GUJARAT ENERGY TRANSMISSION CORPORATION LIMITED
Sardar Patel Vidyut Bhavan, Race Course, Vadodara: 390007
CIN U40100GJ1999SGC036018
Email: aceproc.getco@gebmail.com
An ISO 9001:2015 Certified Company
Website: www.getcogujarat.com

TENDER SPECIFICATION FOR

66KV class substations for Operation and Maintenance contract for 545 Nos. of substations for a period of three years

TENDER SPECIFICATION NO. ACE(P&C)/Contracts/E-516/SS/66KV O&M

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GUJARAT ENERGY TRANSMISSION CORPORATION LIMITED
Sardar Patel Vidyut Bhavan, Race Course, Vadodara: 390007
CIN U40100GJ1999SGC036018
Email: aceproc.getco@gebmail.com
An ISO 9001:2015 Certified Company
Website: www.getcogujarat.com

TENDER NOTICE No: ACE (P&C)/TN-15/26-27

The ACE (Procurement & Contracts) invites "On line Tenders (e-tendering) for **66KV class substations for Operation and Maintenance contract for 545 Nos. of substations for a period of three years.** Tender Papers & Specifications may be down loaded from Web site https://tender.nprocure.com/ (For view, down load and on line submission). All tender documents are to be upload through online only (mandatory) on (n) procure portal excluding EMD (if paid by BG/DD) .EMD(if paid by BG/DD) is to be submitted physically by Registered Post A.D. or Speed Post addressed to: The Add. Chief Engineer (Procurement & Contracts), Gujarat Energy Transmission Corporation Limited, Corporate Office, S. P. Vidyut Bhavan, Race Course, Vadodara - 390 007. "NO COURIER SERVICE OR HAND DELIVERY" will be allowed.

1. **Prospective bidders may please note that the Tender paper (alternatively referred to as Bidding documents / Tender specification) include Amendment-I of Part-I Tender Specification there to improving upon provision of certain clause of GCC / SCC in regard to inter alia Terms of Payment, Penalty / Liquidated damages, Right of Way, Qualification requirement, Return of EMD, Price Adjustment / Variation. Bidders are advised to note that same in particular while considering to Bidding documents and quote their price accordingly.**
2. **All bidder is requested to upload all scanned bid documents online only after sign & stamp on each documents in PDF form and file / document should not be password protected except physical submission of Tender EMD (if paid by BG/DD) pact as mentioned in Tender notice.**

SN	Description	Particulars
1	Tender No	**ACE(P&C)/Contracts/E-516/SS/66KV O&M**
2	Name of work	**66KV class substations for Operation and Maintenance contract for 545 Nos. of substations for a period of three years against Tender no. ACE(P&C)/Contracts/E-516/SS/66KV O&M**
3	Estimated cost	**Rs. 4,37,18,21,954.05 (including 18%GST)**

<table>
<tr><th>SN</th><th>Description</th><th>Particulars</th></tr>
<tr><td>4</td><td>Min. / Max. Tendering Qty. (Regular Bidder) (10% / 15% of total Quantity)</td><td>Min. 55 Nos. of S/S and maximum 82 Nos. of S/S</td></tr>
<tr><td>5</td><td>Min. payable EMD (Regular Bidder)</td><td><table><tr><th>Tendering Qty (S/S in Nos.)</th><th>EMD Amount Payable in Rs.</th></tr><tr><td>55 to 62</td><td>11.0 Lakhs</td></tr><tr><td>63 to 82</td><td>12.0 Lakhs</td></tr></table>(1. Payment of EMD should be accepted by RTGS / NEFT / online or Demand draft or Banker’s cheque or Pay order or Bank Guarantee)
(2. For BG Validity will be 06 (Six) Months from the original date of submission of tender.)
(3. 100 % EMD through RTGS/NEFT/Online is acceptable.</td></tr>
<tr><td>6</td><td>For “New Bidder”</td><td></td></tr>
<tr><td>6.1</td><td>Tendering Qty.</td><td>Maximum New – 1 bidder: 05 Nos. of S/S
Maximum New – 2 bidder: 10 Nos. of S/S</td></tr>
<tr><td>6.2</td><td>EMD Payable (New-1 & New-2 Bidder)</td><td><table><tr><th>Category of Bidder</th><th>Min. EMD Amount Payable in Rs.</th></tr><tr><td>New - 1 Bidder</td><td>2.50 Lakhs</td></tr><tr><td>New - 2 Bidder</td><td>3.00 Lakhs</td></tr></table>(1. Payment of EMD should be accepted by RTGS / NEFT / online only)</td></tr>
<tr><td>7</td><td>Period of Contract</td><td>3 years</td></tr>
<tr><td>8</td><td>On line (E-tendering) tender/offer submission last date up to 16.00 hours only. (This is mandatory)</td><td>23.10.2026</td></tr>
<tr><td>9</td><td>Physical submission of EMD documents (if EMD paid by DD/ Banker’s Cheque/Pay Order or BG, to be submitted in original/physical copy in EMD Cover as a mandatory requirement and Scanned copy of the same to be Submitted Online), last date up to 15.00 hours. By RPAD or SPEED POST only. (This is mandatory)</td><td>30.10.2026</td></tr>
<tr><td>10</td><td>Tentative Date of opening of Tender fee, EMD cover, Vendor registration</td><td>30.10.2026</td></tr>
</table>

	and technical bid on line as well as physical opening at 16.00 Hours	
11	Tentative Date of on – line opening of Price bid.	Will be intimated separately.
12	Tender Fee	Rs. 11,800.00 Non-Refundable **(Incl. GST-18%, Rs. 1,800.00)** **Note: Payment of Tender fee accepted by RTGS / NEFT / online only.**
13	Validity	Minimum 180 Days from the date of Opening of Technical Bid.
14	Type of Tender	Percentage Basis with Variable Price.

For E-516 66 KV S/S O&M Contract tenders Preliminary stage Documents submission :

Sr. No.	Documents	Mode of submission as a mandatory requirement
1	Tender Fees	**online only**
2	EMD	• **Online only - if submitted by online/NEFT/RTGS** • **Offline/Physical & Original Copy - if submitted by DD/ Banker's Cheque/Pay Order or BG, to be submitted in original/physical copy in EMD Cover as a mandatory requirement** and scanned copy of the same to be submitted online.
3	Integrity Pact (Self attested with seal & sign of Firm)	**online only**

IMPORTANT:

1. Bidder has to upload scanned copies of original (Notarized / self-attested copies of original – as specified in tender document) documents with bid and no physical documents to be submitted by bidder except EMD (if paid by BG/DD).

2. Bidder has to submit the only EMD (if paid by BG/DD) in physical form on or before due date of submission.

3. In case short submission of documents with bid and / or clarification if any required from the bidder, the required details / documents may be asked from bidder in physical form.

4. It shall be sole responsibility of the bidder that the uploaded scanned documents (in PDF from) remain legible and should not be password protected.

5. All the relevant scanned documents as per requirement of the tender are to be upload

through online only on n procure portal excluding EMD (if paid by BG/DD). Physical copies of EMD (if paid by BG/DD) to be submitted in sealed cover on OR before due date and time. Tender fee, EMD and Integrity Pact should be strictly submitted by RPAD / speed post only, otherwise the offer will not be considered and no any further communication in the matter will be entertained. (All tender documents including Price bid are not to be submitted with the physical documents except Tender fee, EMD and Integrity Pact).

6. Tender will be evaluated on Data / Details / Documents of the online offer only.

7. It is mandatory for all the bidders to upload their tender documents by on line (E-tendering) in scheduled time.

8. The bidders are required to fill up all the online annexure / forms. This is intended for transparency and speedy evaluation of the bids. Instead of simply confirming / attached in bid / refer physical offer, the Bidder shall fill in the particulars against appropriate place in respect of each line appearing in each online annexure. Wherever required, bidder shall invariably have to upload supporting authentic documents in the online bid.
(In the absence of required details in the online annexure, the purchaser has every right to evaluate the bids accordingly and bidder cannot raise any objection against any point during evaluation.)

9. Bidders are requested to remain in touch with the web-site for any amendment / corrigendum or extension of due date etc.

10. Bidder should follow the GOI guideline of 'Restrictions under rule 144 (xi) of the General Financial Rules (GFRs), 2017 vide office memorandum no. F.No.6/18/2019-PPD Dt: 23.07.2020.

11. Bidders are requested to remain in touch with the web-site for any amendment / corrigendum or extension of due date etc.

12. INTRODUCTION OF LEAVY OF TCS.
TCS @ 0.075% / 0.1% will be payable extra subject to fulfilment of the conditions of sub section (1H) of section 206C of Income Tax Act, 1961.

13. Deduction of TDS under GST:
As per provisions of GST act, "TDS under GST @ 2 % (1 % CGST & 1 % SGST or 2 % IGST, as applicable) or at the applicable rate from time to time, will be deducted from the bill of the Suppliers / Contractors at the time of credit or payment, whichever is earlier. TDS certificates in the prescribed format will be issued as per prescribed rules under GST.".

14. INCOME TAX (TDS)

- TDS under Income Tax will be deducted on purchase of goods by GETCO @ 0.1% of the sum exceeding Rs. 50 lacs u/s 194Q from the bill of suppliers/contractors at the time of credit or payment whichever is earlier. TDS will be deducted on advance payment being also made by GETCO to supplier. Further in some of the cases, where TCS u/s 206 (1H) is applicable also along with TDS u/s 194Q, then only TDS on purchase of Goods u/s 194Q shall be deductible, as TDS u/s 194Q overrides TCS u/s 206C (1H).

- As per the Section 206AB of Income Tax Act, TDS under Income Tax will be deducted at higher rates of the following rates: (non-fillers of ITRs for the past two fiscal years will be subjected to higher TDS).
  a) At twice the rate specified in the relevant provision of the Act
  b) At twice the rates in force
  c) At the rate of 5%

Any technical questions, information and clarifications that may be required pertaining to this inquiry should be referred to: The Add. CHIEF ENGINEER (Procurement & Contracts), Gujarat Energy Transmission Corporation Limited, Corporate Office, S. P. Vidyut Bhavan, Race Course, Vadodara - 390 007.

GETCO reserves the right to reject any OR all tenders without assigning any reasons thereof.

For, GUJARAT ENERGY TRANSMISSION CORPORATION LIMITED,

--Sd--
Add. Chief Engineer (Procurement & Contracts)

Download Tender Documents in (PDF Format) which consists of:
Part – I: General terms and Conditions
Part – II: Technical Specifications
Part – III: Price Schedule
Annexure – A, B & C
GTP for Touch Type Voltage detector, Specification-FR Suit, Approved GETCO Daily service rates for Testing. Maintenance. Hotline services and Performance Monitoring Method and Format

Note:

In case bidder face any difficulty in accessing / submission of on line bid / clarification or if training required for participating in online tender, they can contact the following office:

(n) Procure Cell, (n) code solutions-A division of GNFC Ltd.,
403, GNFC Info tower, S.G. Road,
Bodakdev Ahmedabad – 380054 (Gujarat)
Toll Free: 1-800-233-1010 (Ext. 501, 512, 516, 517, 525)
Phone No. 079-26857315 / 316 / 317,
Fax: 079-26857321 / 40007533,
Email: nprocure@gnvfc.net

To view the PDF file please use “Acrobat Reader” software which can be downloaded from “Adobe” website.

GENERAL TERMS AND CONDITION OF CONTRACT

1.0 General Particulars:

The Gujarat Energy Transmission Corporation Ltd., Vadodara hereinafter called 'GETCO'/ 'OWNER' intends to receive bids for **"66KV class substations for Operation and Maintenance contract for 545 Nos. of substations for a period of three years"** in Gujarat on contract basis in accordance with Terms and Conditions herein. The bids shall be prepared and furnished, accordingly.

2.0 (A) Period of Contract:

The contract will be for **three years (36 months)** for each substation from the date of issue of handing over of the particular substation.

(B) Extension of Contract:

The contract can be extended for a further period of six months as per the discretion of GETCO at the same terms and condition of the contract. The contract can be further extended for the period of 18 months as per mutual agreement.

3.0 Scope of the Proposal:

3.1 The Scope of the proposal shall be on the basis of a single Bidder's responsibility, completely covering "Operation & Maintenance" contract of 66 KV substations. It will also include but not limited to the scope as specified in Part-II of this tender, over & above following terms.

a) The scope of operation includes round the clock monitoring of system, corrective / preventive actions, operations as per requirement, real time data logging, safe and secure operation of equipments of substation and up keeping of premises.

b) The scope of maintenance includes all the works as required under the substation manual of CBIP / standard norms of Transmission Companies / maintenance guide line of OEM. It also includes
   I. Daily, Routine, Periodical & Condition Based maintenance of substation systems & equipments.
   II. Breakdown maintenance of substation systems & equipments.
   III. Routine & periodical testing of equipments.

c) Maintenance of substation building, switchyard, road, quarters, substation & colony quarter / street light are under scope of contractor. The maintenance scope for substation building, Roads, colony and switchyard are as under.

- **For substation building:**

(1) Cleaning of substation building including terrace/walkway/balcony/veranda/staircase including providing of required material like broom, duster, closed waste basket etc.- Daily
(2) Cleaning of toilet block, dedo, W.C.tub, wash basin, Urinal etc. Collecting of swept material & proper disposal thereof.-Daily
(3) Cleaning of water tanks on terrace including dewatering.- Quarterly
(4) Cleaning of underground water sump including dewatering.- Quarterly
(5) All the materials & labour for cleaning work as well as collecting of swept material & disposal is to be provided by bidder. -Daily
(6) Cleaning of stores- Monthly
(7) Cleaning of gutters/trenches/drains- Yearly & As and when required
(8) Maintaining of lighting and providing of material thereof.-As & when required
(9) Contractor shall provide Bio-Metric attendance system using only either finger print or retina in control room before taking over the substation and attendance of the staff shall be purely on the data of finger print machine which is to be submitted with monthly bill failing which penalty shall be applicable as per relevant penalty clause.
(10) Contractor has to provide Arc Suit for operator & Voltage Detector as per approved specifications of GETCO in each control room before taking over the substation which is to be ensured by Engineer in charge. However, if the contractor fails to provide above items immediately then he shall have to furnish documentary evidence of purchase order placed of all above items for particular substation within 30 days of taking over of that substation. Failure of providing above items or purchase order within 30 days lump sum amount of Rs. 50,000/- plus applicable GST shall be deducted from payment of 1st monthly and subsequent bill till it is provided by contractor.

