Steel Tube to house the fibers. The Stainless-Steel Tube shall be fabricated as hermetically sealed tube to protect the fiber from moisture.

Filling Compound

The interstices of the central fiber optical unit shall be filled with a suitable compound to prohibit any moisture ingress from outside or any water migration along the fiber optical unit. The filling compound shall be non-toxic and dermatologic ally safe to exposed skin. It shall be chemically and mechanically compatible with all the components, non-nutritive to fungus, electrically non-conductive and shall absorb and/or inhibit generation of hydrogen within the cable. The filling compound shall be able to withstand normal service conditions specified elsewhere in the specifications and shall remain flexible (not to harden) throughout the entire life of the fiber.

The central fiber optical unit shall withstand maximum fault current as specified in Data Sheet without degradation to the physical and mechanical characteristics and properties of the fibers.

Optical Fiber

The Optical Fiber shall meet the requirements of ITU-T G.655 as well as ITU-T G.652D as appropriate per length of route.

The optical fiber shall be of Corning / Sumitomo / Furukawa / Sterlite Make only. The bidder should provide the details of the fibre vendor and manufacturing report of the fiber spools used in the OPGW.

The optical fiber shall be made of germanium doped silica glass or pure silica glass.

The mode field eccentricity shall be less than 1 μm .

The cladding of the optical fiber shall be made of silica glass having lower refractive index. The outside diameter of the clad fiber shall be 125 μm with tolerance of + 2.0 μm .

The non-circularity of cladding surface shall be 2%, maximum.

The nominal total fiber coating diameter shall be in the range of 250 to 400 microns.

There shall be no joints or splices in any optical fiber in any reel length of the complete optical cable.

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Maximum optical loss variation, at temperature range of (-) 5°C to the temperature reached during fault at worst environmental condition, shall not exceed (+) 0.05 dB/km.

Optical fibers shall be free of material and manufacturing defects, which would prevent them from meeting the requirements of this Specification.

Each group of fiber shall be enclosed in a loose buffer tube or wrapped by a heat resistance tape in a helical fashion to provide mechanical and environmental protection.

The buffer shall be easily removed. If special tools are recommended by the manufacturer, this shall be provided. The manufacturer should provide the special tools and tackles necessary to prepare the OPGW cable. These tools may include specialized cutters (diamond cutters), fiber strippers, etc

Colour Coding

The Colour coding shall be followed as per EIA-359A and also IEC publication 304(4). The fibers need to be grouped as 12 x 4 groups with standard colour coding for 12 fibres. The colour code should be repeated for each group with a differentiation as stated below:

Group 1: no dot
 Group 2: one black dots
 Group 3: two black dots
 Group 4: three black dots.
 Bunch of fibres binded with threads of different colours.

5.5 Composite OPGW

The composite OPGW shall have the following minimum dimensions and ratings, which are equivalent to the combined characteristics of stranded wires and metallic or non-metallic channelled rod or pipe.

The composite OPGW shall not experience any optical or mechanical degradation when subjected to minimum 60% of the OPGW ultimate tensile strength (UTS).

The bending radius that can be applied without optical degradation shall not exceed 500 mm.

The required diameter and characteristics of composite OPGW shall be as specified in Table 2 herein below. Anything other than that shall be specified in Data Sheet.

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Table 2

Max. Nominal Diameter of Composite OPGW (mm)	Fault Current for 1 Sec. at 45°C Initial Temperature (kA)
18.8	16

The required rating of the composite overhead optical fiber-ground wire shall be as specified in Data Sheet.

The completed OPGW shall be free from imperfections not consistent with good manufacturing practices.

5.6 Markings

Each end of the composite OPGW in the reel shall have a non-corroding tag identifying the following:

- a) Type of stranded metallic wire
- b) Size of stranded metallic wires
- c) Cross-sectional area of the composite OPGW
- d) Type of optical Fiber
- e) Number of optical Fiber
- f) Manufacturer's name or trademark
- g) Year of manufacture

All markings shall appear on both sides of the reel.

Composite OPGW reel identification shall include any additional information as required by the PURCHASER shipping instructions.

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A. SPECIFIC REQUIREMENTS FOR OPGW:**Table – 3 Fiber Details**

Sr. No.	Specification	Unit	Value
A	Dimensional Specification		
1	Type of Fiber		Monomode
2	Number of cores	No	48/96/144
3	Mode field diameter at 1310 nm	μm	9.1 ± 0.4
4	Mode field diameter at 1550 nm	μm	10.2 ± 1.0
5	Mode field diameter non circularity	$\% \leq$	6
6	Cladding diameter	μm	125 ± 1.0
7	Cladding non circularity	$\% \leq$	1
8	Core / Cladding		Silica
9	Core / cladding concentricity error	$\mu\text{m} \leq$	0.6
10	Coating diameter (coloured)	μm	242 ± 7
11	Cladding / coating concentricity error	$\mu\text{m} \leq$	12
B	Optical Specifications		
12	Attenuation at 1310 nm	$\text{dB/km} \leq$	0.36
13	Attenuation at 1550 nm	$\text{dB/km} \leq$	0.22
14	Chromatic dispersion at 1550 nm	$\text{ps}/(\text{nm}\cdot\text{km}) \leq$	18
15	Chromatic dispersion between 1285 nm and 1330 nm	$\text{ps}/(\text{nm}\cdot\text{km}) \leq$	3.5
16	Cut-off wavelength (cable Fiber) λ_{cc}	$\text{nm} \leq$	1260
17	Zero-dispersion wavelength	nm	1310 ± 10
18	Zero-dispersion slope	$\text{ps}/(\text{nm}^2\cdot\text{km}) \leq$	0.09
19	PMD (Quadrature Average)	$\text{ps}/\sqrt{\text{km}} \leq$	0.1
20	Moisture Proof		Required

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21	Make of Fiber		Corning / Sumitomo / Furukawa / Sterlite Make
22	Colour of Fiber		Dark and resistant to pass the light
23	Fiber Construction		SS tube Loose type – 48/96/144 Fibers in steel tube. Each 12 F are bundled with color binder yarns) Binder yarn colors shall be Blue, Orange, Green, Brown, Slate and White. Fiber color shall be Blue, orange, green, brown, slate, white, red, black, yellow, violet, pink & Aqua.
C	Mechanical Specification		
24	Proof Test stress > 100 kpsi (0.7 GN/m ²)n Strain equivalent	%	1
25	Coating strip ability (50mm, 500 mm/min)	N	1 ... 5
26	Bending test, additional loss at 1550 nm, 100 turns on 60 mm mandrel	dB/km ≤	0.05
27	Bending test, additional loss at 1550 nm & 1625 nm, 1 turns on 32 mm mandrel	dB/km ≤	0.5
28	Moisture Proof		Required

Note: Fiber manufacturers test report should be submitted along with approved suppliers as per vendors specified.

5.7 Design and Mechanical Requirement:

5.7.1 The basic construction is a concentric lay strand consisting of bare metallic wires. The wires of the outer layer have a right hand lay.

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- 5.7.2 The wires are stranded in multiple layers. The direction of lay shall be reversed in successive layers.
- 5.7.3 Wires in strands shall be round.
- 5.7.4 The length of lay shall not be less than 9 and not more than 14 times the diameter of the layer.
- 5.7.5 Greasing shall be provided for stainless steel tube and inner layer of offered OPGW. The offered jelly in the stainless tube should have minimum life of 20 years.
- 5.7.7 The design of the OPGW is determined by geometrical, mechanical and electrical requirements as given in below table.

5.8 Table – 4 OPGW

Sr. No	Description	Required values
1	Design Temperature	50 Deg. C
2	Short Time current	> or = 16 kA for 1 sec for temperature range between 20 deg. C to 180 Deg. C and 40 KA for at least 100msec
3	Overall Diameter	18.8 mm
4	Unit Weight	0.719 Kg/m
5	Ultimate strength - breaking load	95.5 KN
6	Thermal Elongation Co-efficient	17.6x 10 ⁻⁶ /K
7	Modulus of elasticity	87.4 kN/mm ²
8	D.C. Resistance at 20 deg C.	0.227 ohm/km
9	Maximum Operating temperature	180-degree Celsius
10	Sag at 75 Deg. C / No wind, span – 300 M for 110KV / 220 kV towers, and pressure - 45 kg/m square.	Less than 4m
11	No. of strands and diameter of individual strands of earth layer conductor	min 7 on inner layer with min 2.85 mm/ min 12 on outer with min dia 3mm

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- 5.8.1 The rated breaking strength of the completed OPGW shall be taken as sum of the rated breaking strengths of the individual wires, calculated from their nominal diameter and the appropriate specified minimum tensile strength of the optical unit is not taken into consideration in the calculation of the total strength of OPGW.
- 5.8.2 To protect the OPGW from corrosion, the cable shall be composed of at least two layers of wires with only AA wires allowed to be placed in the outer layer. The interstices of the inner layer shall be filled with corrosion protection grease with a drop point of at least 20 Deg C.
- 5.8.3 The stranding of the OPGW shall be torque balanced and allow the cable to be stringed without use of anti-torque equipment.
- 5.8.4 To protect any components from melting during short current there shall be no thermoplastic material in the OPGW.

5.9 General Technical requirement

5.9.1 Optical Unit Requirements

- a) Only loose buffer designs are acceptable.
- b) The fiber optic unit is one or more stainless steel tubes which can be placed either in the centre of the OPGW or in a stranding layer. It shall be designed and manufactured to house and protect the optical fibers from damage due to forces such as crushing, bending, tensile stress and moisture. (should supply crush & impact test reports)
- c) The fiber optic unit and the outer stranded metallic wires shall serve together as an integral unit to protect the optical fibers from degradation due to vibration and galloping, wind and ice loads, wide temperature variations, lightning and fault current.
- d) No fiber stress and no changes are to occur in the optical characteristics of the fibers up to 0.5% cable elongation. Minimum access length of the Fibers should be 0.6% excess of OPGW length.

5.9.2 Requirements for Single Mode Fibers according to ITU-T G652D

The coating of the individual fibers shall be composed of a material that allows the fibers to be easily separated and handled for splicing and termination. Extended handling of the fibers (using reasonable care) shall not result in cracking or shedding of the jacket material. The fiber coating shall be LID-compatible (Light Injection and Detection) and admit optical coupling.

The fibers shall be marked by using a set 12 different colours as per ITU G652D for first 12 fibers and for remaining 12 fibers the same set of different colours will be accompanied by a ring at a gap of 50 mm throughout the length of remaining 12 fibers.

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The colour used for fiber colour-coding does not inhibit the operation of LID (Local Injection and Detection) devices (splicing devices, attenuation measuring systems etc.). The colour is made of an UV-cured acrylate material.

The optical Fiber colours are stable during temperature cycling and do not subject to fading or smearing onto each other or into the gel filling material.

The individual cores color coating should be such that it should not fade/peel-off during the load life, preparation, handling of the fibres. Suitable peel test reports to be submitted by the bidder.

5.9.3 Electrical Requirements

5.9.3.1 Short circuit resistance of OPGW (kA²s) shall be submitted in accordance with standard EN 60865 with:

- Conductor temperature before short circuit: + 20 Deg C
 - Maximum conductor temperature during short circuit: + 180 Deg C
 - Required value of short time current capacity see table - 2 above
- Short circuit current value specified by manufacturer shall not cause any mechanical or optical defects or distortion to any of the OPGW components, fiber optics included.

5.9.3.2 The minimum conductivity of each wire in strand shall be in accordance with IEC standards.

5.9.3.3 All electrically conductive materials used in the OPGW design, including the optical unit, shall maintain continuous and tight electrical contact (i.e. no conductive component insulation shall exist in any part of the conductor design).

5.9.3.4 The maximum DC resistance at 20 Deg C is given in Table 4.

5.10 Environmental Requirements

5.10.1 The OPGW is expected to operate in a prolonged period of time and is stored under the following conditions:

Storage Temperature Range	0 Deg C...+80 Deg C
Installation Temperature Range	0 Deg C...+50 Deg C
Operating Temperature Range	0 Deg C...+180 Deg C

Attenuation changes shall not be more than 0.05 dB/km for the operating temperature range.

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5.11 SPECIFICATIONS OF ACCESSORIES FOR 48/96/144 CORE OPGW

5.11.1 OPGW Hardware Fittings

1.0 The scope of supply of the optical guard wire includes the design, manufacture, testing and supply of all required fittings and hardware such as Tension assembly, Suspension assembly, Vibration dampers, reinforcing rods, Earthing clamps, Down lead clamps, splice enclosure etc. The Bidder shall provide documentation justifying the adequacy and suitability of the hardware supplied.

