



RFQ No.: 4100034579

NIT No.: CC25AND007

OPEN TENDER NOTIFICATION

FOR

**SUPPLY, INSTALLATION, COMMISSIONING & CAMC OF IP
CCTV SYSTEM ACROSS TATA POWER**

Tender Enquiry No.: CC25AND007
Due Date for Bid Submission: 13.08.2024 [15:00 Hrs.]

The Tata Power Company Limited
Mumbai, Maharashtra

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1.0 Event Information

1.1 Scope of work

Open Tenders are invited in e-tender bidding process from interested Bidders for entering into a Rate Contract valid for a period of 3 Years as defined below:

S. No.	Description	EMD Amount (Rs.)	Tender Fee (Rs.)
1	Outline Agreement for Supply, Installation, Commissioning & CAMC of IP CCTV System across Tata Power for the period of 3 years	INR 12.27 Lakhs	2000

1.2 Availability of Tender Documents

Non-transferable tender documents may be purchased by interested eligible bidders from address given below, on submission of written application to the under mentioned and upon payment of non-refundable Tender fee.

Chief (Corporate Contracts)
The Tata Power Company Limited
Smart Center of Procurement Excellence, 2nd Floor, Sahar Receiving Station
Sahar Airport Road, Andheri East, Mumbai-400059

Tender documents may be downloaded by interested eligible bidders from TPC website www.tatapower.com with effect from 25.07.2024. In the event detailed tender documents are downloaded from TPC website or are received through email from TPC, the Tender Fee shall be compulsorily submitted either online through NEFT/ RTGS in favor of "The Tata Power Company Limited". Any such bid submitted without this Fee shall be rejected.

Bidders are requested to visit TPC website www.tatapower.com regularly for any modification/ clarification to the bid documents. For Limited Tenders issued by TPC, the tender document shall be shared through e-mail as the case may be.

1.3 Calendar of Events

(a)	Date of availability of tender documents from TPC Website	From 26.07.2024 to 13.08.2024, 15:00 Hours
(c)	Last Date of receipt of pre-bid queries, if any	31.07.2024 up to 17:00 Hours
(d)	Last Date of Posting Consolidated replies to all the pre-bid queries as received	05.08.2024 up to 17:00 Hours
(e)	Date & Time of Pre-Bid Meeting (If any)	Will be notified prior (if required)
(f)	Last date and time of receipt of Bids	13.08.2024 up to 15:00 Hours
(g)	Date & Time of opening of Price of qualified bids	Will be notified to the successful bidders through our website / e-mail.

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

1.4 Mandatory documents required along with the Bid

- 1.4.1 EMD of requisite value and validity
- 1.4.2 Tender Fee in case the tender is downloaded from website
- 1.4.3 Requisite Documents for compliance to Qualification Criteria mentioned in Clause 1.7.
- 1.4.4 Drawing, Type Test details along with a sample of each item as specified at Annexure I (as applicable)
- 1.4.5 Duly signed and stamped 'Schedule of Deviations' as per Annexure III on bidder's letter head.
- 1.4.6 Duly signed and stamped 'Schedule of Commercial Specifications' as per Annexure IV on bidder's letter head.
- 1.4.7 Proper authorization letter/ Power of Attorney to sign the tender on the behalf of bidder.
- 1.4.8 Copy of PAN, GST, PF and ESI Registration (In case any of these documents is not available with the bidder, same to be explicitly mentioned in the 'Schedule of Deviations')
- 1.4.9 Authorization letter from OEM for the same
- 1.4.10 Compliance to the technical requirement (Attached in Scope of Work)
- 1.4.11 Proof of successful handling/completion of AMC
- 1.4.12 Proof of successful Implementation/completion of New installations
- 1.4.13 Price Bid with breakup of AMC of existing system as per attached BOQ.
- 1.4.14 Price Bid with breakup of Supply and installation as per attached BOQ.

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

1.5 Deviation from Tender

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

1.6 Right of Acceptance/Rejection

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

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

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

1.7 Qualification Criteria

The Bidder shall be either manufacturer of critical components or shall be a manufacturer's authorized system integrator of the E-security system specified in this document. In later case, the bidder shall give backup guarantee from the OEM for satisfactory performance as specified in this document. Bidder shall submit letter from OEM for same.

Experience for AMC and New installations –

1. In the last 5 years, the bidder should have supplied and installed the specified systems of minimum 2000 nos. or more cameras in multiple locations with minimum 100 cameras at one locations and complexity of which at least 3 must be industrial sites locations, and such systems shall be in continuous trouble-free operation for at least last 3 year.
2. Bidder shall have executed Annual Maintenance Contracts (AMC) 2 No. comparable to this tender in last 5 years.
3. Bidder shall have qualified Engineers with 3 years' experience and certification from OEM
4. The Bidder should have average annual turnover of Rs.5 Crores in last 3 financial years. Copy of audited P&L account to be submitted in this regard.

1.8 Marketing Integrity

We have a fair and competitive marketplace. The rules for bidders are outlined in the General Condition of Contracts. Bidders must agree to these rules prior to participating. In addition to other remedies available, TPC reserves the right to exclude a bidder from participating in future markets due to the bidder's violation of any of the rules or obligations contained in the General Condition of Contracts. A bidder who violates the market place rules or engages in behavior that disrupts the fair execution of the marketplace, may result in restriction of a bidder from further participation in the marketplace for a length of time, depending upon the seriousness of the violation. Examples of violations include, but are not limited to:

- Failure to honor prices submitted to the marketplace
- Breach of terms as published in TENDER/ NIT

1.9 Supplier Confidentiality

All information contained in this tender is confidential and shall not be disclosed, published or advertised in any manner without written authorization from TPC. This includes all bidding information submitted to TPC. All tender documents remain the property of TPC and all suppliers are required to return these documents to TPC upon request. Suppliers who do not honor these confidentiality provisions will be excluded from participating in future bidding events.

2.0 Evaluation Criteria

- The bids will be evaluated technically on the compliance to tender terms and conditions.
- The bids will be evaluated commercially on the overall all-inclusive lowest cost for the complete tender BOQ as calculated in Schedule of Items [Annexure I]. TPC 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 has to mandatorily quote against each item of Schedule of Items [Annexure I]. Failing to do so, TPC may reject the bids.

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

2.1 Price Variation Clause:

The prices shall remain firm during the entire contract period.

3.0 Submission of Bid Documents

3.1 Bid Submission

Bidders are requested to submit their offer in line with this Tender document. TPC shall respond to the clarification raised by various bidders and the replies will be sent to all participating bidders through e-mail.

Bids shall be submitted in 3 (Three) parts:

FIRST PART: “EMD” of Rs. 12,27,000/- (Rupees Twelve Lakhs & Twenty Seven Thousand only) shall be submitted. The EMD shall be valid for 210 days from the due date of bid submission in the form of BG / Bankers Pay Order favoring “The Tata Power Company Limited”. The EMD has to be strictly in the format as mentioned in General Condition of Contract, failing which it shall not be accepted and the bid as submitted shall be liable for rejection. A separate non-refundable tender fee of stipulated amount also needs to be transferred online through NEFT/ RTGS in case the tender document is downloaded from our website.

TPC/ TPC Bank Details for transferring Tender Fee and EMD is as below:

Account Name: The Tata Power Co. Ltd.

Bank Name: HDFC Bank, Fort Branch, Mumbai

Bank Account No. : 00600110000763

IFSC Code: HDFC0000060

SECOND PART: “TECHNICAL BID” shall contain the following documents:

- a) Documentary evidence in support of qualifying criteria
- b) Technical literature/GTP/Type test report etc. *(if applicable)*
- c) Qualified manpower available
- d) Testing facilities *(if applicable)*
- e) No Deviation Certificate as per the Annexure III – Schedule of Deviations
- f) Acceptance to Commercial Terms and Conditions viz Delivery schedule/period, payment terms etc. as per the Annexure IV – Schedule of Commercial Specifications.
- g) Quality Assurance Plan/Inspection Test Plan for supply items *(if applicable)*

The technical bid shall be properly indexed and is to be submitted in Soft Copy through Ariba Portal only. Hard Copy of Technical Bids need not be submitted.

THIRD PART: “PRICE BID” shall contain only the price details and strictly in format as mentioned in Annexure I along with explicit break up of basic prices, Taxes & duties, Freight etc. In case any discrepancy is observed between the item description stated in Schedule of Items mentioned in the tender and the price bid submitted by the bidder, the item description as mentioned in the tender document (to the extent modified through Corrigendum issued if any) shall prevail.

FOR BIDS INVITED THROUGH E-PROCUREMENT PORTAL:

The interested bidders are requested to obtain user name and password for purpose of bid submission through Ariba portal of TPC, Mumbai

Bids have to be mandatorily submitted only through Ariba portal of TPC. Bids submitted through any other form/ route shall not be admissible



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

EMD

“Outline Agreement for Supply, Installation, Commissioning & CAMC of IP CCTV System across Tata Power for the period of 3 Years”

Please mention our Enquiry Number:- CC25AND007 on the Tender and drop the same at The Tata Power Company Limited, Smart Center of Procurement Excellence, 2nd Floor, Sahar Receiving Station, Sahar Airport Road, Andheri East, Mumbai-400059.

The envelope shall be addressed to:

Chief (Corporate Contracts)
The Tata Power Company Limited
Smart Center of Procurement Excellence, 2nd Floor, Sahar Receiving Station
Sahar Airport Road, Andheri East, Mumbai-400059

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

SIGNING OF BID DOCUMENTS:

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

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

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

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

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

3.2 Contact Information

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

Communication Details:

Contracts – T&D

Name: Mr. Atharva Dhumal
Contact No: 8369593396
E-Mail ID: atharva.dhumal@tatapower.com

Group Head Contracts – T&D:

Name: Mr. Selva Ganesh S P

Contact No.: 9971395257

E-Mail ID: selva.ganesh@tatapower.com

3.3 Bid Prices

Bidders shall quote for the entire Scope of Supply/ work with a break up of prices for individual items and Taxes & duties. The bidder shall complete the appropriate Price Schedules included herein, stating the Unit Price for each item & total price with taxes, duties & freight up to destination at various sites of TPC. The all-inclusive prices offered shall be inclusive of all costs as well as Duties, Taxes and Levies paid or payable during the execution of the supply work, breakup of price constituents.

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

3.4 Bid Currencies

Prices shall be quoted in Indian Rupees Only.

3.5 Period of Validity of Bids

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

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

The EMD shall be denominated in any of the following form:

- Banker's Cheque/ Demand Draft/ Pay order drawn in favor of The Tata Power Company Limited, payable at Mumbai.
- Online transfer of requisite amount through NEFT/ RTGS.
- Bank Guarantee valid for 210 days after due date of submission.

The EMD shall be forfeited in case of:

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

Or

b) The case of a successful bidder, if the Bidder does not

- i) accept the purchase order, or
- ii) furnish the required performance security BG

3.9 Type Tests (if applicable)

As per attached Annexures

4.0 Bid Opening & Evaluation process**4.1 Process to be confidential**

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

4.2 Technical Bid Opening

Bids will be opened at TPC Office Mumbai as per the schedule mentioned in Calendar of Events. In case of limited tenders, the bids shall be opened internally by TPC. In case of Open Tenders, the bids shall be opened in the presence of accredited representatives of bidders who may choose to be present at the time of tender opening. Technical bid must not contain any cost information whatsoever.

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

Next, the technical bid of the bidders who have furnished the requisite EMD will be opened, one by one. The salient particulars of the techno commercial bid will be read out at the sole discretion of TPC.

4.3 Preliminary Examination of Bids/Responsiveness

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

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

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

4.5 Price Bid Opening

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

4.7 Reverse Auctions

TPC reserves the right to conduct the reverse auction (instead of public opening of price bids) for the products/ services being asked for in the tender. The terms and conditions for such reverse auction events shall be as per the Acceptance Form attached as Annexure VI of this document. The bidders along with the tender document shall mandatorily submit a duly signed copy of the Acceptance Form attached as Annexure VI as a token of acceptance for the same.

5.0 Award Decision

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

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

6.0 Order of Preference/Contradiction:

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

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

7.0 Post Award Contract Administration

7.1 Special Conditions of Contract

- Rate shall remain FIRM till the validity of Rate Contract.
- TPC appreciates and welcomes the engagement/employment of persons from SC/ ST community or any other deprived section of society by their BAs.

- Any change in statutory taxes, duties and levies during the contract period shall be borne by TPC. However in case of delay in work execution owing to reasons not attributable to TPC, any increase in total liability shall be passed on the Bidder, whereas any benefits arising owing to such statutory variation in taxes and duties shall be passed on TPC.
- All the terms and conditions of TPC GTC shall be applicable.

7.2 Drawing Submission & Approval

As per annexure - II

7.3 Delivery Terms

Bidder to prepare detail execution plan with 7 days after receipt of order and come for Kick of Meeting for finalization detail timeline and deliverable in line with work order delivery schedule.

7.4 Warranty Period

1. The bidder shall provide 3 years' comprehensive onsite warranty after user acceptance of all supplied, installed, configured and commissioned system including hardware and software. Any software updates, upgrades, patches released till the completion of warranty period shall be supplied, installed and commissioned and is under scope of agreement. Physical damage shall not be under the scope of warranty. Bidder shall maintain the Hardware and software on 24X7 basis during Warranty period.
2. Bidder should provide Back-to-Back warranty support agreement with OEM for Server & Client workstation PC for warranty period after supply.
3. Vendor to ensure that enough spares are available for repair, so that SLA is met.

7.5 Payment Terms

For New Installations

For List A:

1. 60% Payment will be released after supply
2. 40% Payment will be released after successful installation

For List B:

1. 100% payment will be released after successful supply and commissioning of equipment

For AMC

100% Payment shall be released after performance of Maintenance activity of existing system, submission of error free invoices along with relevant supporting documents & as certified by Order Manager. Invoices shall be raised on Monthly basis.

All the Payments shall made with a credit period of 60 days from the date of acceptance of invoice. If the vendor is registered as MSME, then the credit period shall be 45 days. Vendor shall submit valid MSME certificate for certification of the same.

7.6 Liquidated Damages

LD deduction shall be applicable for delay in delivery at the rate of 1% of un-delivered order value per week to a maximum of 10% of un-delivered order value.

7.7 Contract Performance Bank Guarantee (CPBG)

Contract Performance Bank Guarantee (CPBG) cum Performance Bank Guarantee 5% of the total order value should be submitted within 15 days of award of contract and the is valid till warranty period and claim period (6 Months).

7.8 LD / SLA / Performance Requirement and penalties

LD: Liquidated Damages (For individual orders) shall be 0.5% of the Contract Price for Supply + Services per week or part thereof delay and maximum up to 10% of the Contract Price for Supply + Services. Order Manager reserves the right to recover Liquidated Damages, as stated above, from the contractor monthly payment due or from the other securities and BGs.

SLA: As per Annexure No. VII

7.9 Other Terms & Conditions

Vendor to ensure that enough spares are available for repair, so that SLA is met.
The existing scope of work consists of Installation + CAMC of new CCTVs as well as AMC of existing system. The contract will be valid for the period of 3 years.

7.10 Climate Change

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

7.11 Ethics

TPC is an ethical organization and as a policy TPC 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.

TPC work practices are governed by the Tata Code of Conduct which emphasizes on the following:

- We shall select our suppliers and service providers fairly and transparently.
- We seek to work with suppliers and service providers who can demonstrate that they share similar values. We expect them to adopt ethical standards comparable to our own.
- Our suppliers and service providers shall represent our company only with duly authorized written permission from our company. They are expected to abide by the Code in their interactions with, and on behalf of us, including respecting the confidentiality of information shared with them.
- We shall ensure that any gifts or hospitality received from, or given to, our suppliers or service providers comply with our company's gifts and hospitality policy.
- We respect our obligations on the use of third party intellectual property and data.

Bidder is advised to refer GTC attached at Annexure VIII for more information.

Any ethical concerns with respect to this tender can be reported to the following e-mail ID: mrpatel@tatapower.com.

8.0 Specification and standards

As per Annexure II.

9.0 General Condition of Contract

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

10.0 Safety

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

<http://www.tatapower.com>

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

CONFIDENTIAL

ANNEXURE I
Schedule for Items

Supply, Installation, Commissioning & CAMC of IP CCTV System across Tata Power for period of 3 years						
For New Supply & Services						
Sr. No.	Description (A)	Qty. Set / Nos.	Unit Price Supply (Rs.)	Unit Price Installation & Commissioning (Rs.)	Item Price	Overall Price
List A						
1	IP Fixed Box Camera (Outdoor Type) including brackets, support steel, Accessories etc.	750				
2	IP PTZ Camera (Outdoor Type) including brackets, support steel, Accessories etc.	65				
3	IP Fixed Dome Camera (Indoor Type) including brackets, support steel, Accessories etc.	250				
4	Recording Servers with monitor and accessories	30				
5	3-year Milestone care pack	700				
6	Xprotect Corporate Device Channel License of Milestone	700				
7	Display for CCTV Monitoring 70"	2				
8	Display for CCTV Monitoring 50"	10				
9	Client monitoring workstation PC with monitor 32"	50				
10	Shifting of cameras within location	60				
List B						
11	UTP Cables CAT 6	15000				
12	PVC Pipe 1"	7000				
13	Pole 3 mtr height	60				
14	Pole 4 mtr height	20				
15	Flexible pipe 3/4" and Accessories	1200				
16	Power cable 3C 1,5 mm2	6000				
Total Basic Price						
GST @ 18%						
Total All Incl. Price						

For AMC of Existing System						
Sr. No.	Description	Total	Tent. Qty	Type	Unit Rate	Total Value
1	AMC of Bullet cameras with SMPS, Bracket, supports, patch cord, cable, conduits etc.	1550	1200	Comprehensive AMC - Year 1		
			350	Non Comprehensive AMC - Year 1		
			1300	Comprehensive AMC - Year 2		
			250	Non Comprehensive AMC - Year 2		
			1400	Comprehensive AMC - Year 3		
			150	Non Comprehensive AMC - Year 3		
2	AMC of PTZ cameras with SMPS, Bracket, supports, patch cord, cable, conduits etc.	150	125	Comprehensive AMC - Year 1		
			25	Non Comprehensive AMC - Year 1		
			130	Comprehensive AMC - Year 2		
			20	Non Comprehensive AMC - Year 2		
			140	Comprehensive AMC - Year 3		
			10	Non Comprehensive AMC - Year 3		
3	AMC of Dome cameras with SMPS, Bracket, supports, patch cord, cable, conduits etc.	600	450	Comprehensive AMC - Year 1		
			150	Non Comprehensive AMC - Year 1		
			500	Comprehensive AMC - Year 2		
			100	Non Comprehensive AMC - Year 2		
			550	Comprehensive AMC - Year 3		
			50	Non Comprehensive AMC - Year 3		
4	AMC of recording servers	95	70	Comprehensive AMC - Year 1		
			25	Non Comprehensive AMC - Year 1		
			80	Comprehensive AMC - Year 2		
			15	Non Comprehensive AMC - Year 2		
			90	Comprehensive AMC - Year 3		
			5	Non Comprehensive AMC - Year 3		
5	AMC of client monitoring station with monitor 32"	95	80	Comprehensive AMC - Year 1		
			15	Non Comprehensive AMC - Year 1		
			85	Comprehensive AMC - Year 2		
			10	Non Comprehensive AMC - Year 2		
			90	Comprehensive AMC - Year 3		
			5	Non Comprehensive AMC - Year 3		
6	AMC of LCD monitors of size 41" to 65"	25	25	Comprehensive AMC - Year 1		
			25	Non Comprehensive AMC - Year 1		
			25	Comprehensive AMC - Year 2		
			25	Non Comprehensive AMC - Year 2		
			25	Comprehensive AMC - Year 3		
			25	Non Comprehensive AMC - Year 3		
7	1 Year AMC Xprotect corporate license of	2300	2300	Comprehensive AMC - Year 1		
			2300	Comprehensive AMC - Year 2		

	camera		2300	Comprehensive AMC - Year 3		
8	1 Year AMC Xprotect corporate license of management server	3	3	Comprehensive AMC - Year 1		
			3	Comprehensive AMC - Year 2		
			3	Comprehensive AMC - Year 3		
9	AMC of Large Display for CCTV Monitoring 66" to 70"	3	3	Comprehensive AMC - Year 1		
			3	Non Comprehensive AMC - Year 1		
			3	Comprehensive AMC - Year 2		
			3	Non Comprehensive AMC - Year 2		
			3	Comprehensive AMC - Year 3		
			3	Non Comprehensive AMC - Year 3		
10	AMC of Display for CCTV Monitoring 33" to 40"	50	40	Comprehensive AMC - Year 1		
			10	Non Comprehensive AMC - Year 1		
			40	Comprehensive AMC - Year 2		
			10	Non Comprehensive AMC - Year 2		
			40	Comprehensive AMC - Year 3		
			10	Non Comprehensive AMC - Year 3		
11	Relocation of existing cameras with all accessories	50	50	Comprehensive AMC - Year 1		
			50	Comprehensive AMC - Year 2		
			50	Comprehensive AMC - Year 3		
Total Basic Price						
GST @ 18%						
Total All Incl. Price						

NOTE:

- The bidders are advised to quote prices strictly in the above format and for all the line items as mentioned above. Failing to do so, bids are liable for rejection.
- The bidder must fill each and every column of the above format. ***Mentioning "extra/inclusive" in any of the column may lead for rejection of the price bid.***
- No cutting/ overwriting in the prices is permissible.
- The unit price to be indicated in col. No. 5 should be exclusive of taxes & duties which are to be indicated in separate columns meant for the purpose.