- **For Roads:**

(1) Maintaining of roads i.e providing of patches if required.
(2) Cleaning of roads, side of road, road side shallow gutter, brick pitching, IPS open area.- Daily
(3) Collecting of swept materials, debris etc. & disposing thereof.- Daily
(4) Maintaining of street light including providing of materials like fixtures fittings and lamps etc. –As & when required but within 3 days of defect.
(5) Grass cutting on / bush removal on regular basis.

- **For Quarters:**

(1) Cleaning of terrace/walkway/balcony/veranda/staircase & common floors of quarters & disposal of swept/debris including providing of required material like broom, duster, and closed waste basket etc.-Daily
(2) Cleaning of water tanks underground as well as overheads including dewatering-Quarterly
(3) Attending of complain of quarters like replacement of broken glass, providing of staircase lights, gutter blocking etc. including providing of required material –As & when required
(4) Cleaning of gutters/trenches/drains- Yearly & As and when required
(5) Maintaining of common lighting including providing of materials like fixtures fittings and lamps etc. –As & when required but within 3 days of defect.

- **For Switch Yard:**

(1) Removing of grass on regular / bush basis.
(2) Maintaining of lighting including providing of materials like fixtures fittings and lamps etc. –As & when required but within 2 days of defect
(3) Cleaning of gutters/trenches/drains/cable trench & earthing pit- As & when required
(4) Cleaning & maintaining of MK box & Kiosk- Regular basis

d) Maintenance & Testing of Relay and protection system, etc. as per testing schedule attached.

e) Grass cutting in switchyard, cleaning of control room, W/C, terrace of control room, etc. is to be arranged by contractor at his own cost, regularly.

3.2 No deviation whatsoever to the conditions of the bidding documents is permitted by the Owner and therefore, the Bidders are advised that while making Bid Proposals and quoting prices, these conditions may appropriately be taken into consideration. Bidders are required to furnish a certificate in this regard as per the format provided in Special Conditions of Contract in a separate sealed envelope containing Bid security, which shall accompany the Technical Bid. Any Bid not accompanied by such certificate shall be rejected by the Owner and Price Bid shall not be opened.

3.3 Bids not covering the above cited entire scope of works may be treated as incomplete and hence shall be rejected.

3.4 The Bidder shall complete all the schedules & Annexures in the Bid Proposal Sheets, Technical Data Sheets (whichever is applicable) and elsewhere specified in the tender. The Qualifying Data should be filled up in the required schedule of Bid Proposal Sheets.

3.5 Bidder may visit the Substation & ascertain the manufacturers of equipments (OEM) for a long term tie up with them to obtain services for those equipments.

4.0 Bidding Costs:

All costs / expenses in the preparation and submission of the Bid (including any post Bid discussions / presentations) shall be fully borne by the Bidder. Owner will not be responsible / liable for these costs irrespective of the course and conclusion of this Bidding.

5.0 BID DOCUMENTS: Details of Documents

The Bid documents includes following, apart from Invitation to Bid, details of material & equipment specifications / characteristics, the bidding procedures and the terms & conditions of contract:

a) General Conditions of Contract (GCC-Part I)
b) Special Conditions of Contract (SCC-Part I)
c) Scope of work for Operation (Part II)
d) Scope of work for Maintenance (Part II)
e) General information for Technical Terms & Conditions for Operation & Maintenance Works (TTC-Part II)
f) Price Bid (Part III)

6.0 Knowing the Bid Documents

Every intending Bidder must examine and understand all instructions, forms, terms, conditions and specifications in the Bid Documents and know himself fully all of the conditions and contents therein, which may in any manner, affect the scope & content of work and the costs thereof. Submission of a Bid not substantially responsive to the Bid Document in all respects and /or failure to furnish all information required in the Bid, document may entitle rejection of the Bid at the risk of Bidder's.

7.0 Clarifications on Bid Documents

7.1 In case an intending Bidder finds any discrepancy or omission / duplication / controversy in the documents and specifications or is in doubt as to the true **meaning of any part, he shall make a request, in writing not later than 10 days before the last date of submission of Bid,** to the owner, in triplicate. The owner will issue explanations, interpretations and clarifications, as deemed fit, in writing as a response to this request. On receipt of such interpretations / clarifications, the Bidder may submit his Bid within the date and time stipulated in the Bid invitation. All such explanations, interpretations and clarifications from

the Owner shall be deemed as part of Bid Documents and shall invariably accompany the Bidder's proposal.

7.2 Any verbal / telephonic clarifications and information given by the Owner or his employee (s) or his representative(s) will not in any way be binding on the Owner.

8.0 Amendment of bidding document:

8.1 At any time, prior to the deadline for submission of Bids, the Owner may, for any reason, whether at his own initiative or in response to a clarification requested by the intending Bidder, modify the Bidding Document with amendment(s).

8.2 The amendment will be notified by the Owner only through website. All intending Bidders are advised to visit website regularly and bid accordingly. Owner will bear no responsibility or liability arising out of above.

8.3 In order to afford prospective bidders, a reasonable time in which to take the amendment into account in preparing their bids, the Owner may, at his discretion, extend the deadline for the submission of bids.

8.4 Such amendments, clarifications, etc. shall be binding on bidders and will be given due consideration by the Bidders while they submit their bids and shall invariably enclose such documents as a part of their Bid.

9.0 Language of Bid:

9.1 The Bid prepared by the Bidder and all correspondence and documents relating to the Bid, exchanged by the Bidder and the Owner, shall be written in the English language, provided that any printed literature furnished by the Bidder may be written in another language as long as accompanied by an English translation of its pertinent passages. Failure to comply with this, the owner may disqualify such Bid. For purposes of interpretation of the bid, the English translation shall be governed.

9.2 **Bid Format**

Bidders have to make the Bid in the formats furnished with this Document, without adding any printed/type & hand written text of their own.

10.0 Local Conditions:

10.1 It will be imperative on the part of each Bidder to fully inform himself of all local conditions and factors which may have any effect on the execution of the Contract covered under these documents and specifications. The Owner shall not entertain any request for clarifications from the bidders, regarding such local conditions.

10.2 It must be understood and agreed that such factors have properly been investigated and considered while submitting the proposals. No claim for financial adjustment to the Contract awarded under these specifications and documents will be entertained by the owner. Neither any change in the time schedule of the Contract nor any financial adjustments arising thereof shall be permitted by the Owner, which are based on the lack of such clear information or its effect on the cost of the works to the Bidder.

11.0 Documents comprising the Bid:

11.1 The Bidder shall complete the Bid form inclusive of Price Schedules, Technical data requirements, etc. furnished in the Bidding Documents, indicating, for the goods to be supplied (wherever applicable) and services to be rendered, a brief description of goods and services, quantity and price.

11.2 The Bidder shall also submit documentary evidence to establish that the Bidder meets the Qualification Requirements as detailed in Special Conditions of Contract and GCC.

11.3 All Tender documents / formats are to be returned duly completed and filled in all respects and signed by the Company Authorized Signatory with seal of company wherever specified.

11.4 The Bid Guarantee shall be furnished in a separate cover in accordance with relevant clause at GCC.

12.0 Bid Price:

12.1 The Bidder shall indicate, in the appropriate price schedules, enclosed in bid proposal sheets, the unit prices including duties and taxes including GST as applicable on materials to be used (wherever applicable) and on Operation & Maintenance works. But all taxes to be indicated separately which are included in the price.

12.2 The bidder shall specifically note that the tenders are invited on percentage rate increase / decrease bases in relation to unit end cost rates of tender price schedule. Detailed break up, covering all the price components of unit end cost prices as well as total bid price, as stipulated in the appropriate price schedules of bid proposal sheet shall be provided by the bidder.

13.0 Bid Security / EMD:

13.1 The bidder shall furnish, as a part of its bid EMD, bid security for an amount of **as per NIT for offered quantity** to be paid as under:

As the estimated cost for this Tender is more than Rs. 100 lacs, the EMD is payable as under

(A) If the EMD amount is more than Rs. 3 Lakhs it should be paid either by RTGS /NEFT/Online or Demand Draft or Banker's Cheque or Pay order or in the form of BG with validity of 06 Months from the original date of submission of bid of the tender. Otherwise, EMD should be paid either in cash (upto Rs. 10000/- only) at the office address specified in tender document or by RTGS/NEFT/Online)

100 % EMD through RTGS/NEFT/Online is acceptable.

Payment by Cheque/Coop Bank Guarantee/ Company Guarantee is not permissible

13.2 The bid security is required to protect the owner against the risk of Bidder's conduct, which would warrant the guarantee forfeiture, pursuant to relevant paras elsewhere. The bid guarantee shall be made payable to the Owner without any condition, whatsoever.

13.3 Any bid not secured in accordance with above, will be rejected by the Owner as non-responsive. No exemptions are made in the furnishing of the security.

13.4 Unsuccessful Bidder's bid security / EMD will be returned / refunded on finalization of tender or three months from the date of submission of tender whichever is later.

13.5 The successful bidders, Bid Security/ EMD will be discharged upon, furnishing the contract performance guarantee as per clause No. 34.0 of GCC.

13.6 The bid guarantee may be forfeited.

a) If a Bidder withdraws his Bid during the period of bid validity specified by the bidder on the Bid form.
b) If a Bidder refuses to accept the contract or fails to commence the works within thirty days of letter of award of contract.

14.0 Format of Bid:

14.1 The Bidder shall prepare one copy of the bid. For any discrepancy between online & physical bid, online bid is considered as final.

14.2 The bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized by the Bidder, to sign the Contract. The letter of authorization, duly notarized, shall be indicated by written power-of-attorney, accompanying the bid. All pages of the bid shall be endorsed with initial by the person or persons signing & stamp the bid.

14.3 The Bidders must submit the "Qualifying data" as required in this "Instructions to Bidders", in separate sealed envelope to be enclosed in the main envelope of bid and super scribed as under.

14.4 The bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such, corrections shall be signed by the authorized person or persons signing the bid

14.5 Bids shall be submitted as under:

Cover-I Earnest Money Deposit (Bid-Security), as per relevant clause of SCC duly signed along with Contractor's covering letter and tender fee details (as per tender notice), declarations to be made by bidders. **(All Documents are uploaded online. Only EMD BG physical copy is must required. (if paid by BG/DD)**

Cover-II Qualifying Requirements. (Clause No.5 of SCC), With QR related Notarized documents. **(All Documents are uploaded online only)**

Cover-III Technical Bid
It must contain conditions and schedules of and Technical Data Requirement Sheets (except prices). (Cover I, II and III will be collectively called Technical Bid). **(All Documents are uploaded online only)**

Note:
1) The prices are to be filled up online only & not to be submitted with the physical documents.
2) All the QR Related documents must be duly Notarized.

All bidder is requested to upload all scanned bid documents online only after sign & stamp on each documents in PDF form and file / document should not be password protected except physical submission of Tender EMD (if paid by BG/DD) pact as mentioned in Tender notice.

For submission of bid please refer NIT.

15.0 Signature of Bids:

15.1 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.

15.2 Bid by a partnership, must be furnished with full names of all partners and it is to be signed with name of the partners followed by designation(s) or the authorized partner(s) or other authorized representative(s).The attested copy of Partnership deed is also to be submitted.

15.3 Bids by Corporation / Company must be signed with the legal name of the Corporation/Company by the President / Managing Director or by the Secretary or other person or persons authorized to Bid on behalf of such Corporation / Company in the matter. The attested copy of Memorandum & Articles of Association is also to be submitted.

15.4 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.

15.5 If it is found that two or more persons who are connected with one another, either financially or as a principal or agent, if have submitted bid under different names without disclosing their connection, then such bids will be liable for rejection. Satisfactory evidence of authority of the person signing on behalf of the Bidder, shall be furnished with the Bid.

15.6 The Bidder's name stated on the proposal shall be the exact legal name of the Firm.

15.7 Bids not conforming to the above requirements of signing may be disqualified and EMD shall be forfeited.

16.0 Sealing and Marking of Bids:

16.1 Cover-I
1. Bid No.
2. Due date for opening
3. Tender Fee & Earnest money deposit (EMD)

Cover-II
1. Bid No.
2. Due date for opening.
3. Qualifying Requirements.

Cover-III
1. Bid No.
2. Due date for opening
3. Technical bid & reference and required certificates

Cover-I, Cover-II, & Cover-III shall be individually sealed and super scribed as indicated above and should be enclosed in the main cover duly sealed and super scribed as Tender for "Operation and Maintenance" contract for 66 KV Substations containing Cover-I, Cover-II & Cover-III of this tender.

The Bid and accompanying documents clearly marked "for Cover I, II & III shall be submitted by the Bidder at the date, time and place specified. For any discrepancy between online & physical bid, online bid is considered as final.

The Bid shall be submitted by RPAD or through Speed Post services at the Office of the ACE (P&C) GETCO, Bids submitted should be posted with due allowance for any postal delay.
The Bids received after the Due Date and Time are liable to be rejected. Fax / e-mail / courier / ordinary post Bids shall not be considered.

16.2 The Bidders shall seal the Bid in an inner and an outer envelope with duly marking the envelopes.

16.3 a. Bid to be addressed to the Owner at the following address:

Add. Chief Engineer (Procurement & Contract),
Gujarat Energy Transmissions Corporation Ltd.
8th Floor, Sardar Patel Vidyut Bhavan, Race Course,
Vadodara -390 007

b. It should bear, Tender number, name of the work and the words, "DO NOT OPEN BEFORE 20.12.2025 15.00 Hrs."

16.4 The envelope shall indicate the name and address of the Bidder to enable the bid to be returned unopened in case it is declared “late” or “rejected”.

16.5 If the outer envelope is not sealed and marked as required by Clause No: 16.2, the Owner will assume no responsibility for the bid’s misplacement or premature opening.

16.6 The Bid Security as per conditions must be submitted in a separate sealed envelope.

17.0 Deadline for submission of bids:

17.1 Bids submitted by Fax / e-mail / courier / ordinary post will not be accepted. No request from any Bidder to the Owner to collect the proposals from airlines, cargo agent etc. shall be entertained by the Owner.

17.2 Bids must be received by the Owner at the address specified under Clause No: 16.3, not later than the time & date mentioned in the Invitation to Bid.

17.3 The Owner may, at its discretion, extend this deadline for the submission of Bids by amending the Bidding Document, in which case all rights and obligations on the Owner and Bidders previously subject to the deadline will thereafter be subjected to the deadline as extended.