2.0 The OPGW hardware fittings and accessories shall follow the general requirements regarding design, materials, dimensions & tolerances, protection against corrosion and markings as specified in Clause 4.0 of EN 61284:1997 (IEC 61284). The shear strength of all bolts shall be at least 1.5 times the maximum installation torque. The OPGW hardware & accessories drawing and Data Requirement Sheets (DRS) document shall consist of three parts: (1) A technical particulars sheet; (2) An assembly drawing i.e. level 1 drawing; and (3) Component level drawings i.e. level 2 and lower drawings. All component reference numbers, dimensions and tolerances, bolt tightening torques & shear strength and ratings such as UTS, slip strength, etc. shall be marked on the drawings.

3.0 Fittings must be of the helical, preformed type. Fittings shall secure proper and safe grip of the OPGW in the whole range of tensile strength and shall not influence any parameters of the OPGW – mechanical, electrical, optical.

Conductor's slip-out force from dead end shall be at least 90% of the rated breaking strength of the conductor.

The fittings and accessories described herein are indicative of installation hardware typically used for OPGW installations and shall not necessarily be limited to the following:

(a) Suspension Assemblies:

The suspension assembly should be bonded type. Preformed armour grip suspension clamps and aluminum alloy armour rods/reinforcing rods shall be used. The suspension clamps shall be designed to carry a vertical load of not less than 25 KN. The suspension clamps slippage shall occur between 12kN and 17kN as measured in accordance with type test procedures.

The Contractor shall supply all the components of the suspension assembly including shackles, bolts, nuts, washers, split pins, etc. The total drop of the suspension assembly shall not exceed 150 mm (measured from the centre point of attachment to the centre point of the OPGW). The design of the assembly shall

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be such that the direction of run of the OPGW shall be the same as that of the conductor.

(b) Dead End Clamp Assemblies:

All dead end clamp assemblies shall preferably be of performed armored grip type and shall include all necessary hardware for attaching the assembly to the tower strain plates. Dead end clamps shall allow the OPGW to pass through continuously without cable cutting. The slip strength shall be rated not less than 95% of the rated tensile strength of the OPGW.

(c) Clamp Assembly Earthing Wire:

Earthing wire consisting of a 1500 mm length of aluminum or aluminum alloy conductor equivalent in size to the OPGW shall be used to earth suspension and dead-end clamp assemblies to the tower structure. The earthing wire shall be permanently fitted with lugs at each end. The lugs shall be attached to the clamp assembly at one end and the tower structure at the other.

(d) Structure Attachment Clamp Assemblies:

Clamp assemblies used to attach the OPGW to the structures shall have two parallel grooves for the OPGW, one on either side of the connecting bolt. The clamps shall be such that clamping characteristics do not alter adversely when only one OPGW is installed. The tower attachment plates shall locate the OPGW on the inside of the tower and shall be attached directly to the tower legs/cross-members without drilling or any other structural modifications.

(e) Vibration Dampers:

Vibration dampers type 4R Stockbridge or equivalent, having four (4) different frequencies spread within the Aeolian frequency bandwidth shall be used for suspension and tension points in each span. The Contractor shall determine the exact numbers and placement(s) of vibration dampers through a detailed vibration analysis. Vibration damper clamps shall be made of aluminum or aluminum alloy shall support the dampers during installation and shall maintain the dampers in position without damage to the OPGW and without causing fatigue. Armor or patch rods made of aluminum or aluminum alloy shall be provided as required to reduce clamping stress on the OPGW. The vibration damper body shall be hot-dip galvanized mild steel/cast iron or shall be permanent mould cast zinc alloy.

The vibration dampers for suspension and strain assembly will be clearly marked for the purpose. The manufacturer will give details of number of vibration

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dampers required for spans less than 400 m and more than 400 m. Also, the maximum distance between two dampers will be specified.

5.11.2 Fiber Optic Splice Enclosures (Outdoor Joint Box)

All splices shall be encased in Fiber Optic Splice Enclosures. Suitable splice enclosures shall be provided to encase the optical cable splices in protective, moisture and dust free environment. Splice enclosures shall comply with ingress protection class IP 66 or better. The splice enclosures shall be designed for the storage and protection of required number of optical Fiber splices and equipped with sufficient number of splice trays for splicing all Fibers in the cable. No more than 24 Fibers shall be terminated in a single splice tray. They shall be filled with suitable encapsulate that is easily removable should re-entry be required into the enclosures.

The joint boxes shall be suitable for four-way / four-entry connection to provide tap from the joint.

Splice enclosures shall be suitable for outdoor use with each of the cable types provided under this contract. Splice enclosures shall be appropriate for mounting on transmission line towers above anticlimbing guard levels at about 10 metres from top of the tower and shall accommodate pass-through splicing.

Necessary Mounting Assembly such as Clamps, Brackets, Nut, and Bolts for mounting the OPGW Joint Box on Tower Structure should be included and provided with the OPGW Joint Box. Necessary special tools, tackles, spanners to be provided along with the supply.

Note: Detailed specifications are attached further

5.11.3 Requirements for Fittings

- a. Fittings must be of the helical, preformed type.
- b. Fittings shall secure proper and safe grip of the OPGW in the whole range of tensile strength and shall not influence any parameters of the OPGW – mechanical, electrical, optical.
- c. Conductor's slip out force from dead end shall be at least 90% of the rated breaking strength of the conductor.
- d. Jointing box for OPGW and underground OFC shall be hermetically seal. The outdoor type joint boxes at which the OPGW and approach cable are jointed (say at A2 structure), the adapter having inner diameter suitable to approach cable

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diameter shall be supplied for proper fixing and clamping of the approach cable. This will avoid slippage of approach cable at such locations.

- e. The vibration dampers for suspension and strain assembly will be clearly marked for the purpose. The manufacturer will give details of number of VD's required for spans less than 300 mtrs and more than 300 mtrs. Also, maximum distance between two dampers will be specified.
- f. The suspension assembly should be bonded type.

5.12 OPGW Cable Design & Hardware accessories

General

Electrical and mechanical characteristic of the OPGW must be as specified in table 4. The electrical conductivity must be designed to withstand the specified short circuit currents. The OPGW cable selected shall withstand the temperature increase caused by the maximum short circuit current.

OPGW having the dual performance functions of a conventional ground wire with optical Fiber telecommunication capabilities.

Hence, the main components of an OPGW-cable are such as follows:

- a) the optical Fibers,
- b) the tube carrying fibers,
- c) the cable armouring consisting of one, two or more layers of armouring wires.

The mechanical structure of the OPGW shall be designed to withstand the wind and other environmental condition in the routes which have specified in this tender specification. The location of the fibers inside the structure shall be such that the application of the OPGW in the specified routes is possible. all optical fiber cabling and all associated installation hardware shall have a minimum guaranteed life span of 25 Years.

The cable structure shall be such that the fibers are protected against water, hydrogen, ultraviolet radiation and other environment hazard encountered in India.

The metallic wires have to give the OPGW conductivity to carry fault currents and the strength to withstand mechanical stresses.

The fiber tubes shall have a high crush resistance and minimal permanent or temporary deformation under mechanical pressure. The fittings must be designed to prevent these pressures. OPGW elongation under different stress situation likely during wind loads or during ground faults shall be considered.

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5.13 Specifications OPGW joint box

- a) The Offered OPGW Joint box should have provision for minimum of 4 no of fiber cable entries. The Joint Box should be able to house fiber splices of minimum 48/96/144 fibers.
- b) The OPGW Joint box offered should be supplied with cassettes, Brackets, Clamps, Heat shrink sleeves for fiber protection.
- c) The cassettes offered should be of good quality and should be provided with Individual covers and splice holder arrangements
- d) The offered joint box should be supplied with the test results and certifications.
- e) Necessary preparation and fiber splicing accessories such as Fiber heat shrinks for splice protection, tissues, adhesives, rubber tapes, isopropyl, marking tags, tapes to be supplied along with the Joint Box.

Structural Properties:

- a) The offered product should have high mechanical strength and excellent seal performance.
- b) The alloy-housing must be the one treated by electrochemical method featuring corrosive resistance and excellent performance with seal ring and silicone seal.
- c) The Joint box should be acid-proof and resistive to saline atmosphere.
- d) The material used in the making of the Joint box and accessories such as Nuts and Bolts should be of a quality highly resistive to corrosion.
- e) The Aluminum coating should not give up when exposed to external atmospheric conditions.
- f) It should be possible to re-open the housing capacity enlarged, maintained and re-connected.
- g) The Joint box should have Provision for fastening the fiber optic cable with the diameter-matching aluminum clamps to prevent the fiber optic cable damaging.
- h) The Joint box should be such that it can be installed at the different positions of tower firmly.

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6. Layout Requirements for the equipment

The OPGW is to be strung on the Transmission line towers of TATA Power Transmission network in Mumbai and adjacent districts. This OPGW will be strung on Single Circuit / Double Circuit / Multi circuit tower configuration.

7. Safety Requirements

Bidder to comply to safety in Design as per relevant IS / IEC Standards

8. Operational Requirements

Bidder to specify the maximum fault current capacity of the offered OPGW with temperature parameters and sag tension conditions.

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9. Technical Parameters of Equipment including data sheet and make list for bought out items.

DATA SHEETS FOR OPGW

Sr.no.	Description	Unit	Tata Power Requirement	Bidder response
1	Name of manufacturer	--	By Bidder	
2	Country of Manufacturing	--	By Bidder	
3	Standard Applicable	--	IEC / IEEE	
4	Fiber Details			
4.1	Dimensional Specification			
4.1.1	Type of fibre		Monomode	
4.1.2	Number of Cores	No	48/96/144	
4.1.3	Mode field diameter at 1310 nm	µm	9.1 ± 0.4	
4.1.4	Mode field diameter at 1550 nm	µm	10.2 ± 1.0	
4.1.5	Mode field diameter non circularity	% ≤	6	
4.1.6	Cladding diameter	µm	125 ± 1.0	
4.1.7	Cladding non circularity	% ≤	1	
4.1.8	Core / Cladding	--	Silica	
4.1.9	Core / cladding concentricity error	µm ≤	0.6	
4.1.10	Coating diameter (coloured)	µm	242 ± 7	
4.1.11	Cladding / coating concentricity error	µm ≤	12	
4.2	Optical Specifications			
4.2.1	Attenuation at 1310 nm	dB/km ≤	0.36	
4.2.2	Attenuation at 1550 nm	dB/km ≤	0.22	
4.2.3	Chromatic dispersion at 1550 nm	ps/(nm-km) ≤	18	
4.2.4	Chromatic dispersion between 1285 nm and 1330 nm	ps/(nm-km) ≤	3.5	
4.2.5	Cut-off wavelength (cable fibre) lcc	nm ≤	1260	
4.2.6	Zero-dispersion wave length	nm	1310 ± 10	
4.2.7	Zero-dispersion slope	ps/(nm ² -km) ≤	0.09	
4.2.8	PMD (Quadrature Average)	ps/√km ≤	0.1	
4.2.9	Moisture Proof	--	Required	
4.2.10	Make of Fibre	--	Corning / Sumitomo / Furukawa / Sterlite	

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4.2.10	Place of Manufacture	--	By Bidder	
4.2.11	Colour of Fibre	--	Dark and resistant to pass the light	
4.2.12	Fibre Construction	--	SS tube Loose type – 48/96/144 Fibers in steel tube. Each 12 F are bundled with color binder yarns) Binder yarn colors shall be Blue, Orange, Green, Brown, Slate and White. Fiber color shall be Blue, orange, green, brown, slate, white, red, black, yellow, violet, pink & Aqua.	
4.3	Mechanical Specifications			
4.3.1	Proof Test stress > 100 kpsi (0.7 GN/m ²)n Strain equivalent	%	1	
4.3.2	Coating strip ability (50mm, 500 mm/min)	N	1 ... 5	
4.3.3	Bending test, additional loss at 1550 nm, 100 turns on 60 mm mandrel	dB/km £	0.05	
4.3.4	Bending test, additional loss at 1550 nm & 1625 nm, 1 turns on 32 mm mandrel	dB/km £	0.5	
4.3.5	Moisture Proof		Required	
5	OPGW			
5.1	Design Temperature	Deg C	50	
5.2	Short Time Current	kA	> or = 16 kA for 1 sec for temp range between 20 deg C to 180 deg C and 40 kA for at least 100 msec	
5.3	Overall Diameter	mm	18.8	
5.4	Unit Weight	kg/m	0.719	
5.5	Ultimate Strength - Breaking Load	kN	95.5	
5.6	Thermal Elongation Co-efficient	10-6 /k	17.6	
5.7	Modulus of Elasticity	kN /mm ²	87.4	
5.8	DC Resistance at 20 deg C	ohm/km	0.227	
5.9	Maximum Operating Temperature	Deg C	180	