ANNEXURE II
Technical Specifications
LIST OF STANDARDS

Sr. No.	Standard	Standard Description
1	IS: 9000	Basic environmental testing procedures for electronic and electrical items.
2	IS: 5572	Classification of Hazardous Areas for Electrical Installations
3	IS: 8130	Conductors for insulated electrical cables and flexible cords.
4	NEMA ICS 2 -1978 & 1983 Part 2-125, A 6000	Contact Rating – AC Services
5	NEMA ICS 2 -1978 Part 2-125m, N 600	Contact Rating – DC Services
6	IEC 130 -11	Edge socket connectors
7	VDE: 0160	Electronic equipment for use in electrical power installations.
8	IS: 2148	Flame proof enclosure for electrical apparatus.
9	IS: 3043	Code of Practice of Earthing
10	ISA RP-55 - 1983	Hardware testing of Digital Process Computers
11	IEEE 830 – 1984	IEEE guide to software requirements specifications.
12	IS: 8828	Miniature circuit breakers for voltages not exceeding 1000V
13	IS: 2149	Protection class enclosures, cabinets, control panels & desks.
14	VDE: 0472	Rules for testing insulated cables and flexible cables.
15	ANSI C 39.5 – 1974	Safety requirements for electrical & electronic measuring and controlling instruments.
16	IEEE – 802.3 – 1988	Standard for Local Area Networks: Carrier Sense Multiple Access with collision detection CSMA-CD and Supplements
17	NEMA Ics Part-6-1978(with Rev.14/80)	Types of Enclosures
18	VDE: 0815	Wiring cables for telecommunication and information processing system

If standards are not existing for any equipment or system, such equipment or system shall comply with the applicable recommended practices of the following professional institutes and established good engineering practice

- Institute of Electrical and Electronic Engineers (IEEE)
- Instrument Society of America (ISA).
- American National Standards Institute (ANSI)
- Deutsche Industries Norman (DIN)
- International Electrochemical Commission (IEC)
- Verein Deutscher Eisenhüttenleute (VDE)
- Indian standard Institute (IS)

APPROVED OEM LIST

The following is the list of items with the corresponding approved vendors for bidder to comply with. Any deviation from this, shall be discussed and mutually agreed. Sub-vendors for any item not covered in this table shall be subject to owner's approval.

Equipment	Approved Sub-vendors
PVC Casing Capping, PVC Cabling Accessories Conduit Pipe, Flexi Pipe, PVC Couplers	Modi, PrestoPlast, Precision
Server, Workstation PC, Storage	Dell, HP
Power Cables (240 VAC) / Control Cables	Thermocable, Polycab, Finolex
Networking Cable	Systimax, D-link, Norden
IP Camera	Axis, Bosch, Hanwha, Pelco
Display Monitor/ Screen (LFD)	LG / Samsung / Sony
Video Management system	Milestone

TECHNICAL SPECIFICATIONS EXISTING SYSTEM

• Video Management System (VMS) Software: -

1. At Tata Power we have a VMS application of Milestone, the version for the same is "Milestone XProtect Management server 2021 R2" 21.2a. Build 1877. We are operating under single SLC.
2. The Management application is installed at Dharavi, Maithon and Jojobera locations, through this management servers the recording servers and client monitoring systems are managed.
3. We are operating under single SLC. SLC and camera license management, shall be considered in scope.
4. This system architecture is called as centralized system as all the cameras and server configuration are stores at a single database.
5. We had clustering server in place, In case of any issue with primary server automatically it will change over to secondary server node.
6. The current system is being connected to the outside system through an application called a Milestone mobile server.

• Recording servers: -

1. All locations as mentioned in this document where the milestone recording servers are installed and configured to the central management system. Detailed list of servers is as per Annexure-II.
2. Recording servers are design and installed to store and keep 30 days video recordings locally, so that whenever any incident happens the playback are availableF to insider officers as well as to outside agency, through an approval process.
3. The recoding server are mostly connected thru Tata Power own fiber and in few locations, it is connected thru MPLS connectivity.

4. There are approximately five to six location where the recording servers are working on standalone. These locations are not connected to central Milestone system at Dharavi. Bidder to ensure that Camera and recording at these locations are 100% available. Availability report of these remote locations shall be submitted regularly.

- **Client monitoring system: -**

1. Most of the location have monitoring station installed at Main Gate as well as for the location security head. The central location of Dharavi has control room, where in security personnel watch the video continuously for all the connected location. Similarly at Trombay we have control room where the monitoring are done for the Trombay plant area, the location like Maithon, Jojobera have an individual Management and recording system and at this locations the client monitoring system are installed at Security control room for viewing and monitoring the plant area.
2. Monitoring station are installed at main gate of T&D location. To View Operation related CCTV camera centrally Centralized control room is located at PSCC Trombay for load dispatch and monitoring of operation activity of switch yard, transformer and other power related activity.
3. Detail list of Client monitoring PC is already given.

- **Large display screen**

At few locations normally in Operational & Security control rooms large display screens are provided for monitoring of online cameras. E-security Control room and Security control room Dharavi has 70" monitor. Other Control rooms at Trombay, Hydros, Maithon, Jojobera etc has 42" monitors.

- **Cameras**

1. All cameras are IP based and used to monitor online videos. Security cameras are used to view Main gate, perimeter, parking area, open area, Dam and other open area. Operational cameras are used to view Switchgear, Relay room, Switchyard, Meters, Breakers etc as per operational requirement. Few cameras are used for operation and security both.
2. All cameras shall be updated with latest Firmware and patches regularly. Report on update shall be submitted every month.
3. We have different types of cameras at different locations including PTZ, Bullet, Dome type in Outdoor and indoor areas. Cameras are installed in different projects are of different makes and models. Details are mentioned at Annexure- I

- **Network**

1. Existing IP CCTV system is integrated from different locations in Mumbai operation to central locations via different modes of networking means.
2. All the locations are remotely connected to Dharavi location. Network is established with different modes as stated below. Presently Networking is in working condition. However same is not in scope of bidder.
 - Copper Connectivity
 - Fibre Cable

- SCADA Network
 - WAN Link
 - MPLS
3. All recording servers are connected through network, Cameras are connected through ODU boxes near camera, through FO cable. Cameras installed nearby server are connected through POE. Patch cord for these cameras are in scope of bidders.

➤ **Cabling and Power**

Above ground cables are laid over walls, in trench & trays. All outdoor cables are armored. Cables are also laid underground through pipe & trenches, below soil as and when required in different projects & locations. Esecurity cables shall be laid away from high voltage cables. Generally, UPS power is available for Server and Cameras. However, in case of absence of UPS bidder to consider raw 230 V AC power at each location. Power supply input shall be provided by Division at one point in location. Further distribution of power in bidders' scope. Replacement of defective cable and maintenance of power cable as and when required is in bidder's scope.

TECHNICAL SPECIFICATIONS FOR NEW INSTALLATIONS

New installations shall include supply, installation of indoor and outdoor cameras, Recording Server, Client monitoring system, Poles, Steel/ pipe required for fixing, Camera mounting bracket etc. The details of requirements are mentioned in tender specifications. Bidder shall integrate all cameras in milestone system and License cost for each camera is to be included by bidder in scope.

Technical specifications of hardware to be supplied is as given below.

➤ **Power Cable**

1. Type: 1.1 KV grade LT XLPE insulated, 2XWY, extruded PVC inner sheathed, galvanized round wire armored as per IS 7098/I (latest edition), suitable for direct laying in underground trenches
2. No of cores: 3 (three)
3. Conductor size: 1.5 mm², stranded with standard annealed electrolytic copper conductor.
4. Colour code: Red, Black and Green or OEM specified
5. Insulation: XLPE as per IS 7098 I/88 latest Nominal thickness 0.7 mm
6. Inner Sheath: Extruded PVC type Minimum thickness 0.3 mm
7. Armoring: Galvanized Steel wire, Nominal OD of each wire: 1.4 +/- 0.06 mm
8. Outer Sheath: Extruded PVC type ST-2 (FRLS) Minimum thickness 1.24 mm

➤ **CAT6 Cable**

1. Type: CAT - 6E
2. Conforms to Standards: EIA/TIA – 568-B2.1, ISO/IEC11801, (2002 or latest) and CENELEC EN50173 –1(2002)
3. No. of Pair: 04 twisted pairs

4. Single Strand Gauge: 24 AWG or better
5. Insulation: Polyethylene
6. Jacket: Flame Retardant PVC
7. Operating Temperature: - 40 Degree C to 60 Degree C

➤ **HDPE Pipe**

1. Outer diameter: 40 mm + 0.4 mm. or better
2. Inner diameter: 33 mm or better
3. Wall Thickness: 3.5+ 0.2 mm or better

➤ **Poles**

1. Pole detail: Hot Dip Galvanized, Free Standing, Octagonal, Continuously Tapered.
2. Height of High Mast: 4M & 6M
3. Size of Pole: Minimum Requirement: Diameter (Top) - Top- 75 mm Diameter (Bottom) -150 mm Thickness -3mm or better
4. Base plate: Min. 240X240 or better
5. Anchor Plate: Depending on Base plate (Min. thickness – 3mm)
6. No. of longitudinal weld: 1
7. Type of locking arrangement and door construction: The door shall be close fitting, dust proof, vermin proof and weather protected (IP54) and shall have suitable locking arrangement
8. Material of construction (Shaft): High Tensile Steel BSEN 10025
9. Material of construction (Base Plate): IS2062 or Equivalent
10. Metal Protection Treatment for Monopole: Hot dip galvanized
11. Galvanization Thickness: Min. 65 Microns
12. Max design wind speed: 100km/hr. or batters
13. Type of foundation: Isolated step footing RCC
14. Size of foundation: As per site condition
15. Foundation Bolts: As per requirements / guidelines /standards (Min. 4 Nos., M24X750mm 'J' type EN 8 grade foundation bolts along with template) of Better.
16. Nuts and Washers: Heavy duty galvanized lock nuts and washers to be provided.

IP cameras technical specifications

➤ **IP Fixed Box Bullet Camera (Outdoor Type)**

Feature	Requirement
Resolution	4 MP or higher with full HD
Zoom	Minimum 4x optical zoom

- Digital Zoom : Minimum 12x digital zoom supporting Milestone VMS.
- Video stream : Quad video streaming with H.264, H.265 and M-JPEG format
- Sensor : CMOS, HAD CCD Progressive scan

- Streams : Minimum 3 Streams support and all 3 Streams should support Full Resolution and with multiple FPS option.
- Frame Rate : Minimum 30 fps
- Standard : ONVIF S, G, T & M profile conformant.
- Gain : The Camera shall be auto AGC
- Sensitivity : Minimum illumination 0.3 Lux (Colour) 0.06 (B& W)
- Power Supply : Camera shall work with power supply 240VAC $\pm 10\%$ 50Hz
- Protection : Camera shall have built in Lightning and surge protection.
- Mode : Automatic Switching from colour mode to black mode
- Self-diagnostic : Power failure & camera tampering to be compatible with Milestone VMS
- Protocol : All supported open protocols
- Housing : IP 67, aluminium housing for outdoor camera
- Security : Password Protection, HTTPS compression
- Audio : Two-way Audio Streaming
- Edge storage : SD/SDHC memory card slot
- Lens Type : Auto Iris, Varifocal, Remote focus
- Analytics : Available with Built in & server level
- Night vision : Inbuilt IR 50 mtr range minimum

Features:

- Latest 1/3" or 1/4" interlaced imager/ progressive imager CMOS or better
- 20 fps at 3840 x 2160 30 fps at 3072 x 1728 30 fps at 2560 x 1440 30 fps at 1920 x 1080 30 fps at 1280 x 720 30 fps at 720 x 576 30 fps at 640 x 360 30 fps at 704 x 288 30 fps at 352 x 288
- Color: 03 lux at F1.6 (AGC on); B/W: 0 (IR LED on)
- Gain Control Automatic
- Advanced WDR
- IR 50 mtr range minimum
- Wide angle range- maximum
- White Balance Mode: Auto; Fluorescent; Indoor; Outdoor
- Shutter Speeds 1-1/100000 second (manual mode); 1-1/100000 second (auto mode)
- Operating voltage: Power over Ethernet (802.3AF); 12V/24V AC/DC
- The IP Camera should support a Receiver Driver Unit or a motorized zoom lens
- The hardware architecture must incorporate multiple processors to ensure best video quality and other functions even at maximum processor load.
- The IP Camera system must offer a choice of either MPEG-4 Advanced Simple Profile or H.264 video compression standards, by just upgrading the firmware over the network without dismantling the camera.
- The IP Camera must run Linux Operating system for reliability.
- Compliance to Indian Standard.

➤ **IP PTZ Camera (Outdoor Type)**

Features:

- Resolution : Minimum 2 MP with full HD (1920x1080)

- Zoom : 36 x optical + 12 x digital, wide dynamic, 0-90°Pan, 0-360°Tilt range, High-speed 360-degree continuous endless pan, Pre-set tour and AutoPan modes, supporting Milestone VMS
- Video stream : Quad video streaming with H.264, H265 and M-JPEG format
- Sensor : CMOS, HAD CCD Progressive scan
- Streams : Minimum 3 Streams support and all 3 Streams should support Full Resolution and with multiple FPS option
- Frame Rate : Minimum 30 fps
- Standard : ONVIF S, G, T & M conformant.
- Gain : The Camera shall be auto AGC
- Sensitivity : Minimum illumination Color: 02 lux at F1.55 (30 IRE); B/W: 01 lux (IR LED on)
- Power Supply : Camera shall work with power supply 240VAC $\pm 10\%$ 50Hz
- Protection : Camera shall have built in Lightning and surge protection.
- Mode : automatic Switching from colour mode to black mode
- Self-diagnostic : Power supply failure, camera tempering etc. compatible with Milestone VMS
- Protocol : All supported open protocols
- Housing : IP 67, aluminium housing
- IR : 160mtr or better
- Analytics : Available with Built in & server level

Features:

- Camera must provide at least 1945(H) X 1097(V) or better
- Color Resolution 480 TV Lines or better for sharp pick up of live video.
- Color: 02 lux at F1.55 (30 IRE); B/W: 01 lux (IR LED on) or better
- Signal/noise ratio >50 dB
- Lens: 3.4 mm to 122.4 mm, F 1.6 to F 4.5 or better
- Zoom order options: minimum 36 x optical + 12 x digital,
- Scan mode: Progressive or Interlaced
- Horizontal view angle: 1.7° to 57.8°
- Support Wide Dynamic Range
- Inbuilt Image stabilization
- Power 12V/24V AC/DC Dynamic privacy zones 24 with 8 present(min) on screen simultaneously
- Must provide at least 200 Presets
- Learned patrols 4 mimic tours - up to 30 mins duration each
- Variable tilt speed 0.1 - 200 /sec, absolute positioning
- Variable pan speed/coverage 0.1 - 400 /sec, 360Deg continuous rotation, absolute positioning
- Tilt coverage +/- 90Deg
- Gain Control Automatic or fixed manual setting across a 32dB range
- White Balance Mode: Auto; Fluorescent; Indoor; Outdoor
- Shutter Speeds - 1/5-1/32000 second (manual mode); 1/5-1/32000 second (auto mode) or better.
- Operating voltage: Power over Ethernet (802.3AF); 12 V/24V AC/DC

- The hardware architecture must incorporate multiple processors to ensure best video quality and other functions even at maximum processor load
- The IP Camera must offer a choice of either MPEG-4 Advanced Simple Profile or H.264 video compression standards, by just upgrading the firmware over the network without dismantling the camera.
- The IP Camera must run Linux Operating system for reliability.
- Frame Rate & resolution-60 fps at 1920 x 1080 60 fps at 1280 x 720 30 fps at 640 x 480 30 fps at 320 x 240 or better
- Each Video stream should in turn allow for TCP connections, UDP connections and an unlimited number of Multicast connections.
- Each stream must allow independent configuration of bit rate, frame rate, I frame interval, rate control mode and motion data.
- All streams must guarantee full frame (25fps) rate under high motion and all conditions. *A certification from the manufacturer is required.*
- The IP Camera must support Capped Bit Rate (CBR) control, to enable users to keep bandwidth utilization under a certain value without compromise on image quality irrespective of the level of motion in the scene.
- The IP Camera must support Activity Controlled Frame Rate control to automatically adjust framerate depending on motion in the scene. During periods of negligible motion, the frame rate must drop to 1fps and when motion occurs the frame rate will return to full frame rate (30fps/25fps) within 100ms. It must be configurable using a Region of Interest editor (ROI) that can select regions of the scene where motion will be ignored.
- Support network protocol 802.3 and IETF Standards 10/100 Base-T Ethernet, RTP/RTCP, TCP, UDP, ICMP, SNMP, HTTP, FTP, TELNET, MULTICAST, ARP and IGMP. Each stream Bit-rate should be user configurable from 32 to 4096 Kbps
- The IP Camera will have a built-in web server, making it accessible for configuration using a standard Internet browser.
- The IP Camera must be compatible to support advanced analytics.
- Must have 1 alarm inputs and 1 relay outputs
- The IP Camera must support redundant recording by streaming to multiple recorders at the same time.
- Should be able to detect motion based on localized area, object size & direction
- It must be possible to reset a unit back to Factory Default configuration without losing IP address information.
- Serial Data Port supporting RS232/ RS422/ RS485
- Password protected Web interface for administration
- Should have onboard diagnostics facility for serial, Video & Network interface. System logging shall be possible to a remote IP address, the console port or the unit itself.
- Must support a standard operating temperature range 0 to +50 °C with extended temperature range units available from -10 °C to +60 °C
- The system MUST be able to use one particular frame rate and resolution at Day time and automatically switch to another frame rate/resolution profile when low light conditions occur
- The system MUST allow for Telnet/FTP access into the units and this access MUST be configurable, wherein when active access is allowed and when deactivated access MUST not be allowed.
- Compliance to Indian Standard.