18.0 Late Bids:

Any bid received by the Owner after the time and date fixed or extended for submission of bids prescribed by the Owner, shall be rejected and shall not be considered for evaluation.

19.0 Modification and withdrawal of bids:

19.1 The Bidder may modify or withdraw its bid after the Bid’s submission, provided that written notice of the modification or withdrawal is received by the Owner prior to the deadline prescribed for submission of online bids.

19.2 The Bidder’s modification or withdrawal notice shall be prepared, sealed, marked and dispatched in accordance with the provisions of clause No: 16.0. The envelope should clearly indicate whether the modification is for the Technical bid or the Price bid. No bid modifications notice by Fax / e-mail / courier / ordinary post shall be entertained by the Owner.

19.3 No bid shall be modified in any manner, whatsoever, subsequent to the deadline for submission of bids.

19.4 No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Bid Form. Withdrawal / modification of a bid during this interval may result in the Bidder’s forfeiture of its bid security/EMD.

20.0 BID OPENING AND EVALUATION

20.1 The Owner may open the Bids in the presence of Bidder’s representative(s) who intends to attend on the date and time mentioned for opening of Bids in the Invitation to Bid or any other later date or in case, any extension has been given thereto, on the extended bid opening date or any other later date and time notified to all the Bidders. The Bidder’s authorized representative(s) who are present, shall sign a register evidencing their attendance.

20.2 The Bidder’s names, Technical modifications, Bid withdrawal, etc shall be announced during the Technical Bid Opening, as the Owner, at his discretion may consider it appropriate.

20.3 The Price Bids of all the “Techno-Commercial” Responsive Bidders shall be opened in the presence of representative(s) (up to two per firm) of such bidders who choose to remain

present. The date & time of opening the Price Bid shall be intimated to all such qualified bidders by Fax / E mail in advance, besides inviting final Price Bid, if found appropriate after evaluation of Technical bids.

20.4 The Bidder's name, Bid Price, all discounts if any, modifications in the Price Bid etc., will be announced / furnished during the Price Bid Opening, as the Owner, at his discretion, may consider it appropriate.

20.5 No electronic recording/transmitting devices will be permitted during Technical & Price Bids opening.

20.6 The technical bid of only those bidders will be considered who have submitted required EMD and Tender fees along with the bid and who fulfil the qualifying requirements as prescribed

21.0 Purpose of evaluation of bids:

The Bids received / opened will be evaluated by the Owner to ascertain the technical responsiveness of the Bid for the complete scope of the proposal, as covered under these specifications and documents.

All technically responsive Bids shall then be examined to determine the "Lowest Evaluated Commercially and Technically Responsive Bids".

22.0 Policy for bids under consideration:

Bids shall be deemed to be under consideration, immediately after opening of Technical Bid and until such time official intimation of award / rejection is made by the Owner to the Bidders. While the Bids are under consideration, Bidders and/or their representatives and other interested parties are advised to refrain from contacting by any means, the owner and/or his employee's representatives on the matters related to Bids under consideration.

23.0 Clarification of bids:

To assist in the examination, evaluation and comparison of Bids, the owner may on his own, ask the Bidder for clarification of its Bid. The request for clarification and the response shall be in writing and no change in the quoted rate or substance of the bid shall be sought, offered or permitted.

24.0 Preliminary Examination:

24.1 The Owner 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.

24.2 Prior to the detailed evaluation, the Owner will determine the substantial responsiveness of each Bid to the Bidding Document. For purpose of these Clauses, a substantially responsive Bid is one, which conforms to all the terms and conditions of the Bidding Document without deviations. For Operation and Maintenance of Substations as per Scope of work, the Owner's determination of a Bid's responsiveness shall be based on the contents of the bid itself without recourse to extrinsic evidence.

24.3 A bid determined as not substantially responsive, will be rejected by the Owner and may not subsequently be made responsive by the Bidder by correction of non-conformity.

24.4 The Owner may waive any minor informality or non-conformity or irregularity in a bid which does not constitute a major role for O&M of Substation as deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.

25.0 Award Criteria

The owner will award the contract to the successful Bidder, whose bid has been determined to be substantially responsive and has been determined as the lowest evaluated bid, providing further that the Bidder is determined to be qualified to perform the contract satisfactorily. The Owner shall be the sole judge in this regard. Further owner reserves all rights to distribute the nos. of substations for O&M contracts amongst successful bidders subject to prevailing policy of GUVNL and / or GETCO BOARD directives. **"New bidder" shall be considered for award of work only when they are L1 in the price comparison with respect to new or regular bidders.**

If more than one firm is to be considered for placement of order, then the bidder has to match price with L-1 bidder, as the case may be

GETCO reserves the right to allot additional substations based on bids submitted by regular successful bidders if the no. of substations exceeds total tender quantity due to any exigency subject to limit of 10% of order quantity of individual bidders as per original terms and conditions till expiry of contract.

26.0 Owner's right to accept any bid and to reject any or all bids:

The Owner reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at time prior to award of contract, any, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Owner's action.

27.0 Notification of award:

27.1 Prior to the expiration of the period of bid validity and/or extended validity period, if any, the Owner will notify the successful Bidder in writing by registered / ordinary letter or FAX/E mail, that its bid has been accepted.

27.2 The notification of award will constitute the formation of the Contract.

27.3 Upon the successful Bidder's furnishing of performance guarantee pursuant to relevant clause No: 34.0, the Owner will promptly notify each unsuccessful Bidder and will discharge its bid security/EMD, pursuant to Clause No: 13.5.

28.0 Signing of contract:

28.1 At the same time, as the Owner notifies the successful Bidder that his bid has been accepted, the Owner will send the Bidder the details / detailed Award, incorporating all agreements between the parties.

28.2 Within 15 days of receipt of the detailed Award, the successful bidder shall sign the same with date and return it to the Owner.

28.3 The Bidder will prepare the Contract Agreement as per the Performa prescribed and the same will be signed within 30 days of notification of Award.

29.0 DEFINITION OF TERMS

29.1 The 'Contract' means the agreement entered into between the Owner and the Contractor as per the Contract Agreement signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

29.2 'Owner' shall mean the "Gujarat Energy Transmission Corporation Ltd. Vadodara" (GETCO) or **any it's group companies i.e. GUVNL, GSECL, MGVCL, DGVCL, PGVCL, UGVCL** and shall include its legal representatives, successors and assigns.

29.3 'Contractor' shall mean the Bidder whose bid is accepted by the Owner for the award of the Contract and shall include such successful Bidder's legal representatives, successors and permitted assigns.

29.4 'Engineer in charge' shall mean the officer appointed in writing by the Owner to act as Engineer from time to time for the purpose of the Contract.

29.5 The terms 'Equipment', 'Tools','Spares', 'Testing Instruments' 'Consumables' and 'Materials' shall mean and include equipment, Tools ,Spares, Testing Instruments , Consumables and Materials to be maintained by the Contractor under the Contract.

29.6 'Specifications' shall mean the Specifications and Bidding Document forming a part of the Contract and such other schedules as may be mutually agreed upon.

29.7 The term 'Contract Price' shall mean the lump-sum price quoted by the Contractor in his bid with additions and / or deletions as may be agreed and incorporated in the Letter of Award and the contract agreement for the entire scope of the works.

29.8 'Notice of Award of Contract' / 'Letter of Award' / 'Telex of Award' shall mean the official notice issued by the Owner notifying the Contractor that his bid has been accepted.

29.9 'Order' shall mean the official letter issued by the Owner informing the acceptance of the bid.

29.10 'Date of Contract' shall mean the date on which Notice of Award of Contract / Letter of Award has been issued.

29.11 'Month' shall mean the calendar month. 'Day' or 'Days' unless herein otherwise expressly defined shall mean calendar day or days of 24 hours each.

29.12 A 'Week' shall mean continuous period of seven (7) days.

29.13 Writing' shall include any manuscript, type written or printed statement, under or over signature and/or seal as the case may be.

29.14 When the words 'Approved', 'Subject to Approval', 'Satisfactory', 'Equal to', 'Proper', 'Requested', 'As Directed', 'Where Directed', 'When Directed', 'Determined by', 'Accepted', 'Permitted', or words and phrases of like importance are used the approval, judgment, direction etc. is understood to be a function of the Owner / Engineer.

29.15 Test on equipments shall mean such tests as prescribed in the maintenance schedule to be performed by the Contractor.

29.16 'Codes' shall mean the following including the latest amendments and/or replacements, if any:

a) Indian Electricity Act, 1905 and Rules and Regulations made there under.
b) Electricity Act 2003 and Rules & Regulations made there under.
c) Indian Factory Act, 1948 and Rules and Regulations made there under.
d) Indian Explosives Act, 1884 and Rules and Regulations made there under.
e) Indian Petroleum Act, 1934 and Rules and Regulations made there under.
f) A.S.M.E. Test Codes.
g) A.I.E.E. Test Codes.
h) American Society of Materials Testing Codes.
i) Standards of the Indian Standards Institution.
j) Other Internationally approved standards and / or rules and regulations touching the subject matter of the Contract.

29.17 Words imparting the singular only shall also include the plural and vice –versa where the context so requires.

29.18 Words imparting 'Person' shall include firms, companies, corporations and associations or bodies of individuals, whether incorporated or not.

29.19 GST/Cess means all applicable Tax/Cess under GST Laws. GST Laws means IGST Act, GST (Compensation to the State for Loss of Revenue) Act, CGST Act, UTGST Act and SGSCT Act, 2017and all related ancillary legislations.

30.0 Price Basis:

30.1 **The Price shall be quoted on percentage basis.**

30.2 The Price quoted by the bidder shall remain variable during the bidder's performance of the contract and price variation (PV) consider based on Minimum wages as per following formula with revision.

$$P1 = P0 \left[0.22 + 0.78 \times \frac{W1}{W0} \right]$$

Where,

P1 = Price payable as adjusted in accordance with the above formula

P0 = Price Accepted.

W1 = Revised Minimum wages of SBO (Skilled) + Helper - Electrical Assistant (Semi Skilled) as published by Labour Office, Gandhinagar GoG under respective Zone as per Minimum Wages Act. These wages shall be applicable from the respective month of revised minimum wage rate published by GoG.

W0 = Minimum wages of SBO (Skilled) + Helper - Electrical Assistant (Semi Skilled) as published by Labour Office, Gandhinagar GoG under respective Zone as per Minimum Wages Act. The wages published by GoG, will be considered one month prior to the opening of the tender.

PV formula will be applicable from the respective month of revised minimum wage rate published by Labour Office, Gandhinagar GoG

31.0 Taxes and Duties:

31.1 As regards the income Tax, surcharge on income tax and any other corporate tax, including GST, if any, the owner shall not bear any tax liability, whatsoever. The bidder shall be liable and responsible for payment of such taxes as attracted under the provisions of the law.

31.2 Notwithstanding the tax liabilities as per the above sub-clause, the owner shall have the right to make deduction at source from the amounts payable to the contractor in respect of Income Tax (on the cost of items of supply included in the works contract as applicable) as may be mandatory in terms of the law. The owner shall not bear any liability in this regard but shall issue necessary certificate in respect of such deduction made.

31.3 *Any statutory increase or decrease in the taxes and duties* ***including GST and Cess as applicable or in the event of introduction of new tax/cess or cessation of existing tax/cess*** *subsequent to suppliers offer if it takes place within the original contractual delivery date will be to COMPANY**'s** account subject to the claim being supported by documentary evidence. However, if any decrease takes place after the contractual delivery date, the advantage will have to be passed on to COMPANY.*

Statutory Variation clause will not be applicable in case of Supplier / Contractor has opted for Composition Scheme under GST.

31.4 Before quoting, the bidder may ascertain from the concerned tax authorities, the applicability of GST , etc. in respect of this work and include the same in the quoted price. No separate claim in this regard will be entertained by the Owner, as it is the responsibility of the Bidder to pay all these taxes.

32.0 Taxes, Permits & Licenses

The Contractor shall be liable and pay all non-Indian taxes, duties, GST, levies, lawfully assessed against the Owner or the Contractor in pursuance of the Contract. In addition, the Contractor shall be responsible for payment of all Indian duties, levies and taxes lawfully assessed against the Contractor for his personal income & property only.

33.0 Price Inclusions (including Taxes & Duties):

Goods and Service Tax (GST):

33.1 The F.O.R. Destination prices are excluding GST and Cess as applicable which will be paid extra on a given taxable goods and/or services within the original contractual delivery period. The amount and % of GST and Cess as applicable should clearly be indicated separately. (GST/Cess means all applicable Tax/Cess under GST Laws. GST Laws means IGST Act, GST (Compensation to the State for Loss of Revenue) Act, CGST Act, UTGST Act and SGSCT Act, 2017 and all related ancillary legislations).

33.2 You shall have to submit a C.A Certificate & duly authorized Signatory of successful bidder, certifying that you have not claimed Refund of any applicable GST and Cess, charged to COMPANY or shall not claim any such Refund, on a future date, from the concerned Authorities and if, any Refund, in respect of such GST and Cess, is claimed by you, it will be immediately passed on to the COMPANY, without COMPANY making any specific Claim, for the same, either from the Department or from you.

33.3 The offers having price INCLUSIVE OF GST and Cess is likely to be rejected if the rate of GST and Cess is not mentioned clearly unless the bidder has opted for Composition Scheme under GST Act, which should be clearly indicated in the price bid. COMPANY may at its discretion consider such offer with presumption of highest applicable rate of GST and Cess prevailing when the price quoted is inclusive of GST and Cess.

33.4 If the Supplier/Contractor has opted for the Composition scheme of GST, the same must be clearly specified with valid Declaration & Certificate from Department. In the event of withdrawal/cessation of the Supplier from Composition scheme during the tenure of the contract, the rate mentioned in the price bid shall be final and any additional GST will have to be borne by the tenderer. In no case additional amount towards tax or otherwise will be paid / reimbursed to supplier/contractor. Further Statutory Variation clause will not be applicable in case of Supplier / Contractor has opted for Composition Scheme under GST.

33.5 Supplier/Contractor should charge GST in Invoice at the rate as agreed to / mentioned in acceptance of tender only and any deviation in the same shall not be accepted. Further, any additional liability of GST (later on due to wrong mentioning of GST rate, mis-interpretation of HSN/SAC Code, etc.) over and above as charged in the invoice shall be borne by the Supplier/Contractor. However, any refund received by the supplier / contractor on account of GST charged from the company; such refund shall have to be passed on to the company, along with interest if any. Such refund along with interest needs to be passed on suo-moto by the supplier / contractor.