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5.10	Sag at 75 deg C / No wind, span - 300m for 110 kV towers	m	Less than 4 m	
5.11	No of Strands and dia of individual strands of earth layer conductor	No	min 7 on inner layer with min 2.85mm / min 12 on outer with min dia 3mm	
5.12	Construction of OPGW			
5.12.1	Central Element			
a)	Aluminium alloy wires – number / diameter	mm	By Bidder	
b)	Aluminium clad steel wires– number/diameter	mm	By Bidder	
c)	Steel tube number / inner	mm	By Bidder	
5.12.2	Layer 1			
a)	Aluminium alloy wires – number / diameter	mm	By Bidder	
b)	Aluminium clad steel wires– number/diameter	mm	By Bidder	
c)	Steel tube number / inner	mm	By Bidder	
5.12.3	Layer 2			
a)	Aluminium alloy wires – number / diameter	mm	By Bidder	
b)	Aluminium clad steel wires– number/diameter	mm	By Bidder	
c)	Calculated cross sectional areas			
d)	Aluminium alloy strands	mm ²	By Bidder	
e)	Aluminium clad steel strands	mm ²	By Bidder	
f)	Total	mm ²	By Bidder	
5.13	Minimum bending radius			
a)	Non-tension	mm	By Bidder	
b)	Under-tension	mm	By Bidder	
5.14	Drop point of grease	Deg C	By Bidder	
5.15	Maximum length of reel	KM	By Bidder	

DATA SHEET FOR 48/96/144 CORE OPGW ACCESSORIES

Sr.no.	Description	Unit	Tata Power Requirement	Bidder response
1	Name of Manufacturer		By Bidder	
2	Country of Manufacturing		By Bidder	

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3	Standard Applicable		IEC / IEEE	
4	Suspension Assembly			
4.1	Minimum vertical Strength	kN	70	
4.2	Maximum Slip Strength	kN	17	
4.3	Minimum Slip Strength	kN	12	
4.4	Length of Clamp Body (nominal)	mm	140	
4.5	Total Drop (maximum) including shackle	mm	137	
4.6	Tightening torque (nominal)	Nm	N/A	
4.7	Details of Armour Rod Set			
a)	No. of rods per clamp No of Rods /set	No	12	
b)	Overall length	mm	1600	
c)	Diameter of each Rod	mm	7.87	
d)	Tolerances			
(i)	Diameter of each rod	mm	7.87 ± 0.1	
(ii)	Length of each rod	mm	1600 ± 15	
e)	Material of manufacture ALUMINIUM ALLOY		(TYPE 6061 / 65032)	
f)	UTS of each Rod	kN	35 kg/sq mm	
4.8	Details of Protection Splice Set (Reinforcing Rods)			
a)	No. of rods per clamp No of Rods /set		11	
b)	Overall length	mm	2385	
c)	Diameter of each Rod	mm	5.18	
d)	Tolerances			
(i)	Diameter of each rod	mm	5.18 ± 0.1	
(ii)	(ii) Length of each rod	mm	2385 ± 25	
e)	Material of manufacture ALUMINIUM ALLOY		(TYPE 6061 / 65032)	
f)	UTS of each Rod	kN	35 kg/sq mm	
5	Tension Assembly			
5.1	Minimum Slip Load	kN	95% UTS of OPGW	
5.2	Length Nominal			
a)	Reinforcing Rods	mm	2300 ± 25	

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b)	Dead End	mm	1750 ± 16	
5.3	Breaking Strength (minimum)	kN	120	
5.4	Wire Size			
a)	Reinforcing Rods	mm	3 ± 0.1	
b)	Dead End	mm	4.5 ± 0.1	
6	4R STOCK BRIDGE VIBRATION DAMPER			
6.1	Material of Damper Weight		Cast Iron (IS:210)	
6.2	Clamp Material		Aluminium Alloy (Type 4600, IS:617)	
6.3	Clamp Bolt Tightening Torque	Nm	4 kgm	
6.4	Clamp Bolt Material		M.S (P.C.5.6)	
6.5	Messenger Cable Material		High Strength Steel	
6.6	No of strands in messenger cable	Pcs	19	
6.7	Breaking Strength of Messenger Cable	kN	135 kg/mm ²	
6.8	Minimum Slip Strength of damper Cable			
a)	Before Fatigue	kN	2.5	
b)	After Fatigue	kN	2	
7	OPGW DOWNLEAD CLAMPS			
7.1	Material of Downlead Clamp		Mild Steel	
7.2	Suitable for OPGW (diameter)	mm	18.8	
7.3	Tightening Torques	kgm	5.5	
8	OPGW accessories offered			
8.1	48/96/144 core weather, insect and rodent proof, anti-corrosive metal outdoor Joint Boxes for OPGW with all accessories viz: cable adaptors, cable glands, Fiber splitter tube assembly, cassettes, splice holders, metal crimps & heat shrinkable splice protection sleeves with min 4 cable entries	--	Required / As per project BOQ	
8.2	Suspension Assembly for 48/96/144 core OPGW	--	Required / As per project BOQ	
8.3	Tension Assembly for 48/96/144 Core OPGW	--	Required / As per project BOQ	

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8.4	Vibration Damper – Suspension	--	Required / As per project BOQ	
8.5	Vibration damper – Strain	--	Required / As per project BOQ	
8.6	Suspension Bonding Assembly	--	Required / As per project BOQ	
8.7	Tension Bonding Assembly	--	Required / As per project BOQ	
8.8	Down Lead Clamps	--	Required / As per project BOQ	
8.9	Any other hardware required	--	Bidder to specify	

10. Quality Requirements (including SQP and FQP)

Bidder shall submit Manufacturing Quality Plan to TATA Power for approval. The material shall be manufactured as per the Quality Plan approved by TATA Power. TATA Power Standard Quality Plan ref TPQAIT-QAXX-00-EX-SQP-273 REV.0 is attached for bidder’s guidance.

11. Inspection, Testing and Performance Requirements along with Warranty

Tests

All tests shall be provided for witness, review and acceptance by PURCHASER.

Composite OPGW Tests

11.1 Type (Design) Tests

All type (design) tests prescribed in the relevant IEC, EIA/TIA, ASTM and IEEE Standards shall be performed on the representative unit or on the first unit of every new design or rating to be supplied to PURCHASER.

In lieu of the actual type (design) tests, certified test reports of type (design) tests performed on an identical unit may be submitted to PURCHASER for review and approval during the bidding stage.

The type (design) tests are as follows:

- a) Cable Cut-off Wavelength Tests

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The cut-off wavelength of the cabled Fiber shall be less than 1250 nm and shall be measured in accordance to EIA/TIA-455-170, Cable Cut-off Wavelength of Single Mode Fiber by Transmitted Power.

The cable sample shall be 20 m long with additional 1 m Fiber ends, each having one 76 mm loop to simulate the splice organizer. (The total Fiber length is 22 m including the two 1 m ends.)

b) Fluid Penetration Test

Water ingress tests for cables designed for water blocking shall be performed in accordance with the requirements of EIA 455-82B, Fluid Penetration Test for Fluid Blocked Fiber Optic Cable, in 1 m cable sample.

No water shall leak through the open end of 1 m sample. If the first sample fails, one additional 1 m sample, taken from a section of cable adjacent to the first sample may be tested for acceptance. Water leaks from second sample shall constitute failure.

c) Compound Flow (Drip) Test

A 0.3 m sample of OPGW shall be tested in accordance with EIA/TIA 455-81A, Compound Flow (Drip) Test for Filled Fiber Optic Cable.

The sample shall be prepared per Method A of EIA/TIA-455-81A. The filling and flooding compound shall not flow (drip or leak) at 65°C.

d) Short Circuit Tests

The maximum fault current shall pass through the 10 m cable sample for at least 0.50 second fault duration while continuously monitoring the optical attenuation of the test Fibers from at least 2 minutes before to at least 5 minutes after each current pulse. The testing ambient temperature shall be at least 50°C. Refer to Annex A of IEEE Standard 1138 for further detail on the short circuit tests.

An increase in measured optical attenuation greater than 1.0 dB/km at 1300 nm or 1550 nm for single-mode Fibers shall constitute failure. Bird-caging or breaking of the conductor strands shall also constitute failure.

Dissection of the cable following the test should show no distortion of any component of the cable, including the optical Fibers, buffer tubes and any metallic wire or other components. Distortion of any kind that can be attributed to the test other than test set up procedures or hardware shall constitute failure.

e) Aeolian Vibration Test

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Aeolian vibration test shall be carried out on OPGW in accordance with Annex B of IEEE Standard 1138.

Any significant damage to any component of the composite OPGW, permanent or temporary increase in optical attenuation greater than 1.0 dB/test Fiber km at 1300nm or 1550nm for single-mode Fibers shall constitute failure.

f) Sheave Test

A sheave test shall be carried out in accordance with Annexure D of IEEE 1138. Any significant damage to the OPGW cable or central Fiber optic unit at any points above deformation limits of 0.50 mm shall constitute failure.

A permanent increase in optical attenuation greater than 1.0 dB/km at 1300 nm or 1550 nm for single mode Fibers shall constitute failure.

g) Crush Test and Impact Test

A crush and an impact tests shall be performed in accordance with EIA-455-25A and EIA-455-41.

A permanent or temporary increase in optical attenuation value greater than 0.1 dB change in sample at 1300 nm or 1550 nm for single-mode Fibers shall constitute failure.

h) Creep Test

A creep test shall be performed on an OPGW sample approximately 10 m long. The cable shall be terminated at each end and a tension of at least 30% of UTS shall be applied for duration of at least 1000h.

The elongation of the composite OPGW versus time shall be measured at suitable intervals and recorded. Elongation with time shall be in accordance with the requirements specified in ASTM B398M or ASTM B415. Any permanent or temporary increase in optical attenuation greater than 0.2 dB/km at 1300nm or 1550nm for single-mode Fibers shall constitute failure.

i) Stress-Strain Test

A Stress-Strain Tests shall be performed on cable sample in accordance with Annex B.1 of IEEE Standard 1138.

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Any visual damage to the conductor strands or permanent or temporary increase in optical attenuation greater than 0.2 dB/km at 1300 nm or 1550 nm for single-mode Fibers shall constitute failure.

j) Temperature Cycling

Temperature cycling measurements shall be made in accordance with EIA/TIA-455-3A, Procedure to Measure Temperature Cycling Effects on Optical Fibers, Optical Cables, and Fiber Optic Components, using a modified version of Test Condition B, -40°C to +150°C, two cycles.

The change in attenuation between extreme operational temperatures for unshifted single-mode Fibers shall not be greater than 0.2 dB/km. The attenuation change measurements shall be made at 1310 nm and 1550 nm.

11.2 Routine (Production) Tests

All routine (production) tests prescribed in the relevant EIA or equivalent ASTM Standards shall be performed on all units prior to delivery to PURCHASER.

Tests for mechanical and physical properties of concentric-lay-stranded metallic wires shall be made before stranding.

a) Tests for aluminium-alloy wires shall be as shown below.

- (i) All aluminium-alloy wires shall be capable of meeting the bending properties in ASTM B398M after stranding.
- (ii) The minimum tensile strengths shall not be less than 95% of the tensile strengths specified for individual tests in table I of ASTM B398M.

b) Tests for aluminium-clad steel wires shall be as shown below.

- (i) The aluminium-clad steel wire shall withstand without fracture not less than 20 twists in a length equivalent to 100 times the nominal diameter of the wire. The specimen shall be twisted by rotating on the wires at a rate of approximately 15 twists per minute in the same direction until fracture occurs.

The aluminium-clad steel wires after twisting to destruction shall not reveal any seams, pits, slivers or surface imperfections of sufficient magnitude to indicate inherent defects in the wire. Examination of the wire at the break shall show no separation of the aluminium from the steel.

- (ii) Other required tests shall be performed in accordance with ASTM B415.

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c) Tests for mechanical and physical properties of Central Fiber Optic unit shall be made before assembly.

d) Rated Strength Tests on Completed OPGW

The breaking strength of the completed OPGW shall not be less than the specified rated breaking strength of the OPGW unless the failure occurs in the gripping device. If the failure occurs in the grip, the test value must not be less than 95% of the specified rated breaking strength.

e) Optical Acceptance Tests

Attenuation test shall be performed on each Fiber of each individual reel in accordance with EIA/TIA 455-61, Measurement of Cable Attenuation using an Optical Time Domain Reflectometer (OTDR). Measurement shall be made from both directions and the results shall be averaged. Attenuation loss values exceeding those specified shall constitute failure.

11.3 Type (Design) Tests

All type (design) tests prescribed in the relevant IEC, EIA/TIA, ASTM and IEEE Standards shall be performed on the representative unit or on the first unit of every new design or rating to be supplied to PURCHASER.

In lieu of the actual type (design) tests, certified test reports of type (design) tests performed on an identical unit may be submitted to PURCHASER for review and approval during the bidding stage.

The type (design) tests are as follow:

a) Attenuation Variation with Wavelength

The measurement shall be made in accordance with EIA/TIA 455-78A, Spectral Attenuation Cutback Measurement for Single-Mode Optical Fibers. The spectral width of the source shall be less than 10 nm.