➤ **IP Fixed Dome Camera (Indoor Type)**

Essential Features:

- Resolution : Minimum 4 MP or higher with full HD (1920x1080)
- Zoom : Min 3x optical zoom and 12x digital zoom supporting Milestone VMS.
- Video stream : Quad video streaming with H.264, H.265 and M-JPEG format
- Sensor : CMOS, HAD CCD Progressive scan
- Streams : Minimum 3 Streams support and all 3 Streams should support Full Resolution and with multiple FPS option.
- Frame Rate : Minimum 30 fps
- Standard : ONVIF S, G, T & M conformant.
- Gain : The Camera shall be auto AGC
- Sensitivity : Minimum illumination Color: 0.01 lux at F1.2 (AGC on); B/W: 0.2 lux at F1.6 (AGC on); B/W: 0 lux (IR LED on)
- Power Supply : Camera shall work with power supply 240VAC $\pm 10\%$ 50Hz
- Protection : Camera shall have built in Lightning and surge protection.
- Mode : Automatic Switching from colour mode to black mode
- Self-diagnostic : Power supply failure, camera tampering etc. compatible with Milestone VMS
- Protocol : All supported open protocols
- Housing : IP 65, aluminium housing for outdoor camera
- Security: Password Protection, HTTPS compression
- Audio : Two-way Audio Streaming
- Edge storage : SD/SDHC memory card slot
- IR : Minimum 50mtr
- Analytics : Available with Built in & server level

Preferred features:

- Image sensor 1/2.7 " or better
- 30 fps at 2688 x 1520 30 fps at 2560 x 1440 30 fps at 1920 x 1080 30 fps at 1280 x 960 30 fps at 1280 x 720 30 fps at 640 x 480
- White Balance Mode: Auto; Fluorescent; Indoor; Outdoor
- Varifocal /Auto Iris DC drive lens options of 2.7 – 13.5mm or higher
- Shutter Speeds 1/30-1/100000 second (auto mode)
- Operating voltage: Power over Ethernet (802.3AF); 12V/24V AC/DC.
- The hardware architecture must incorporate multiple processors to ensure best video quality and other functions even at maximum processor load
- The IP Camera must offer a choice of either MPEG-4 Advanced Simple Profile or H.264 video compression standards, by just upgrading the firmware over the network without dismantling the camera.
- The IP Camera must run Linux Operating system for reliability.
- When running on MPEG-4 / H.264 compression, the video codec should support at least 2 simultaneous streams at resolutions between 4SIF and SIF.
- Each Video stream should in turn allow for TCP connections, UDP connections and an unlimited number of Multicast connections.

- Each stream must allow independent configuration of bit rate, frame rate, I frame interval, rate control mode and motion data.
- All streams must guarantee full frame (25fps) rate under high motion and all conditions. A certification from the manufacturer is required.
- The IP Camera must support a Region of Interest (ROI) control to compromise image quality in respect to the frame rate.
- The IP Camera must support Activity Controlled Frame Rate control to automatically adjust framerate depending on motion in the scene.
- During periods of negligible motion, the frame rate must drop to 1fps and when motion occurs the frame rate will return to full frame rate (30fps/25fps) within 100ms. It must be configurable using a Region of Interest editor (ROI) that can select regions of the scene where motion will be ignored.
- Support network protocol 802.3 and IETF Standards 10/100 Base-T Ethernet, RTP/RTCP, TCP, UDP, ICMP, SNMP, HTTP, FTP, TELNET, MULTICAST, ARP and IGMP
- Each stream Bitrate should be user configurable from 32 to 4096 Kbps or better
- The IP Camera will have a built-in web server, making it accessible for configuration using a standard Internet browser
- The IP Camera must be compatible to support advanced analytics software Must have minimum 1 alarm inputs and 1 relay outputs.
- The IP Camera must support redundant recording by streaming to multiple recorders at the same time.
- Camera should be able to detect motion based on localized area, object size & direction.
- It must be possible to reset a unit back to Factory Default configuration without losing IP address information.
- Video Output PAL/NTS C – Composite Video
- Serial Data Port supporting RS232/ RS422/ RS485
- Password protected Web interface for administration
- Should have onboard diagnostics facility for serial, Video & Network interface. System logging shall be possible to a remote IP address, the console port or the unit itself.
- Must support a standard operating temperature range 0 to +50 °C with extended temperature range units available from -10 °C to +60 °C.
- The system MUST be able to use one frame rate and resolution at Day time and automatically switch to another frame rate/resolution profile when low light conditions occur.
- The system MUST allow for Telnet/FTP access into the units and this access MUST be configurable, wherein when active access is allowed and when deactivated access MUST not be allowed.
- Compliance to Indian Standard.

Technical specifications of servers:

The IP surveillance shall be installed with necessary Servers for recording, application and database storage. Servers shall be mounted at a central server room along with other E-Security hardware. Servers shall be rack based & a separate rack shall be considered for mounting the servers. Minimum specification requirements for server and racks are given below-

- Processor: Up to two 2nd Generation Intel® Xeon® Scalable processors with up to 20 cores per processor, so in total it should have 40 cores.

- Operating System: Microsoft® Windows Server 2019
- Memory: DIMM Speed Up to 2666MT/s
- Memory Type: RDIMM, LRDIMM
- Memory Module Slots: 16 DDR4 DIMM slots, Supports registered ECC DDR4 DIMMs only
- RAM: RDIMM- 64 GB
- Storage: SATA HDD max 50TB, DVD-ROM, DVD+RW (optional), storage shall be sufficient for video recording of 30 days for 50 cameras.
- Build in Graphics Card: GPU support for 50 camera streaming and recording.
- Form Factor- 2U
- Storage Controllers: Internal Controllers- PERC H330 or its equivalent
- RAID Controller: Support for RAID 0, 1, 1+0, 5
- Power Supplies: Hot plug power supplies with full redundancy option dual power supply
- Other Ports: At least 3 USB Ports; 1 Serial Port; 1 VGA Port, 1 HDMI port.
- Ethernet Ports: 2 no. 1Gbps ports or better

Remote Management:

1. Should be able to provide full out of band remote management capabilities, troubleshoot and remediate the Server from any location.
 2. Should be able to power on & off the Server remotely.
 3. Should be capable of remotely deploying, updating, monitor and maintaining servers with or without a systems management software agent installed.
 4. Should be capable of remotely doing firmware, BIOS updates, independent of the OS installed.
- Power Monitoring: Should be capable of providing power monitoring at hardware level for power savings.
 - Single OEM: Server management software should be from the same OEM brand as that of the server.
 - Operating System: Microsoft Windows 2019 License or latest (Standard) should be included as part of the Server.
 - Security: Power-on password, Administrator's password
 - Keyboard & Mouse: Standard Keyboard & Optical mouse with scroll
 - Monitor for Console/Rack: 19" LED Monitor or better.
 - Rack Support: Should be of rack Form factor with required rack rails.

12.7 Technical specifications of client monitoring workstation PC:

- Processor : Intel core i7 64-bit processor or Higher
- RAM :16 GB RAM
- Accessories : USB Optical Mouse & Keyboard
- Storage : 256 GB SSD with minimum 512GB HDD
- Graphic Card : Compatible GPU Card with 8 GB minimum RAM with 2 no. HDMI ports
- USB port : Min 2 nos.
- HDMI port : Min 2 nos.

- DVI / serial port : Required
- LAN port : Gigabit Ethernet 1
- OS : windows 10 pro or latest
- Display : 32inch display (min 1080p or 4K) with HDMI port & cable

Specifications new display for CCTV monitoring

Panel	Diagonal Size	50 & 70inch
	Type	OLED/IPS
	Resolution	1920x1080 (16:9) & above
	Pixel Pitch(mm)	0.16333(H) x 0.49005(V) & above
	Active Display Area(mm)	940.89(H) x 529.25(V) and above
	Brightness (Typ.)	300nit and above
	Contrast Ratio (Typ.)	12506944
	Viewing Angle(H/V)	178:178
	Response Time(G-to-G)	8ms & Less
	Display Colors	16.7 M
	Operation Hour	24 x 7 (Industrial Grade)
Display	Dynamic C/R	MEGA
	H-Scanning Frequency	30 ~ 81kHz
	V-Scanning Frequency	48 ~ 75HZ
	Speaker Type	Built in Speaker (Min 6W)
Connectivity	OUTPUT VIDEO	2 Nos. HDMI (Without Converter)
	OUTPUT AUDIO	YES
	OUTPUT USB	YES
Power	Power Supply	AC 230 V~ (+/- 10 %), 50/60 Hz
Mechanical Spec	Bezel Width (mm)	Less than 16mm
Operation	Operating Temperature	40 Degree C
Standards (Certifications)	Safety	UL
	EMC	FCC Class A/ CE
Accessories	Stand	YES
	Mount	WALL MOUNT

ANNEXURE III
Schedule of Deviations

*Bidders are advised to refrain from taking any deviations on this TENDER. Still in case of any deviations, all such deviations from this tender document shall be set out by the Bidders, Clause by Clause in this schedule and submit the same as a part of the **Technical Bid**.*

Unless specifically mentioned in this schedule, the tender shall be deemed to confirm the TPC's specifications:

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

By signing this document we hereby withdraw all the deviations whatsoever taken anywhere in this bid document and comply to all the terms and conditions, technical specifications, scope of work etc. as mentioned in the standard document except those as mentioned above.

Seal of the Bidder:

Signature:

Name:

ANNEXURE IV

Schedule of Commercial Specifications

(The bidders shall mandatorily fill in this schedule and enclose it with the offer Part I: Technical Bid. In the absence of all these details, the offer may not be acceptable.)

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

ANNEXURE V

Checklist of all the documents to be submitted with the Bid

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

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

ANNEXURE VI**Acceptance Form for Participation in Reverse Auction Event**

(To be signed and stamped by the bidder)

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

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

1. TPC shall provide the user id and password to the authorized representative of the bidder. *(Authorization Letter in lieu of the same shall be submitted along with the signed and stamped Acceptance Form).*
2. TPC will make every effort to make the bid process transparent. However, the award decision by TPC would be final and binding on the supplier.
3. The bidder agrees to non-disclosure of trade information regarding the purchase, identity of TPC, 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 TPC.
6. In case of intranet medium, TPC shall provide the infrastructure to bidders. Further, TPC 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 TPC.
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 TPC 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 TPC.
12. The original price bids of the bidders shall be reduced on pro-rata basis against each line item based on the final all inclusive prices offered during conclusion of the auction event for arriving at Contract amount.

Signature & Seal of the Bidder

ANNEXURE VII

Scope of Work & Service Level Agreement

1.1 Break down Maintenance

- Services should be provided for 6 days a week from Monday to Saturday General shift excluding Tata Power Holidays. Any calls logged on Tata Power holiday will be attended only on the next working day.
- All defect calls will be raised in I-Service system by TATA POWER. Bidder will be provided user id to view the calls. The calls will be attended, and bidder shall regularly update status in system. In case user is not satisfied with the work completion, call can be reopened in system.
- Main gate Cameras and Servers defects shall be attended on priority.
- Vendor to maintain all applications with cluster servers & mobile server application in coordination with Milestone team. Should also maintain applications up to date with latest application software.
- Vendor to ensure that enough spares are available for repair, so that SLA is met.
- Routine as well as breakdown activities of the E-security system which includes all hardware and software of E-security system related jobs.
- Detection and repair/up-keeping of hardware and all the components of E-security systems.
- Software: Test and configure E-security components (replaced against faulty) in server per the schedule and set parameters in co-ordination with E-security technical team.
- Attend defect complaint (e.g. camera not displayed, monitor not working, recording doesn't appear, image hanged, etc.) in coordination with E-security department and respective division.
- During modification or repair work, if CCTV cameras need to be dismantled, alter, extend or re-install then the necessary action shall be taken in coordination with the respective division & clearance from E-security.
- Any kind of difficulties should be reported to E-security department for speedy resolution.

1.2 Preventive Maintenance

- The vendor shall plan & conduct quarterly preventive maintenance schedule as per the approved guidelines released by E-security department.
- Bidder shall submit duly signed report to the E-security department of all the jobs carried out by them during this period.
- Bidder to follow OEM Guidelines and SOP as defined by E-security department for Quarterly preventive maintenance of CCTV system.

1.3 Special Terms & Conditions

1. Job to be carried out by the vendor against this contract, covers activities to be performed on a monthly basis including breakdown maintenance, checking and testing of Esecurity

system installed at stations mentioned in the Contract. This contract includes repairs or replacement of all defective parts/ equipment/ device by equivalent new parts/ equipment / device free of cost. This repairs or replacement shall be made in consultation with Esecurity & divisional engineer for maintaining e-security system in healthy working condition. Any defects observed in the systems have to be attended/rectified on priority.

2. Vendor shall plan warranty services & activities in advance in coordination with concerned divisional & e-security engineer. However, considering emergency nature of Tata Power business, the schedule activity may be required to be postponed on suitable and mutual agreed date.
3. Any breakdown complaint should be attended immediately as specified in SLA. Service interruption due to power failures, Wan Link failure, entry permits, non-availability of Tata power personnel, will not be considered towards delay in services.
4. Supervisor & Workmen deployed by the contractor must be well conversant with design, operation and up-keeping of E-security system including all safety aspect. They should be certified by OEM to maintain the all Hardware and Software supplied under E-security system.
5. All miscellaneous and consumable materials required to complete the job (not mentioned in spares list) shall be part of the scope of the vendor.
6. Vendor shall adhere to all safety practices of Tata Power through proper work permit, L1& L2 training to workmen, & L3 training to supervisors, required tools/tackles & personnel protective equipment required for the job before start of work. Vendor shall immediately inform Tata Power divisional Supervisor about any major/minor incident during work.
7. Vendor shall isolate respective system electrically & mechanically under divisional E-security supervision, wherever required, for carrying out activities under warranty. After completion of activity vendor shall restore back system in service.
8. Vendor shall carry out investigation, Root Cause analysis of malfunctioning of system, whenever it is occurred & asked by Tata Power and submit detail investigation report to respective E-security Node.
9. After completion of all the activities under warranty vendor shall submit job completion report covering details of the checks done, rectification of defects carried out, if any and status of the system in soft and hard copy to respective E-security Node.
10. Vendor shall comply all necessary safety, statutory & other requirements specified by Tata Power. Vendor shall provide all safety gears like helmets, gloves, shoes etc. as per Tata Power safety norms to the personnel at site carrying out jobs.
11. For jobs to be perform by working at height, Tata power shall provide scaffolding & Vendor shall do erection and dismantling of scaffolding as per Tata power Safety norms.
12. Damage due to any Voltage / Current Fluctuation, Lightning, Flood or any Natural Calamities will not be covered under this Contract.
13. The Vendor should conduct check/repair as per the guidelines released by E-security department and submit report to the E-security Department regarding the jobs carried out by the vendor under this warranty.
14. All required documents e.g. Material gate pass, towards replacement of products shall be provided by Tata Power- where required. JVAT 504B form or any other local documentation for sending back the faulty product to the OEM. (applicable for eastern region)
15. Transportation to remote locations- Hydros & headworks, Jojobera, MPL will be arranged by Tata Power. Guest house, transit accommodation will be provided by Tata Power for these locations on chargeable basis on availability.

16. The Maintenance Contract do not include any Carpentry Work, Fabrication Work, Electrical Supply, Civil Work or Shifting of any equipment or systems. Re-installation / shifting of cabling, switches or any equipment's does not include in the AMC. If need to be done, can be charged separately at actuals as per requirements.

1.4 MIS Report required.

Following reports shall be submitted on daily / Weekly / Monthly basis. The list is indicative and will be finalized after award of contract.

Sr. No.	Report Type	Frequency
1	Camera availability report	Daily
2	Recording Sever patch update report	Monthly
3	Recording server space and records available in days	Daily
4	Milestone Application Software availability	Daily
5	Camera firmware update	As and when required
6	Calls received and closed in I-Service system	Weekly
7	Recording Server and Client PC uptime report	Daily
8	Delayed I-Service calls details against each order and SLA status	Weekly
9	AMC Plan for each division	Quarterly

1.5 Service Level Agreement (SLA)

S N	Service Requirement	Parameter	Penalty
1	Compliance for deployment of skilled & experienced manpower.	100%	Penalty in form of deduction of 1% amount of quarterly invoice of the quarter
2	Adherence to Tata Power Safety Rules and Procedures	100%	Penalty in form of deduction of 1% amount of quarterly invoice of the quarter
3	Availability of CCTV System (Locally)	98%	Penalty in form of deduction of 5% amount of quarterly invoice of the quarter
4	Response time to attend calls.	Within 4 working hours	Penalty in form of deduction of 1% amount of quarterly invoice of the quarter
5	Resolution time from issue of work permit.	Server & Monitoring Station - 8 working hours Camera - 16 working hours	Penalty will be applicable as per 1% amount of quarterly invoice of the quarter
6	CCTV Surveillance system MIS report shall be submitted on daily basis.	100%	LD will be applicable as per PO terms & Conditions (subject to a maximum of 1% of the quarterly invoice value)

7	Weekly and monthly breakdown & timely preventive calls analysis report with RCA as applicable.	100%	LD will be applicable as per PO terms & Conditions (subject to a maximum of 1% of the quarterly invoice value)
8	Compliance to system Repair & replacement of material in 7 days for camera and 15 days for Recording Server, Monitoring station & Large screen.	100%	Penalty in form of deduction of 1% amount of quarterly invoice of the quarter

Note: Penalty shall not exceed 10% of AMC work order value.

1.6 New installations

1. After award On Instruction from TATA POWER Bidder to do site survey jointly with all the concern team and submit quote in line OLA order. TATA POWER shall issue work order in line with quote. Order will be issued in ARIBA system as part of digital process of TATA POWER. Bidder to provide acceptance in the ARIBA system. TATA Power location shall be as per attached Annexure V.
2. Bidder to prepare detail execution plan with 7 days after receipt of order and come for Kick of Meeting for finalization detail timeline and deliverable in line with work order delivery schedule.
3. Bidder to get all compliance as per TATA POWER safety procedure and contractor legal compliance in line with general terms and condition of tender document before starting physical work at TATA POWER premises. Non-compliance of Safety and Contractor legal requirement impose the penalty to bidder as mentioned tender document.
4. Bidders are advised to include all additional items / components including hardware, software, tools, accessories, cables etc. as required to make the completely operational.
5. The scope covers supply, installation, testing, configuration, commissioning and integration of various components.
6. The scope also covers supply, installation and proper labelling & dressing of all types of cabling like video cable, communication cable, power cable, LAN cable etc. All cablings must be done in conduits to avoid any damage.
7. Civil work (if any), wherever required for completion of this job will be in scope of Bidder. If Road Crossing for cabling work shall be executed by TATA POWER, Bidder to provide required input for doing trenching work.
8. Supplied system must be of latest version that is currently supported by manufacturer. System must be compliant with generally accepted standards and expandable for future requirements. Bidder shall submit next 7 years roadmap of the supplied system.
9. Bidder is required to configure the data storage, data backup and data archival for new recording server installation in line with agreed instruction before installation from Esecurity Technical team. Hardware sizing should be done for storing 1-month data online at respective installations.
10. Bidder to install and commission new camera, recording server in Milestone system wherever required as per BOQ Annexure- IV. All equipment as per BOQ and any other items/accessories required for a fully functional system is under the scope of bidder.