33.6 Further, the Company has a right to recover the amount of GST along with penal interest at the rate of 15% per annum if GST charged is not paid / short paid to the government or fail to upload the details or uploads inaccurate particulars on GSTIN portal by the Supplier / Contractor within the stipulated time limit.

33.7 In case, Govt. revises the rate of GST rate / Code during the tenure of the contract, the provision of GETCO's statutory variation clause shall apply.

33.8 INPUT TAX CREDIT BENEFIT
In the event of any statutory increase in the rate of Input Tax Credit and / or due to inclusion of any other additional item of their inputs / input services under the ambit of the Input Tax Credit provisions under the GST Act, subsequent to the date of submission of the offer, the same should be passed on to COMPANY and you should inform such changes to COMPANY from time to time.

33.9 GST*, other* taxes and other levies and duties including custom duty solely in respect of the transaction between the owner and the contractor under this contract, if any, shall be included in the bid price. These shall also be indicated separately wherever applicable.

33.10 As regards the income Tax, surcharge on income tax and any other corporate tax, including GST if any the owner shall not bear any tax liability whatsoever. The bidder shall be liable and responsible for payment of such taxes as attracted under the provisions of the law.

33.11 Notwithstanding the tax liabilities as per above the owner shall have the right to make deduction at source from the amounts payable to the contractor in respect of Income Tax (on the cost of items of supply included in the works contract) as may be mandatory in terms of the law. The owner shall not bear any liability in this regard but shall issue necessary certificate in respect of such deduction made.

33.12 Whenever *concessional rate of GST is indicated by the bidders, it shall be confirmed whether any increase* in the rates that becomes applicable during the performance of the contract would be absorbed by the supplier. Bidder shall note that in case of absence of such confirmation; the tenders will be evaluated taking into account the maximum rate of GST applicable.

33.13 In case any tax or duty is newly introduced by the Government applicable for this contract with effect from the next day of the date submission of the bid and if the contractor is required to pay additional tax or duty, then the owner shall reimburse the contractor the additional tax or duty so paid by the contractor against submission by the contractor of documentary evidence to the satisfaction of the owner. This provision will not be applicable to transaction between the contractor and his sub-suppliers, sub-contractors for raw materials etc and will be applicable only to the direct transactions between the contractors and owner. Besides the said statutory variation, no other statutory variation shall be payable by the owner.

33.14 The owner's liability for all taxes and duties including GST under the contract shall be limited to those indicated by the Bidder in the Bid Proposal Sheets, subject to the statutory variations and variations as per Clause No. 31.3 supra.

If the cost to the Contractor during the performance of the 'Contract' shall be increased or reduced by reasons of the making, passing or promulgation of any law after the date of submission of bid or by any order, regulation or bye-law having the force of law the amount of such increase or reduction shall be added to or deducted from the "Contract Price" as the case may be for direct transactions between contactor & owner. It is the Bidders responsibility to furnish details of taxes, duties, levies etc. applicable as on the date of submission of the bid.

33.15 **INCOME TAX (TDS)**

TDS under Income Tax will be deducted on purchase of goods by GETCO @ 0.1% of the sum exceeding Rs. 50 lacs u/s 194Q from the bill of suppliers/contractors at the time of credit or payment whichever is earlier. TDS will be deducted on advance payment being also made by GETCO to supplier. Further in some of the cases, where TCS u/s 206 (1H) is applicable also along with TDS u/s 194Q, then only TDS on purchase of Goods u/s 194Q shall be deductible, as TDS u/s 194Q overrides TCS u/s 206C (1H).

As per the Section 206AB of Income Tax Act, TDS under Income Tax will be deducted at higher rates of the following rates : (non-fillers of ITRs for the past two fiscal years will be subjected to higher TDS). (a) At twice the rate specified in the relevant provision of the Act (b) At twice the rates in force (c) At the rate of 5%

DEDUCTION OF TDS UNDER GST:

As per provisions of GST Act, TDS under GST @ 2 % (1 % CGST + 1 % SGST or 2 % IGST, as applicable) or at the applicable rate from time to time, will be deducted from the bill of the Suppliers/Contractors at the time of credit or payment. Whichever is earlier. TDS certificates in the prescribed format will be issued as per prescribed rules under GST.

34.0 Contract Performance Guarantee:

34.1 As a contract performance security, the successful bidder, to whom the work is awarded, shall be required to furnish a Performance Guarantee of one third amount of Bank Guarantee every year in place of full contract price Bank Guarantee of 3 years in the first year itself. However, while doing so, it shall be ensured that such Bank Guarantee shall be with GETCO at any point of time. Therefore, one third amount of Bank Guarantee of 3 years at a time valid for 3 years shall be taken by GETCO

34.2 The Performance Guarantee shall cover additionally the following guarantees to the Owner. The successful Bidder guarantees the successful and satisfactory Operation and Maintenance of the substation under the Contract, as per the specifications and documents.

34.3 The Contract Performance Guarantee is intended to secure the performance of the entire contract. However, it is not to be construed as limiting the damages stipulated in other clauses in the Bid documents.

34.4 The Contract Performance Guarantee will be discharged without any interest on successful completion of the contract and only after the performance guarantee condition is fulfilled. The Contractor shall furnish Contract Performance Guarantee(s) for the proper fulfilment of the Contract in the prescribed form **within fifteen (15) days of "Notice of Award of Contract".** The performance guarantee(s) shall be as per terms prescribed.

34.5 The termination of contract under this clause shall neither entitle the contractor to reduce the value of the contract performance guarantee nor the time thereof. The contract performance guarantee shall be valid for the one third amount of Bank Guarantee every year in place of full contract price Bank Guarantee of 3 years in the first year itself. However, such Bank Guarantee shall be with GETCO at any point of time. Therefore, one third amount of Bank Guarantee of 3 years at a time valid for 3 years shall be taken by GETCO.

34.6 Contract performance guarantee shall be valid / extended till the pendency of contract period or extended contract period, whichever the case may be, of the last allotted substation under this contract.

35.0 Guarantees & Liabilities

35.1 The Contractor shall give warranty that the whole contract, in accordance with the Contract documents for a period of thirty-six (36) calendar months commencing within 30 days from the date of LOA and valid till the completion of 36 month from handing over the last substation under this contract.

35.2 In the event of any emergency wherein the judgment of the Engineer of the contractor, delay causing serious loss or damages, repairs or adjustment made by the Engineer of the contractor or a third party chosen by the Engineer of the contractor, the cost of such works / damage shall be payable by the Contractor. In the event of such action taken by the Engineer of the contractor, the Contractor **shall promptly notify to the owner.** The engineers of the contractor shall be assisted wherever possible in making necessary corrections/rectifications, the charges for which shall be payable by the contractor. However, this shall not relieve the Contractor of his liabilities under the terms and conditions of the Contract.

35.3 For repairs, new parts/components will be provided by the Owner and the same has to be erected free of cost by the Contractor. If any repair is carried out by the Owner on his behalf at the site, the Contractor will have to bear the cost of such repairs.

35.4 The cost of any special / urgent overhaul found necessary during the Operation & Maintenance Contract period due to defective work carried out by the Contractor, the same shall be borne by the Contractor.

36.0 PENALTY:

36.1 Contractor has to deploy the staff immediately on allotment of the substation & instruction of GETCO. However, if the contractor fails to start work within one month from the date of issuance of Letter of Intent (LOI), the Owner may penalize the contractor by way of forfeiting the Security Deposit (SD), paid by the contractor.

Further, during contractual period any new or additional substation allotted, contractor has to take over allotted substation immediately. However, if the contractor fails to deploy the staff within 15 days from the date of issuance of allotment/ intimation of readiness to take over the substation by EIC, the Owner shall penalize the contractor @ 10 % of substation monthly O&M charges per week or part thereof plus GST as applicable for delay in taking over of substation beyond 15 days on individual substation basis

36.2 Contractor shall provide Bio-Metric attendance system using either finger print or retina in control room before taking over the substation and attendance of the staff shall be purely on the data of finger print machine which is to be submitted with monthly bill failing which Rs. 2000 per day plus GST as applicable shall be deducted from the monthly bill for the nos. of days for which the attendance through Bio-Metric machine is not available (any instance during the day).

36.3 If the contractor fails to provide staff as agreed in the schedule of quantities and / or contract, the Owner will not pay / recover the cost of such staff not provided for Operation & Maintenance of 66KV Substation.

Further, if the contractor fails to provide staff as agreed in the schedule of quantities and / or contract for a period of more than 7 days in a month, the owner shall penalize the contractor @ 10% of substation monthly O&M charges per week or part thereof plus GST as applicable for not providing staff as agreed in the schedule of quantities on individual substation basis.

In no circumstances, working of 16 hrs in a day per person will be allowed, subject to maximum additional 20 hrs per person in a month for a particular substation and nearby maximum two substations. Non-compliance of this condition for particular month shall subject to penalty @ 10% of substation monthly O&M charges per week or part thereof plus GST as applicable.

36.4 Any delay more than 15 Hrs/year will be treated as one event for the penalty

- Penalty of Rs 3000 per hour or part thereof plus GST as applicable will be imposed (Beyond 15hrs) provided it is not on account of equipment failure but purely on O&M account.
- The duration of outage (interruption) will be based on recording of log book / DAS data or any other electronic device data like relay etc. however it is to be monitored by S/S group in-charge, GETCO.

- For individual equipment / bay / panel penalty of Rs. 1000 per hour or part thereof plus GST as applicable will be imposed (Beyond 35 Hrs of outage of that particular equipment in a financial year) provided it is not on account of equipment failure but purely on O&M account.

36.5 Time for periodic maintenance is to be included in calculating above sub-station availability.

36.6 Duration for Force majeure conditions are to be excluded in calculating above sub-station availability.

36.7 The contractor has to attend all the breakdown / preventive maintenance / condition maintenance in the shortest time period as per the satisfaction of the Owner (GETCO), keeping in view that owner does not suffer any revenue loss. In case the contractor does not attend requisite repair, operation and maintenance work in time & revenue loss arise out of this, then, the entire loss to the Owner or the penalty calculated as per clause 36.4 plus GST as applicable whichever is higher will be recovered from the contractor's invoice of next

month. In case of any dispute the decision of Add. Chief Engineer (Transmission), GETCO, shall be final and binding to contractor.

Revenue loss to GETCO will be calculated as under:
(Loading MW affected X Transmission charges of GETCO ARR of Particular Year / MW/Day x Hrs of outage) /24

36.8 The housekeeping and up-keeping of the control room and switchyard premises shall strictly be adhered to as per norms, failing which a token penalty of Rs.1000 plus GST as applicable per such incidence observed during site visit of JE/DE, Rs.5000 plus GST as applicable per such incidence observed during site visit of EE and Rs.10000 plus GST as applicable per such incidence observed during site visit of SE will be recovered from the monthly bill which will be final and binding to contractor.

36.9 Tripping of lines/Equipments & its restoration including occurrence / abnormalities are to be informed to EIC of S/S of GETCO through SMS within time limit as specified in attached formats for performance parameters. In case of failure in reporting such incidence a token penalty of Rs. 100 per instance plus GST as applicable shall be levied.

36.10 The sum of total penalty amount shall not increase more than **25 % of the monthly bill amount without taxes** plus GST as applicable for each substation if the contractor has provided manpower as per contract conditions during that month. Further, additional penalty will be beyond **25 % of the monthly bill amount without taxes** plus GST as applicable per month for each substation may be levied in case manpower is not provided as per contract conditions i.e. less nos. of manpower is provided. This penalty ceiling is to be considered over and above the penalty /recovery proposed in line with clause for nos. **36.11** (recovery in case of if any repair is carried out by the Owner on behalf of bidder at the site), clause No. **36.12** (In case if any safety related fatal Electrical / Mechanical accident occurred to any employee) and clause No. (56.00 Liability for accidents and damages).

36.11 In the event of Zero power / Bus fault / Break down, if any repair is carried out by the Owner on behalf of bidder at the site, the cost of such repairs including service personnel with vehicle charge who remained present plus GST as applicable shall be recovered as per the latest circular for service personnel charges of GETCO.

36.12 In case if any safety related fatal Electrical / Mechanical accident occurred to any employee of agency or outsider due to negligence or non-compliance of GETCO safety norms then in addition to the compensation and liability as per statutory requirement, contractor / agency is hereby agreed to pay penalty amount as given below

Sr. No	Amount of Contract in Rs.	Penalty amount
1	Up to →1 Lac	Rs.5000/- plus GST as applicable
2	Above1 Lac to → 10 Lacs	Rs.40000/- plus GST as applicable
3	10 to --→ 100 Lacs	Rs.100,000/- plus GST as applicable
4	> 100 Lacs	1.0 % of contract value plus GST as applicable

Note: It is to be levied on order value of each substation for 03 years.

36.13 In event of failure of the contractor to pay the amount of penalty as demanded, the Owner shall be entitled to deduct the amount of penalty from the amounts payable under any other contract with the GUVNL and its subsidiary companies i.e. GETCO, GUVNL, GSECL, MGVCL, DGVCL, PGVCL, UGVCL. It is permissible for the owner to adjust the amount of Penalty of delay against any bank Guarantee furnished by the contractor under this contract or any other contract with GUVNL and/or its subsidiary companies.

37.0 Submission of Bills

The bills shall be submitted in triplicate to the Engineer In Charge (TR) (EIC) of respective substation with all necessary documents as indicated in various terms and conditions of the specifications.

38.0 Terms of Payment

38.1 The contractor shall be permitted to raise one bill in triplicate (three copies) in each Calendar month. **The contractor shall submit his bill complete in all respect every month**. Any liabilities or legal obligations arise at any date / time / instance due to late submission of bills shall be borne by the contractor.

38.2 The payment shall be made within 30 days of clearance by EIC, after deducting the Statutory Taxes & Duties and other deductions, if any.

38.3 The contractor has to furnish proof of submission of Provident Fund in respect of the staff employed by him with the monthly bill including certificate of payment made to all of his employees engaged for the works for the period of bill. The bill shall also be supported by documentary evidence of deduction of P.F. contribution from the salaries of the personnel employed and deposition of the same in the office of the P.F. Commissioner or equivalent. However, submission of such proof as a support and subsequent passing of monthly RA bill by GETCO will not absolve the contractor from all the contractual and legal liabilities arising out of this contract.