The attenuation coefficient of unshifted single mode fibers for wavelengths between 1285 and 1300nm shall not exceed the attenuation coefficient at 1300 by more than 0.1 dB/km.

b) Attenuation with Bending

Attenuation with bending measurements shall be made in accordance with EIA/TIA 455-62A, Optical Fiber Macro bend Attenuation Measurements. The two attenuation with bending requirements are measured by winding 100 turns of Fiber on a collapsible reel or removable mandrel of 75 mm \pm 2 mm diameter and

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by wrapping a single turn of fiber around a 32 ± 0.5 mm diameter mandrel. Attenuation shall not exceed 0.5 dB at 1300 nm or 1550 nm.

c) Temperature Cycling Test

Temperature cycling measurement shall be made in accordance with EIA/TIA 455-3A, Procedure to Measure Temperature Cycling Effects on Optical Fiber, Optical Cable, and Fiber Optic Components, using Test Condition A, -40°C to +180°C, 2 cycles.

The change in attenuation between extreme operational temperatures for single mode fibers shall not be greater than 0.05 dB/km at 1300nm and 1550nm.

d) Attenuation at the Water Peak

For unshifted single-mode fiber, the attenuation coefficient at the water peak found within 1383 nm shall not exceed 3 dB/km..

11.4 Routine (Production) Tests

All routine (production) tests prescribed in the relevant EIA or equivalent ASTM Standards shall be performed on all units prior to delivery to PURCHASER.

a) Attenuation Coefficient

Single-mode fiber attenuation measurements shall be made in accordance with EIA/TIA 455-78A, Spectral Attenuation Cutback Measurement for Single Mode Optical Attenuation using an OTDR. If OTDRs are used, measurements shall be made from both directions and the results shall be averaged.

The attenuation coefficient for unshifted single-mode Fiber shall be 0.45 dB/km or less at 1300 nm and 0.25 dB/km or less at 1550 nm wavelength.

b) Fiber Point Defects

Attenuation uniformity shall be measured in accordance with EIA/TIA 455-59, Measurement of Fiber Point Defects Using an OTDR. Measurement shall be made bi-directionally, and the results shall be averaged.

The attenuation of the Fiber shall be distributed uniformly throughout its length such that there are no discontinuities in excess of 0.1 dB for single-mode Fiber.

c) Chromatic Dispersion

Dispersion measurements shall be made in accordance with EIA/TIA 455-168A, Chromatic Dispersion Measurements of Single-Mode Optical Fiber by Spectral Group Delay Measurement in the Time Domain.

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d) Mode Field Diameter

Mode field diameter shall be measured in accordance with EIA-455-174 - Mode Field Diameter of Single-Mode Optical Fiber by Knife-Edge Scanning in the Far Field. The measurement wavelength as a minimum shall be 1310 ± 20 nm for dispersion unshifted single mode Fibers.

e) Concentricity Error

Core-to-Clad Concentricity Error measurements shall be made in accordance with EIA/TIA 455-45B, Microscopic Method for Measuring Fiber Geometry of Optical Waveguide Fibers.

Concentricity error - The offset between the centre of the core and the centre of the cladding shall be < 1.0 micron.

f) Cladding Diameter and Non circularity Error Measurements shall be in accordance with EIA/TIA 455-45B.

Cladding Diameter - The cladding outside diameter shall be 125.0 microns ± 2.0 % microns.

Cladding Non circularity - The cladding non circularity shall be $\leq 2\%$.

g) Coating Diameter

Coating diameter measurements shall be made in accordance with EIA/TIA 455-55B, Method for Measuring the Coating Geometry of Optical Fibers.

The nominal coating diameter for loose buffer shall be 250 microns and the nominal coating diameter for tight buffer shall be $250 - 400$ microns.

h) Fiber Tensile Proof Test

Individual Fibers shall be proof tested in accordance with EIA/TIA 455-31B, Fiber Tensile Proof Test Method.

All Fibers shall be subjected to a minimum proof stress of 0.35 GN/m² for one second equivalent by the Fiber manufacturer (100% testing).

Field Acceptance Testing

Upon receipt of the composite OPGW from the manufacturer, the PURCHASER shall at his option, perform acceptance tests in order to verify that the optical characteristics of the Fiber meet the order requirements and to determine if optical Fibers have been damaged during shipment. The results of these tests and the manufacturer's certified quality control information, which is attached to each reel, shall be compared to the Fiber requirements specified in the purchase order.

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The tests shall be performed and documented by the use of Optical Time Domain Reflectometer (OTDR). The end of the cable shall be sealed after completion of these tests in order to prevent entry of moisture into the optical Fiber. Tests shall be performed from both ends and results shall be averaged.

The following tests shall be performed in accordance with EIA/TIA-455:

11.5 Fiber Continuity

A continuity checks of each Fiber may be made to determine if any Fiber is broken or any attenuation irregularities exist.

11.6 Attenuation

Total attenuation for the entire reel length and attenuation per kilometre should be measured on each Fiber. Attenuation uniformity shall meet the requirements.

11.7 Fiber Length

The Fiber length may be measured using the OTDR. The index factor to be used in this measurement should be furnished by the Fiber manufacturer. A check should be made to verify received reel numbers and lengths correspond to ordered quantities

11.8 Mechanical & Environmental test requirements

The cable must meet the mechanical and environmental tests as per the IEC test procedures listed in the table below.

1. After each mechanical test described in the specifications table, the change in attenuation shall be $\leq 0.05\text{dB/Km}$ for each individual fiber without any visible cracks, damage or kink to the cable.

2. For temperature cycling test, the attenuation change throughout the cycle ,at every stage shall be $\leq 0.05\text{dB/Km}$ for each individual fiber ,with reference to the reading at room temperature.

11.9 Miscellaneous

11.9.1. Packaging:

The Cables shall be packed in manageable/customised wooden drums with both ends accessible for testing. Both the ends of cable should be duly sealed with end caps and

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provided with pulling eyes for ease of installation in field. The wooden drum must be circum battened with wooden batons and strengthened with a steel strip over it on both the flanges for protection of the cable during transit.

OPGW shall be tightly and uniformly wound onto reel(s) in layers. Reel lengths may be "STANDARD LENGTHS", which are normally provided by a manufacturer; or "SPECIFIED LENGTHS", which are specified by the PURCHASER. A tolerance of plus 2% and minus 0% shall be maintained for "SPECIFIED LENGTHS" and "STANDARD LENGTHS".

Reels shall be either wooden non-returnable or steel returnable type which conform to ANSI/AA 53-1981 or equal. Unless specified otherwise by the PURCHASER, the manufacturer will determine the size and type reel which will withstand normal shipping, handling, storage, and stringing operations without damage to the OPGW.

The drum and inside flanges shall be such that damage will not occur to the OPGW during shipping, handling, storage, and stringing. This may be provided for by a layer of suitable material which is water resistant and will not absorb moisture.

The outer layer of the OPGW shall be protected by a water resistance wrapping over the exposed surface to prevent dirt and gritty material from coming in contact with the OPGW during shipment and storage.

Reels shall have wooden lagging attached to the flanges unless specified otherwise by the PURCHASER. Wood lagging should be similar to a Grade 3, cured and dressed, 50 x 100 mm Southern Pine lumber or equal. Lagging shall be attached to reels in such a manner where individual lagging strips will remain in place during normal shipment, handling, and storage.

The outer end of the OPGW shall be fastened to the inner surface of the reel flange a minimum of 25 mm below the wood lagging.

The cable end shall be securely fastened to prevent the cable from becoming loose during shipment. A minimum of 4 meters of the inner end of the OPGW shall be accessible for connection to optical measuring equipment without removing wood lagging or outer layer of protection. This length of cable shall be securely fastened and protected during shipment.

A seal shall be applied to each end of the OPGW to prevent the entrance of moisture into the optical Fibers or the escape of filling compound during shipment and storage. Two (2) extra seals shall be shipped with each reel and should be accessible without removing lagging.

The manufacturer shall furnish at the time of shipment, a certified record of final quality control measured values for each Fiber on each reel. This certification shall be attached

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to the outside flange of the reel in a weatherproof package or submitted by the Vendor separately.

Each reel shall be marked on the outside flange to indicate the direction the reel should be rolled during shipment in order to prevent loosening of the cable on the reel.

11.9.2. Test Report:

Each Drum shall be accompanied with a test report with cable end markings, length, cable no, cable type, fiber count and type and attenuation results of all fibers at 1310nm and 1550nm.

11.9.3. Tools and accessories:

Vendor shall specify and quote any specialized tools required for installation and maintenance of supplied cable exclusive of OTDR, Splicer and Optical Power meter.

11.9.4. Specimen Sample:

Vendor should provide an appropriate (30 cm) specimen sample of offered cable/ or of a similar construction type along with quotes.

11.9.5. Instruction Manual:

The Vendor shall furnish specified two copies of the instruction manual which would contain detailed step-by-step instructions for all operational, maintenance, testing requirements. The manual shall include, among other information, the following aspects.

- a) Storage for prolonged duration
- b) Unpacking
- c) Erection/Handling at site
- d) Maintenance procedures
- e) Manual/Automatic testing procedure
- f) Outline dimension drawings and constructional features

12. Mandatory Spares

Bidder to recommend mandatory spares in the bid document.

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13. Data Submission by Bidder

13.1 With the Bid

- Dully filled in schedules, listed in section 'C'.
- Filled up Data Sheets as per section 'B' (in attached Excel format – Excel soft file to be sent with Technical Bid) & in PDF with company stamp & authorized signature
- The supply list of equipment offered with customer name, year of supply, performance certificates etc.
- Catalogue/ literature of all equipment for information.
- Technical specification with your company stamp & authorized signature

13.2 After award of contract

- Detailed Data Sheet, GA drawing of all equipment for approval
- Catalogue/ literature of all equipment for information.
- MQP for equipment offered
- O&M Manual & Recommended Commissioning checklist for equipment offered
- Test certificate/ Witness test reports/ Type test reports as applicable

Annexure: II

OPGW and Accessories

Qualifying Requirement

Parameter	Tata Power Requirement	Documents To be submitted by Bidder to ascertain meeting of Pre-qualification requirement	Bidder response
Infrastructure	Bidder must be an OEM of OPGW with manufacturing facility / assembly in India.	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.	
Supply and Experience	<p>Bidder shall have supplied minimum 100 kms of OPGW in last 5 years as on date of bid submission . Out of which 50 kms of OPGW shall be in satisfactory service for last 2 years as on the date of bid submission.</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>In case the bidder has a previous association with any of Tata Power Group companies for similar products and services, the performance feedback of the bidder by the Tata Power Group companies shall only be considered for evaluation purpose, irrespective of performance certificates issued by any third organization.</p>	<p>Supply List / 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>	
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 equipment / material quoted under this package.</p> <p>The type tests should have been conducted within 5 years prior to the date of bid opening. Time period for type test may 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 dispatch 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. Type Test reports shall be submitted before despatch of the equipment / material or within 3 months from the date of PO, whichever is earlier, 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>	
Commercial Capability	Average Annual turnover of the bidder for last three years shall not be less than Rs Crs (Corporate Contracts to update the value in range of 1.5 to 3 times the package value)	Copy of audited Balance Sheet and P&L Account to be submitted in this regard.	
EPC Experience (if applicable)	In case the package involves installation & commissioning of the equipment / material, then the bidder should have installed and commissioned n/2 or 50 kms, whichever is higher of OPGW and shall be in satisfactory service for last 5 years as on date of bid submission.	Service list/Performance Certificates from the utilities / clients	

Annexure 2

TATA POWER		The Tata Power Company Limited Corporate Engineering-Quality Assurance & Inspection			
TPQAIT-QAXX-00-EX-SQP-273 REV.0		STANDARD QUALITY PLAN FOR OPTICAL GROUND WIRE (OPGW)			Mar'17
Sr. No	COMPONENT / OPERATION		CHARACTERISTICS CHECKED	TYPE / METHOD OF CHECK	REMARKS
1	2		3	4	5
1.0 RAW MATERIAL: (All material shall be as per approved drawing/ data sheet).					
1.1	Optical Fibre	1	Review of supplier test report	TC verification & measure (IEC60793-2-50)	
		2	Physical Appearance		
		3	Dimension check - Length, mode field diameter, etc.		
		4	Attenuation and Uniformity check		
		5	Chromatic dispersion check		
		6	Check Fibre geometry including Cladding Diameter, Core-Clad Concentricity, Cladding Non-Circularity, Coating Diameter, Coating-Cladding Concentricity.		
		7	OTDR (Optical time-domain reflectometer) checks on sample fibre spools to verify attenuation/loss db./km.		
1.2	Colouring Ink	1	Visual Check for Appearance	MTC Review	Corelated TC review by Tata Power.
		2	Verification of Supplier TC		
		3	Verification of Expire data		
1.3	Stainless steel tape	1	Verification of Supplier TC		
		2	Mechanical tests including Tensile stress & Elongation check		
		3	Visual & Dimensions Check		
1.4	Water Blocking Gel	1	Visual Check		
		2	Manufacture data - for expiry		
		3	Quantum check during cable assembly process for adequate jelly filling		
1.5	Aluminium-conductor steel-reinforced (ACSR/ACS) Wire	1	Dimension check - Diameter, thickness of Al, etc.	TC Review (IEC61232)	
		2	Resistivity check		
		3	Tensile stress check		
		4	Verification of Stress at 1% extension		
		5	Elongation check		
		6	Torsion check		
1.6	(Aluminium) AL Wire	1	Dimension check - Diameter, thickness, etc.	TC Review (IEC60104)	
		2	Electrical tests including Purity & Resistivity.		
		3	Mechanical tests including Tensile strength, Elongation & Wrapping		
2.0 INPROCESS INSPECTION: (Generally in line with manufacturer standard)					
2.1	Fibre Colouring	1	Check curing of coloured layer by peel off test	IEC30482	
		2	Attenuation & Uniformity check		
		3	Verification of Colour & Ring Marks		
		4	Winding condition		
2.2	Stainless steel tubing	1	Diameter	TC Review	Verification of Records by TATA POWER.
		2	Gel filling ratio		
		3	Water ingress test		
		4	Welding defect		
		5	Attenuation & uniformity		
2.3	Wire Stranding	1	Lay length & Lay direction	TC Review (IEEE1138)	
		2	Dimension check for Diameter, length & thickness of wires		
		3	Verification of Performing ratio		