11. The Bidder shall be responsible for successful installation, commissioning and user acceptance of system. Bidder shall obtain user acceptance at every site and submit a copy of user acceptance to E-security.
12. The bidder shall provide 3 years' comprehensive onsite warranty after user acceptance of all supplied, installed, configured and commissioned system including hardware and software. Any software updates, upgrades, patches released till the completion of warranty period shall be supplied, installed and commissioned and is under scope of agreement. Physical damage shall not be under the scope of warranty. Bidder shall maintain the Hardware and software on 24X7 basis during Warranty period.
13. Bidder should provide Back-to-Back warranty support agreement with OEM for Server & Client workstation PC for warranty period after supply.
14. Scope covers supply of CCTV cameras and all other equipment's with compliance to required Indian standards.
15. Scope covers supply of all required software licenses including operating systems. The Software licenses will be in the name of The Tata Power Limited and will be perpetual in nature.
16. BOQ mentioned is indicative for bidding purpose. OLA will be released on this BOQ. Order will be placed based on survey carried out by bidder at each location.
17. Existing material shall be used to the extent possible.
18. Mounting arrangement, Clamps, MS structure and 3" pipe required for camera installation shall be included in accessories and hardware.
19. Penalty against LD will be as per project schedule and PO terms.

BILL OF QUANTITY

- Bidder to refer quantities of Existing Cameras, Servers and Smart Client mentioned in below annexures.
- New Supply, Installation & Commissioning BOQ mentioned in Annexure-IV.
- TATA Power locations Annexure-V

EXISTING CAMERA BOQ

Sr. No.	Type	Make	Model	Count	TRX	DSS	Trombay	Hydro	CGPL	Jojobera	MPL	Total
1	Bullet	ACTi	KCM5211	381	1	88	97	1	95	31	68	1538
			KCM5311	23	0	0	1	0	0	0	22	
			E44A	5	0	0	0	0	0	1	4	
			E413	13	0	2	6	0	0	0	5	
			TCM1231	11	0	0	0	0	0	0	11	
			E213	130	23	2	20	24	54	3	4	
			Z47	449	270	1	4	127	14	4	29	
			I27	35	28	0	1	6	0	0	0	
			E46A	10	0	0	0	0	10	0	0	
			B46	5	5	0	0	0	0	0	0	
			KCM5511	6	0	0	6	0	0	0	0	
			B23	10	3	7	0	0	0	0	0	

2	Dome	Bosch	4000I-IR-CPP-73	17	17	0	0	0	0	0	0
			5000I-CPP-73	75	75	0	0	0	0	0	0
		Samsung	XNO-6120R	79	33	0	0	0	46	0	0
			SNP-6320RH	2	0	0	0	0	2	0	0
			XNO-6080R	8	0	0	0	0	8	0	0
			XNP-6250RH	1	0	0	0	0	1	0	0
		Wisenet	XNO-6120R	24	0	0	0	0	0	24	0
		Sparsh	IP camera	1	0	0	0	0	0	1	0
		AXIS	P1353	36	0	0	0	0	36	0	0
			Q1755	2	0	0	0	0	2	0	0
		Impact	IP camera	1	0	0	0	0	0	1	0
		Vivotek	IB9360-H	4	2	2	0	0	0	0	0
			IB9367-HT	152	152	0	0	0	0	0	0
			IB9381-HT	42	42	0	0	0	0	0	0
			FD8377-HV	12	12	0	0	0	0	0	0
		Honeywell	HCS554IP/ HCD554IP	3	0	0	0	0	3	0	0
		Panasonic Shinrai	PI-SFW203AL	1	0	0	0	0	1	0	0
3	PTZ	ACTi	KCM7211	14	4	0	0	0	0	0	10
			KCM7311	178	69	73	12	0	0	9	15
			A811	278	183	0	30	61	0	0	4
		Vivotek	ID8377-HV	1	1	0	0	0	0	0	0
			FD8377-HV	39	39	0	0	0	0	0	0
		Honeywell	HD4DIP	22	0	0	0	0	22	0	0
		Bosch	3000I-CPP-73	20	20	0	0	0	0	0	0
		Samsung	XNV-6120R	34	34	0	0	0	0	0	0
		ACTi	I915	62	16	0	23	7	16	0	0
			I94	8	0	0	4	0	4	0	0
			I98	4	4	0	0	0	0	0	0
			i914	1	0	0	0	0	1	0	0
				4	0	0	0	0	4	0	0
			I95	1	0	0	1	0	0	0	0
			I96	2	0	0	2	0	0	0	0
		Vivotek	FD8377-HV	6	6	0	0	0	0	0	0
			SD9366-EHL	16	16	0	0	0	0	0	0
		AXIS	P1353	3	0	0	0	0	3	0	0
		Samsung	SNP-6320RH	18	0	0	0	0	18	0	0
			XNP-6250RH	17	0	0	0	0	17	0	0
			XNP-6120H	2	2	0	0	0	0	0	0
		Bosch	5000I-CPP-73	3	3	0	0	0	0	0	0

		Sparsh	IPC	1	0	0	0	0	0	1	0	
Total												2272

EXISTING SERVER BOQ

Sr. No.	Division	Circle/ Zone	Recording Server Name	Make & Model	RAM	HDD	OS
1	Distribution	Distribution	ADDRES-REC-02	Dell T1700	8 GB	4TB	Windows 10 Professional
2	Distribution	Distribution	AKRUTI-REC2	Dell Inc. PowerEdge R730	16 GB	4TB	Windows Server 2019 Standard
3	Transmission	Kalyan Circle	AMBERNATH-REC-2	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
4	Transmission	South Circle	ANTOPHILL-REC-2	Dell Inc. PowerEdge R540	64GB	36TB	Windows Server 2019 Standard
5	Transmission	South Circle	Antop Hill	Dell Inc. PowerEdge R540	16GB	40TB	Windows Server 2019 Standard
6	Transmission	South Circle	BACKBAY-REC-1	Dell Inc. PowerEdge R540	32GB	24TB	Windows Server 2019 Standard
7	Hydro	Bhira	BHIRA-REC	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
8	Hydro	Dongarwadi	BHIRA-REC-2	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
9	Hydro	Bhivpuri	Bhivpuri-Rec-1	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
10	Hydro	Bhivpuri	BHIVPURI-REC-2	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
11	Transmission	South Circle	BKC-REC-03	Dell Inc. PowerEdge R540	32GB	24TB	Windows Server 2019 Standard
12	Distribution	Distribution	BANDRAREC1	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
13	Transmission	North Circle	BORIVALI-REC-1	Dell Inc. PowerEdge R540	32GB	24TB	Windows Server 2019 Standard

14	Transmission	North Circle	Borivali-new-gis	Dell Inc. PowerEdge R540	64GB	36TB	Windows Server 2019 Standard
15	Transmission	South Circle	Carnac-new-rec	Dell Inc. PowerEdge R740xd	32GB	24TB	Windows Server 2019 Standard
16	Transmission	South Circle	CARNAC-REC-1	Dell Inc. PowerEdge R540	32GB	24TB	Windows Server 2019 Standard
17	Transmission	South Circle	Carnac-New-GIS	Dell Inc. PowerEdge R540	64GB	36TB	Windows Server 2019 Standard
18	Transmission	South Circle	CARNAC-REC-3	Dell Inc. PowerEdge R540	64GB	36TB	Windows Server 2019 Standard
19	Transmission	East Circle	CHEMBUR-REC-1	Dell Inc. PowerEdge R540	32GB	24TB	Windows Server 2019 Standard
20	Distribution	Distribution	CTTL-Rec01	Dell Inc. OptiPlex 9020 00	16GB	18TB	Windows 10 Professional
21	Distribution	Distribution	DAHISAR-REC1	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
22	Transmission	South Circle	DHARAVI-REC-1	Dell Inc. PowerEdge R540	32GB	36TB	Windows Server 2019 Standard
23	Hydro	Bhira	DHAVDI-REC-1	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
24	Distribution	Distribution	Godrej	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
25	Transmission	Kalyan Circle	IXORAREC02.	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
26	Transmission	Kalyan Circle	KALYAN-REC-5	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
27	Transmission	Kalyan Circle	KARANJADE	Dell Inc. PowerEdge R740xd	32GB	36TB	Windows Server 2019 Standard
28	Hydro	Khopoli	KHOPOLI-REC	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
29	Transmission	East Circle	Kolshet-Rec-01	Dell Inc. PowerEdge R540	32GB	24TB	Windows Server 2019 Standard
30	Transmission	North Circle	KurlaHDIL1	Dell Inc.	16GB	45TB	Windows

				PowerEdge R540			Server 2019 Standard
31	Transmission	North Circle	KurlaHDIL2	Dell Inc. PowerEdge R540	16GB	45TB	Windows Server 2019 Standard
32	Distribution	Distribution	KILLICKNIXON-REC1	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
33	Hydro	Khopoli	LONAVLA-REC-1	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
34	Transmission	South Circle	MAHALAXMI-REC-3	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
35	Transmission	North Circle	MALAD-REC-1	Dell Inc. PowerEdge R540	32GB	24TB	Windows Server 2019 Standard
36	Transmission	East Circle	MANKHURD-REC-1	Dell Inc. PowerEdge R540	32GB	24TB	Windows Server 2019 Standard
37	Distribution	Distribution	MARKETCITY-REC-1	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
38	Distribution	Distribution	MINDSPACE2-REC	Dell Inc. PowerEdge R740 (PowerEdge R740XD)	64GB	36TB	Windows Server 2019 Standard
39	Distribution	Distribution	MIRAROAD-REC1	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
40	Hydro	Bhira	MULSHI	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
41	Transmission	Kalyan Circle	PANVEL-REC-2.	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
42	Transmission	South Circle	PAREL-REC-1	Dell Inc. PowerEdge R540	32GB	24TB	Windows Server 2019 Standard
43	Distribution	Distribution	pocket10rec1	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
44	Transmission	East Circle	POWAI-REC1.	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
45	Distribution	Distribution	Prathikshanagar	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard

46	Trombay	Trombay	LD-REC-1	Dell Inc. Precision T1700 01	8 GB	5TB	Windows 10 Professional
47	Distribution	Distribution	RESOVIOUR-PLOT	Dell Inc. PowerEdge R740	64GB	36TB	Windows 10 Professional
48	Distribution	Distribution	RAHEJADSS	Dell Inc. PowerEdge R730	16GB	12TB	Windows Server 2019 Standard
49	Transmission	North Circle	SAHAR-REC1	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
50	Transmission	North Circle	Saki-Rec-2.	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
51	Transmission	East Circle	SALSETTE-REC-1	Dell Inc. PowerEdge R730xd	64GB	36TB	Windows Server 2019 Standard
52	Transmission	South Circle	SEWRI-REC-3.	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
53	Distribution	Distribution	SUPREME-REC-01	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
54	Trombay	Trombay	TRO-REC-1	Dell Inc. Precision T1700 01	8 GB	6TB	Windows 10 Professional
55	Trombay	Trombay	TRO-REC-3.	Dell Inc. PowerEdge R520	8 GB	36TB	Windows Server 2012 R2 Standard (build 9600.20878)
56	Trombay	Trombay	TRO-REC-7	Dell Inc. PowerEdge R730	16GB	24TB	Windows Server 2019 Standard
57	Trombay	Trombay	TRO-REC-8	Dell Inc. Precision T1700 01	8 GB	5TB	Windows Server 2012 R2 Standard (build 9600.20878)
58	Trombay	Trombay	TRO-REC-9.	Dell Inc. PowerEdge R720xd	16GB	24TB	Windows Server 2012 R2 Standard (build 9600.20878)
59	Trombay	Trombay	TRO-REC-10	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
60	Transmission	North Circle	VERSOVA-REC-2.	Dell Inc. PowerEdge R540	32GB	36TB	Windows Server 2019 Standard

61	Transmission	North Circle	VERSOVA-REC-3	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
62	Transmission	East Circle	VIKHROLI-REC-1.	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
63	Distribution	Distribution	VRINDAVAN- REC2.esecurity.com	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
64	Transmission	Kalyan Circle	wagiwali.esecurity.com	Dell Inc. PowerEdge R540	32GB	36TB	Windows Server 2019 Standard
65	Transmission	South Circle	DHARAVI- NEWGIS.esecurity.com	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
66	Transmission	South Circle	DHR-YASH- REC.esecurity.com	Dell Inc. PowerEdge R540	32GB	24TB	Windows Server 2019 Standard
67	Trombay	Trombay	TRO-REC- 02.esecurity.com	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
68	Transmission	East Circle	vikhroli-new- gis.esecurity.com	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard
69	Transmission	South Circle	GRANTROAD- REC1.esecurity.com	Dell Inc. PowerEdge R740	64GB	36TB	Windows Server 2019 Standard

Sr.No.	Location	Server	QTY	Operating system	Make	Model No.	RAM	HDD capacity
1	Jojobera	Milestone	1	Windows Server 2016 Standard	Dell	R 540	32 GB	320GB
2	Jojobera	Recording-Server-1	1	Windows Server 2019 Essential	Dell	R 740	64GB	36TB
3	Jojobera	Recording-Server-2	1	Windows Server 2019 Essential	Dell	R 740	64GB	36TB
4	Jojobera	Recording-Server-3	1	Windows Server 2019 Standard	Dell	R 540	32 GB	36TB
5	Jojobera	Recording-Server-4	1	Windows Server 2019 Standard	Dell	R 740	64GB	40TB
6	MPL	Milestone-pc	1	Windows Server 2019 Standard	Dell	R 540	32 GB	16TB
7	MPL	MPL-REC-1	1	Windows Server 2019 Standard	Dell	R 540	16GB	36TB
8	MPL	MPL-REC-2	1	Windows Server 2019 Standard	Dell	R 540	16GB	36TB

9	MPL	MPL-REC-3	1	Windows Server 2019 Standard	Dell	R 540	16GB	36TB
10	CGPL	MTPS-REC1	1	Windows Server 2019 Standard	Dell	R 740	64GB	40TB
11	CGPL	MTPS-REC2	1	Windows Server 2019 Standard	Dell	R 740	64GB	40TB
12	CGPL	MTPS-REC3	1	Windows Server 2019 Standard	Dell	R 740	64GB	40TB
13	CGPL	MTPS-REC4	1	Windows Server 2019 Standard	Dell	R 740	64GB	40TB
14	CGPL	MTPS-REC6	1	Windows Server 2019 Standard	Dell	R 740	64GB	40TB
15	CGPL	MTPS_REC5	1	Windows Server 2019 Standard	Dell	R 740	64GB	40TB
16	CGPL	MTPS_REC7	1	Windows Server 2019 Standard	Dell	R 740	64GB	40TB
17	CGPL	MTPS-REC8	1	Windows Server 2019 Standard	Dell	R 740	64GB	40TB
18	CGPL	cgpl-plant-r10	1	Windows Server 2019 Standard	Dell	R540	64GB	36TB
19	CGPL	cgpl-plant-r12	1	Windows Server 2019 Standard	Dell	R740	64GB	36TB
20	CGPL	cgpl-plant-mgmc	1	Windows Server 2019 Standard	Dell	R540	64GB	36TB
21	CGPL	cgpl-plant-mnmt (rednt)	1	Windows Server 2019 Standard	Dell	R740	64GB	36TB

EXISTING SMART CLIENT MONITOR BOQ

Sr.No	Location	Division	Make & Model	RAM	HDD	OS
1	Ambernath	Transmission	HP HP Z240 Tower Workstation	8 GB	1TB	Windows 10 Pro
2	Antophill	Transmission	Dell	8 GB	1TB	Windows 10 Pro
3	Backbay	Transmission	Dell Inc. OptiPlex 990 01	8 GB	5TB	Windows 10 Pro
4	Bhira	Hydro	Dell Inc. OptiPlex5000	8 GB	1TB	Windows 10 Pro
5	bhira	Hydro	Dell Inc. OptiPlex5000	8 GB	1.5 TB	Windows 10 Pro
6	Bhivpuri	Hydro	Dell Inc. OptiPlex 5090	8 GB	1TB	Windows 10 Pro
7	Bhivpuri	Hydro	Dell Inc. Precision T1650 01	4 GB	2.5TB	Windows 10 Pro
8	Bhivpuri	Hydro	Dell Inc. OptiPlex 5090	8 GB	1.TB	Windows 10 Pro
9	BKC	Transmission	Dell Inc. Precision T1700 01	8 GB	500GB	Windows 10 Pro
10	Borivali	Transmission	Dell Inc. OptiPlex 990 01	8 GB	1TB	Windows 10 Pro
11	Borivali	Distribution	Dell Inc. Vostro 3471	8 GB	1TB	Windows 10 Pro
12	Borivali	Distribution	Dell Inc. OptiPlex 5000	8 GB	1TB	Windows 10 Pro
13	Borivali	Transmission	Dell Inc. Precision T1700 01	8 GB	1TB	Windows 10 Pro
14	CARNAC	Transmission	Dell Inc. Precision T1650 01	4 GB	4.5TB	Windows 10 Pro
15	CARNAC	Transmission	Dell Inc. Vostro 3471	4 GB	500GB	Windows 10 Pro

16	CARNAC	Transmission	Dell Inc. OptiPlex 990 01	8 GB	2TB	Windows 10 Pro
17	Chembur	Transmission	HP HP Z240 Tower Workstation	8 GB	1TB	Windows 10 Pro
18	Chunabhati	Transmission	hp 240 Tower Workstation	8 GB	1TB	Windows 10 Pro
19	Dharavi	Transmission	Dell Inc. OptiPlex 5090	8 GB	1TB	Windows 10 Pro
20	Dharavi	Transmission	Dell Inc. OptiPlex 5090	8 GB	1TB	Windows 10 Pro
21	Dharavi	Transmission	Dell Inc. OptiPlex 5090	8 GB	1TB	Windows 10 Pro
22	Dharavi	Transmission	Dell Inc. OptiPlex 5090	8 GB	1TB	Windows 10 Pro
23	Dharavi	Transmission	Dell Inc. Precision T1700 01	8 GB	500GB	Windows 10 Pro
24	Dharavi	Transmission	HP HP Z240 Tower Workstation	8 GB	500GB	Windows 10 Pro
25	Dharavi	Transmission	Dell Inc. OptiPlex 9030 AIO 01	8 GB	500GB	Windows 10 Professional (x64) Version 2009 (build 19043.1826)
26	Dharavi	Transmission	HP HP Z240 Tower Workstation	16GB	3TB	Windows 10 Pro
27	Dharavi	Transmission	HP 202 G2 MT	8 GB	2TB	Windows 11 Pro
28	Dharavi	Transmission	Dell Inc. Precision T1700 01	4 GB	500GB	Windows 10 Pro
29	Dharavi	Transmission	Hewlett-Packard HP Compaq 6200 Pro SFF PC	16 GB	500GB	Windows 10 Pro
30	Dharavi	Transmission	GIGABYTE	16GB	7TB	Windows 10 Pro
31	Bhokarpada	Transmission	HP Z240 Tower Workstation	8 GB	500GB	Windows 10 Pro
32	karanjade	Transmission	Dell Inc. Precision 3630 Tower	32 GB	500GB	Windows 10 Pro
33	Kalyan	Transmission	Dell Inc. OptiPlex 5080	8 GB	1TB	Windows 10 Pro
34	Kalyan	Transmission	Dell Inc. OptiPlex 5080	8 GB	1TB	Windows 11 Professional
35	Kalyan	Transmission	Dell Inc. Precision T1700 01	4 GB	500GB	Windows 10 Pro
36	Kalyan	Transmission	Dell Inc. Precision T1700 01	4 GB	500GB	Windows 10 Pro
37	Khopoli	Transmission	Dell Inc. OptiPlex 5090	8 GB	1TB	Windows 10 Pro
38	Khopoli	Hydro	Dell Inc. OptiPlex 5090	8 GB	1TB	Windows 10 Pro
39	Khopoli	Hydro	Dell Inc. OptiPlex 5090	8 GB	1TB	Windows 10 Pro
40	Khopoli	Hydro	Dell Inc. OptiPlex 5090	8 GB	500GB	Windows 10 Pro
41	Khopoli	Hydro	Dell Inc. Precision T1700 01	8 GB	500GB	Windows 10 Pro
42	Kolshet	Transmission	HP HP Z240 Tower Workstation	8 GB	1TB	Windows 10 Pro
43	Kurla HDIL	Transmission	HP HP Z240 Tower Workstation	8 GB	1TB	Windows 10 Pro
44	Mahalaxmi	Transmission	HP HP Z240 Tower Workstation	8 GB	1TB	Windows 10 Pro
45	Malad	Transmission	Dell Inc. Precision T1700 01	8 GB	500GB	Windows 10 Pro
46	Mankhurd	Transmission	HP HP Z240 Tower Workstation	8 GB	2TB	Windows 10 Pro
47	Parel	Transmission	Dell Inc. OptiPlex 990 01	8 GB	2.5TB	Windows 7 Professional (x64) Service Pack 1 (build 7601.23742)
48	Parel	Transmission	Dell Inc. Precision T1700 01	8 GB	500GB	Windows 10 Pro
49	Parel	Transmission	Dell Inc. Precision T1650 01	4 GB	2TB	Windows 10 Pro
50	Powai	Transmission	Dell Inc. OptiPlex 990 01	8 GB	2TB	Windows 10 Pro
51	Powai	Transmission	Dell Inc. OptiPlex 990 01	8 GB	1TB	Windows 10 Pro