38.4 The contractor shall submit the copy of daily and monthly O&M work done by contractor during the month in the substation as well as the copy of **Biometric Attendance shall be submitted to GETCO in order to verify the attendanc**e for the particular month for each substation. Software for the biometric attendance machine shall be provided by the bidder to GETCO free of cost at the ratio of one software per Transmission Division.

38.5 No interest will be paid if there is delay in release of payment by GETCO due to whatsoever reason.

38.6 Payment for testing work shall be permitted for complete test carried out as per Annexure-C and / or as applicable for GIS/HGIS on yearly basis. The date of handing over of substation shall be considered as base date to calculate the year for testing schedule for particular substation. Part payment for testing work shall not be permitted. The payment for testing work shall be made on yearly basis on submission of test certificates and conformation of carrying out of all the tests as per Annexure-C and / or as applicable for GIS/HGIS duly certified by the Executive Engineer of division for all equipments in a substation as specified in tender. For subsequent addition of equipments in the substation, time period for testing of that equipment will be as per above only however if the installation of additional equipment to end of the year period is less than six months then that equipment will not be considered for testing schedule of that year. However, part payment in case of GIS/HGIS or in exceptional case for other conventional substation as approved by CE(TR) may be made for testing and shall be binding to the contractor.

The payment applicable for GIS/HGIS substation on yearly basis shall be 80 % of Testing Bill amount of conventional substation as per awarded price schedule.

38.7 Contractor has to perform his duties, pay to its employee's legitimate dues timely without waiting for payment to be received from GETCO against its bills.

38.8 100 % payment after deducting penalty / applicable taxes / duties levies etc. against the Running Account Bill shall be paid to the Contractor after the submission of 'Contract Performance Guarantee' as per clause No. 34 of PART - I (GCC). The amount withholds due to any fault on the part of contractor or exigency to be reviewed annually by Superintending Engineer (Tr) of circle to decide further course of action.

The B.G. shall be refunded / returned to the Contractor after completion of the contract and adjusting any amount due from the contract. Cost of stamp paper is to be borne by the contractor. However, GETCO reserves the right to recover any dues / recovery arising out of this contract or from any other contract of the contractor available with GETCO / GUVNL & its subsidiary companies.

38.9 The GST amount will be paid on submission of documentary evidence of payment.

38.10 Currency of Payment: All payments under the Contract shall be made in Indian Rupees only.

38.11 RA bill payment shall be made after submission of grass cutting / bush removal certificate from EIC duly endorsed by EE (Tr).

39.0 Mode of Payment

39.1 The payment shall be made on monthly basis as per actual operation & maintenance work carried out during the month, verified & recorded by the EIC, based on biometric attendance record of the staff submitted by contractor and sample verified by the EIC.

39.2 All payments under the Contract shall be made as stipulated in the Contract after signing the Contract Agreement.

40.0 Contract Quality assurances

40.1 The Bidder shall have to submit along with his proposal the Quality Assurance Programme containing the overall quality management and procedures which he proposes to follow in the performance of the Works during various phases for operation & maintenance as per schedule.

40.2 At the time of Award of Contract, the detailed Quality Assurance Programme to be followed for the execution of the Contract will be mutually discussed and agreed and such agreed Programme shall form a part of the Contract.

41.0 Contract Documents

41.1 The term Contract Documents shall mean and include the following which shall be deemed to form an integral part of the Contract:

a) Application: These General Conditions shall apply to the extent that they are not superseded by provisions in other parts of the Contract.
b) Invitation to Bid: is includes letter forwarding the Bidding Documents, General Terms and Conditions of Contract and all other documents included under Part I& the Special Conditions of Contract, Part II and Part III.
c) Contractor's Bid Proposal and the documents: It includes the letters of clarifications there to between the Contractor and the Owner prior to the Award of Contract except to the extent of repugnancy.
d) All the materials, literature, data and information of any sort, given by the Contractor along with his bid which is in line with scope & sanctity of the bid, subject to the approval of the Owner.
e) Letter of Award and any agreed variations of the conditions of the documents and special terms and conditions of Contract, if any.

41.2 In the event of any conflict between the above mentioned documents the matter shall be referred to the Add.Chief Engineer (Procurement & Contract) whose decision shall be considered as final and binding to the bidders.

42.0 Use of Contract Documents and Information

42.1 The Contractor shall not, without the Owner's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Owner in connection therewith, to any person other than a person employed by the Contractor in the performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for the purpose of such performance.

42.2 The Contractor shall not, without the Owner's prior written consent, make use of any document or information enumerated in various Contract documents except for the purpose of performing the Contract.

42.3 The Contractor shall not communicate or use in advertising, publicity, sales releases or in any other medium, photographs or other reproduction of the Works under this Contract, or descriptions of the site, dimensions, quantity, quality or other information, concerning the works unless prior written permission has been obtained from the Owner.

42.4 Any document, other than the Contract itself, enumerated in various Contract documents shall remain the property of the Owner and shall be returned (in all copies) to the Owner on completion of the Contractor's performance under the Contract if so required by the Owner.

43.0 Jurisdiction of Contract

The laws applicable to the Contract shall be the laws in force in India. The Courts of Vadodara shall have exclusive jurisdiction in all matters arising under this Contract.

44.0 Execution of Contract:

44.1 The Owner, after the issue of the Letter of Award to the Contractor, will send one copy of the final agreement to the Contractor for his scrutiny and approval.

44.2 The Agreement, unless otherwise agreed to, shall be signed within 15 days of the acceptance of the Letter of Award, at the office of the Owner at Vadodara on a date and time to be mutually agreed. The Contractor shall provide Performance Guarantee, appropriate power of attorney and other requisite materials for signing of the Contract. In case the Contract is to be signed beyond the stipulated time, the Bid Guarantee submitted with the Proposal will have to be extended accordingly.

44.3 The Agreement will be signed in three copies in original and the Contractor shall be provided with one signed original and the rest will be retained by the Owner.

44.4 The Contractor shall provide free of cost all the Engineering data, drawings, and descriptive materials submitted with the bid including soft copy to the Owner, to form a part of the Contract immediately after issue of Letter of Award.

44.5 Subsequent to signing of the Contract, the Contractor shall provide the Owner with two copies of agreement at his own cost within fifteen (15) days after the signing of the Contractor.

45.0 Enforcement of Terms

The failure of either party to enforce at any time any of the provisions of this Contract or any rights in respect thereto or to exercise any option therein provided, shall in no way be construed to be a waiver of such provisions, rights or options or in any way to affect the validity of the Contract. The exercise by either party of any of its rights herein shall not preclude or prejudice either party from exercising the same or any other right it may have under the Contract.

46.0 Completion of Contract

Unless otherwise terminated under the provisions of any other relevant clause, this Contract shall be deemed to have been completed on the expiry of the guarantee period as provided under the clause no 35.1 entitled 'Guarantee'

47.0 Defence of Suits

If any action in court is brought against the Owner or Engineer or an officer or agent of the Owner, for the failure, omission or neglect on the part of the Contractor to perform any acts, matters, covenants or things under the Contract, or for damage or injury caused by the alleged omission or negligence on the part of the Contractor, his agents, representatives or in connection with any claim based on lawful demands of workmen, suppliers or employees, the Contractor shall in all such cases indemnify and keep the Owner, and the Engineer and / or his representative, harmless from all losses, damages, expenses or decrees arising of such action.

48.0 Limitation of Liabilities

The final payment by the Owner in pursuance of the Contract shall mean the release of the Contractor from all his liabilities under the Contract. Such final payment shall be made only at the end of the Guarantee/Warranty period, and till such time as the Contractual liabilities and responsibilities of the Contractor, shall prevail. All other payments made under the Contract shall be treated as on-account payments. The aggregate liabilities are limited up to the total contract value.

49.0 Engineer's Decision

49.1 In respect of all matters which are left to the decision of the Engineer in charge including the granting or with-holding of the certificates, the Engineer shall, if required to do so by the Contractor, give in writing a decision thereon.

49.2 If, in the opinion of the Contractor, a decision made by the Engineer in charge is not in accordance with the meaning and intent of the Contract, the Contractor may file with the Engineer in charge, within fifteen (15) days after receipt of the decision, a written objection to the decision.

Failure to file an objection within the allotted time will be considered as an acceptance of the Engineer in charge's decision and the decision shall become final and binding.

49.3 The Engineer in charge's decision and the filing of the written objection thereto shall be a condition precedent to the right to request arbitration. It is the intent of the Agreement that there shall be no delay in the execution of the works and the decision of the Engineer in charge as rendered shall be promptly observed.

50.0 Power to vary or omit work

50.1 No alterations, amendments, omissions, suspensions or variations of the Works (hereinafter referred to as 'variation') under the Contract as detailed in the Contract Documents, shall be made by the Contractor except as directed in writing by the Engineer in charge, but the Engineer in charge shall have full powers subject to the provisions hereinafter contained, from time to time during the execution of the Contract, by notice in writing to instruct the Contractor to make such variation without prejudice to the Contract. The Contractor shall carry out such variation and be bound by the same conditions as far as applicable as though the said variations occurred in the Contract Documents. If any suggested variations would, in the opinion of the Contractor, if carried out, prevent him from fulfilling any of his obligations or guarantees under the Contract, he shall notify the Engineer thereof in writing and the Engineer shall decide forthwith whether or not, the same shall be carried out and if the Engineer confirms his instructions, the Contractor's obligations and guarantees shall be modified to such an extent as may be mutually agreed. Any agreed difference in cost occasioned by any such variation shall be added to or deducted from the Contract Price as

the case may be. However, addition / removal of equipment in substations on account of augmentation / reduction in capacity during the contract period shall not be covered under this clause.

50.2 In the event of Engineer in charge requiring any variation, a reasonable and proper notice shall be given to the Contractor to enable him to work his arrangement accordingly, and in cases where goods or materials are already prepared or any design, drawings or pattern made or work done as per the contract requires to be altered, a reasonable and agreed sum in respect thereof shall be paid to the Contractor.

50.3 In any case in which the Contractor has received instructions from the Engineer in charge, to the requirement of carrying out the alterations or additional or substituted work which either then or later on, will in the opinion of the Contractor, involve a claim for additional payment, the Contractor shall immediately and in no case later than thirty (30) days, after receipt of the instructions aforesaid and before carrying out the instructions, advise the Engineer I/C to that effect. But the Engineer I/C shall not become liable for payment of any charges in respect of any such variations, unless the instructions for the performance of the same shall be confirmed in writing by the Engineer. However, addition / removal of equipment in substations on account of augmentation / reduction in capacity during the contract period shall not be covered under this clause.

50.4 If any variation in the Works results in reduction of Contract Price, the parties shall agree, in writing, so to the extent of any change in the price, before the Contractor proceeds with the change.

50.5 In all the above cases, in the event of a disagreement as to the reasonableness of the said sum, the decision of the Engineer I/C shall prevail.

50.6 Notwithstanding anything stated above in this clause, the Engineer I/C shall have the full power to instruct the Contractor, in writing, during the execution of the Contract regarding variation in scope of work of Operation & Maintenance, so as to run the sub-station smoothly and with maximum availability.

51.0 Cooperation with other Contractors and Consulting Engineers:

The Contractor shall agree to cooperate with the Owner's other Contractors and Consulting Engineers and freely exchange with them such technical information as required to operate & maintain the sub-station efficiently and in better way.

52.0 No waiver of rights

Neither the inspection by the Owner or the Engineer or any of their officials, employees, or agents nor any order by the Owner or the Engineer for payment of money or any payment for or acceptance of, the whole or any part of the Works by the Owner or the Engineer, nor any extension of time, nor any possession taken by the Engineer shall operate as a waiver of any provision of the Contract, or of any power herein reserved to the Owner or any right to damages herein provided nor shall any waiver of any breach in the Contract be held to be a waiver of any other or subsequent breach.

53.0 Certificate not to affect right of owner and liability of the contractor.

No interim payment certificate of the Engineer, nor any sum paid on account by the Owner, nor any extension of time for execution of the Works granted by the Engineer shall affect or prejudice the rights of the Owner against the Contractor or relieve the Contractor of his obligation for the due performance of the Contract, or be interpreted as approval of the Works done / maintained and no certificate shall create liability for the Owner to pay for alterations, amendments, variations or additional works not ordered, in writing, by the Engineer or discharge the liability of the Contractor for the payment of damages whether due, ascertained, or certified or not or any sum against the payment of which he is bound to indemnify the Owner, nor shall any such certificate nor the acceptance by him of any sum

paid on account or otherwise affect or prejudice the rights of the Owner against the Contractor.

54.0 Progress Reports

During the period of Operation and maintenance Contract, the Contractor shall at his own cost submit operation & maintenance schedule and its periodic progress O&M reports and performance evaluation reports / formats as may be reasonably required by the Engineer with materials utilized / testing done and results there of etc. such as, charts, test certificates, etc. Such progress reports shall be in the form and size as may be required by the Engineer.

55.0 Handing Over

Handing over 66 K V sub stations for Operation & Maintenance contract as per attached Annexure: B

56.0 Liability for accidents and damages

Under the Contract, the Contractor shall be fully responsible for loss or damage to the equipment / operator / maintenance staff / manpower deployed / any unauthorized outsider (human/animal/bird) (electrical or mechanical; fatal or non-fatal) under the contract until the successful completion of period of contract as defined elsewhere in the Bid document.

All other expenses incurred due to mal-operation of equipments / not performing due to reasons of not proper operation / maintenance of equipments shall be to the account of the Contractor.

57.0 Force majeure

57.1 Force majeure is herein defined as any cause which is beyond the control of the Contractor or the Owner as the case may be, which they could not foresee or with a reasonable amount of diligence could not have foreseen and which substantially affects the performance of the Contract, such as:

a. Natural phenomena, including but not limited to floods, droughts, earthquakes and epidemics;
b. Acts of any Government, domestic or foreign, including but not limited to war, declared or undeclared, priorities, guarantees and embargoes.

Provided either party shall within fifteen (15) days from the occurrence of such a cause notify the other in writing of such causes.

57.2 The Contractor or the Owner shall not be liable for delays in performing his obligations resulting from any force majeure cause as referred to and / or defined above

58.0 Termination of Contract:

58.1 GETCO reserves the right to terminate the Contract either in part or in full due to reasons other than those mentioned under clause entitled 'Contractor's Default'. GETCO shall in such an event give thirty (30) days notice in writing to the Contractor of his decision to do so.