TATA POWER		The Tata Power Company Limited Corporate Engineering-Quality Assurance & Inspection			TATA	
TPQAIT-QAXX-00-EX-SQP-273 REV.0		STANDARD QUALITY PLAN FOR OPTICAL GROUND WIRE (OPGW)			Mar'17	
Sr. No	COMPONENT / OPERATION	CHARACTERISTICS CHECKED		TYPE / METHOD OF CHECK	REMARKS	
1	2	3		4	5	
3.0 FINAL TESTS: (as per IS 2633, IS 2629, IS 4759, IS 6745 Approved drawing, Datasheets & BOM)						
3.1	Routine Tests.	1	Visual Checks - Surface Quality		TC Review, testing & Measurement.	Verification of Reports by TATA POWER.
		2	Dimension check for Diameter of strands & overall, length, no. of layers & thickness of fibre & OPGW.			
		3	Attenuation & uniformity			
		4	Verify Lay length & Lay direction			
3.2	Acceptance Test	1	Check OPGW length by OTDR; Visual & Dimension checks for Surface Quality, Overall Diameter, Construction, weight (in Kg/km)		Testing & Measurement as per IEC standard & approved data sheet.	Customer Hold Point (CHP)
		2	Check Lay length, Lay direction & lay ratio.			
		3	Check attenuation & uniformity.			
		4	Conduct Breaking Load test.			
		5	Check Water ingress test, drip test.			
		6	Check Bending radius.			
		7	Check the Ultimate tensile strength of OPGW.			
		8	Checks for Aluminium-conductor steel-reinforced (ACS) cable - Visual check, dimension check, Tensile stress, elongation, Stress at 1% extension, torsion, resistivity and Thickness of Al.			
		9	Checks for Aluminium (AL) - Visual check, dimension check, Tensile Stress, Elongation, torsion & Resistivity checks.			
		10	Checks for Fibre - Chromatic dispersion, Mode field diameter (MFD), Fibre geometry, colour, tensile test, attenuation test, length check.			
3.2	Type Tests	1	Temperature cycling test, Attenuation with Bending, Attenuation with Wave length variation.		Testing & Measurement	Valid Type tests certificate not older than 5 year is prerequisite.
Any separate test shall be carried out if called for in accordance with TATA POWER technical specification or as per mutually agreed in MQP.						
4.0 DOCUMENT REVIEW & ISSUANCE OF IRN						
4.1	Packing & Pre-Shipment.	1	Visual, Quantity Verification & Identification.		Visual by Main supplier	
4.2	Dispatch	Issue of Inspection Release note & MDCC.			Customer Hold Point (CHP)	
N O T E	A) ALL MATERIAL SHALL BE AS PER APPROVED DRAWING/ DATA SHEET.					
	B) STATUTORY REQUIREMENTS WILL BE COMPLIED BY THE CONTRACTOR.					
	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.					
	D) FINAL INSPECTION OF THE MAJOR ACTIVITIES ARE WITNESSED BY CLIENT AND IT IS HOLD POINT (AT THE DISCRETION TATA POWER)					
	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.					
	F) INSPECTION OF THE MAINTAINCE SPARES SHALL BE OFFERED ALONG WITH THE MAIN SUPPLY AS PER THE INSPECTION STAGES OF 1 TO 4.					
	G) CALIBRATION CERTIFICATES OF THE EQUIPMENT USED FOR TESTING SHALL BE PROVIDED FOR REVIEW.					
	H) TATA POWER RESERVES THE RIGHT TO DEMAND / VERIFY/ AUDIT/ WITNESS ANY OF THE CHECK POINTS MENTIONED IN THE SCOPE OF SUPPLIER.					
	I) AS PER SPECIFICATION PROPER PAINTING & PACKING SHALL BE ENSURED BY VENDOR BEFORE SHIPMENT TO AVOID ANY TRANSIT DAMAGE.					
		Shruti Marathe		C R Bhonslay	S. Simlai	
Rev. No	Reason for Revision	Prepared By & Date		Checked By & Date	Approved By & Date	
Meant for (Internal Circulation / External – Stakeholders Circulation)						

THE TATA POWER COMPANY LIMITED

STANDARD TECHNICAL SPECIFICATION FOR GENERAL REQUIREMENTS OF QUALITY ASSURANCE & INSPECTION

[SHALL BE A PART OF GENERAL TECHNICAL CONDITION]

(DOCUMENT NO - TPQAIT-QAXX-00-GN-QSP-214 R4)



Tata Power

Rev. No	Date	Description	Prepared By	Checked By	Approved By
R04	03/09/2021	Revision	DP/RS R.P.	SR/RS	CRB/CPT
R03	20/07/2020	Revision	SR	RP	CRB
R02	10/05/2017	Revision	DP /RP/RG/PU	SKJ/ RM/CRB	SS
R01	21/07/2016	Revision	SKJ / DP	RG	SS
R00	21/04/2015	First Issue	RG / SKJ / PU	SS	SS

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1.0 PURPOSE

Purpose of these requirements is to provide uniform general requirements for implementation of Quality Management System for projects being executed by OWNER.

2.0 SCOPE

- 2.1 Scope of these requirement covers pre-requisites of the Bidder's/ Supplier's/ Contractor's Quality Management System (QMS) applicable for all phases of contract execution including design, procurement, manufacture, factory testing, erection, field testing and commissioning, applicable other services and further to establish specific factors for which control shall be carried and put into continuing operation by the Bidder/ Supplier /Contractor to ensure that all supplies and services comply with the contract requirements.
- 2.2 The required/ specified reliability & other characteristics of quality should initially be "designed in" and then "built in". It is emphasized that, satisfactory product and system performance can be achieved only through strict control of all design, manufacturing and erection/ installation processes as well as test and inspection.
- 2.3 During bid stage itself, BIDDER shall submit requisite documents to demonstrate that as a supplier/ contractor they have well defined and implemented QMS. They shall also establish that their QMS is taking care of their sub-supplier/agencies, and continually improve its effectiveness in accordance with the requirements of their QMS as per ISO 9001, or any other quality standard.

BIDDER shall submit a project specific organization chart defining the permanent positions responsible for QMS accompanied by a brief description of each position's function and responsibility.

3.0 DEFINITION

- **OWNER**
Tata Power or its subsidiaries/ JV partners.
- **BIDDER**
An organization/ agency, who propose to submit their offer against RFQ/enquiry floated by OWNER. Only successful bidder will be converted to supplier/ contractor on award of contract by OWNER.
- **Supplier / Contractor**
An organization referred as Supplier/ contractor, who execute the contract awarded by Contracts department of OWNER. It also covers the Agency involved in execution of site/ field activities or provides services (as a contractor) when awarded by Contracts department of OWNER. A Supplier can also be a manufacturer for part of supply for his in-house products.
- **Sub-Supplier/ Sub-vendor**
An organization, who manufactures, supplies the system or equipment or item and provides services to the supplier. It also covers manufacturer who manufactures and supplies the equipment or its components or items to the sub-suppliers to complete the system supply. It

should also cover the agencies which also support execution of main supplier by providing qualified manpower/ services.

- **Third Party Inspection Agency (TPIA)**
Any third-party organization or neutral agency mutually agreed, deputed for conducting inspection or quality surveillance activities on case to case basic.
- **Inspection Agency (IA)**
An organization or any agency deputed by OWNER for conducting inspection or quality surveillance activities on behalf of OWNER on case to case basic.
- **Inspection Categorization Plan (ICP)**
This document shall categorize the Quality Plan and Inspection scope of all equipment/ items in the package. This will also include the schedule for submission and approval of all Quality related documents.
- **Standard Quality Plan (SQP)/ Standard Field Quality Plan (SFP)**
SQP shall comprise of minimum basic requirements of all tests/ checks to be carried out during manufacturing to meet/ conform technical requirement. SQP may be in the form of Inspection & Test Plan (ITP)/ Technical Specification as part of Bid Document.
Similarly, SFP shall comprise of minimum basic requirements of all field tests/checks to be carried out during execution of the project.
- **Manufacturing Quality Plan (MQP)**
MQP shall comprise of all tests/ checks indicated in standard Quality Plan (SQP) and tech specifications. It shall also include any additional quality checks/ tests required as per discussions (pre & post bid) to be followed during manufacturing of particular item/ equipment.
- **Field Quality Plan (FQP)**
FQP shall detail out the activities and steps to be performed at project site and shall be followed from receipt of material to pre-commissioning stage. Shall include all tests / checks in Standard Field Quality Plan (SFP) & technical specification. FQP shall be prepared by contractor and to be submitted to OWNER at post award stage of contract for OWNER's approval.
- **Hold Point/ Customer hold point (CHP)**
A check point for an activity mentioned in approved MQP/ FQP, which requires inspection/ verification, and acceptance by the OWNER or its representative for this stage before any further work is permitted.
Supplier shall not process beyond a CHP without written acceptance & clearance of that activity by OWNER in writing.
- **Witness Point**
A check point for an activity mentioned in the approved MQP/ FQP, which will be witnessed by OWNER or its representative.
Supplier will obtain consent from OWNER to proceed for further work, in case OWNER or its representative is not able to attend the activity within notification period.

- **Review / Verification Point**

A check point for an activity mentioned in the approved MQP/ FQP that requires review of document/ test record by OWNER or its representative performed by the Supplier for acceptance.

- **Test Report Record**

Such reports / records are document prepared by Supplier/ Sub-Supplier for test/ check conducted indicating details / types of test including test results, relevant codes etc.

- **Inspection Report (IRT)**

Such report which covers details of all the checks / activities carried out as per approved MQP. It also covers details of the observations and NCRs during those checks / inspection.

- **Inspection Release Note (IRN)**

IRN is a document issued on standard format after successful quality checks/inspection and confirming to compliances of all observations and NCs if any.

- **Non-Conformity Report (NCR)/ Quality Correction Action Report (QCAR)**

It is a report on deviation/ non-compliance with respect to the requirements laid down in the PO/ Technical Specification, MQP, Codes & standards. NCR shall be applicable during inspection at Shop as well during site Audits and QCAR shall be applicable for site inspection / surveillance.

4.0 QUALITY ASSURANCE PROGRAMME

To ensure that the equipment and services under the scope of contract whether manufactured or performed within the Bidder/ Supplier /Contractor's works or at his sub-vendor's premises or at site or at any other place of work are in accordance with the specifications, Bidder/ Supplier/ Contractor shall adopt suitable project specific QMS based on his organization's Quality Management System, regular practice, statutory requirements etc. as specified for the contract and submit the same for approval of OWNER, to control such activities at all points, as necessary. Such program shall be outlined by the Bidder/ Supplier/ contractor. Any deviation with respect to all above requirements (as specified in SQP, SFP, Technical specification as minimum quality requirements) shall be brought out clearly in the pre-bid stage by bidder.

4.1 OWNER Quality Document Approval Process & Inspection Process

OWNER uses Wrench software as an online platform for Engineering and Quality documents approval. Further, raising inspection call for STAGE / FINAL inspection for Category A items, Document review and material clearance for Cat B & Cat C items shall also be processed through Wrench. Access for Wrench system and necessary user training will be imparted to the authorized personnel of the supplier post award of contract.

5.0 SUPPLIER QUALITY MANAGEMENT SYSTEM (QMS)

5.1 All materials, components and equipment covered under the contract including bought out items shall be procured, manufactured and tested at all the stages as per a comprehensive Quality Assurance Program. It is the Bidder/ Supplier / Contractor's responsibility to draw up and implement such program duly approved by the OWNER.