52	Sahar	Transmission	Dell Inc. Precision T1700 01	8 GB	500GB	Windows 10 Pro
53	Saki	Transmission	HP HP Z240 Tower Workstation	8 GB	1TB	Windows 10 Pro
54	Saki	Transmission	Dell Inc. OptiPlex 5090	8 GB	1TB	Windows 10 Pro
55	saki	Transmission	HP HP Z240 Tower Workstation	8 GB	1TB	Windows 10 Pro
56	saki	transmission	HP HP Z240 Tower Workstation	8 GB	1TB	Windows 10 Pro
57	saki	Transmission	HP HP Z240 Tower Workstation	8 GB	1TB	Windows 10 Pro
58	salsette	Transmission	HP HP Z240 Tower Workstation	8 GB	1TB	Windows 10 Pro
59	Salsette	Transmission	Dell Inc. Precision T1700 01	8 GB	500GB	Windows 10 Pro
60	Trombay	Trombay	Dell Inc. Precision T1700 01	8 GB	500GB	Windows 10 Pro
61	Trombay	Trombay	Dell Inc. OptiPlex 3010 01	4 GB	500GB	Windows 10 Pro
62	Trombay	Trombay	Dell Inc. OptiPlex 5000	8 GB	1TB	Windows 10 Pro
63	Trombay	Trombay	Dell Inc. OptiPlex 3060	4 GB	1TB	Windows 10 Pro
64	Trombay	Trombay	Dell Inc. Precision T1700 01	8 GB	2.5TB	Windows 10 Pro
65	Trombay	Trombay	Dell Inc. Precision T1700 01	8 GB	4.5TB	Windows 10 Pro
66	Trombay	Trombay	Dell Inc. OptiPlex 5000	8 GB	1TB	Windows 10 Pro
67	Trombay	Trombay	Dell Inc. OptiPlex 990 01	8 GB	2TB	Windows 10 Pro
68	Trombay	Trombay	Dell Inc. Vostro 3471	8 GB	1TB	Windows 10 Pro
69	Trombay	Trombay	Dell Inc. OptiPlex 990 01	8 GB	1TB	Windows 10 Pro
70	Trombay	Trombay	HP	8 GB	1TB	Windows 10 Pro
71	Trombay	Trombay	Dell Inc. OptiPlex 5090	8 GB	1TB	Windows 11 Professional
72	Trombay	Trombay	Dell Inc. Precision T1650 01	8 GB	1TB	Windows 10 Pro
73	Versova	Transmission	HP HP Z240 Tower Workstation	8 GB	1TB	Windows 10 Pro
74	Vikhroli	Transmission	HP Z240 Tower Workstation	8 GB	1TB	Windows 10 Pro
75	Waghivali	Hydro	HP HP Z4 G4 Workstation	8 GB	1TB	Windows 10 Pro
76	Mahalaxmi	Transmission	HP HP Z240 Tower Workstation	8 GB	1TB	Windows 10 Pro

Sr.No.	Location	Client System Name	QTY	Operating system	Make	Model No.	RAM	HDD capacity
1	MPL	Client-1	1	Windows 10	Dell	Dell Precision T1650	8GB	2TB
2	MPL	Client-2	1	Windows 10	Dell	Dell Precision T1650	8GB	2TB
3	MPL	Client-3	1	Windows 10	Dell	Dell Precision T1650	8GB	300GB
4	MPL	Client-4	1	Windows 10	Dell	Dell Precision T1650	8GB	6TB
5	MPL	Client-5	1	Windows 10	Dell	Dell Precision T1650	8GB	2TB
6	MPL	Client-6	1	Windows 10	Dell	Dell Precision T1650	8GB	2TB
7	MPL	Client-7	1	Windows 10	Dell	Dell Precision T1651	8GB	2TB
8	Jojobera	Client-1 (U#1)	1	Windows 10	Dell	Dell Precision T1650	8GB	250GB
9	Jojobera	Client-2 (U#2&3)	1	Windows 10	Dell	Dell Precision T1650	8GB	250GB*2
10	Jojobera	Client-3 (U#4)	1	Windows 10	Dell	Dell Precision T1650	8GB	250GB

11	Jojobera	Client-4 (U#5)	1	Windows 10	Dell	Dell Precision T1650	8GB	1TB
12	Jojobera	Client-5 (Store)	1	Windows 10	Dell	Dell Precision T1650	8GB	250GB
13	Jojobera	Client-6 (EOC)	1	Windows 10	Dell	Dell Precision T1650	8GB	250GB
14	Jojobera	Client-7 (Sec)	1	Windows 10	Dell	Dell Precision T1650	8GB	2TB
15	Jojobera	Client-8 (Sec)	1	Windows 10	Dell	Dell Precision T1650	8GB	250GB
16	Jojobera	Client-9 (CHP) New	1	Windows 10	Dell	Dell Optiplex 5000	8GB	1TB
17	Jojobera	Client-10 (Sec) New	1	Windows 10	Dell	Dell Optiplex 5000	8GB	1TB

NEW SUPPLY, INSTALLATION & COMMISSIONING BOQ

Sr. No.	Description	Qty. Set / Nos.
1	IP Fixed Box Camera (Outdoor Type) including brackets, support steel, Accessories etc.	750
2	IP PTZ Camera (Outdoor Type) including brackets, support steel, Accessories etc.	65
3	IP Fixed Dome Camera (Indoor Type) including brackets, support steel, Accessories etc.	250
4	Recording Servers	30
5	Supply of 3-year Milestone care pack	700
6	Supply of Xprotect Corporate Device Channel License of Milestone	700
7	Display for CCTV Monitoring 70"	2
8	Display for CCTV Monitoring 50"	10
9	Client monitoring workstation PC with monitor 32"	50
10	UTP Cables CAT 6	15000
11	PVC Pipe 1"	7000
12	Pole 3 mtr height	60
13	Pole 4 mtr height	20
14	Flexible pipe 3/4" and Accessories	1200
15	Power cable 3C 1,5 mm2	6000
16	Shifting of cameras within location	60

TATA POWER LOCATIONS

Tata Power Division Name		
Sr. No.	Name	Postal address
1	Ghatkopar	Tata Power Address sub-station DSS, Wadhva group, Opp vikhroli park site fire brigade, LBS marg, Ghatkopar, Bombay - 400 079
2	Akruti	Tata Power Ackruti Distribution Sub-station, Opp. Span Valencia, Gaurav enclave road, Mira road East, Mira Bhayandar, Maharashtra - 401107
3	Ambernath	Tata Power -Ambernath Receiving Station. Murbad Road, Varap, PO (Via) Kalayan, Dist. Thane 421301, Maharashtra.
4	Backbay	Tata Power Backbay Receiving Station, 148, Lt. Gen. J. Bhonsle Marg. Nariman Point, Mumbai - 400 021, Maharashtra
5	Borivali	Tata Power Borivali Receiving Station, Tata Power House Road, Borivli (East), Mumbai 400 066, Maharashtra
6	Malad	Tata Power Malad Sub Station, Malad Marve Road, Malad (West), Mumbai - 400 095, Maharashtra
7	Carnac	Tata Power Carnac Receiving Station, 34, Sant Tukaram Road, Carnac Bunder, Mumbai - 400 009, Maharashtra
8	Chembur	Tata Power Chembur Receiving Station, PO Box NO 18801, RCF Premises, Near Gate No.2, Chembur, Mumbai - 400 074, Maharashtra
9	Dahisar	Tata Power Dahisar Distribution Sub-Station, Nr. Shree Panchmrut CHS, N L Complex road, Dahisar East, Mumbai, Maharashtra - 400068
10	Godrej	Tata Power Godrej distribution Sub-Station Vikhroli, LBS marg, gate no. 3, Mumbai - 400 079
11	Ixora	Tata Power -Ixora Receiving Station. Hiranandani Business Park, Opposite Maharashtra Jeevan Pradhikaran, At - Bhaokarpada Village, Post Poyanje, Panvel, District - Raigad, 410206 Maharashtra.
12	Kalyan	Tata Power Kalyan -Transmission Division, Shil Road, Netivli Kalyan, Dist. Thane 421301, Maharashtra.
13	Kilick Nixon	Tata Power Killick Nixon distribution Sub-Station, Hiranandani bussness park, Saki vihar road, near Ansa industrial estate Andheri East, Mumbai - 400 072, Maharashtra

14	Mankhurd	Tata Power -Mankhurd Sub Station, Mumbai Pune Road, Mankhurd, Mumbai 400088, Maharashtra.
15	Market City	Tata power Marketcity DSS, LBS road, near phinix mall, Market city Kamani, Kurla west- Mumbai 400 070 Maharashtra.
16	Mial 1	Tata Power Mial 1- Distribution Sub-Station Behind Concor Air Warehouse, Western Express Highway, Marble line Service road, Navpada, Inside Airport Premises, Vileparle E.
17	Mind Space	Tata Power Mindspace Distribution sub station Near Hometel hotel, Chinchpokli Bander, Off link road, Malad West. Mumbai - 400 064
18	Mira Road	Tata Power Miraroad Distribution Sub-Station, Opp. MBMC Kashmiri Bhaji Market, Silver sarita road, Mira road East, Mira Bhayandar, Maharashtra - 401107
19	Nesco	Tata Power Nesco distribution substation, Jogeshwari- vikhroli link road, goregaon WEH.
20	Panvel	Tata Power Panvel Receiving Station, Old Mumbai Pune Road, Behind MSEDCL Bhingari substation, Bhingari Panvel, Dist Raigad Maharashtra
21	Parel	Tata Power Parel Receiving Station, Parel Tank Road, Parel Mumbai - 400 033, Maharashtra
22	Mahalaxmi	Tata Power Mahalaxmi Sub-Station, Senapati Bapat Marg, Lower Parel, Mumbai - 400 013 Maharashtra
23	Pocket 10	Tata Power Pocket 10 Distribution Sub-Station Behind Ackruti Trade Centre, Rd Number 7, Kondivita, Andheri East
24	Powai	Tata Power Powai Receiving Station, Near MTNL Hiranandani Kailash Complex Road, Powai, Mumbai-400 076, Maharashtra
25	Pratiksha nagar	Tata Power Pratiksha nagar sub Station, Almeda compound
26	Chunabhatti	Tata Power chunabhatti terminal clot, N F Mani road, Vrundavan, Chunabhatti sion mumbai 4000 022
27	Sewri	Tata Power Sewree fort yard, near colgate pololiv company, sewree, Mumbai 4000 015
28	Raheja Reflection	Tata Power Raheja Reflection Distribution Sub-Station, Opp. Raheja reflection serenity, Thakur Village road, Borivali east, Mumbai - 400066
29	Reservior Plot	Tata Power Reservior Plot- Distribution Sub-Station Marol Industrial Area, MIDC Cross Rd, No 21, Near Vijay Nagar Flyover Bridge, Adjacent to Option Primo Building, Andheri East

30	Sahar	Tata Power Sahar Receiving Station, Near Hotel Leela, Sahar T2 Airport Road, Andheri East, Mumbai-400 059, Maharashtra
31	Saki	Tata Power Saki Receiving Station 42, Saki Vihar Road, Andheri (East), Mumbai - 400 072 Maharashtra
32	Salsette	Tata Power Salsette Receiving Station Lake Road, Bhandup, Mumbai - 400 078, Maharashtra
33	Kolshet	Tata Power Kolshet Sub Station Ghodbunder Road, Manpada, Thane (West)-400 601 Maharashtra
34	Supreme	Tata Power Supreme DSS distribution Sub-Station Supreme complex
35	Vasant Utsav	Tata Power Near Thakur Engineering collage opposite gate no 7, techno park building Thakur village Kandivali (East)
36	Versova	Tata Power Versova Sub Station Off Andheri - Malad Link Road Andheri (West), Mumbai - 400 053 Maharashtra
37	Vikhroli	Tata Power Vikhroli Sub Station Godrej Soap Premises Vikhroli (East), Mumbai - 400 079 Maharashtra
38	Vrindavan	Tata Power Vrundawan DSS, BARC, Chembur.
39	Bandra BMC	Tata Power Bandra Sub Station Bandra Pumping Station, bus stop near reclamation, Mount Merry, Bandra West, Mumbai 400 050
40	Bhira & Head works	Tata Power Bhira PO Bhira, Taluka Mangaon Dist. Raigad - 402 308. Maharashtra
41	Bhivpuri & Head works	Tata Power Bhivpuri PO Bhivpuri Camp, Taluka Karjat Dist. Raigad 410 201 Maharashtra

42	Khopoli & Head works	Tata Power Company LTD, Khopoli Power House, Khalapur, Dist. Raigad 410 204
43	Trombay IMD	Trombay Thermal Power Station Chembur-Mahul Road, Mahul Mumbai 400 074
44	Trombay TPTD	Trombay Thermal Power Station Chembur-Mahul Road, Mahul Mumbai 400 074
45	Trombay Security	Trombay Thermal Power Station Chembur-Mahul Road, Mahul Mumbai 400 074
46	MPL	Tata Power Maithon MA-5 Gogna, P.O. Maithon Dam, District - Dhanbad 828207, Jharkhand
47	JOJOBERA	Tata Power Jojobera Power Plant, Jamshedpur 831 016 Jharkhand
48	Dharavi	Tata Power, Dharavi Receiving Station Matunga, Near Shalimar Industrial Estate Dharavi, Mumbai - 400 019 Maharashtra
49	BKC	Tata Power BKC Substation Near Asian Heart Hospital, Opposite Bharat Diamond Bourse Bandra Kurla Complex, Bandra (East). Mumbai - 400 051 Maharashtra
50	Antophill	Tata Power Antop Hill Samadhan Nagar Rd, near MCGM School, Dosti Acres, Antop Hill, Mumbai, Maharashtra 400037
51	Kurla Hdli	Tata Power H Wing, Vidyavihar Rd, Premier Residencies, Kurla West, Mumbai, Bandra BMC, Maharashtra 400070
52	PSCC	Trombay Thermal Power Station, Chembur-Mahul Road, Mahul, Mumbai 400 074
53	Technopolis	The Tata Power Company Limited, Centre for Technology Excellence, Technopolis Knowledge Park, 4th floor, Mahakali Caves Road, Chakala, Andheri (E), Mumbai 400093, Maharashtra, India
54	Karanjade	The Tata Power Company Limited karanjade, Dombala, Panvel, Navi Mumbai, Maharashtra 410206
55	Waghiwali	Tata Power Substation Wagivali, Ulwe , Near Upcoming Navi Mumbai Airport 410206

56	CGPL	The Tata Power Company Limited,Mundra Thermal Power Station - Ultra Mega Power Plant, formerly a Unit of Coastal Gujarat Power Limited ,Tunda-Vandh Road, Tunda Village, Mundra, Kutch 370 435, Gujarat
57	Grant road RS	The Tata Power Company Limited , B.E.S.T , Receiving Station , Lane No - 10 , Khetwadi, Grant Road

AMC Services for Existing System.

Sr. No.	Description	Qty. Set / Nos.
1	AMC of Bullet cameras with SMPS, Bracket, supports, patch cord, cable, conduits etc.	1550
2	AMC of PTZ cameras with SMPS, Bracket, supports, patch cord, cable, conduits etc.	150
3	AMC of Dome cameras with SMPS, Bracket, supports, patch cord, cable, conduits etc.	600
4	AMC of recording servers	95
5	AMC of client monitoring station with monitor 32"	95
6	AMC of LCD monitors of size 41" to 65"	25
7	1 Year AMC Xprotect corporate license of camera	2300
8	1 Year AMC Xprotect corporate license of management server	3
9	AMC of Large Display for CCTV Monitoring 66" to 70"	3
10	AMC of Display for CCTV Monitoring 33" to 40"	50
11	Relocation of existing cameras with all accessories	50

Supply & Services For New Installation

S N	Description	Qty. Set / Nos.
1	IP Fixed Box Camera (Outdoor Type) including brackets, support steel, Accessories etc.	750
2	IP PTZ Camera (Outdoor Type) including brackets, support steel, Accessories etc.	65
3	IP Fixed Dome Camera (Indoor Type) including brackets, support steel, Accessories etc.	250
4	Recording Servers	30
5	Supply of 3-year Milestone care pack	700
6	Supply of Xprotect Corporate Device Channel License of Milestone	700
7	Display for CCTV Monitoring 70"	2
8	Display for CCTV Monitoring 50"	10
9	Client monitoring workstation PC with monitor 32"	50
10	UTP Cables CAT 6	15000
11	PVC Pipe 1"	7000
12	Pole 3 mtr height	60

13	Pole 4 mtr height	20
14	Flexible pipe 3/4" and Accessories	1200
15	Power cable 3C 1,5 mm2	6000
16	Shifting of cameras within location	60

NON COMPREHENSIVE ANNUAL MAINTENANCE SERVICES FOR NEW INSTALLATION:

S N	Description	Qty. Set / Nos.
1	IP Fixed Box Camera (Outdoor Type) including brackets, support steel, Accessories etc.	750
2	IP PTZ Camera (Outdoor Type) including brackets, support steel, Accessories etc.	65
3	IP Fixed Dome Camera (Indoor Type) including brackets, support steel, Accessories etc.	250
4	Recording Server with monitor and accessories	30
5	3-year Milestone care pack	700
6	Xprotect Corporate Device Channel License of Milestone	700
7	AMC Xprotect Corp MGMNT License	3
8	Display for CCTV Monitoring 70"	2
9	Display for CCTV Monitoring 50"	10
10	Client monitoring workstation PC with monitor and accessories	50
11	Shifting of cameras within location	60

ANNEXURE VIII
Inspection Test Plan

NA

Annexure IX
General Conditions of Contract

Attached as Annexure to this document

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Annexure X

Manufacturers Authorization Form

(To be submitted on OEM's Letter Head)

Date:

Tender Enquiry No.:

To,
Chief - Contracts,
Tata Power Company Limited, Mumbai

Sir,

Whereas M/s. [name of OEM], who are official manufacturers ofhaving factories at [Address of OEM] do hereby authorize M/s. [name of bidder] to submit a Bid in relation to the Invitation for Bids indicated above, the purpose of which is to provide the following Goods, manufactured by us and to subsequently negotiate and sign the Contract.