58.2 The Contractor upon receipt of such notice shall discontinue the work on the date and to the extent specified in the notice, make all reasonable efforts for cancellation of Contract to the extent they are related to the work terminated and terms satisfactory to GETCO, stop all further activity related to the work terminated, and assist GETCO in maintenance, protection, and disposition of the works acquired under the Contract by GETCO. In the event of such a termination, the Contractor shall be paid compensation equal to the amount of work done and materials purchased up to the date of termination.

59.0 Contractor's Default

59.1 The performance of contractor will be evaluated time to time, if the contractor neglect to perform the contract with due diligence and expedition or shall refuse or neglect to comply with any reasonable order given to him, in writing by the Engineer in connection with the works or shall contravene the provisions of the Contract, the Owner may give notice in writing to the Contractor to make good the failure, neglect or contravention complained of. Should the Contractor fail to comply with the notice within thirty (30) days from the date of serving the notice, then and in such case the Owner shall be at liberty to employ other workmen and forthwith execute such part of the works as the Contractor may have neglected to do or if the Owner shall think fit, without prejudice to any other right he may have under the Contract to take the work wholly or in part out of the Contractor's hands and re-contract with any other person or persons to execute the O&M contract works or any part thereof. Owner shall be entitled to retain and apply any balance which may otherwise be due on the Contract by him to the Contractor, or such part thereof as may be necessary, to the payment of the cost of executing the said part of the O&M contract. If the cost of completing the O&M works or executing part thereof as aforesaid shall exceed the balance due to the Contractor shall pay such excess.

If the sum that the Contractor is entitled to be paid plus the costs incurred by the Owner in completing the works, exceeds the Contract Price or the entire works if entire works have been completed or the price for part of the works if part of the works have been completed. the Contractor shall be liable for such excess.

If such excess is greater than the sums due to the Contractor, the Contractor shall pay the balance to the Owner and if such excess is less than the sums due to the Contractor, Owner shall pay the balance to the Contractor. For facilitating such payment. Owner shall encase the Bank Guarantees of Contractor available with Owner/s and retain such other payments due to the Contractor under the Contract in question or any other Contract that the Owner/s may have with the Contractor. Such payment of excess amount shall be independent of the liquidated damages for delay which the Contractor shall have to pay if the completion of works is delayed.

As the O&M of substation affects general public at large, GETCO reserves all rights to immediately take control of substation/s and / or handing over the allotted substation/s to any other agency, if deemed fit, at its sole discretion without assigning any reason thereof. No claim in this regard shall be entertained.

59.2 In addition, such action by the Owner as aforesaid shall not relieve the Contractor of his liability to pay liquidated damages during contract period.

60.0 Termination of contract on owner's initiative

60.1 The Owner reserves the right to terminate the Contract either in part or in full due to reasons other than those mentioned under clause entitled 'Contractor's Default'. The Owner shall in such an event give thirty (30) days notice in writing to the Contractor of his decision to do so.

60.2 The Contractor upon receipt of such notice shall discontinue the work on the date and to the extent specified in the notice, make all reasonable efforts to obtain cancellation of all orders and Contracts to the extent they are related to the work terminated and terms satisfactory to the Owner, stop all further sub-contracting or purchasing activity related to the work terminated, and assist Owner in maintenance, protection, and disposition of the works acquired under the Contract by the Owner.

60.3 If the Contractor is an individual or a proprietary concern and the individual or the proprietor dies and if the Contractor is a partnership concern and one of the partners dies then unless the Owner is satisfied that the legal representatives of the individual Contractor or of the proprietor of the propriety concern and in the case of partnership, the surviving partners, are capable of carrying out and completing the Contract the Owner shall be entitled to cancel the Contract as to its uncompleted part without being in any way liable to payment of any compensation to the estate of deceased Contractor and / or to the surviving partners of the

Contractor's firm on account of the cancellation of the Contract. The decision of the Owner that the legal representatives of the deceased Contractor or surviving partners of the Contractor's firm cannot carry out and complete the Contract shall be final and binding on the parties. In the event of such cancellation the Owner shall not hold the estate of the deceased Contractor and/or the surviving partners of the estate of the deceased Contractor and/or the surviving partners of the Contractor's firm liable to damages for not completing the Contract.

60.4 No assignment, no contracting shall be allowed. No sublet contract is allowed.
However payroll outsourcing is allowed provided –

1. Contractor shall have to submit agreement between contractor and service provider under pay roll out sourcing.
2. Contractor cannot change pay roll agency without permission of Chief Engineer (Asset Management) of GETCO.
3. Contractor shall be held responsible for non-compliance of labour laws & will be dealt accordingly.
4. Contractor/Pay Roll Agency shall have appropriate labour license as per prevailing rules & regulations applicable under contract labour act, PF act and any other applicable law before initializing the work.
5. Contractor/Pay Roll Agency shall maintain Biometric Attendance machine using either fingertip or retina & relevant software shall be provided by the contractor to GETCO free of cost at the ratio of one software per Transmission Division for the persons deployed by them at the S/S allotted for O&M work.
6. Contractor/Pay Roll Agency shall maintain wage register, Pay slips for the persons deployed by them at the S/S allotted to them for O&M work for entire contractual period and for further minimum 5 years or/and in case of litigation till finalisation of litigation.
7. Contractor/Pay Roll Agency shall issue Identity Card and common Uniform to All the personnel's employed, at the cost of Contractor, for identification. Identity Card and uniform shall be invariably put on by them while on duty
8. Contractor shall deposit PF contributions of the deployed persons under contractor's employees PF trust bearing code to be submitted to owner.

   OR

   If the contractor is "exempted establishment" under the employees PF as per Sec.17 of EPF scheme 1952, then Pay Roll outsourcing Agency has to deposit P.F contribution of employees engaged under his own code/account allotted by P.F commissioner in pursuant of legal position and not by contractor.
9. Contractor and Pay Roll Agency shall have valid work compensation policy to cover the deployed persons.
10. Contractor/Pay roll agency shall have to submit above mentioned documents to EIC along with monthly bill.
11. The payment may be made only after due compliance of Labour laws & Rules and EPF Scheme by Pay Roll Agency.
12. Contractor shall keep close vigil on his Pay Roll Agency for strict compliance of provisions of contract labour Act & Rules, EPF Scheme and other labour laws applicable to agency.
13. Contractor & Pay Roll agency shall be responsible for all the liability what so ever under the labour laws or any other laws emerging employment of the deployed / deputed employer by service provider.
14. Contractor shall provide training to the deployed staff.
15. Contractor & Pay Roll Agency shall be responsible and accountable for any accident occurred to their deployed staff for what so ever reason and shall be liable to pay adequate compensation for loss of life, disability or injury.
16. Contractor & Pay Roll Agency have legal authorization for carrying out contract as per I.E Rule.

61.0 Frustration of Contract

61.1 In the event of frustration of the Contract because of supervening impossibility in terms of Section 56 of the Indian Contract Act, parties shall be absolved of their responsibility to

perform the balance portion of the Contract, subject to provisions contained in sub-clause 61.3 below.

61.2 In the event of non-availability or suspension of funds for any reasons, whatsoever (except for reason of will full or flagrant breach by the Owner) and / or Contractor then the works under the Contract shall be suspended.

Furthermore, if the Owner is unable to make satisfactory alternative arrangements for financing to the Contractor in accordance with the terms of the Contract within three months of the event, the parties hereto shall be relieved from carrying out further obligations under the Contract treating it as frustration of the Contract.

61.3 In the event referred to in sub-clauses 61.1 & 61.2 above the parties shall mutually discuss to arrive at reasonable settlement on all issues including amounts due to either party for the work already done on quantum merit basis which shall be determined by mutual agreement between the parties.

62.0 Grafts and Commissions etc.

Any graft, commission, gift or advantage given, promised or offered by or on behalf of the Contractor or his / her partner(s), agent(s), officer(s), director(s), employee(s) or servant(s) or any one on his / her or their behalf in relation to the obtaining or to the execution of this or any other Contract with the Owner, shall in addition to any criminal liability which it may incur, subject the Contractor to the cancellation of this and all other Contracts and also to payment of any loss or damage to the Owner resulting from any cancellation. The Owner shall then be entitled to deduct the amount so payable from any monies otherwise due to Contractor under the Contract.

63.0 Settlement of disputes

63.1 Any dispute(s) or difference(s) arising out of or in connection with the Contract shall, to the extent possible, be settled amicably between the parties.

63.2 If any dispute or difference of any kind, whatsoever, shall arise between the Owner and the Contractor, arising out of the Contract for the performance of the Works whether during the execution of the Works Contract or after its completion or whether before or after the termination, abandonment or breach of the Contract, it shall, in the first place, be referred to and settled by the Engineer, who, within a period of thirty (30) days after being requested by either party to do so, shall give written notice of his decision to the Owner and the Contractor.

63.3 As hereinafter provided, such decision in respect of every matters so referred shall be final and binding upon the parties until the completion of the Works and shall forthwith be given effect to by the Contractor who shall proceed with the Works with all due diligence, whether he or the Owner requires arbitration as hereinafter provided or not.

63.4 If after the Engineer has given written notice of his decision to the parties, no claim to arbitration has been communicated to him by either party within thirty (30) days from the receipt of such notice, the said decision shall become final and binding on the parties.

63.5 In the event of the Engineer failing to notify his decision as aforesaid within thirty (30) days after being requested as aforesaid, or in the event of either the Owner or the Contractor being dissatisfied with any such decision, or within thirty (30) days after the expiry of the first mentioned period of thirty days, as the case may be, either party may require that the matters in dispute be referred to arbitration as hereinafter provided.

64.0 Arbitration

Dispute Resolution Mechanism:

64.1 <u>Amicable Settlement</u>:

Any dispute, difference, controversy or claim between the Parties arising out of or relating to this contract with reference to the construction, interpretation, breach, termination or validity thereof (hereinafter referred to as "the Dispute") shall, upon the written request of either Party, be referred to the authorized representatives of the Disputing Parties for resolution. The authorized representatives shall promptly meet and attempt to negotiate in good faith a resolution of the Dispute within thirty (30) days of the service of the request.

64.2 <u>Arbitration</u>:

If the Parties fail to amicably resolve the disputes or differences or contrary claims as indicated herewith in sub-clause (1) of Clause 64, arising under or in connection with the present Agreement, the Same Shall be referred to the Arbitration Centre (Domestic and International) High Court of Gujarat At Ahmedabad ("The Centre" For Short) Currently Functioning in the high court complex, Sola, Ahmedabad for appointment of Arbitrator and thereupon, the centre shall appoint a sole arbitrator and conduct the arbitration proceedings in accordance with its rules.If the parties unanimously agree to appoint three arbitrators,Then in that case,Each party shall appoint one arbitrator from the panel of Arbitrators of the Centre, And The Centre Shall Appoint the third Arbitrator, Who will act as the Presiding Arbitrator. Such arbitration shall be the sole and exclusively remedy between the parties for all disputes arising under or in connection with this Agreement. The Arbitration Shall take place At the Arbitration Centre,Ahmedabad, High Court Complex,Sola,Ahmedabad,Gujarat, In Accordance With the Provisions of The Arbitration and Conciliation Act, 1996 as amended from time to time and the proceedings shall be conducted in English. The Arbitration Award Shall be Final and Binding on The Parties**.**

~~64.1 All disputes or differences in respect of which the decision, if any, of the Engineer has not become final or binding as aforesaid shall be settled by arbitration in the manner hereinafter provided.~~

~~64.2 The arbitration shall be conducted by three arbitrators, one each to be nominated by the Contractor and the Owner and the third to be appointed as an umpire by both the arbitrators in accordance with the Indian Arbitration Act. If either of the parties fails to appoint its arbitrator within sixty (60) days after receipt of a notice from the other party invoking the Arbitration clause, the arbitrator appointed by the party invoking the arbitration clause shall become the sole arbitrator to conduct the arbitration.~~

~~64.3 The arbitration shall be conducted in accordance with provisions of Indian Arbitration Act 1996 or latest amendment thereof.~~

~~64.4 The decision of the majority of the arbitrators shall be final and binding upon the parties. The arbitrators may, from time to time with the consent of all the parties enlarge the time for making the award. In the event of any of the aforesaid arbitrators dying, neglecting, resigning or being unable to act for any reason, it will be lawful for the party concerned to nominate another arbitrator in place of the outgoing arbitrator.~~

~~64.5 The arbitrator shall have full powers to review and/or revise any decision, opinion, direction, certification or valuation of the Engineer in accordance with the Contract, and neither party shall be limited in the proceedings before such arbitrators to the evidence or arguments put before the Engineer for the purpose of obtaining the said decision.~~

64.6 No decision given by the Engineer in accordance with the foregoing provisions shall disqualify him as being called as a witness or giving evidence before the arbitrators on any matter whatsoever relevant to the dispute or difference referred to the arbitrators as aforesaid.

64.7 During settlement of disputes and arbitration proceedings, both parties shall be obliged to carry out their respective obligations under the Contract.

The reference to arbitration proceedings under this clause shall not:

a) Affect the right the Engineer-in-charge to take possession of all or any tools, plants, materials and stores, in or upon the work of site thereof or belonging to the Contractor or procured by him and intended to be used for the execution of the work or any part thereof.
b) Preclude the Engineer-in-charge from utilizing the materials purchased by the Contractor in any work or from removing such materials to other place, during the period work is stopped or suspended in pursuance of notice given to the Contractor under General Conditions.
c) Entitle the Contractor to stop the progress of the work or carrying out the additional or altered work in accordance with the provision of General Conditions for the work where there are no specifications.
d) Preclude the GETCO from getting the work done by another agency. Neither is entitled to bring a claim to arbitration latest by thirty days after the expiration of the cause of dispute.

65.0 Reconciliation of Accounts

The Contractor shall prepare and submit every two months, a statement covering payments claimed and the payments received vis-à-vis the works executed, for reconciliation of accounts with the Owner before the award of Contract.

66.0 Labour laws

66.1 Persons below the age of 18 years shall not be employed for the work. No female worker shall be employed in the night shift between 07.00 p.m. and 06.00 a.m. next day.

66.2 Contractor/pay roll agency shall maintain a valid Labour license under the contract Labour (Regulation and abolition) Act for employing necessary manpower required by him. In the absence of such license, the contract shall be liable to be terminated without assigning any reason thereof.