- 5.2 All items/equipment in the scope of the contract shall be classified into categories according to the criticality or other attributes of items/ equipment. A detailed proposal addressing vendor approvals and quality control of all such items/ equipment shall be proposed to OWNER for approval.
- 5.3 The detailed quality plans for shop manufactured items and for field activities including civil works (if applicable) shall be drawn up by the Bidder/ Supplier / Contractor separately as per the requirement of the specification, standards mentioned therein, quality practices and procedures followed by Supplier's/ his sub vendor's quality control department. MQP shall be prepared by manufacturer and submitted through supplier post award stage of contract for OWNER's approval. OWNER approved MQP to be referred during manufacturing & shop inspection. Typical format of Manufacturing Quality Plan is enclosed as **Exhibit A**.
- 5.5 Field quality plans shall detail out for all equipment, the quality practices and procedures etc. to be followed by the execution agency, during various stages of site activities right from receipt of materials/ equipment at site to commissioning stage covering receipt, storage, erection & pre-commissioning tests. It shall comprise of all tests / checks indicated in SFP & Technical Specification including any additional quality checks / tests required as per discussions (pre & post bid). It shall also take care of minimum basic requirement of OEM/manufacturer (as the execution agency may not be part of OEM/manufacturer). OWNER approved FQP is to be referred during execution of work. FQP shall have 5 stages: Receipt, Storage, Pre-erection/ pre-fabrication, Erection/ Execution and pre commissioning checks with categorization of checks as Critical (Cr), Major (Mj) and Minor (Mn). Typical format of Field Quality Plan is enclosed as **Exhibit B**.
- 5.6 In these approved manufacturing and field quality plans, OWNER shall identify "Customer Hold Points" & "Witness Points". "Customer Hold Points" are test/checks which shall be carried out in presence of the OWNER's Engineer or its authorized representative and beyond which the work shall not proceed without consent of OWNER/ its authorized representative in writing. "Witness Points" are tests/checks which shall be carried out in presence of the OWNER's Engineer or its authorized representative but the work can proceed to next operation/ stage in case OWNER's Engineer doesn't attend on the mutually agreed date. The above procedure shall be applicable to the Bidder/ Supplier / Contractor's bought out equipment/ items also.
- 5.7 All the critical & major items shall be procured from the sub-vendors approved by OWNER. A tentative/ preferred list of sub-vendors for some of the items are indicated in Technical Specification. Based on which Bidder/Supplier/Contractor shall propose a list of sub vendors for bought out items for approval from OWNER. Detailed list of such sub-vendors offered by supplier/vendor/contractor shall be submitted not later than 7 days after the LOI/ Placement of order whichever is earlier and shall be frozen within 15 days of submission. Request for additional sub-vendors shall not be entertained from the Bidder/ Supplier / Contractor after the sub-vendor list is finalized and frozen. Only in case of Force Majeure Condition, Supplier/ contractor shall establish such condition and propose new/ alternative source. Contractor / supplier shall provide requisite documents for consideration of OWNER. OWNER has right to accept/ reject based on review of details. If required, physical assessment shall be made before conveying such decision. Delays arising out of such exercises shall be entirely to the account of Supplier/ Contractor and shall not relieve him from any obligation, duty or

responsibility under the contract. For intended manufacturer/ sub-vendors/ sub-suppliers, credential / details to be submitted are as indicated below:

- i. Company Profile.
- ii. Name of the equipment proposed for approval with rating / capacity.
- iii. Financial reports for the past 3 years.
- iv. Organizational structure (including QA/QC set-up, man-power & qualification details).
- v. In-house design capability, R&D facility & Technical collaborations (if any).
- vi. In house manufacturing facilities (Including process flow charts).
- vii. In house Testing facilities.
- viii. Type Test Reports (as applicable).
- ix. List of sub-suppliers for critical/major Raw material & bought out items.
- x. In-coming material inspection plan and manufacturing quality plan.
- xi. Certification by reputed agencies (ISO/ NABL/ NSIC/ ASME/ CE/ UL/API etc.) & government agencies (Factory licenses).
- xii. Product approval certificates from other customers and regulatory Authority etc.
- xiii. In case of non- ISO Company, details of quality system followed.
- xiv. Experience (Past track records) for last 3 yrs. for similar product from the facility.
- xv. Performance certificates issued by other customers.
- xvi. Customer / Supplier complaints handling and resolution records
- xvii. After Sales / Services details
- xviii. Details of out-sourced activities, if any.

5.8 **Non-Conformance Report (NCR) / Quality Correction Action Report (QCAR)**

Wherever the non-conformity is found during inspection either by Supplier or OWNER or its representatives, NCR / QCAR shall be issued in prescribed format. Manufacturer /Supplier shall indicate the Correction / CAPA and submit these NCRs/QCARs to OWNER or its representative for their review & resolution. Till such time identified item/ equipment will be kept under quarantine. Upon satisfactory completion of the rectification work, final acceptance of the item/equipment shall be documented on the NCR/QCAR format. Supplier has to close all NCR / QCAR in systematic & time bound manner including all corrective and preventive actions. Job shall progress only after effective resolution of NCR / QCAR.

Note: If OWNER observes that any material or equipment is unacceptable with respect to potential safety, reliability, interchangeability or workmanship, OWNER shall issue a non-conformance report NCR / QCAR in this regard to the Supplier/ Contractor. Such NCR/QCAR shall be dealt as above.

- 5.9 No material shall be dispatched from the Bidder's/ Supplier's/ Contractor's /manufacturer's works before the dispatch instruction is given in writing by the OWNER, Subsequent to pre-dispatch inspection including verification of records of all previous tests/ inspections by OWNER/ authorized representative. Any such item/material dispatched by party without clearance from OWNER shall be at suppliers' risk & cost only. No IRN/ dispatch clearance shall be issued for the same as post facto.
- 5.10 OWNER or its nominated representative reserves the right to carry out quality audit/ quality surveillance of the systems and procedures of the Bidder/ Supplier/ Contractor's or their sub-vendor's Quality Management System and control activities without prior intimation. The Bidder/ Supplier/ Contractor shall provide all necessary assistance to OWNER or its nominated representative to carry out such audit/ surveillance.

- 5.11 The Bidder/ Supplier/ Contractor shall be responsible for providing, controlling, calibrating, and maintaining the 'measuring & test equipment' required by them for demonstrating compliance of supplies within contract requirements at shop and at site. All the measuring instruments shall be calibrated at periodic intervals determined by Bidder/ Supplier/ Contractor/ sub-vendor on the basis of his suitability, purpose and usage as per the system adopted by him for calibration of such measuring and test equipment. However, in no case, shall the interval between successive calibrations be more than 12 months. All measuring and test instruments shall have valid calibration certificates and calibration data shall be made available to OWNER or its nominated representative on demand.
- 5.12 Quality surveillance/ approval of the results of the tests and inspection shall not, however, prejudice the right of the OWNER to reject the equipment if it does not comply with the specification when erected or does not give complete satisfaction in service and the above shall in no way limit the liabilities and responsibilities of the Bidder/ Supplier / Contractor in ensuring complete conformance of the materials/ equipment supplied to relevant specification, standard, data sheets, drawings etc.
- 5.13 For all spares and replacement items, the quality requirements as agreed for the main equipment supply shall be applicable. Inspection of all mandatory spares and commissioning spares shall be in line with the approved MQP of respective equipment/item. Interchangeability Certificate shall also be part of quality records for all spares.
- 5.14 **Statutory Inspection**
Supplier to ensure that Equipment/ items which fall under statutory requirements of country where the equipment will be installed, shall be inspected by statutory authority like IBR etc. In case of imported items, statutory inspection will be carried out by the agency as nominated by Statutory Authority or Statutory authority of the country of origin. Original certificates endorsed by statutory authorities shall be submitted to Project Manager as identified in the contract.
Such items shall also be offered to OWNER for inspection irrespective of country of origin.
- 5.15 **Failure to Pass Tests**
If any item/ equipment fails to pass any test, the Bidder/ Supplier shall rectify or replace the same and, unless OWNER agrees to dispense with repetition of the test, shall repeat the test following a further notice. The cost and expense of any such retest shall be fully borne by the Bidder/ Supplier only.
- 5.16 Major repair/rectification procedures to be adopted to make the job acceptable shall be subject to the approval of the OWNER/ its authorized representative.
- 5.17 All tests shall be carried out to the satisfaction of the OWNER/ its authorized representative either in their presence or as agreed by OWNER. All reports/ protocols, site and shop inspection reports shall be developed specific to the requirements of the project which is acceptable to OWNER. The same shall be applicable to erection testing and pre-commissioning reports and protocols also.

Only tested, inspected and accepted (by OWNER) material as listed in PO / ICP shall be dispatched to project site. Any diversion of such accepted material without any prior approval shall be considered as deviation/ breach of contract and a minimum penalty of 5 times the cost of inspection will be levied.

- 5.18 Approval of any concession shall be the prerogative of the OWNER and approval of concession for a particular case shall not be set as a precedent.
- 5.19 All the equipment shall be of proven design and type tested. Valid type test reports shall be furnished to engineering for review and acceptance prior to offering equipment for inspection.
- 5.20 All documents/ reports/ records shall be issued either in English language or bilingual with English.

6.0 INSPECTION CATEGORIZATION PLAN, WELDING & NDT REQUIREMENT

6.1 Inspection Categorization Plan (ICP)

This document shall be prepared by supplier and to be submitted to OWNER for approval in attached standard format for all package items within 15 days of award of contract.

The schedule shall be prepared considering that all MQP should be approved at-least 15 days prior to start of any manufacturing activity and FQP with related procedures shall be finalized at least 15 days prior to dispatch schedule/ site mobilization.

ICP, MQP, FQP and related procedures shall form part of Master Drawing List (MDL)

All the items/equipment in the scope of the contract shall be classified into categories (A/ B/ C) according to the criticality or other attributes of items / equipment. A detailed proposal addressing vendor approvals and quality control of all such items /equipment shall be proposed to OWNER by the Supplier/ Contractor for approval.

Category “A”: Manufacturing Quality Plan (MQP) shall be approved by Tata Power. Stage &/ or Final Inspection including document review by EPC Contractor and Tata Power (or its appointed Inspection Agency) as per approved MQP.

Category “B”: Manufacturing Quality Plan (MQP) shall be approved by Tata Power Stage &/ or Final Inspection including document review by EPC contractor or Tata Power (in case no EPC Contractor) as per approved MQP. Inspection report of EPC contractor/ Supplier with supporting documents review by Tata Power.

Category “C”: Supplier shall carry out inspection as per their regular practice/ standard manufacturing quality plan. Supplier shall submit test report and COC (Certificate Of Conformance) to EPC Contractor/ Tata Power for approval/acceptance. COC shall be in standard format of Tata Power.

6.2 Welding & Non-Destructive Testing (applicable for shop as well project site)

6.2.1 Bidder / Supplier/ Contractor shall submit the following documents in requisite copies for review and approval of OWNER/ its authorized representative at least FOUR weeks prior to commencing fabrication/ manufacturing and finalize before start of job. All such submissions shall be made in ENGLISH language only.

- i. Welding procedures together with the relevant procedure qualification records.
- ii. Non-destructive testing procedures.
- iii. Heat treatment procedures.

- iv. Any other special procedure (as applicable) proposed to be used during project execution Welding procedures and welders' qualifications in accordance with the latest revision of ASME Boiler & Pressure Vessels Code, Section IX, (structural welding as per AWS D1.1) or equivalent standard covering all essential & non- essential variables shall be acceptable to OWNER.
- 6.2.2 Only qualified welders shall be deployed. Welders shall be qualified as per approved WPS in presence of OWNER/ its authorized representative. Electrode/ welding rod used at project site shall be of OWNER approved make. Supplier/ Contractor shall take prior approval.
- 6.2.3 Weld repair procedures are subject to approval of the OWNER. No welding is permitted on C.I. Castings. OWNER reserves the right to examine and witness acceptance tests, prior to and following weld repairs and subsequent post weld heat treatment, mechanical tests etc, at the material manufacturer/ Supplier works.
- 6.2.4 Should any of these welds prove to be defective on inspection, the number of welds to be tested in that system shall be twice that of originally selected. Should any of the second incremental welds prove to be defective, then 100 % of the welds in that system/ group shall be tested.
- 6.2.5 NDT operators shall be qualified in accordance with an agreed nationally accredited scheme such as the Personnel Certification in Non-destructive testing (PCN) scheme and shall be certified to level II or higher of that system.
- 6.2.6 Plate thickness $\geq 32\text{mm}$ (for structure), Plate thickness $\geq 25\text{mm}$ (for pressure vessel), Forging / Bar dia. $\geq 40\text{mm}$ (finished) shall be UT tested (Ultrasonic).

7.0 INSPECTION AT SHOP

7.1 Inspection Scope

The scope of inspection shall be as per Witness/ Hold Point as defined in approved MQP/ SQP. Supplier has to ensure that all applicable and agreed approved Drawings, Data Sheet etc. are available for any inspection and equipment used for measurement are calibrated. Supplier shall intimate all such cases in advance (as inspection rolling plan) and also through inspection call as per contract agreement.