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

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

Yours Sincerely,

For
Authorized Signatory

CONFIDENTIAL

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

3. Compliance of Local Laws:

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

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

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

4. Owner's Obligation:

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

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

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

- 5.1 The Contractor shall engage appropriately qualified persons to provide the services with the prior approval of Owner. Owner may withhold such approval for any reason whatsoever.
- 5.2 The Contractor hereby represents and warrants that:
 - i) the personnel are duly qualified, and are, and will remain, sufficiently qualified, careful, skilful, diligent and efficient to provide the services to Owner; and
 - ii) the Services will be rendered carefully, skilfully, diligently and efficiently, and to the professional standard reasonably expected by Owner of a contractor qualified and experienced in providing services substantially the same as the Services.
- 5.3 The Contractor must ensure that the Contractor's personnel conduct themselves in a proper manner and comply with the procedures and all policies, regulations and directives of Owner including any occupational, health and safety policies and the relevant prevailing laws and regulations in the Country of operations and specifically in the area where Work is being executed.
- 5.4 Owner may inform the Contractor to immediately remove Contractor's personnel from the relevant premises in the event of misconduct or incompetence on the part of the Personnel. The Contractor shall at all times remain liable for all acts and/or omissions of its Personnel.
- 5.5 It is made clear that no relationship of Owner and employee is created between Owner and the Contractor's resident engineers, employees and no claim for employment of any such personnel shall be tenable or entertained.

6. Title of Property:

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

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

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

7. Work Completion schedule:

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

8. Contract Price and Payment:

- 8.1 The Contract Price shall be a firm & fixed Contract Value for the Work inclusive of all the taxes, levies & duties and shall remain firm till the validity of this contract.
- 8.2 Unless Specifically stated elsewhere in the contract, the Contractor is solely liable for payment of , and warrants that it will pay, or ensure the payment of all taxes imposed, assessment made in relation to the Work.
- 8.3 An amount as stated in the table below shall be retained towards Contractor's safety performance against every RA bill:

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

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

- 8.4 For Contract Price Rs. 1 crores or above and Contract Completion Schedule 12 months or more, the above safety retention will be released half yearly against the Safety Performance Score (methodology for evaluation enumerated in the Safety Terms & Conditions attached as Appendix to this General Terms & Condition) which will be evaluated by the Order Manager every month. For all other contracts, the above said safety retention shall be released along with the final settlement only at the end of the contract period.
- 8.5 The Owner shall have the right to stop any work which in its opinion is not meeting the safety standards/ guidelines of the Owner and good engineering practice. The Contractor shall not be eligible for and shall not be granted any extension in Completion Schedule due to such stoppage of work by the Owner.
- 8.6 The above retention towards safety shall not absolve the Contractor of its liabilities including statutory liabilities towards safety violations, injury or death (whether by accident or otherwise). An amount between Rs. 5 to 50 lakhs as deemed appropriate by Owner's appointed Committee for incident investigation and/ or as determined by statutory authorities (whichever higher), will be payable by the Contractor in case of such severe incidents of injury leading to loss of property or partial/ permanent disablement (e.g. loss of limb/s, vision etc.) or death.
- 8.7 Notwithstanding anything else stated in the Contract, the Contractor shall be liable for termination without any notice and without recourse to Owner in case of three (3) or more severe safety violations. There shall be no termination fees/ compensation payable to Contractor for such termination.
- 8.8 In case the Contractor achieves 100% on the Safety Performance Score, the Contractor shall be awarded a discretionary bonus of 1% of invoiced value subject to a maximum of Rs. 50 lakhs towards Safety Performance.
- 8.9 Payment shall be released within 60 days of submission of error free invoice with supporting documents duly certified by the Order Manager/ Engineer-in-Charge after deducting taxes at source as prescribed under the applicable law, income – tax or other deductions under the state value added tax laws . If such payment release

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

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

9. **Taxes and Duties:**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

10. Contract Performance Guarantees (If applicable)

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

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

11. Price Reduction:

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

- 11.2 The overall cap on liquidated damages shall be limited to 10% of the Contract Price.

12. Insurance

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

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

13. Indemnification:

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

14. Indemnity against IPR:

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

15. Free Issue Material:

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

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

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

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

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

16. Relation between parties:

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

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

17. Safety:

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

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

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

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

18. Suspension of Work

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

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

19. Change Management:

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

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

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

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

20. Governing Laws

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

21. Jurisdiction

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

22. Dispute settlement:

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

23. Force majeure:

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

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

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

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

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

24. Sub letting and Assignment

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

25. Limitation of Liability:

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

26. Confidentiality:

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

27. Termination:

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

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

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

27.3.1 The Contractor becomes bankrupt or goes into liquidation.

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

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

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

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

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

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

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

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

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

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

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

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

28. Consequential Damages:

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

29. Environment / ISO 14001 Certification:

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

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

30. Non-Exclusive Agreement

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

31. Severability

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

32. Housekeeping & Removal of scrap:

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

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

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

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

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

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

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

33. Tata Code of Conduct

The Owner abides by the Tata Code of Conduct in all its dealing with stake holders and the same shall be binding on the Owner and the Contractor for dealings under this Order/ Contract. A copy of the Tata Code of Conduct is available at our website:

<http://www.tatapower.com/aboutus/code-of-conduct.aspx>. The Contractor is requested to bring any concerns regarding this to the notice of our Chief Ethics Officer on the e-mail ID: cecounsellor@tatapower.com.

34. Responsible Supply Chain Management:

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

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

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

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

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

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

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

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

35. Vendor rating:

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

36. Vendor Feedback:

34.1 In this dealing Vendors feedback is important for the purchaser to improve its processes. If Contractor have to report any grievance, problem or require any clarification, information, Contractor is requested to contact purchaser at email ID:

CC_CUSTOMERFEEDBACK@tatapower.com

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

37. Non-Waiver:

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

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 statutes: (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 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 statutes, 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 statutes: (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

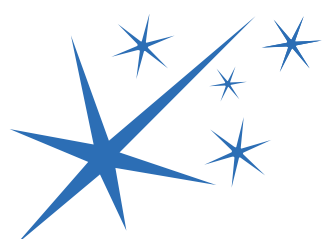
- We will uphold the values of honesty, partnership and fairness in our relationship with stakeholders
- We shall provide and maintain a clean, healthy and safe working environment for employees, customers, partners and the community
- We will strive to consistently enhance our value proposition to the 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	TPC TPS TPS	 TATA TATA POWER	TPN TPW TPW	Appendix 3 to CSCC Safety Terms and Conditions
Document No. TPSMS/GSR/STC/009 REV 05				Date of Issue: 01/08/2023

Appendix 3:

Safety Terms and Conditions

Reason for Change	Date of Last Revision	Prepared By	Reviewed By	Approved by
Inclusion of Odisha Discom and periodic Revision	<u>10-Jan-2021-R4</u>	All Discom and CFT members	Debi Prasad Acharya (Head-Safety-Odisha Discom)	Suresh H Khetwani (Chief safety and Environment)

The Tata Power Company Ltd	TPC ^{ODL} TPS ^{ODL}	 TATA POWER	TPN ^{ODL} TPW ^{ODL}	Appendix 3 to CSCC Safety Terms and Conditions
Document No. TPSMS/GSR/STC/009 REV 05				Date of Issue: 01/08/2023

Clause	Sub-clause	Description	Page No
1.0		Objectives	3
2.0		Scope	3
3.0		Safety Organization & Responsibilities	3
	3.1	Contractor Site Management and Supervision	3
	3.2	Contractor Supervisors and General Staff	4
	3.3	Contractor Workforce	4
	3.4	Vendor/Contractor/sub-contractor	5
4.0		<u>Tools and Tackles(R5)</u>	6
5.0		Site Safety Rules and Procedures	6
6.0		Critical safety Rules and Procedures	6
7.0		<u>General Safety Rules and Procedure(R5)</u>	8
8.0		Training and Capability Building	10
9.0		Pre-Employment and Periodic Medical check-up	12
10.0		Safety performance retention(R5) and Safety Performance Evaluation	12
11.0		<u>Recognition to the Prior Learning in Safety-R5</u>	12
12.0		Other Conditions	13
<u>General Safety Conditions for various contracts Specific to Discom(R5)</u>			
13.0		<u>Safety Conditions for maintenance of STS (Sub Transmission System) Network for Discom(R5)</u>	14
14.0		<u>Safety Conditions for maintenance of 11 KV and LT Network for Discom(R5).</u>	15
15.0		<u>Safety Conditions for the major contract work in Civil Projects for Odisha Discom(R5)</u>	16
16.0		<u>Safety Conditions for the major contract work in Commercial Department like - MMG, RRG, EAG, etc(R5)</u>	17
17.0		<u>Safety Conditions for Major Projects in Distribution Network(R5)</u>	18
18.0		<u>Schedule of Safety Audits by BA Safety Staff(R5)</u>	19

<p>The Tata Power Company Ltd</p> <p>Document No. TPSMS/GSR/STC/009 REV 05</p>		<p>Appendix 3 to CSCC Safety Terms and Conditions</p> <p>Date of Issue: 01/08/2023</p>
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1.0 Objective:

The Objective of Safety Terms and Conditions is to apprise the Business Associates about various critical procedures of the Tata power Division/Discoms and the expectations from the BA to implement such procedures without fail. Certain terms and conditions are also mentioned to ensure a safe work atmosphere round the year. Refer Contractor's Safety Code of Conduct- Document no TPSMS/GSP/ CSM/015

2.0 Scope:

This procedure applies to all operating and project sites of The Tata Power Company Ltd and Group companies including new businesses like Electric Vehicle charging, Home Automation, Microgrid, Roof top solar etc. This Code of Conduct also applies to all operating and project sites of four Odisha Discoms and New business based on mutually agreed timeline for implementation. R5

3.0 Safety Organization & Responsibilities

3.1 Contractor Site Management and Supervision

Each Contractor will be responsible for fulfilling all statutory and safety requirements as per the laws of the land and not limited to Factory Act, Electricity Act, Electricity Rules and Regulations, Shop and Establishment Act etc.

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

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

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

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

The Tata Power Company Ltd		Appendix 3 to CSCC Safety Terms and Conditions
Document No. TPSMS/GSR/STC/009 REV 05		Date of Issue: 01/08/2023

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

Responsibility of Site manager includes, but not limited to:

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

3.2 Contractor Supervisors and General Staff.

Contractors' site supervisors and general staff members in charge of job site functions such as field engineering, warehousing, purchasing, costing, and scheduling etc. are responsible for the safe performance of the work of those they supervise. They must set an example for their fellow employees by being familiar with applicable sections of the Site Safety program and ensuring that all site activities are performed with SAFETY as the primary objective.

Each site supervisor is responsible and will be held accountable for identifying, analyzing, and eliminating or controlling all hazards through implementation of an aggressive, pro-active Health, Safety and Environmental Program. Each supervisor will proactively participate in the Safety program by observing, correcting, and recording unsafe acts and conditions at plant / sites.

3.3 Contractor Workforce

- 3.3.1 Contractors shall provide adequate quality and quantity of manpower as mutually agreed. (R5)
- 3.3.2 All the contractor employees shall attend "SHE L0(Other than new business and Odisha Discom)/L1 Foundation Course in Safety". Depending on the critical procedure in job employees shall also be required to attend "SHE L2 course of critical/high risk operations". All Supervisors shall be required to attend "SHE L3 Supervisory Training". All the above trainings will be conducted by TPSDI/Skill development institute of Disco, or other equivalent institute approved by Tata Power.

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- 3.3.3 Contractor employees shall be required to attend any other additional training if suggested by Order manager or Site Safety Head. The cost of such additional training shall be borne by the Vendor.
- 3.3.4 Contractor / Vendor shall mobilize their manpower well in advance to complete the training through TPSDI/Sill development Institute.
- 3.3.5 The Vendor / BA shall arrange or bear the conveyance and food expenses incurred during training of BA employees in Odisha Discom. (R5)
- 3.3.6 The validity of the training L1, L2 and L3 is 3 years. There will be competency assessment as Revalidation test in every three months for Tata Power Division and six months for Odisha Discom till one year from implementation of CSCC.(R5) Those who fail in the competency assessment shall undergo training again.
- 3.3.7 Supervisors/Welder/Electricians/Line man /Fitters /Radiographers/Riggers engaged by the contractor shall have valid competency certificates issued by authorized agency/Institute.
- 3.3.8 Contractor workforce must make safety a part of their job by following safety rules and regulations and by using all safeguards and safety equipment. They must take an active part in the Safety programs for the Site.
- 3.3.9 Every member of the workforce is expected to report for work without influence of any Drug/Alcohol. Failure to comply with this requirement shall result in immediate termination of employees under the influence of drug and alcohol plus show cause notice/penalty to the vendor.
- 3.3.10 All employees shall report hazardous conditions, practices and behaviours in their work areas and correct wherever possible.
- 3.3.11 Workforce is responsible for active participation in safety and health programs, suggestion systems, trainings and reporting of unsafe act/practices, Unsafe conditions incidents and injuries to their supervisors.

3.4 Vendor/Contractor/sub-contractor

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

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4.0 Tools and Tackles(R5)

- 4.1 Tools & Tackles used to carry out the job shall be checked and inspected by Order Manager and safety Officer.
- 4.2 Vendor must submit a valid Certificate from Competent person under the Factories Act 1948 and State Factories Rule for all Lifting Tools and Tackles (like Hoist, D Shackles, chain Block, wire ropes etc.).
- 4.3 All Electrical Hand Tools must be tested for leakage of current by a person /agency authorized by Tata Power Division /Discoms. Electrical power must be taken through RCCB of 30mA. Electrical hand tools should not have cord more than 3 meters in length. If power source is at > 3 meters, extension boards with RCCB of 30 mA and ON/OFF switch, shall be used.
- 4.4 Removal or inclusion of tools any new tool /tackles / machinery / equipment at site should only be done with concurrence of the order Manager / Head Safety.

5.0 Site Safety Rules and Procedures:

The work in the safest possible manner can only happen when it has been carefully planned and all applicable procedures are followed. The Tata Power Safety Procedures are derived from Tata Power best practices and the applicable Government acts regulations. In each case, the most stringent regulation is used. All safety rules and procedures developed from time to time shall be mandatorily followed by the vendor and his employees while working at Site.

6.0 Critical safety Rules and Procedures: Following is the list of Tata Power's critical Safety Rules and Procedures. Contractor shall refer to approved Rules and Procedures for detailed requirements and ensure conformance

6.1 Lock Out and Tag Out Procedure.

This procedure is intended to be used for the protection of Personnel while servicing or performing maintenance on distribution network/ equipment / pipeline / vessel / process systems. This is a general procedure that shall be used as the minimum requirements for isolation of equipment, pipelines, machines, system from all possible sources of hazardous energy and / or material such as Steam, Hot Water, Compressed Air, any other process fluid / chemical energy /Mechanical energy or Electrical energy. For complete procedure kindly refer Procedure Document No. **TPSMS/CSP/LOTO/001**

6.2 Excavation Safety (Shoring and Sloping) Procedure

This procedure is developed to cover the safe practices required for shoring and sloping in excavation and trenching jobs. This procedure is developed to establish mandatory requirements for practices to protect personnel, property and equipment from hazards associated with above activities. For complete procedure kindly refer Procedure Document No **TPSMS/CSP/EXS/002**

6.3 Confined Space Entry Procedure:

This procedure outlines the steps required to perform the confined space entry and to protect personnel from the hazards of entering and conducting operations in confined spaces. For complete procedure kindly refer Procedure Document No – **TPSMS/CSP/CSE/003**.

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6.4 Working at Height Procedure:

This procedure describes the rules and procedures to protect employees from the hazards of working at heights. This procedure is developed to cover the safe practices required for Working at Heights. This procedure is developed to establish mandatory requirements for practices to protect personnel from hazards associated in this area. For complete procedure kindly refer Procedure Document No – TPSMS/CSP/WAH/004.

6.5 Heavy Equipment Movement Safety Procedure.

Heavy equipment lifting and movement is an activity involving loading, unloading, storage and movement from one place to another including lifting and erection or repairing of equipment with cranes or hoists. Material, machinery and equipment handling operations are being carried out by large capacity cranes and hoists, which make the job safer and faster. This procedure addresses the hazards and precautions associated with such equipment and their use. For complete procedure kindly refer Procedure Document No – TPSMS/CSP/HEMS/005.

6.6 Mobile Crane Safety Procedure.

Mobile cranes are responsible for many incidents, injuries. Falling loads from mobile cranes pose a severe hazard to operators and nearby workers and property. Many types of cranes, hoists, and rigging devices are used for lifting and moving materials. To maintain safe, appropriate standards must be adhered to and only qualified and licensed individuals shall operate these devices. For complete procedure kindly refer Procedure Document No – TPSMS/CSP/MCS/006.

6.7 Scaffold Safety Procedure.

This procedure is developed to provide information on the safe erection, use, dismantling and maintenance of access scaffolding in the workplace. It is developed to establish mandatory requirements for practices to protect personnel from hazards associated with erection, use and dismantling of scaffolds. For complete procedure kindly refer Procedure Document No – TPSMS/CSP/SCAF/007.

6.8 Permit to Work Procedure.

Given the inherent hazards of the power generation and distribution industry, a significant number of TATA POWER operations and installations are critical. Work Permit (WP) System is an essential element in controlling the workplace risks in an effective manner. For complete procedure kindly refer Procedure Document No – TPSMS/CSP/PTW/008.

6.9 Job Safety Analysis (JSA) Procedure.

This objective of this procedure is to have a task-based risk assessment process in place that identifies, evaluates and controls the risks associated with work activities, and as a result, prevents those involved in the task or those potentially affected by the task, from being harmed. For complete procedure kindly refer Procedure Document No- TPSMS/CSP/JSA/009 REV 01.

6.10 Electrical Safety Procedure.

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The objective of these standards is to specify minimum mandatory requirements and advisory guidance for identifying and controlling hazards to ensure 'Zero Harm' regarding operation maintenance and testing of electrical equipment. For complete procedure kindly refer Procedure Document No- TPSMS/CSP/ELEC/010

6.11 Fire Safety Management Procedure.

Objective of This standard is to specify the minimum mandatory requirements and advisory guidelines to ensure prevention of fire related incidents and managing / controlling their impacts if they do occur. For complete procedure kindly refer Procedure Document No - TPSMS/CSP/ELEC/011

6.12 Hazard Identification & Risk Assessment (HIRA) Procedure(R5):

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

6.13 Management Of Change (MOC) Procedure(R5):

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

6.14 Pre-Start-up Safety Review (PSSR) Procedure(R5).

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

6.15 Road Safety procedure(R5):

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

7.0 General safety Rules and Procedure:

7.1 Lift (Elevator) Safety Procedure:

To provide safe operating procedure for taking control of lift car before entering and existing the pit of OTIS make elevators. For complete procedure kindly refer Procedure Document No – TPSMS/GSP/LIFT/001,

7.2 Working on conveyor belt Procedure:

This procedure is developed to cover the safe practices required for Working on live equipment and to protect personnel from hazards associated with it. For complete procedure kindly refer Procedure Document No – TPSMS/GSP/CONV/003

7.3 Batteries Handling & Disposal(R5)

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To provide procedure for recycling and / or safe disposal of used / waste batteries in compliance with all legislation. For complete procedure kindly refer Procedure Document No – **TPSMS/GSP/HAZM/003**

7.4 Material Handling and Storage Procedure:

The purpose of this document is to provide procedures to assist the safe handling of materials (manual handling and mechanical handling). For complete procedure kindly refer Procedure Document No – **TPSMS/GSP/MATL/004**.