66.3 The Contractor shall at his own expenses comply with all Labour laws and keep the GETCO indemnified in respect thereof. Some of the major liabilities under various Labour and industrial laws which the Contractor shall comply with are as under:

i. Payment of contribution by way of Employer's Contribution towards provident Fund, Family Pension Scheme, Deposit Linked Insurance Scheme, Administrative charges, etc. at the rates made applicable from time to time by the Government of Gujarat / Government of India or other Statutory Authority.
ii. Payment of deposit in respect of each contract Labour at the rate of Rs.30 or later prevailing rate with the Office of Commissioner of Labour as per the Contract Labour (Regulation and Abolition) Act.
iii. License fee as prescribed under the Contract Labour (Regulation and Abolition) Act and Rules framed there under depending upon the number of workmen.
iv. Paid leave facility and wages as per the provision of the Factories Act at the rate of one day for every 20 days of working.
v. Identity cards as prescribed under the Factories Act with photo affixed thereto, for identification.
vi. Payment of retrenchment compensation, Notice Pay and other liabilities as per Industrial Dispute Act. Any payment to the Contractor's employee arising out of any claim of disputes under the Industrial Disputes Act 1947 or any other Labour Laws.
vii. Payment of compensation in case of accidental injury.

viii. Maternity Leave as per the provisions of the Maternity Benefit Act.
ix. The above are some of the major liabilities of the Contractor in addition to other liabilities prescribed under the various Labour laws, in force from time to time, from Statutory Authorities like State Government / Government of India, which the Contractor shall have to comply with.

66.4 **Provident Fund and Family Pension Scheme:**

The Contractor shall submit along with his bills (month wise) a statement regarding deduction against employees Provident Fund and Family Pension Scheme in respect of each concerned employee. Provident Fund and Family pension Scheme at the rate of 18% (or at the rate made applicable by the Government from time to time of the wages. The Contractor's contribution and his workers contribution towards Provident Fund and Family Pension Scheme shall be deposited by the Contractor with Regional Provident Fund Commissioner, Ahmedabad.

66.5 **Deposit Linked Insurance Scheme**

The contractor shall have to deposit ½ % of the wages in respect of employees who is a member of the Provident Fund, as the contribution to the Deposit Linked Insurance Scheme with Regional Provident Fund Commissioner, Ahmedabad.

66.6 **Administrative Charges:**
Administrative charges for maintaining Provident Fund Account shall be deposited by the Contractor with Regional Provident Fund Commissioner, Ahmedabad at the rates applicable.

66.7 **Paid Leave Facility:**

Paid Leave Facility at the rate of one day for every twenty days worked by the Contract Labour, shall be provided by the Contractor to his workers. He shall maintain Leave Records, Leave Cards, for individual labourer which shall be duly verified, approved and certified by the authorized Officer of the GETCO.

66.8 **Workman's Compensation Fund and Employer's Liability Insurance:**

The contractor shall cover all his employees under workmen's compensation fund and under the liability insurance. The contractor will arrange insurance policies for arranging payment to his staff injured / met with accident (Fatal / Non-Fatal) on duty of sufficient amount as per Labour laws jointly in favour of Engineer In Charge of that substation. In case of any such happening contractor will be liable for any other payment to workers / staff engaged as per existing Rules. Owner will not make any such payment to the contractor's staff or any compensation etc. during the pendency of the contract.

66.9 The contractor shall designate one supervisor/Engineer who will supervise daily Operation and maintenance activities & logging of same in respective registers/Computers along with records required under the law and contract. No payment for supervision shall be admissible.

66.10 **Contractor to Indemnify the GETCO:**

The Contractor shall Indemnify the GETCO and every member officer and employees of the GETCO also, Engineer-in-Charge and his staff against all actions, proceedings, claims, demands, costs and expenses whatsoever, arising out of or in connection with the matters referred herein above elsewhere and against all actions, proceedings, claims, demands, costs and expenses which may be made against the GETCO or Government for or in respect of performance of his obligation under the contract documents. The GETCO shall not be liable for intervention of authority Government for or in respect of performance of his obligation under the contract documents. The GETCO shall not be liable for or in respect of or in consequence of any accident or injury to any workman or other person in the employment of the Contractor and the contractor shall indemnify GETCO against all claims,

demands, proceedings, cost, charges and expenses whatsoever in respect thereof or in relation thereto.

66.11 **Wages to be paid & time of payment etc. by the contractor**

a) **The Contractor shall pay minimum wages per day to his Labour / Workers as per rates fixed under the minimum wages act.**
The wages of every Contract Labour employed by him under this contract shall also be paid by him before the expiry of 7th day of the last day of the month in respect of the wages are payable (i.e. wages of a month have to be paid by him in the first week of the next month). Any default will result in cancellation of contract forthwith or else the contractor shall be punishable to the extent of Rs.100 per each day or as per the prevailing rules of Labour laws.

b) Th**e** Contractor shall give his Telephone (Office, Residence and Mobile Number) and Address to the GETCO, so that, in case of Labour trouble etc. the Contractor can be contacted.

66.12 **Registration with Provident Fund Office**

I) The separate P.F. code issued from P.F. commissioner is required to be taken by contractor.

II) If the contractor does not possess separate P.F. code number of RPFC, his tender will not be considered for acceptance.

III) The contractor should mention separate P.F. code number allotted by RPFC, along with the tender.

66.13 Contractor shall maintain various registers as per the provision of contract labour ACT.

67. Facilities to be provided to the employees

a) The Contractor shall make necessary arrangements for their stay and to & Fro transport from the residence to the work place at his cost. However, it will be mandatory for the Contractor to take possession of at least one quarter if available at that substation. The rental charges payable by the contractor for various types of quarters as under

Type of quarters	B/C/II	D/E/III	F/IV
Rent/month	Rs.2120/-	Rs.1360/-	Rs.730/-

GETCO shall deduct the rent of one quarter of appropriate category irrespective of possession of quarter taken or not by the contractor.
The electricity bill of the allotted quarter shall be paid by the contractor as paid by other consumers of the DISCOM.

b) The potable water if available from the Bore within the premises of Substation will be made available free of cost. If water is not available or otherwise is not suitable for consumption, the contractor shall make his own arrangement for providing the potable or any water required for consumption, at his cost.
Repairing / maintenance of bore well and its cable shall remain in GETCO scope**.**

c) GETCO will provide all the necessary basic infrastructure, such as, Boundary fencing, Chain Link Fencing, respective entrance Gates, Caution Board, Prohibited Area Board, VHF connection (if available), Telephone connection (if available) etc. The telephone bill of S/S shall be paid by contractor. The contractor shall take utmost care of establishment and the equipments and keep them in working condition till the contractual obligations and hand over the same in working condition on completion of contract.

d) All the assets, levies and land revenue attached to the Substation premises etc., shall be paid by the GETCO. However, if such payment notices are received by the Contractor, they shall promptly hand over to the Engineer-in-charge of GETCO. Similarly, any Civic body taxes are livable on the establishment of GETCO, the same shall be payable by GETCO.

e) Cell phone including SIM card for communication purpose shall be provided by the contractor at each substation and bill shall be paid by contractor. It will be the responsibility of contractor to ensure that the staff employed by them shall communicate in gentle manner all the time. In case of misbehaviour / mal practice / misuse of communication medium by staff deployed / any person, then contractor will be solely responsible.

68.0 Behavior and attitude:

The behavior and attitude of the personnel employed by the contractor towards public, GETCO Officials, DISCOM Staff and public representative / leaders shall be very polite. In case of any abuse/attack by the individual personnel or by a mob or section of residents, on the Substation premises, the Contractor or his personnel shall not take Law in their hand, but, take appropriate legal steps and inform the Engineer-in-charge immediately. EIC will make his best efforts by reporting to appropriate authorities to bring Law & Order and resolve the issue.

The substation premise is prohibited area so no unauthorized person / activity shall be allowed in the premises. Entry of persons of DISCOM / other agencies / OEM / repairers / representatives shall be allowed for specific work and time duration only.

69.0 Uniform:

Contractor shall issue Identity Card and common Uniform to all the personnel's employed, at the cost of Contractor, for identification. Identity Card and uniform shall be invariably put on by the staff while on duty. Uniform shall be decent and should be suitable to job, however design and / or colour shall not match with the staff uniform of GUVNL or its subsidiary companies as far as possible.

70.0 Marking of attendance:

The presence / movement of Supervisor / Engineers shall be meticulously recorded at nodal substation and to be submitted along with monthly bill of nodal substation. The hours of duties of Supervisor / Engineers shall be fixed by the Contractor. The total staff set-up approved shall be available all the time as per the duty schedule. However, in case of emergency, the personals employed by the Contractor shall work till the emergency is over. In case of change of Supervisor / Engineer same should be notified to concern Engineer in Charge.

71.0 Manpower Deployment

a) Before deployment, experienced manpower of the contractor, their technical capability will be verified by Ex. Engr., Division office of GETCO for the substation comes under his jurisdiction and same is applicable to any change during the running of contract.
b) The manpower deployed shall be medically fit and supporting documents shall be furnished.
c) The selected operational staff has to produce a medical certificate from registered Doctor for medical fitness for working in night duty.
d) In case the person is not found up to the mark during the execution of the contract, it shall be responsibility of the contractor to replace the same within three days

72.0 Vendor Registration:

All bidders / Vendors shall be registered vendors of GETCO for a particular subject of tender. It is requested to please quote the Vendor Registration Number & date with the tender and attach vendor registration letter in online submission. **If bidder had applied for registration with GETCO before publication of tender & entitled as regular bidder then only such bidder tender shall be considered under Regular Bidder Category but copy of Money receipt paid for registration shall be invariably submitted in the EMD Cover.**

If the bidder is new & had applied for registration with GETCO before publication of tender, then tender shall be considered under New Bidder Category but copy of Money receipt paid for registration shall be invariably submitted in the EMD Cover.

73.0 INTRODUCTION OF LEAVY OF TCS.

TCS @ 0.075% / 0.1% will be payable extra subject to fulfilment of the conditions of sub section (1H) of section 206C of Income Tax Act, 1961. The format of undertaking is attached as schedule – 20 in the tender.

74.0 Deduction of TDS under GST:

"TDS under GST @ 2 % (1 % CGST & 1 % SGST or 2 % IGST, as applicable) or at the applicable rate from time to time, will be deducted from the bill of the Suppliers / Contractors at the time of credit or payment. TDS certificates in the prescribed format will be issued as per prescribed rules under GST.".

75.0 INTERSE REVERSE BIDDING (Point no. 1 to 5)

1. The Interse reverse bidding shall be carried out on the same day for which the decremental value and duration for the Interse reverse bidding shall be informed to the qualified bidders before start of Interse reverse bidding.

   The procedure to be followed for elimination of Bidders for Interse reverse bidding shall be as below:

Sr. No.	No. of bidders	Particulars
1	1	No scope of bidding. Re-invite tender
2	2	Scope of Interse reverse bidding. No elimination.
3	3 or 4	Scope of elimination: (A) Within 10% of L-1 bidder price - No elimination. (B) Above 10% of L-1 Bidder price - Eliminate H1
4	5 or more bidders	Scope of elimination: (A) Within 10% of L-1 bidder price - No elimination. (B) Above 10% of L-1 Bidder price - H1 and H2 to be eliminated

   The L1 firm price shall be put up for starting price for Interse reverse bidding. Interse reverse bidding shall be for reducing the price and the bidders have to reduce their quoted price in decrement of value as decided before start of Interse reverse bidding.

   If any bidder bids in last 2 minutes of deadline for submission of bid for Interse reverse bidding then, the time for Interse reverse bidding shall be extended for further 5 minutes from its previous closing time.

2. After Interse reverse bidding process, L1 bidder shall be decided on lowest revised price.

3. The L1 bidder after Interse reverse bidding shall have to submit break-up in line with their quoted price bid within three days.

4. The price bid of qualified bidders shall be shared after completion of Interse reverse bidding.

5. To participate the Interse reverse bidding, bidders have to create e-Auction USER ID on https://e-auction.nprocure.com/ and **it is mandatory to upload the same along with Technical bid; so that the bidder shall be allowed to participate the Interse Revised Bidding**.

   (**Note**: Earlier e-Auction portal was www.auction.nprocure.com which has been now changed to https://e-auction.nprocure.com/ Hence, the User ID and Password must be re-generated for the new portal)

Separate Interse reverse bidding shall be carried out for Regular, New-1 and New-2 bidder.

PART- I (SCC)

SPECIAL CONDITIONS OF CONTRACT

1.0 **General Particulars:** This part of the Bid Document relates to certain specific/special terms and conditions particular to the Contract. The provisions herein are to be read and understood in conjunction with the relevant provisions elsewhere in the General Conditions of Contract (GCC) and Operation & maintenance schedule of contract (OMS). The intent of provisions herein are specific to this contract and are, in general, supplementary to related provisions under GCC and OMS. However, in certain provisions which are contrary to those in GCC and OMS, the provisions in these Special Conditions of Contract will prevail.

2.0 **Tender Fee:** The tender fee specified in notice inviting tender is payable either in cash (upto Rs. 10000/- only) at the office address specified in the tender document or by RTGS/NEFT/Online in favour of Gujarat Energy Transmission Corporation Ltd. ~~The same will be furnished in Cover-1 of Bid along with EMD (Bid Security).~~ Tender Fee Details shall be uploaded online.

2.1 Minimum tendering Quantity:

The minimum tendering quantity to be quoted shall be **10% of the total tender quantity i.e. 55 Nos. of 66KV substations for regular bidder, maximum quantity 15% of the total quantity i.e. 82 Nos. of 66KV Substations for regular bidder and "New -- 1 and New – 2 bidders" have to quote maximum for only 05 Nos. and 10 Nos. of 66KV Class Substations respectively.**

If the bidder quotes for less than the minimum tendering quantity then the offer will not be considered for evaluations and offer will be ignored out rightly without any communication in the matter and any further requests after opening of tender will also be ignored. This should be taken care of.

The bidder shall furnish, as a part of its bid EMD, bid security for an amount of **as per NIT for offered quantity** to be paid as under

3.0 Earnest Money Deposit (EMD):

3.1 As the estimated cost for this Tender is **Rs. 4,37,18,21,954.05 incl. GST @ 18%** the EMD shall be based on offered quantity as below:

(A) For Regular Vendor:

Minimum payable EMD for **55 Nos.** of 66 KV substations of **Rs. 11.00 Lakhs** and if more substation offered by the bidder shall have to pay following EMD based on the offered quantity.