7.2 Inspection Coordination

Supplier has to identify single point of contact for coordination of the entire inspection activities on behalf of Supplier/ sub-supplier. Supplier to ensure that monthly and 3 monthly rolling inspection plans are prepared and submitted in advance to OWNER by 1st working day of each month for effective inspection coordination.

7.3 Inspection Request

- 7.3.1 Depending upon the stages of inspection as agreed in manufacturing quality plan, supplier to send Inspection Request through Wrench system with approved inspection reference documents to OWNER Project Manager for inspection activities to be attended at supplier's /sub-supplier's premises. Supplier to confirm the possibility for conducting remote inspection through Video calling system (preferably MS Teams), if required. Further, supplier to discuss & confirm the readiness of material by submitting internal test reports of the item/ equipment offered for inspection, job readiness pictures and testing schedule

through email. Supplier has to give sufficient advance notice, as defined below for inspection of any stage. Contractor/Supplier to strictly adhere to notice period indicated below and the testing schedule shared. Any additional expenses incurred due to the improper planning at supplier end for travel/ accommodation shall be in Supplier / Contractors scope.

7.3.2 The minimum advance notice period for inspection shall be given below:

- i. Inspection within INDIA : 7 Days
- ii. Overseas (Outside India) Inspection : 30 Days

Supplier to strictly adhere the above mentioned minimum advance notice period.

7.3.3 Supplier shall plan the inspection visits required in a manner so as to achieve maximum inspection stages attended with minimum possible inspection visits/ time where-in more than one external inspection agencies are involved for single inspection activity, inspection by all agencies may be done concurrently.

7.4 **Inspection Methodology**

7.4.1 Suppliers shall ensure internal inspection before offering inspection to OWNER or its representative. Internal test certificates and previous stage inspection reports submitted for review and made available during inspection.

7.4.2 During inspection, Supplier to produce copies of the latest revision of the approved MQP along with drawings, Data Sheet, Standard and accepted type test reports as indicated in approved MQP / agreement to ensure that the inspection is carried out as per the latest revision and approved documents. **If required, supplier to arrange the necessary codes and standards for reference purposes.**

In case inspection cannot be completed or undertaken due to reasons such as non-readiness of material, back up documents, false inspection calls etc. then such reason shall be recorded in inspection report. **If supplier fails to offer the item / equipment for inspection as per the agreed date, supplier liable to pay for the time and expenses for the abortive visit of the OWNER or its representative.**

7.4.3 All inspection related documents i.e. mill test reports, supplier inspection/ tests reports, all inspection/ tests carried out including other records such as stress relieving charts, radiographic reports and other non-destructive testing records in accordance with provision of contract shall be submitted in original form. All such reports shall be duly endorsed/ certified by the main supplier.

7.4.4 Results of tests and copies of inspection report, test reports, original material test certificates (MTCs), calculations, performance curves etc. shall be promptly made available to the OWNER or its appointed representative by the Supplier, in accordance with this document and shall form part of the subsequent Manufacturers Test Record Book in accordance with the requirements of this document.

7.4.5 Supplier to ensure that all the materials are properly identified/ coded to confirm traceability and correlation purposes.

7.4.6 Supplier shall take special care including packing to protect the final painting and finish product (equipment / item) during handling, transportation, storage and execution stage so

that there is no damage occur. In case of any such damage, joint inspection to be carried out at site and necessary action to be taken.

- 7.4.7 Supplier to ensure finish product is properly identified after completion of inspection and are suitably recorded in Inspection Report by inspection engineer.
- 7.4.8 Corrosion testing as per ASTM A262 Practice E for Austenitic Stainless Steel and ASTM A923 Practice A and C for Duplex Stainless Steel components has to be carried out.
- 7.4.9 For rubber lining application, following checks shall be carried out on raw material for rubber – Grade identification, Tensile Strength, Elongation, Maximum Compression test, Ageing Test, Water Absorption test, Specific Gravity, Hardness, Ash Content, Bleed resistance, Ozone resistance test.

7.5 **Inspection Report & Clearance**

7.5.1 **Inspection Report (IRT)**

All inspection by OWNER or its appointed agency shall be supported by an inspection report as per the standard format (sample enclosed). Any shortcoming observed w.r.t. approved MQP/ Drawing/ Data Sheet / specification etc. shall be recorded as NCR. IRT shall have detail references of all such NCRs. All such inspection report / NCR shall be jointly signed by supplier and Inspection Engineer. IRT shall be issued to all concern including Supplier and Sub-supplier/ Manufacturer. Same will be uploaded in Wrench system by OWNER

7.5.2 **Inspection Release Note (IRN)**

IRN shall be issued through Wrench system by QA&I dept. to Project Manager of OWNER, only after satisfactory compliance for Inspection remarks.

IRN for Category 'A' item (as defined in ICP) shall be issued only after ensuring inspected Equipment / Item meets the requirements of the applicable documents and all NCs have been closed to the satisfaction of OWNER.

For Category 'B' items (as defined in ICP) IRN shall be issued through Wrench after review of supplier inspection report, compliance report and required applicable documents as per approved MQP & Closure of NCs if any are verified and accepted to the satisfaction of OWNER

For Category 'C' items (as defined in ICP), IRN shall be issued through Wrench after review of original manufacturer test certificates, Certificate of Conformance (CoC) from supplier/contractor in OWNER standard format and required applicable documents as per MQP approved by main supplier / as per their standard procedure are verified and accepted

7.6 **Material Dispatch Clearance Certificate (MDCC)**

Supplier shall obtain dispatch clearance certificate (MDCC) through Wrench from project / Plant Manager depending on the project progress and material requirement at site based on IRN prior to dispatch of any billable material/ equipment / item from Manufacturer place to OWNER Project Site / Plant. One set of Quality Dossier (hard copy) for which MDCC has been issued, shall be sent to project site along with material / equipment/ item.

MDCC is not required for material / equipment/ item/ Part supply which are dispatched from one sub-supplier works to another sub-supplier/ supplier works for further assembly and

testing (to make it billable). However, clearance in the form of Inspection Report (IRT) is needed in this regard.

8.0 QUALITY DOSSIER (FOR SUPPLY PORTION) [Package wise]

Supplier shall compile and submit all stage and final inspection reports as per approved MQP, duly reviewed and endorsed by inspection engineer for reference and records of OWNER. Documents shall be submitted with-in 4 weeks of issuance of final MDCC

Dossier shall consist of following documents, as minimum:

- i. Index Sheet
- ii. Approved bill of material of package.
- iii. All Approved documents (MQP, Drawings & Data Sheet etc.)
- iv. MDCC, IRN & IRT along with all closed NCR of all items.
- v. Factory Acceptance Test (FAT) reports.
- vi. Raw material and bought out item MTC's
- vii. Test Reports corresponding to IRT & MQP.
- viii. Supplier internal inspection reports as per MQP.
- ix. Copy of Statutory and IBR certificates as applicable.

Note:

1. Each package compilation shall be done on the basis of unit wise and common systems.
2. Each volume/ dossier shall be spiral/ hard bounded. Each sheet of dossier to have running numbers.
3. One hard copy (in addition to the dossier dispatch with material / equipment/ item) and 2 Soft copies of documents to be submitted as final dossier (shall also be uploaded in Wrench System for future reference.

9.0 FQC DURING CONSTRUCTION AND PRE-COMMISSIONING.

- 9.1 Supplier Quality Management System is applicable for field activities also and for his further sub agencies deputed at project / plant. Refer clause no: 5.0 (applicable part). Supplier/ Contractor shall deploy sufficient number of QA/ QC persons to take care of daily activities as per agreed/ approved Quality documents. Some of such activities are detailed below. Also, supplier Project Manager shall regularly co-ordinate with OWNERs FQC team.
- 9.2 Raising of inspection calls on regular basis for various activities as indicated in approved FQP/ other document, carrying out inspection activities along with OWNER's execution / FQC department and maintaining the records duly signed by all concerned.
- 9.3 Various inspection/ quality assurance procedures/ methods at different stages of erection and pre-commissioning will be as per OWNERs approved field quality plans/ codes/ IBR and other statutory provisions and as per OWNER's engineer's instructions.
- 9.4 Preparation of quality assurance log sheets and protocols, welding logs, NDE and post weld heat treatment records, testing & calibration records and other quality assurance documentation as per OWNER's engineer's instructions is within the scope of work/ specification. These records shall be submitted to OWNER for approval from time to time.

- 9.5 A daily logbook of all measurements and testing/ calibration should be maintained by contractor on the job inspection details for various equipment. Contractor to depute competent engineer for site testing and pre-commissioning of equipment's' (as applicable).
- 9.6 All the workers of contractor / sub contractor/it's agencies shall carry identity cards as per the Performa prescribed by OWNER. Only workers duly authorized by OWNER shall be engaged on the work.
- 9.7 Contractor shall provide all the measuring and monitoring devices (MMD) required for completion of the work satisfactorily. These MMDs shall be calibrated & conform to job requirement in respect of measurement range, accuracy level & any other specification.
- 9.8 Re-work necessitated on account of use of invalid MMD shall be entirely to the contractor's account. Contractor shall be responsible to take all corrective actions, including resource augmentation if any, as specified by OWNER to make-up for the loss of time.

OWNER's FQC team / QAI representative will have the right to carry out Surveillance and Audit of supplier/contractor and their agencies including their store without any prior intimation.

- 9.9 Regular Internal audit shall be conducted by supplier/ contractor QA/QC team of their agencies and their other dept. Such audit reports shall be made available whenever ask for by OWNER FQC team. OWNER FQC/ QA&I have the right to carryout 2nd party audit of supplier/ contractor and their agencies as per predefined Audit schedule.

In course of work OWNER may counter/ finally check the measurements with their own MMDs. Contractor shall render all assistance in conduct of such counter check/ final measurements.

9.10 **Communication**

Direct, formal communication between the SUPPLIER's field QC and OWNER's field QC representative is mandatory. All inspection activities as per field quality plan shall be intimated to OWNER in the form of Request for Inspection (RFI) at least 24 hrs. in advance with intimation to OWNER execution group.

Whenever any major issues / deviations related to design or fabrications are noticed, the same shall be immediately informed to OWNER's field QC by supplier's field QC/ Supplier Project Head. On completion of above activity, joint inspection reports/ protocol shall be made and circulated to concern agencies. Any part of work at the site shall not be **covered up or made inaccessible** without the OWNER Representative's prior approval in the form of joint protocol or otherwise.

Contractor to prepare acceptance test records as indicated in field quality plan for all Minor/ Major / Critical checks or activities, such as site register for all storage and receipt of materials, erection protocol for pre-rection and erection activities, testing and commissioning records for all testing, commissioning and charging activity as indicated in the FQP for a particular equipment or system and approved by OWNER. All the critical checks mentioned in the field quality plan to be documented strictly and to be approved by OWNER. All the FQP related Documents shall be uploaded in Wrench, as part of handing over dossier.

Further, SUPPLIER/ Contractor's in-progress inspection reports, logbook, follow up/ punch out sheets; records of all DT & NDT etc. shall be made available to OWNER field QC during entire course of the work. At the end of the work, SUPPLIER/ Contractor's standard inspection reports, check off sheets, radiographs, master copy of loop diagrams, electrical testing data sheets, etc. shall be handed over to OWNER in an organized and agreed format. SUPPLIER/ Contractor shall verify that all of the required documentation of the equipment has been received and placed in the equipment files. The SUPPLIER/ Contractor is responsible for obtaining any outstanding documentation from his sub-supplier/ agencies.

9.11 Dealing with Open Punch Points (NCR/QCAR):

All open points in the form of observations, non-conformities (NCR, QCAR etc.) that are not responded / closed in time as well as, those were not put up by supplier/ Contractor for resolution/ agreement to OWNER, the same will be considered as violation of contractual obligations and will be dealt suitably during closure of contract. Penalty clauses (if any) shall be applicable as per contract.

Supplier/ Contractor's Performance rating will be impacted as per prevailing policy of OWNER in this regard.