7.5 Office Safety Procedure(R5):

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

7.6 Earth Leakage Circuit Breaker (ELCB) Testing Procedure(R5):

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

7.7 Occupational Health & Safety Legal Compliance Procedure(R5):

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

7.8 Incident Reporting & Investigation Procedure(R5):

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

7.9 Contractor Safety Management Procedure.

The purpose of this document is to engage with contractors in a way to create safe work environment for everyone working for Tata Power. For complete procedure kindly refer Procedure Document No – **TPSMS/GSP/CSM/015**.

7.10 Tree Trimming Procedure(R5):

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

7.11 Safe Lone Working Procedure(R5):

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

7.12 Good Housekeeping(5S) Procedure(R5):

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

7.13 Personal Protective Equipment(R5):

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

7.14 Process Safety Management Procedure(R5):

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

The above procedures will be updated time to time and the updated version of the procedures as well as any additional critical procedure will be available on official website of Tata Power (www.tatapower.com) for your reference.

8.0 Training and Capability Building.

Safety Training and capability building of workforce is a major component of safety management program. All training required must be provided and documented as specified by Tata Power and Indian Regulations. Tata Power Division /Discoms Safety department will audit contractors training and related documentation to assure its adequacy.

8.1 Tata power Odisha Discom Site Safety Orientation.R5

All Tata Power contractor and subcontractor workforce is required to attend Site Safety Orientation Training to receive a Safety Training Card, which is required to obtain a Gate Pass to the site, prior to entry. This Safety Orientation Course will be for duration of minimum half day. The information provided during the orientation will include, but is not limited to following:

- 8.1.1 Job rules, personal safety, and conduct
- 8.1.2 Hazard's reporting
- 8.1.3 Reporting of injuries
- 8.1.4 Emergency procedures
- 8.1.5 Safety Activities and Program including disciplinary measure and incentives.
- 8.1.6 Critical safety procedure relevant to the job

8.2 Capability Building:

- 8.2.1 All Tata Power contractor and subcontractor workforce is required to attend L1 Training to receive a Safety Training Card, which is required to obtain a Gate Pass to the site, prior to entry.
- 8.2.2 Appropriate practical training such as SHE L1, L2& L3 is given to ensure that a jobholder, either supervisor or worker, is competent to do his/her job safely. The skill training is provided through TPSDI, and other agencies authorized

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- by Tata Power on the list of 15 critical Safety procedures mentioned under safety procedures. Duration of course is as specified by Division/Discom
- 8.2.3** Contractor shall ensure that concerned workmen are provided with adequate training before he/she is allowed to execute the work. An evaluation test will be conducted after the completion of the training. Those employees who meet the minimum required competency will be provided with Certificate (Card), which will be valid for 3 years, post which the workmen have to reappear for assessment.
- 8.2.4** If the workman is not able to qualify the assessment, he/she will be given 3 additional attempts to clear in 3-month time failing which he/she will not be allowed to work in the Division /Discoms.
- 8.2.5** After expiry of Certificate or Training /Competency Card again one day recertification of L1, L2 and L3 skill training will be provided. R7.
- 8.2.6** Quarterly /Half yearly(For Odisha and New business) Revalidation Test - "SHE L1 Revalidation test" will be conducted for the contractor's employees to revalidate their safety awareness and knowledge.
- 8.2.7** Order Manager and Safety In charge of the Division/Site /Plant will conduct a Competency Assessment of all workforces, going to be deployed at site / plant for high-Risk job.
- 8.2.8** The Contactor shall bear the conveyance and food expenses of his staff for attending training sessions and capability building sessions in new business-like Odisha Discom.
- 8.2.9** The Contactor shall bear the entire cost of L1/L2/L3, the costs towards training, salaries/wages, boarding and lodging of his staff for attending training sessions and capability building sessions. These trainings are offered on nominal chargeable basis payable by Contractor and rates shall be decided by TPSDI from time to time in case of training through TPSDI. Generally, L0 is of one day, L1 is for 2 days for each critical procedure and L3 is for one day. Around Rs 700+GST is approx. cost /Day/Candidate. -R5
- 8.2.10** Competency assessment of all critical workforce to be carried out for all who has taken L2 training. R5

9.0 Recognition to the Prior Learning in Safety-R5

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

10.0 Safety performance retention(R5) and Safety Performance Evaluation: A certain percentage of the bill value will be retained against every running bill as safety performance retention. The amount will be released with the last invoice or every six-month based on Safety Performance Score of contractors. This is as per CSCC Document no TPSMS/GSP/ CSM/015

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This safety retention shall be waived for Contractors who have either submitted a Contract Performance Bank Guarantee or have a retention from each running bill for an amount not less than 10% of each bill subject to the express undertaking / understanding that if there are any deductions required to be made for safety non-performance as per the Safety Performance Score, then Tata Power shall recover any such deductions against safety non-performance directly from the monthly bills / final settlement as the case may be failing which it shall be within its right to recover such sum from accounts payable or the CPBG or the retention of the Contractor available with Tata Power for the said contract or any other contract between the Contractor and Tata Power.

11.0 Pre-Employment and Periodic Medical check-up:

Contractor shall arrange to conduct a pre-employment and periodic medical check-up for its entire workforce by Tata Power medical officer or Tata Power authorized medical officer. The contractor shall be able to produce the certificate prior to the employment. The contractor shall also organize to conduct periodical medical checkup (six monthly) for the following category of employees:

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

12.0 Other Conditions:

- 12.1. The manpower/vehicles/Tools & Tackles/Equipment provided shall be as per mutually agreed SLA.
- 12.2. No Supervision No work policy should strictly be followed.
- 12.3. Test Before Touch must be ensured every time a job is being carried out in electrical network.
- 12.4. HIRA /JSA as per the job scope must be prepared in detail and submitted along with Site Safety Plan by the successful bidder.
- 12.5. Personal protective equipment (PPE) must always be checked before use to ensure that they are in good condition and clean. Replace them if necessary.
- 12.6. All relevant PPE shall be provided by the vendor while working at the site.
- 12.7. Housekeeping shall be maintained all the time while execution of work. All the unwanted material shall be removed from the site at the end of the day's work. Old/damaged parts if taken out of the system shall be kept at

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identified placed and it shall be shifted to scrap yard or disposed of as per instruction of order manager.

- 12.8. Site Safety Plan shall be prepared by successful bidder along with order manger. Appendix 1 to be filled by successful bidder and submitted to Tata Power safety in-charge, before mobilization of team at site and start of the work.
- 12.9. The Owner or Proprietor of BA must visit worksite at least once in a month and meet Order Manager every month. In case of incidents, the Owner or Proprietor of BA is required to attend Time Out Meetings to understand the gaps that contributed to the incident.

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General Safety Conditions for various contracts Specific to Odisha Discom(R5)

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

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

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

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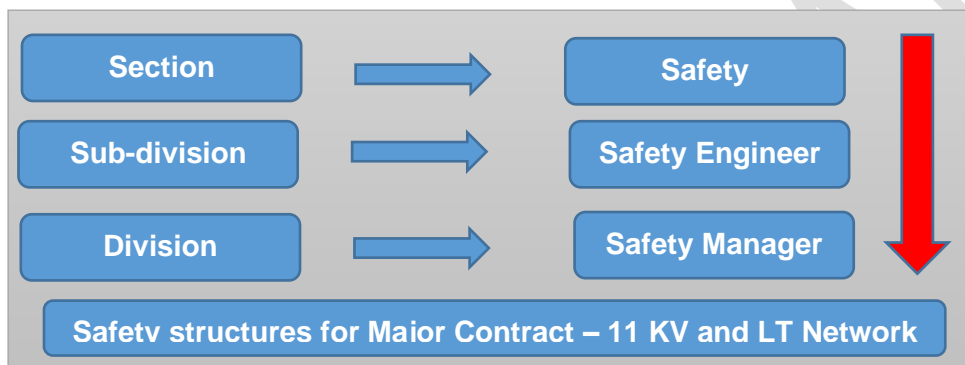
14.0 Safety Conditions for maintenance of 11 KV and LT Network.

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

- Availability of Discharge Rods - Minimum 6 Nos. in each PSS/FCC and maintenance vehicle, fit for purpose and in good conditions and defective rods are removed from service.
- Availability of Neon tester - Minimum one Neon Tester in each PSS/FCC/ Maintenance Vehicle, in good and working condition and defective or non-standard neon testers are removed from service.
- Electrical hand Gloves - Minimum two sets of 33 KV and two sets of 11 KV in each PSS/Maintenance vehicles and two sets of LT hand gloves at each FCC.
- The BA linemen must be having required ELBO certification for the voltage level involved.
- BA shall provide Safety Policy, Safety Objectives, Organogram showing structure and responsibility of Safety management of his company and shall document the work practices and procedures in terms of Safety Management.
- BA shall comply with all statutory requirements like applicable acts, regulations, codes of practice, OHSAS Standards, Labour laws, etc.
- BA shall abide by Safety manuals and guidelines of Discom issued from time to time.
- BA shall ensure safety training and induction program for the employees. The BA employees must carry safety training card / competency card to the worksite and produce the card on demand.
- All BA employees must be given valid ID card issued by BA cell of Discom who will check statutory compliances before issuing ID cards.
- BA shall not engage new workman without training and issue of ID card.
- PSS operator shall not be involved in maintenance activities.
- BA shall conduct safety audits & inspections as per Discom procedures.
- BA shall provide proper PPEs as per CSM F-8 ensure periodic inspection of PPE, Tools and tackles to ensure their serviceability.
- The BA shall participate in Safety promotional activities like celebration of Lineman day on 4th March, National Fire Service Day on 14th April and Theme based safety campaigns undertaken by the Discoms every month.
- BA to ensure that all LT complaints are routed through Call Centre and recorded in FCC. Rectification of fault shall be done only after call centre logging and with the knowledge of BA supervisor.
- No one will work alone or unsafely under public pressure or otherwise.
- BA shall ensure the adherence to standard operating procedures or guidelines laid down by the Discoms.
- BA shall ensure that no job shall be carried out without efficient supervision.

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- BA shall ensure reporting of any unsafe act, unsafe conditions, near miss, incident, or accident to engineer in-charge and SAFETY team of the Discom.
- BA shall provide safety performance and Safety MIS to engineer in-charge and Discom SAFETY group periodically. Based on any non-confirmation to the safety procedures and guidelines, BA is liable to be negatively marked for his performance and suitable penalty will be imposed.
- BA safety staff shall work as per the guidance of the Discom safety department and functionally report Safety Head of Discom. Any leaves by safety staff of the BA shall have to approved by Discom Safety Department.
- BA shall ensure to depute Safety Staff - One safety supervisor per section, One safety engineer per sub-division and one safety manager per Division Safety manager and Safety engineer must be having PDIS or ADIS.



15.0 Safety Conditions for the major contract work in Civil Projects:

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

- BA shall provide Safety Policy, Safety Objectives, Organogram showing structure and responsibility of Safety management of his company and shall document the work practices and procedures in terms of Safety Management.
- BA shall comply with all statutory requirements like applicable acts, regulations, codes of practice, OHSAS Standards, Labour laws, etc.
- BA shall abide by Safety manuals and guidelines of Discom issued from time to time.
- BA shall ensure safety training and induction program for the employees. The BA employees must carry safety training card / competency card to the worksite and produce the card on demand.
- All BA employees must be given valid ID card issued by BA cell of Discom who will check statutory compliances before issuing ID cards.
- BA shall not employ a new workman without training and issue of ID card.
- BA shall conduct safety audits & inspections as per Discom procedures.
- BA shall provide proper PPEs as per CSM F-8 ensure periodic inspection of PPE, Tools and tackles to ensure their serviceability.
- BA shall ensure the adherence to standard operating procedures or guidelines laid down by the Discoms.
- BA shall ensure that no job shall be carried out without efficient supervision.
- BA shall ensure reporting of any unsafe act, unsafe conditions, near miss, incident, or accident to engineer in-charge and SAFETY team of the Discom.

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- The BA shall participate in Safety promotional activities like celebration of Lineman day on 4th March, National Fire Service Day on 14th April and Theme based safety campaigns undertaken by the Discoms every month.
- BA shall provide safety performance and Safety MIS to engineer in-charge and Discom SAFETY group periodically. Based on any non-confirmation to the safety procedures and guidelines, BA is liable to be negatively marked for his performance and suitable penalty will be imposed.
- BA safety staff shall work as per the guidance of the Discom safety department and functionally report Safety Head of Discom. Any leaves by safety staff of the BA shall have to approved by Discom Safety Department.
- BA shall refer Construction Safety Manual of the Discom for details.
- BA shall ensure to depute a Safety Supervisor (for workforce up to 100 at site) / a safety engineer (for workforce up to 250 at site) / safety manager (for more than two safety engineers) for managing safety at the project site. In case the BA has been awarded more than one major contracts, then the following safety structure will be adopted.
- Safety Engineers and Safety Managers must be having PDIS or ADIS.



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

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

- BA shall provide Safety Policy, Safety Objectives, Organogram showing structure and responsibility of Safety management of his company and shall document the work practices and procedures in terms of Safety Management.
- BA shall comply with all statutory requirements like applicable acts, regulations, codes of practice, OHSAS Standards, Labour laws, etc.
- BA shall abide by Safety manuals and guidelines of Discom issued from time to time.
- BA shall ensure safety training and induction program for the employees. The BA employees must carry safety training card / competency card to the worksite and produce the card on demand.
- All BA employees must be given valid ID card issued by BA cell of Discom who will check statutory compliances before issuing ID cards.
- BA shall not employ a new workman without training and issue of ID card.
- BA shall conduct safety audits & inspections as per Discom procedures.
- The BA shall participate in Safety promotional activities like celebration of Lineman day on 4th March, National Fire Service Day on 14th April and Theme based safety campaigns undertaken by the Discoms every month.
- BA shall provide proper PPEs as per CSM F-8 ensure periodic inspection of PPE, Tools and tackles to ensure their serviceability.

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- BA shall ensure the adherence to standard operating procedures or guidelines laid down by the Discoms.
- BA shall ensure that no job shall be carried out without efficient supervision.
- BA shall ensure reporting of any unsafe act, unsafe conditions, near miss, incident, or accident to engineer in-charge and SAFETY team of the Discom.
- BA shall provide safety performance and Safety MIS to engineer in-charge and Discom SAFETY group periodically. Based on any non-confirmation to the safety procedures and guidelines, BA is liable to be negatively marked for his performance and suitable penalty will be imposed.
- BA safety staff shall work as per the guidance of the Discom safety department and functionally report Safety Head of Discom. Any leaves by safety staff of the BA shall have to approved by Discom Safety Department.
- BA shall ensure to depute a Safety Supervisor for managing safety at worksite.
- The BA for the RRG work shall depute one Safety supervisor.



17.0 Safety Conditions for Major Projects in Distribution Network

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

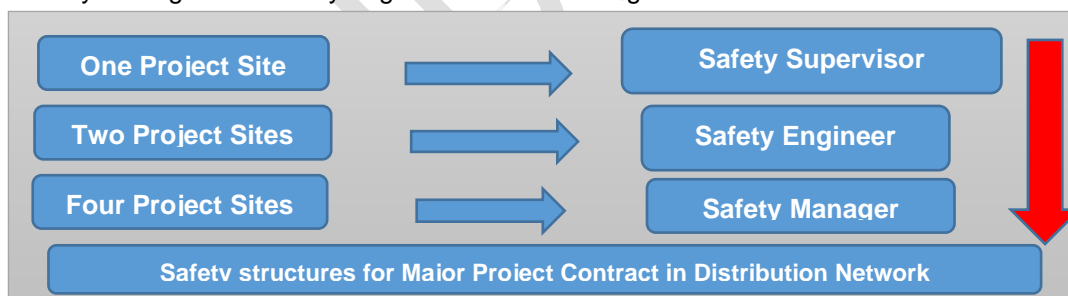
- Availability of Discharge Rods - Minimum 6 Nos. for each project site, fit for purpose and in good conditions and defective rods are removed from service.
- Availability of Neon tester - Minimum one Neon Tester in each project site, in good and working condition and defective or non-standard neon testers are removed from service.
- Electrical hand Gloves - Minimum one sets of 33 KV, 11 KV and LT in each project site.
- The BA linemen must be having required ELBO certification for the voltage level involved.
- BA shall provide Safety Policy, Safety Objectives, Organogram showing structure and responsibility of Safety management of his company and shall document the work practices and procedures in terms of Safety Management.
- BA shall comply with all statutory requirements like applicable acts, regulations, codes of practice, OHSAS Standards, Labour laws, etc.
- BA shall abide by Safety manuals and guidelines of Discom issued from time to time.
- BA shall ensure safety training and induction program for the employees. The BA employees must carry safety training card / competency card to the worksite and produce the card on demand.
- The BA shall participate in Safety promotional activities like celebration of Lineman day on 4th March, National Fire Service Day on 14th April and Theme based safety campaigns undertaken by the Discoms every month.
- All BA employees must be given valid ID card issued by BA cell of Discom who will check statutory compliances before issuing ID cards.
- BA shall not employ a new workman without training and issue of ID card.
- BA shall conduct safety audits & inspections as per Discom procedures.
- BA shall provide proper PPEs as per CSM F-8 ensure periodic inspection of PPE, Tools and tackles to ensure their serviceability.

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- BA shall ensure the adherence to standard operating procedures or guidelines laid down by the Discoms.
- BA shall ensure that no job shall be carried out without efficient supervision.

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

- BA shall ensure reporting of any unsafe act, unsafe conditions, near miss, incident, or accident to engineer in-charge and SAFETY team of the Discom.
- BA shall provide safety performance and Safety MIS to engineer in-charge and Discom SAFETY group periodically. Based on any non-confirmation to the safety procedures and guidelines, BA is liable to be negatively marked for his performance and suitable penalty will be imposed.
- The BA shall participate in Safety promotional activities like celebration of Lineman day on 4th March, National Fire Service Day on 14th April and Theme based safety campaigns undertaken by the Discoms every month.
- BA safety staff shall work as per the guidance of the Discom safety department and functionally report Safety Head of Discom. Any leaves by safety staff of the BA shall have to approved by Discom Safety Department.
- BA shall ensure to depute Safety Staff for managing safety in worksites. One safety supervisor per project site or 100 persons, one safety engineer for 2 project sites of 250 persons, and one safety manager for four project sites or 500 persons.
- Safety manager and Safety engineer must be having PDIS or ADIS.



18.0 Schedule of Safety Audits by BA Safety Staff

Safety Undertaking of BA by way of Affidavit

I _____ s/o _____ R/o _____ (AUTHORIZED REPRESENTATIVE/PARTNER/DIRECTOR/PROPRIETOR) of M/S _____ (name of company/firm) having its office at (Complete address of Company), authorized vide power

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of attorney dated -----/Board resolution dated----/letter of authority dated----, hereinafter referred to as **Contractor [or Business Associate (BA)]** which expression shall, unless it be repugnant to or inconsistent with the meaning or context thereof, be deemed to include its heirs, executors, administrators, and assigns do hereby affirm and undertake as under :

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

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8. That the Contractor and its subcontractors shall abide by all the safety guidelines as per Safety Manual, Contract Safety Management and other guidelines issued from time to time by Discom during the contract period.
9. That in case the Contractor and/or any of its Subcontractor fail to ensure the compliance as required in terms of this undertaking the Contractor shall keep and hold Discom / its directors / officers / employees indemnified against any / all losses / damage / expense / liability / fines / compensation / claims / action / prosecutions or the like which might be suffered by Discom or to which Discom might get exposed to as a result of any breach /wilful negligence /deliberate default on the part of the Contractor /Subcontractor in complying with the same. Contractor shall also furnish any press release, clarification etc. if sought by Discom for any near miss or safety violations, accidents, which are attributable to fault of Contractor.