10.0 ATTACHMENT

1. Exhibit A – MQP Format
2. Exhibit B – FQP Format
3. Exhibit C – Shop Inspection Request Format
4. Exhibit D – ICP Format
5. Exhibit E – IRN Format
6. Exhibit F – Suggested MDCC Format
7. Exhibit G – RFI Format (For Site Inspection Request)
8. Exhibit H – NCR Format
9. Exhibit I – QCAR Format
10. Exhibit J – Weekly Progress Report format

The Tata Power Company Ltd



OPEN TENDER NOTIFICATION

Tender Reference: CC25AA017

Document Date: 17th March 2025

Section E.2: Datasheet

CONFIDENTIAL

OPGW and Accessories							
Datasheet for OPGW							
Sr.no.	Description	Unit	Tata Power Requirement	Bidder response	Tata Power Comments dated	XXX response dated xx.xx.xx	Final resolution dated xx.xx.xx
1	Name of manufacturer	--	By Bidder				
2	Country of Manufacturing	--	By Bidder				
3	Standard Applicable	--	IEC / IEEE				
4	Fiber Details						
4.1	Dimensional Specification						
4.1.1	Type of fibre		Single mode				
4.1.2	Number of Cores	No	96				
4.1.3	Mode field diameter at 1310 nm	µm	9.1 ± 0.4				
4.1.4	Mode field diameter at 1550 nm	µm	10.2 ± 1.0				
4.1.5	Mode field diameter non circularity	% ≤	6				
4.1.6	Cladding diameter	µm	125 ± 1.0				
4.1.7	Cladding non circularity	% ≤	1				
4.1.8	Core / Cladding	--	Silica				
4.1.9	Core / cladding concentricity error	µm ≤	0.6				
4.1.10	Coating diameter (coloured)	µm	242 ± 7				
4.1.11	Cladding / coating concentricity error	µm ≤	12				
4.2	Optical Specifications						
4.2.1	Attenuation at 1310 nm	dB/km ≤	0.36				
4.2.2	Attenuation at 1550 nm	dB/km ≤	0.22				
4.2.3	Chromatic dispersion at 1550 nm	ps/(nm-km) ≤	18				
4.2.4	Chromatic dispersion between 1285 nm and 1330 nm	ps/(nm-km) ≤	3.5				
4.2.5	Cut-off wavelength (cable fibre) lcc	nm ≤	1260				
4.2.6	Zero-dispersion wave length	nm	1310 ± 10				
4.2.7	Zero-dispersion slope	ps/(nm ² -km) ≤	0.09				
4.2.8	PMD (Quadrature Average)	ps/√km ≤	0.1				
4.2.9	Moisture Proof	--	Required				
4.2.10	Make of Fibre	--	Corning / Sumitomo / Furukawa / Sterlite				
4.2.10	Place of Manufacture	--	By Bidder				
4.2.11	Colour of Fibre	--	Dark and resistant to pass the light				
4.2.12	Fibre Construction	--	SS tube Loose type – 96 Fibers in steel tube. Each 12 F are bundled with color binder yarns) Binder yarn colors shall be Blue, Orange, Green, Brown, Slate and White. Fiber color shall be Blue, orange, green, brown, slate, white, red, black, yellow, violet, pink & Aqua.				
4.3	Mechanical Specifications						
4.3.1	Proof Test stress > 100 kpsi (0.7 GN/m ²)n Strain equivalent	%	1				
4.3.2	Coating strip ability (50mm, 500 mm/min)	N	1 ... 5				
4.3.3	Bending test, additional loss at 1550 nm, 100 turns on 60 mm mandrel	dB/km E	0.05				
4.3.4	Bending test, additional loss at 1550 nm & 1625 nm, 1 turns on 32 mm mandrel	dB/km E	0.5				
4.3.5	Moisture Proof		Required				
4.3.6	Greasing shall be provided for stainless steel tube and inner layer of offered OPGW.		Required				
4.3.7	The offered jelly in the stainless tube should have minimum life of 20 years.		Required				
5	OPGW						
5.1	Design Temperature	Deg C	50				
5.2	Short Time Current	kA	> or = 16 kA for 1 sec for temp range between 20 deg C to 180 deg C and 40 kA for at least 100 msec				
5.3	Overall Diameter	mm	18.8				
5.4	Unit Weight	kg/m	0.731				
5.5	Ultimate Strength - Breaking Load	kN	95.5				
5.6	Thermal Elongation Co-efficient	10-6/k	17.6				
5.7	Modulus of Elasticity	kN /mm2	96.7				
5.8	DC Resistance at 20 deg C	ohm/km	0.242				
5.9	Maximum Operating Temperature	Deg C	180				
5.10	Sag at 75 deg C / No wind, span - 300m for 110 kV towers	m	Less than 4 m				
5.11	No of Strands and dia of individual strands of earth layer conductor	No	min 7 on inner layer with min 3.25 mm/ min 12 on outer with min dia 3.5 mm				
5.12	Construction of OPGW						
5.12.1	Central Element						
a)	Aluminium alloy wires – number / diameter	mm	By Bidder				
b)	Aluminium clad steel wires–number/diameter	mm	By Bidder				
c)	Steel tube number / inner	mm	By Bidder				
5.12.2	Layer 1						
a)	Aluminium alloy wires – number / diameter	mm	By Bidder				
b)	Aluminium clad steel wires–number/diameter	mm	By Bidder				
c)	Steel tube number / inner	mm	By Bidder				
5.12.3	Layer 2						
a)	Aluminium alloy wires – number / diameter	mm	By Bidder				
b)	Aluminium clad steel wires–number/diameter	mm	By Bidder				
c)	Calculated cross sectional areas						
d)	Aluminium alloy strands	mm2	By Bidder				
e)	Aluminium clad steel strands	mm2	By Bidder				
f)	Total	mm2	By Bidder				
5.13	Minimum bending radius						
a)	Non-tension	mm	By Bidder				
b)	Under-tension	mm	By Bidder				
5.14	Drop point of grease	Deg C	By Bidder				
5.15	Maximum length of reel	KM	By Bidder				

OPGW and Accessories							
Datasheet for OPGW Accessories							
Sr.no.	Description	Unit	Tata Power Requirement	Bidder response	Tata Power Comments dated xx.xx.xx	XXX response dated xx.xx.xx	Final resolution dated xx.xx.xx
1	Name of Manufacturer		By Bidder				
2	Country of Manufacturing		By Bidder				
3	Standard Applicable		IEC / IEEE				
4	Suspension Assembly						
4.1	Minimum vertical Strength	kN	70				
4.2	Maximum Slip Strength	kN	17				
4.3	Minimum Slip Strength	kN	12				
4.4	Length of Clamp Body (nominal)	mm	140				
4.5	Total Drop (maximum) including shackle	mm	137				
4.6	Tightening torque (nominal)	Nm	N/A				
4.7	Details of Armour Rod Set						
a)	No. of rods per clamp No of Rods /set	No	12				
b)	Overall length	mm	1600				
c)	Diameter of each Rod	mm	7.87				
d)	Tolerances						
(i)	Diameter of each rod	mm	7.87 ± 0.1				
(ii)	Length of each rod	mm	1600 ± 15				
e)	Material of manufacture ALUMINIUM ALLOY		(TYPE 6061 / 65032)				
f)	UTS of each Rod	kN	35 kg/sq mm				
4.8	Details of Protection Splice Set (Reinforcing Rods)						
a)	No. of rods per clamp No of Rods /set		11				
b)	Overall length	mm	2385				
c)	Diameter of each Rod	mm	5.18				
d)	Tolerances						
(i)	Diameter of each rod	mm	5.18 ± 0.1				
(ii)	(ii) Length of each rod	mm	2385 ± 25				
e)	Material of manufacture ALUMINIUM ALLOY		(TYPE 6061 / 65032)				
f)	UTS of each Rod	kN	35 kg/sq mm				
5	Tension Assembly						
5.1	Minimum Slip Load	kN	95% UTS of OPGW				
5.2	Length Nominal						
a)	Reinforcing Rods	mm	2300 ± 25				
b)	Dead End	mm	1750 ± 16				
5.3	Breaking Strength (minimum)	kN	120				
5.4	Wire Size						
a)	Reinforcing Rods	mm	3 ± 0.1				
b)	Dead End	mm	4.5 ± 0.1				
6	4R STOCK BRIDGE VIBRATION DAMPER						
6.1	Material of Damper Weight		Cast Iron (IS:210)				
6.2	Clamp Material		Aluminium Alloy (Type 4600, IS:617)				
6.3	Clamp Bolt Tightening Torque	Nm	4 kgm				
6.4	Clamp Bolt Material		M.S (P.C.5.6)				
6.5	Messenger Cable Material		High Strength Steel				
6.6	No of strands in messenger cable	Pcs	19				
6.7	Breaking Strength of Messenger Cable	kN	135 kg/mm2				
6.8	Minimum Slip Strength of damper Cable						
a)	Before Fatigue	kN	2.5				
b)	After Fatigue	kN	2				
7	OPGW DOWNLEAD CLAMPS						
7.1	Material of Downlead Clamp		Mild Steel				
7.2	Suitable for OPGW (diameter)	mm	17.5				
7.3	Tightening Torques	kgm	5.5				
8	OPGW accessories offered						
8.1	96 core weather, insect and rodent proof, anti-corrosive metal outdoor Joint Boxes for OPGW with all accessories viz: cable adaptors, cable glands, Fiber splitter tube assembly, cassettes, splice holders, metal crimps & heat shrinkable splice protection sleeves with min 4 cable entries	--	Required / As per project BOQ				
8.2	Suspension Assembly for 96 core OPGW	--	Required / As per project BOQ				
8.3	Tension Assembly for 96 Core OPGW	--	Required / As per project BOQ				
8.4	Vibration Damper – Suspension	--	Required / As per project BOQ				
8.5	Vibration damper – Strain	--	Required / As per project BOQ				
8.6	Suspension Bonding Assembly	--	Required / As per project BOQ				
8.7	Tension Bonding Assembly	--	Required / As per project BOQ				
8.8	Down Lead Clamps	--	Required / As per project BOQ				
8.9	Any other hardware required	--	Bidder to specify				

The Tata Power Company Ltd



OPEN TENDER NOTIFICATION

Tender Reference: CC25AA010

Document Date: 17th March 2025

Section F: Other formats / templates

CONFIDENTIAL

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

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 F.5

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 __ months
from the date of satisfactory commissioning of the said equipment into
service or __ 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.

Dated at , this day of199 .



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		
Bank Details (all details to be filled for enabling NEFT Transfer)							
Name of Bank *							
Bank Details ID *		PAN Number *					
Account No. *		Account Holder *					
Bank Key *		Bank Country *					
MICR Code * (Attach Cancelled Cheque)							
IFSC Code *							
IBAN *							
Payment thro RTGS/NEFT*							
Quality / Safety Systems (Mandatory for Service and Composite Vendor Registration)							
OHSAS 18001 Certified		Risk Management Process					
ISO 9001 Certified		ISO 14001 / EMS Certified					
Declaration and Vendor Authorized Signature							
<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: cecounsellor@tatapower.com, * Copy also available on our website http://www.tatapower.com/aboutus/code-of-conduct.aspx</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		
1	Certificate				
1A	OHSAS : 18001	Yes / No			
1B	ISO : 14001	Yes / No			
1C	ISO : 9001	Yes / No			
2	Safety Statistics for Last Three (03) Years		Year 1	Year 2	Year 3
2A	LTIFR – Lost Time Injury Frequency Rate	Yes / No			
2B	LTISR – Lost Time Injury Severity Rate	Yes / No			
3	Safety Training Process	Yes / No			
4	Safety Organization Structure	Yes / No			
5	Safety Policy	Yes / No			
6	Name and Address of Sites where work are in Progress or worked earlier	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

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 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

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

The Tata Power Company Ltd



OPEN TENDER NOTIFICATION

Tender Reference: CC25AA010

Document Date: 17th March 2025

Section G: Policies

CONFIDENTIAL

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: 15th 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: 15th 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

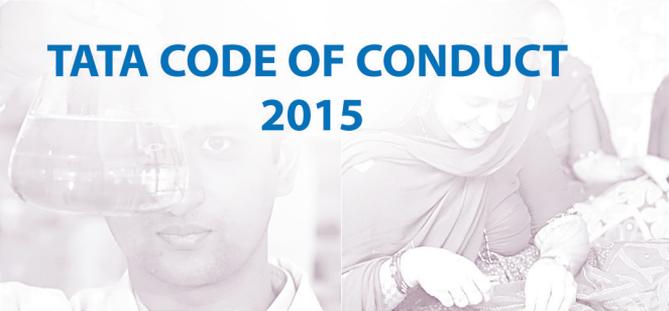
Date: 15th June, 2018



The Tata Power Company Ltd	 TATA	<i>OPEN TENDER NOTIFICATION</i>
<i>Tender Reference: CC24AA003</i>	TATA POWER	<i>Document Date: 04th April 2024</i>

Section H: Tata code of Conduct

CONFIDENTIAL



**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

21st 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.
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GOVERNMENTS



Business, as I have seen it, places one great demand on you; it needs you to impose a framework of ethics, values, fairness and objectivity on yourself at all times. It is not easy to do this; you cannot impose it on yourself forcibly because it has to become an integral part of you.

Ratan Tata

Chairman, Tata Sons (1991 – 2012)

I. GOVERNMENTS

Political non-alignment

1. We shall act in accordance with the constitution and governance systems of the countries in which we operate. We do not seek to influence the outcome of public elections, nor to undermine or alter any system of government. We do not support any specific political party or candidate for political office. Our conduct must preclude any activity that could be interpreted as mutual dependence/favour with any political body or person, and we do not offer or give any company funds or property or other resources as donations to any specific political party, candidate or campaign.

Any financial contributions considered by our Board of Directors in order to strengthen democratic forces through a clean electoral process shall be extended only through the Progressive Electoral Trust in India, or by a similar transparent, duly-authorized, non-discriminatory and non-discretionary vehicle outside India.

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 29th 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.



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