VERIFICATION

DEPONENT

Verified aton this _Day of _____ 20__ that the contents of the above affidavit are true and correct and nothing material has been concealed therefrom

ANNEXURE TO
Appendix 3: Safety Terms and Conditions
(Document No - TPSMS/GSR/STC/009 REV 05)

***(Excerpts of Tata Power Safety Code of Conduct as relevant for
Safety Terms & Conditions)***

(A) Definitions

- **Order Manager/Engineer in charge:** Order Manager/Engineer in charge is the Tata Power-Division /DISCOM representative, who has the ownership of the given job.
- **Site Safety Management Plan:** It is the safety plan agreed between Contractor and Tata Power-Division/DISCOM. It will contain the entire job specific safety requirement and will be signed by the contractor.
- **Contractor/Business Associate/Vendor (BA):** An individual or a company that provides services to Tata Power-Division/DISCOM under a signed contract.
- **Emergency:** It is a serious, unexpected, or dangerous situation requiring immediate action, which may result in *loss of life*, loss of revenue/property, business discontinuity. In case of Emergency, services may be procured by selecting the qualified vendor based on the vendor category without the safety bid evaluation and approved by adequate authority of MB level or above.
- **Expert Service jobs:** Jobs which needs expert services of contractor which does not involve direct exposure to the potential risk or work which involves only supervisory work such as expert for AI-ML, expert for transmission and distribution network, expert for civil works, expert on transformers, expert for PSCC, expert for equipment overhaul etc.
- **CEO/Chief/Head of division/Unit/Utility:** Business in charge who is overall custodian of the Tata Power-Division/DISCOM.
- **High Risk Jobs:** A Job or its activities are considered as Very High or High Risk when Order manager apply the “Tata Power Hazard Identification and Risk Analysis” procedure and found safety risk associated with are under Very High or High category. Indicative lists of jobs are given in appendix 14 of this document.
- **Medium Risk Jobs:** Jobs or its activities are considered as medium risk when Order manager apply “Tata Power Hazard Identification and Risk Analysis” procedure and found the same as Medium Risk.
- **Low Risk Jobs:** Any job or its activities are considered as Low or Very low risk while Order manager calculated it by applying “Tata Power Hazard Identification and Risk Analysis” procedure and found it under Low or Very Low category.

(B) Safety performance retention(R7):

A certain percentage of the bill value will be retained against every running bill as safety performance retention. The amount will be released with the last invoice or every six-month based on Safety Performance Score of contractors. The retention amount will be calculated based on contract value as below. (R7)

Risk Category-(R7)	Contract Value	Retention Amount (%)
<i>Very high/High risk job/ Medium Risk jobs</i>	Up to 10 Lakhs	2.5
<i>Very high/High risk job/ Medium Risk jobs</i>	10 – 50 Lakhs	2
<i>Low/Very Low Risk jobs</i>	10 – 50 Lakhs	1
<i>Very high/High risk job</i>	0.5 to 10 Cr	2
<i>Medium Risk jobs</i>	0.5 to 10 Cr	1.5
<i>Low/Very Low Risk jobs</i>	0.5 to 10 Cr	1
<i>Very high/High risk job</i>	>10 Cr	1.5
<i>Medium Risk jobs</i>	>10 Cr	1

This safety retention shall be waived for Contractors who have either submitted a Contract Performance Bank Guarantee or have a retention from each running bill for an amount not less than 10% of each bill subject to the express undertaking / understanding that if there are any deductions required to be made for safety non-performance as per the Safety Performance Score, then Tata Power shall recover any such deductions against safety non-performance directly from the monthly bills / final settlement as the case may be failing which it shall be within its right to recover such sum from accounts payable or the CPBG or the retention of the Contractor available with Tata Power for the said contract or any other contract between the Contractor and Tata Power.

(C) Safety Performance Evaluation & Responsibility of Business Associate / Contractor:

During the time of job execution, regular site inspection will be carried out by the Tata Power-Division / DISCOM officials to evaluate monthly safety performance of the contractor and monthly score will be maintained by the Order Manager. Violations will be dealt as per **CSM F12 Safety Violation Penalty Criteria**.

1. During the progress of the work, concerned site Supervisor/Engineer/Safety representative will visit and inspect the work site regularly and evaluate the safety performance of the contractor based on matrix **Appendix 13** and apply the Consequence management policy/Penalty criteria as applicable.
2. The evaluation criteria include Lead Indicators such as percentage of workers trained in TPSDI, inspection of critical equipment. Lag indicators such as Fatalities, LWDC and man-days lost.
3. In case of job stoppage due to safety violations / unsafe observations at the site, no time extension from PO completion date shall be given to the contractor, if such delays are attributable to contractor.
4. In case of fatality, limb loss or loss of property, vendor must pay for liability, legal, statutory, and additional mutually agreed settlement charges imposed by the appointed committee by Division Chief/CEO. This charge is over and above the retention amount. The committee will finalize penalty amount based on factors such as advice by statutory authorities, contract value and impact of accident etc.

5. Order Manager, Head of Business and functional Chief have the authority to terminate the contract as per **CSM F12 Safety Violation Penalty Criteria** Through contract department.

(D) Other Appendices are attached,

Appendix 6: CSM F6 - Safety Competency Assessment Form (Template).

(This is to be filled by Bidder and submit to Tata Power as part of bid submission).

Appendix 8: CSM F8 - PPE requirements-(R7)

Appendix 9: CSM F9 - Site Safety Management Plan / Method Statement (Template)

Appendix 12: CSM F12 - Safety Violation Penalty Criteria

Appendix 13: Checklist To Be Used During Site Visit

Appendix 14: Indicative List of High-Risk Jobs

---XXX---XXX---XXX---

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Appendix 6: CSM F6 - Safety Competency Assessment Form (Template)

Name of the Vendor/Bidder:

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

Description of the Job:

Request for Quotation (RFQ) No.:

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

1. Proposed Manpower Deployment Schedule : -

Type of manpower	Qualification	Experience	Month 1	Month 2	Month 3
<u>Project /AMC Manager(R7)</u>						
Site In Charge						
Safety Manager						
Safety Officer						
Supervisors						
Technicians						
High Skilled workmen						
Skilled workmen						
Semiskilled workmen						
Lineman						
Helpers						
Drivers						
Unskilled						
<u>Others(R7)</u>						

Instruction to Bidders:

- Indicate the overall site manpower deployment schedule as above
- Indicate direct or subcontracted employees by using color code given below:

Direct Bidder Employee – Green

Partly Direct / partly Subcontracted – Yellow

- 4.3.5 **Subcontracted – Red** *If subcontractor detail is not available at stage of Bid evaluation, then this can be agreed with Order manager or Engineer in charge before deployment Ensure that all sub-contractors follow the Tata Power Safety Procedure and agreed CSM F9 Site Safety Management Plan.R7*

- Against each category, indicate minimum educational qualification and work experience

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- iv. Add rows to include other specialized manpower, if any.
- v. Extend columns to cover the entire duration of the proposed contract.
- vi. If the operation is in shifts, then indicate shift in charge and / or safety officers required for each shift operation.

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

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

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

3. Safety Records:

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

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

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

4. Job Safety Plan/ Method Statement:

Bidder to provide / enclose a detailed Site/Job Safety Plan along with a Method statement detailing the execution philosophy (how the bidder intends to execute the Job/Project), identifying all key activities which are required to be performed by the contractor at Site.

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Bidder to also list down all high-risk activities and provide the Hazard Identification and Risk Assessment (HIRA) for all such high-risk activities involved in the site work.

(Use Method Statement template attached as Appendix 9)

5. PPE Requirement -R7

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

6. Vehicle Deployment: Bidders to provide details of all vehicles deployed during execution of work-(R7)

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

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- 7. Crane Deployment-(R7):** Bidders to provide details of crane to be deployed during the execution of work as and when required. Bidders to provide approved new gen crane ACE Model SX150, ACE FX150 and Escorts Model TRX 1550.

SI No	Crane No	Location	Year

- 8. Training Records-(R7):** Bidders to provide training records of employees deployed for the execution of work during last one year. These training includes OHS (Occupational Health and Safety) Training, Training on SOP/Work Procedures and Medical Emergency trainings imparted at their own facility, cost, and expenses. Bidders to provide the following details:

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

- 9. Rewards and Recognition-(R7):** Bidders to provide the details of process deployed in their organization for sharing and resolution of safety concerns raised by their employees. Also, bidders to provide the details of Rewards and Recognition process in their organization for safety to encourage the morale of their workforce.

10. Management System Certification: -

Sr.No	Certification	Yes / No	If Yes, Year of Certification	If No, Target date for Certification
1	ISO 9001			
2	ISO 14001			
3	ISO 45001			
4	Any other (Specify....)			

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

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Appendix 8: CSM F8 - PPE requirements-(R7)

The Contractor shall ensure that the following PPE of Approved standards shall be always available and shall be used by his employees with no exception whatsoever. • PPE shall be conforming to BIS/DGMS/DIN specifications, in good condition and shall be comfortable to his employees, when used. This is indicative. For better clarification refer PPE procedure-TPSMS/GSP/PPE/023. as per safety terms and condition Appendix 3 CFM 3 in detail. R7

PPE Requirement

1	All contractor's employees at site	Safety Florescent Jacket (orange color), Safety helmet & safety shoes with composite or steel toe cap
2	Workers mixing asphalt, cement, lime / concrete	Safety goggle & protective Hand gloves and footwear, Nose mask.
3	Welders / Grinders/Gas cutters	Welding screen/goggles, safety shoes, leather hand gloves, aprons, leg guard
4	Stone breaker	Protective goggle, hearing protection, anti-vibration hand gloves and Protective clothing.
5	Electricians / Linemen	Rubber hand gloves <i>with correct voltage rating and expiry date normally one year from Manufacturing date-(R7)</i> & Electrical resistant shoes, Safety helmet with induction strip to alert about presence of voltage for those linemen who climb the poles or work on electrical equipment
6	Workers working at a height of 1.8 Meter or above.	Double lanyard full body harness, fall arrestor and safety net made of reinforced nylon fiber ropes firmly supported with steel structures, Work positioning attachment


PPE Type and Testing Frequency

Sl. No.	Name of PPE	IS / EN Standard	Testing Frequency	Remarks
01	Leather Safety Shoes (Color – Black) with PU toe cap.	IS:15298 (Part-2)	Monthly and visual check every day for any crack or damage in the leather or sole.	





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02	HDPE Safety helmet with chin strap and ratchet type for adjustment for non-Electrical work	IS:2925-1984	Monthly and visual check every day for any crack in shell.	
03	Full body harness (Safety belt)	EN 361	Monthly and visual check every day of the bends and the harness.	
04	Electrical Safety Gloves	EN: 60903 CE marked	Weekly and visual check for any crack and blow test before every work.	Manufactured not beyond 12 months.
05	Full face visor with safety helmet	EN: 166 CE marked (Visor)	Monthly and visual check every day for any crack in shell.	Clear acrylic visor attached with safety helmet.
06	Fireproof jacket for chest protection		Monthly and visual check every day.	
07	Safety helmet with induction Strip for linemen and working for electrical work-Class E	EN 397/2012	Monthly and visual check everyday	Induction Strip alerts presence of voltage
08	Shorting clamps, crocodile clamps, Discharge Rod and Neon tester		Monthly and visual check everyday	For discharging the residual voltage and test before touch

Pictorial View of PPEs for reference purpose

Sl. No.	Name of PPE	IS / EN Standard	Picture
01	Leather Safety Shoes (Color – Black) with PU toe cap.	IS:15298(Part-2) and with test report of electrical resistance.	

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02	HDPE Safety helmet with chin strap and ratchet type for adjustment for Nonelectrical work and electrical work	IS:2925-1984/ EN 397/2012	
03	Full body harness (Safety belt) The straps at shoulder and thigh shall have full pad for comfort. The back shall be so designed that harness straps do not tangle with each other.	EN 361:2002 EN 358 : 2000 IS: 3521:1991/2002	
04	Electrical Safety Gloves – Composite type Soft electrical gloves as per size of individual.	EN: 60903 CE marked	
05	Full face visor with safety helmet	EN: 166 CE marked (Visor)	
06	Fireproof jacket for chest protection		
08	Reflective jacket to each workman	As per Tata Power standard	

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These pictures are indicative. Actual product may vary.

Note:

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

Appendix 9: CSM F9 - Site Safety Management Plan / Method Statement

Site Safety Plan / Method Statement (Template)

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

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

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

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

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

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

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

6.1 Pre-Working Checks

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

Tools required for work:

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

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

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

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








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

Attachment: - Specific Risk Assessment

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

Fall Protection Measures: (Where Work at height cannot be avoided)	
Control Measures for Electrical Hazards	
Others Hazard if any (please provide details)	

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Hazardous Substances to be used in job: (Attach MSDS if required)							
	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N

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

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

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

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

10.0 First Aid facilities and Nearby Hospitals Details

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

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

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

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Appendix 12: CSM F12 - Safety Violation Penalty Criteria

Major Violations and Escalation matrix--(R7)

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

Legend	Action to be Taken	Responsibility	Penalty (INR)	Repeat Violations
A	Levy of Penalty	Order manager / EIC	5000	The no. of repeat violations shall be calculated cumulative during the contract period, not on a monthly basis
B	Memo to BA and Levy of Penalty	Order manager / EIC	10000	
C	Memo to BA and Levy of Penalty	Order manager / EIC	25000	
D	Memo to BA and Levy of Penalty	Order Manager / EIC	50000	
E	Memo to BA, Levy of Penalty, Termination of Contract, Blacklist	Order Manager / EIC	100000	

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Other Violations and Penalty

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

Sl. No	Description of Violation	Severity	Penalty (INR)
1.	Unhygienic/Bad condition of PPE	2	500
2.	Unsafe Act/Condition of Severity 4	4	4000
3.	Unsafe Act/Condition of Severity 5	5	5000
4.	No Earthing of Electrical equipment	5	5000
5.	Working without efficient supervision	4	4000
6.	Non-reporting of incidents	3	3000
7.	Starting the job without Toolbox Talk	4	4000
8.	Electric cable tied with metal wire / Use of damaged electrical cable / Use of two core cable	3	3000
9.	Rubber mat not available in front of electrical panels.	3	3000
10.	Inserting naked wire into the socket instead of a plug	5	5000
11.	Inflammable materials stored inside PSS/FCC/Distribution Room	5	5000
12.	Water accumulation found near electrical panels / equipment	5	5000
13.	Grinding wheel/ Coupling/ Piling winch/other rotating parts without guard	4	4000
14.	Inadequate illumination of working area	3	3000
15.	Bringing inside PSS/FCC or any other work area any chemicals without approval.	5	5000
16.	Loose materials in work area which can fall down or fly during a storm	5	5000
17.	Misusing emergency facilities like fire hydrant line/ hose box/ spray system/ eye wash etc.	3	3000
18.	Entering restricted areas like switch yard, hazardous material storage room etc. without authorization	3	3000
19.	Not using 24 V lamp inside confined spaces	3	3000
20.	Bypassing/overriding safety interlocks	5	5000
21.	Working besides road without proper barricading and monitoring of traffic	5	5000

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22	Smoking in prohibited area (Closed Go-downs, Storage of flammable material, Storage of Gas cylinders, PSS , Offices etc.)	3	3000
23	Improper stacking of materials in Storage Yard	4	4000
24	Sleeping at workplace	3	3000
25	First aid box not available / in locked condition	2	2000
26	Appointment of subcontractor without his Safety Bid Evaluation and/or without the permission of engineer in charge or Order manager.	5	5% of order value
27	Bad Housekeeping with respect to TPSMS/GSP/GHK/022 <ul style="list-style-type: none"> • 1st Instant • 2nd instant • 3rd instant • 4th instant • Subsequent instants 	2	<ul style="list-style-type: none"> • 1000 • 2000 • 5000 • 10000 • 10000
28	Violations related to vehicles with respect to TPSMS/CSP/RSP/015. <ul style="list-style-type: none"> • Parking without wheel choke • Parking in undesignated area • Heavy vehicle without helper or co-driver • Seat belt not available / not used • Driver without license • Heavy vehicles without reverse horn • Using mobile phone while driving • Lights/mirrors not working /broken 	3	1000 per each violation
28	Violation in Gas cutting and Gas cylinder handling <ul style="list-style-type: none"> • Cylinder valve without guard • No flashback arrester • Leaky DA/Oxygen hose • Cylinders not kept in secured manner • Cylinder trolley not available • Cylinders are transported by manual rolling 	5	2000 per each violation
29	Violations in Lifting Operations w.r.t. to TPSMS/CSP/HEMS/005 <ul style="list-style-type: none"> • Hook latch missing • Load raised or swung over people or occupied areas of building • Persons standing within the swing area of the crane • No barricading of crane working area • Use of damaged lifting tools and tackles 	5	2000 per each violation

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	<ul style="list-style-type: none"> Lifting tools and tackles not tested / Test certificate expired Crane operator without proper license Angular loading Lifting / shifting heavy material without guide rope Using mobile phone during loading and unloading jobs 		
30	Violation in Scaffolding work w.r.t. to TPSMS/CSP/SCAF/007 <ul style="list-style-type: none"> Unstable scaffolding/nonstandard Scaffolding in use Handrails/mid rails/toe guards missing Safety harness not anchored on fixed structure Opening found in working platform 	5	2000 per violation
31	Violation in Excavation Work w.r.t. to TPSMS/CSP/EXS/002 <ul style="list-style-type: none"> Loose material falling into excavated pit Water logging in excavated pits / trenches Inadequate or no barricading Undercut / cave in found on sides of excavated pits 	4	2000 per violation
32	Caution boards, danger signs (luminescent /red) along with emergency contact number are not found displayed.	3	3000
34	Spillage of hazardous material/chemicals during transportation	4	4000

Penalty for Incidents / Accidents-(R7)

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

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Legend	Action to be taken	Responsibility	Penalty (INR)	The no. of violations shall be calculated cumulative during the contract period for all contracts in SBU, not on a monthly basis
F	Memo to BA and Levy of Penalty	Order Manager/Engineer in charge	200000	
G	Memo to BA and Levy of Penalty	Order Manager/Engineer in charge	500000	
H	Memo to BA, Levy of Penalty, Termination of Contract and Blacklisting the BA	Order Manager/Engineer in charge	1000000	

Appendix -13: CHECKLIST TO BE USED DURING SITE VISIT

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

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

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Appendix 14: Indicative List of High-Risk Jobs

Indicative high-risk jobs are given below. This is not an exhaustive list. This is only indicative.

Sl. No.	Jobs
1	Transmission Line Tower Erection on columns, near live lines, In congested areas, In creeks, In the Sea.
2	Conductor Stringing on Tower Using Tensioner & Puller in the area such as Line Crossing, Near Live lines, Congested Areas, Road Crossing, Bridge Crossing, Railway line Crossing, In creeks, In the Sea
3	Cable Pulling by Using winch Machine in City and Rural Areas
4	Hot Washing of HT and Extra HT lines, Towers and switchyards equipment
5	Maintenance / Testing and Replacement of High Voltage (33 KV etc.) Switchyard equipment
6	Installation of Lifts
7	Installation of EOT Cranes
8	Tower Dismantling
9	Working on H Frame /Pole mounted Transformers
10	Excavation in operational Area having power cables in receiving station
11	Identification and spiking of cable / disconnection of cables from poles
12	Working on Electrical Panels
13	Working on live electrical switch yard, Material handling and equipment repair/installation.
14	All activities that require climbing on a pole/structures/Towers/Transformers
15	Cable laying and termination jobs
16	Excavation beyond 5 feet near existing building and structures
17	Working in confined Spaces
18	Stringing of new conductors over poles