Tendering Qty (S/S in Nos.)	EMD Amount Payable in Rs.
55 to 62	11.00 Lakhs
63 to 82	12.00 Lakhs

(B) For "New Bidder":

Min. Payable EMD for 01 Nos. of 66 KV substations is of **Rs. 2,50,000.00** as per clause No. 2.1 (Part – I SCC) and if more substation offered by the bidder shall have to pay following EMD based on the offered quantity.

Category of Bidder	EMD Amount Payable in Rs.
New - 1 Bidder	2.50 Lakhs
New - 2 Bidder	3.00 Lakhs

Which is payable as under:

3.2 If the EMD amount is more than Rs. 3 Lakhs it should be paid either by RTGS /NEFT/Online or Demand Draft or Banker's Cheque or Pay order or in the form of BG with validity of 06 Months from the date of submission of bid of the tender. Otherwise, EMD should be paid either in cash (upto Rs. 10000/- only) at the office address specified in tender document or by RTGS/NEFT/Online)

100 % EMD through RTGS/NEFT/Online is acceptable.

BG will be valid for 06 (Six) months – **Total Validity of BG will be 06 Months from the original date of submission of tender.**

3.3 Payment by Cheque / Co-op Bank Guarantee / Company Guarantee is not permissible.

4.0 **Declaration by Bidder:** The Bidder shall sign the Declaration enclosed to this SCC and not furnishing the same will make the Bid invalid.

5.0 QUALIFYING REQUIREMENT

5.1 To be qualified for award, the bidder shall provide following satisfactory documentary evidence to GETCO towards Bidder's capability and adequacy of resources:

REGULAR BIDDERS:

Experience Criteria:

1. Bidder must / should have minimum 3-years' experience in Operation & Maintenance work of either in minimum 10 nos. of 66 kV **or** above class Sub Stations including transformers, Control & Relay Panel, Circuit breakers, Instrumentation transformers etc. on round the clock basis with State or Central Transmission Utility and must have at least one running similar type of contract. The completion / Performance certificate for contract executed and job in hand together with their addresses and value of the work order during last three years to be submitted.

2. The existing regular bidders may be considered as regular bidders. However, if financial criteria are not meet, then quantity allocation will be restricted as per New-2 bidder.

3. **Original equipment manufacturer (OEM)** who is associated in manufacturing of any 4 nos. of major sub-station equipment viz. Power Transformer, CT/CVT, PT, any EHV switchgear Breaker, Control Panel and 11 kV switchgears panel and who possess minimum 5 years of experience of Annual rate contract (of STU/CTU) for maintenance & service back up of their equipment of EHV sub-stations. Supporting documents shall be submitted with Bid. Who have regular supplier of STU / CTU.

Financial Criteria:

1. Minimum Annual Average Turnover (MAAT) for best three individual years out of last five financial years shall not be less of minimum tender quantity of estimated amount for regular bidder (i.e. 14.71 Crore). Turn Over certificate from chartered accountant shall be produced. (CA certificate shall be UDIN verifiable).

2. Last quarter's liquid asset should not be less than 20 % of estimated amount of offered quantities as on invitation of tender, also for the purpose of arriving at LA, Current

Assets less inventories shall be considered. Last quarter's liquid asset certificate from chartered accountant shall be produced. (CA certificate shall be UDIN verifiable)

NEW BIDDERS:

Experience Criteria:

1. **For New-1 Bidder:** Bidder should have minimum 2-years' experience in Operation & Maintenance work of either in minimum two nos. of 66 KV or above class Sub Stations including transformers, Control & Relay Panel, Circuit breakers, Instrumentation transformers etc. on round the clock basis with State or Central Transmission Utility or major industries (its own sub-station).

   The completion / Performance certificate from the clients for contract executed and job in hand together with their addresses and value of the work order along with complete work order (PO) during last two years to be submitted.

2. **For New-2 Bidder:** On satisfactory of the performance as a New-1 bidder for period of Two years of allotted substations of GETCO at the date of bid opening, they are considering as a New-2 bidder.

   The completion / Performance certificate from the respective SE (TR), Circle Office for contract executed and job in hand together with their addresses and value of the work order along with complete work order (PO) during last Two years (as a new-1 bidder) to be submitted.

Financial Criteria:

3. Minimum Annual Average Turnover (MAAT) for best three individual years out of last five financial years shall not be less than 1 (One) Crore for New-1 & New-2 bidder. Turn Over certificate from chartered accountant shall be produced. (CA certificate shall be UDIN verifiable)

4. Last quarter's liquid asset should not be less than 20 % of estimated amount of offered quantities as on invitation of tender, also for the purpose of arriving at LA, Current Assets less inventories shall be considered. Last quarter's liquid asset certificate from chartered accountant shall be produced. (CA certificate shall be UDIN verifiable)

Other documents required for Qualifying Requirements:

In addition to above qualifying requirements, following documents / details to be to be submitted along-with offer:

1. Bidder's Net Worth for last 3 financial years should be positive. CA certified Net worth for last 3 years shall be produced.

2. Profit & Loss Account of last five years.

3. Last five years audited account/ Annual report.

4. Firms, who are executing contract(s) or have executed contract(s) in the past of the Employer and any of the following event(s) have been encountered during execution of such awarded contract(s), shall not be eligible to bid for the package(s)/contract(s) whose NIT date of bid falls within the specified period reckoned from the date of determination by the Employer of such event as below

Sr. No.	Event	Period for which bid(s) shall be considered as non-responsive/ not eligible
1	Termination of any of the awarded contracts due to contractor's default as per contract clause no.79 in GCC	1-year (Effective from 30th day of final notice issued date)
2	Encashment of PBG due to non-performance	1-year Effective from date of encashment of PBG)
3	Firm has been referred to NCLT under Insolvency & Bankruptcy Code (IRP has been appointed or Liquidation proceedings have been initiated under IBC)	Till the firm comes out of Resolution process
4	If the contractor, under any of the awarded contract, has neglected to execute the works with due diligence and expedition or refused or neglected to comply with any reasonable order given to him, in writing by the Employer/Owner in connection with the works or contravened the provisions of any of the awarded contracts, and the Owner/ Employer has given notice in writing (referred to as Notice of Default) to the contractor to make good the failure, neglect or contravention complained of.	3-months effective from the date mention from notice

Points to be taken care before submission of bid:

a) The organization may be a company under company act for electrical jobs.
b) The Bidder shall furnish schedules / Annexures for list of personnel, establishment, plant Equipment / experience to handle same type of works etc in the past 3 years.
c) The above-cited requirements are only indicative and not limited to the purpose of fulfilling the need of O&M of Substation.
d) The Owner reserves the right to request for any additional information, if in the opinion of the Owner, the bid is in-complete and also reserves the right to reject the Bid proposal of any Bidder, if in GETCO's opinion the Qualification data is incomplete and Bidder is not qualified to perform the Contract satisfactorily. **The decision of the GETCO in all respect shall be final and binding on all the bidders**
e) Bidder must possess minimum Tools & Plants & testing Equipments as per clause of part II (Technical Specification). This will be verified before the award of work.
f) The bidder shall have valid Electrical Contract License of Gujarat and Registered Vendor of GETCO, registered under GST, Income tax Act and should have CPF Registration Certificate.

Special conditions for bidders are as under:

.1st time maximum 5 nos. of sub-stations (ongoing i.e. not new) will be allotted to New-1 bidder, if they deemed fit as per QR and monitored their performance for a period of two years.

.Maximum 10 Nos. of sub-stations (ongoing i.e. not new) will be allotted to New-2 bidder, if they deemed fit as per QR and monitored their performance for a further period of two years.

.The employees of outsourcing agency will not be entitled to claim the pay salaries, perks & other facilities which may be admissible to casual & ad hock – regular / confirm employee of GETCO. Further, during the contract or after expiry of contract, in case of termination of the contract also the person deployed by the contractor shall not be entitled to or will have any claimed for absorption or relaxation for absorption in the regular / otherwise capacity in

GETCO. the contractor should communicate the above to all the manpower deployed in GETCO. Agency must be followed the salary rate & others as per rate declared by Government of Gujarat time to time.

.There should have appointed Chief Supervisor, if total Nos. of substations are more than 25 and 1 No. of Sr. Supervisor for maximum 5 group of substations allotted and There should be 1 No. of supervisor having qualification of BE (Electrical) among 5 Nos. of substations, as per Annexure - A.

.Law Officer should be part time/consultant.

.ESCROW account shall be opened and maintained for payment to agency staff to overcome the issues in field offices regarding payment of wages to various categories of staff. The agency shall be required to open Escrow Account for payment of Monthly salaries to their staff. Accordingly, Escrow Agreement would have to be executed and signed between GETCO, Bank of Agency and Agency. GETCO shall credit the payments in the designated Escrow Accounts opened by agencies. The Agencies shall make payment of salaries / wages (as per GOG rates) to the staff from this Escrow Account only.

.Category of bidder (New-1, New-2 & Regular) will be considered based on fulfilment of Experience & Financial both criteria.

5.2 EVALUATION CRITERIA:

. Reverse auction may be possible, if the bidding percentage more than 0.01%. (Reverse Auction will be carried out as per GCC Cl. 75).

. Regular bidders shall have to quote minimum 10% of Tender quantity of substations to be tendered. New-1 has to quote maximum 05 Nos & New-2 has to quote maximum 10 nos. of sub-stations to be tendered.

. L-1 regular bidder will get Maximum 15 % of Tender quantity of substations to be tendered, quantity allocation to L-1 regular bidder will be their offered quantities (Maximum 15 % of Tender quantities of sub-stations) or as per their MAAT & LA, whichever is lower.

. GETCO reserves right to distribute the quantity among L2 and onwards bidders subject to price matching with L1 price and up to maximum Quantity allowable (15%) to one bidder if the bidder is fulfilling other requirements.

. Regular bidders shall have to match with the rate of lowest Regular bidder and New Bidders (New-1/New-2) shall have to match with rate of lowest New bidder (New-1/New-2).

. The New bidder is eligible for quantity allocation subject to price of such New bidder is lower than the Regular L-1 bidder.

. "New bidder" shall be considered for award of work only when they are L1 in the price comparison.

. Total maximum 25 % of tender quantities to be allocated for New-1 & New-2 bidders, subject to each New-1 bidder maximum 5 (Five) Nos. of sub-station and each New-2 bidder maximum 10 (Ten) Nos. of sub-station.

. Company would not place orders on more than 50% of the total bidding parties. However, in case the quantities offered/ accepted by 50% of total parties do not fulfil the requirement of the Company then the Company may relax the said criteria at their discretion.

5.3 The bidders who had quoted as New Bidder **in earlier tender** & as per tender qualifying requirement clause No. 5.2 (e) of SCC if they are eligible as a Regular Bidder then they are free to quote either as New Bidder or Regular Bidder based on fulfilment of other criteria in the category of New Bidder or Regular Bidder.

5.4 Legal officers appointed by successful bidder shall be submitted the appointment letter/contract agreement for legal matter for subjected order.

6.0 Additional Documents:

Apart from various documents to be furnished along with the Bid as required in the GCC and TTC, the following documents/details are to be furnished by the bidder:

1. GST Registration Certificate /Income tax PAN No./ issuing authority.
2. Regn. No. under Shops & Estt. Act/ issuing authority
3. Details of the Company.
4. Copy of partnership Deed or Memorandum of article of Association
5. Experience Record and details of orders pending / executed for various utilities
6. Last five years Audited Accounts/Annual report
7. Factory Registration/license details
8. ~~Solvency certificate from Bank (upto 20 % of Bid value)~~.
9. Copy of PF code Number allotted by PF authority.

7.0 Instructions before submitting your bid.

1. Bidders are permitted to quote the rates on percentage basis.
2. The Bid evaluation of Tender shall be carried out on increase or decrease percentage of quoted rates.
3. The bidder must ensure that all the Schedules are completely filled up in their tenders and that complete information called for is given. Failure to furnish full and complete details or furnishing vague information would make the tender liable for rejection.
4. The bidder shall submit Quality Assurance Plan (QAP) & Field Quality Plan (FQP) with the technical bid.
5. Please note that the evaluation will be carried out on the strength of content of bid only. No further correspondence will be made.
6. The bidder shall bring out all the technical deviation/s only at the specified annexure.
7. Contractor shall arrange for thermo scanning of entire switchyard & also take up maintenance of firefighting system.
8. The staff to be deputed shall be as per tender terms and conditions.

8.0 Pre-Bid meeting (If required)

Pre-Bid meeting if required will be held at GETCO Corporate office at Vadodara to clarify the Proposal to the bidders. The same will be displayed on web-site.

The Bidder's designated representative is invited to attend a pre-bid meeting**.** The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage. The Bidder is requested, as far as possible, to submit any question in writing to reach Corporate office not later than one week before the meeting. It may not be practicable at the meeting to answer questions received late, but questions and responses will be transmitted as indicated hereafter. Minutes of the meeting, including the text of the questions raised and the responses given, together with any responses prepared after the meeting will be transmitted without delay through web site as amendment of the bidding documents.

Any verbal/telephonic clarifications and information given by the Owner or his employee (s) or his representative(s) will not in any way be binding on the Owner.

9.0 GETCO reserves the right to reject and/or restrict quantity and/or Keep Company under watch for a period of one year in case of fatal accident to employee of contractor / GETCO / outsider at any sub-station due to negligence on the part of contractor of existing contracts.

10.0 The bidder will inform No. of offered substation along with technical bid in separate letter duly signed by authorized signatory.

11.0 RIGHTS OF THE OWNER:

Whenever any claim or claims for payment of a sum of money arises out of or under the contract against the contractor, the Owner shall be entitled to withhold and also have lien to retain such sum or sums in whole or in part from the security, if any, deposited by the contractor and for the purpose aforesaid, the Owner shall be entitled to encash and withhold the amount of Performance Bank Guarantee or other security, if any, furnished as the case may be. The Owner shall also have a lien over the same pending finalization or adjudication of any such claim. In the event of the security is insufficient to cover the claimed amount or amounts, the Owner shall be entitled to withhold and have lien to retain to the extent of the such claimed amount or amounts referred to above, from any sum or sums found payable or which at any time-thereafter may become payable to the Contractor under the same contract or any other contract with the Owner or GUVNL or its subsidiary companies pending finalization or adjudication of any such claim.

Lien in respect of Claims in other Contracts:

a) Any sum of money due and payable, to the Contractor (including the security deposit) under the contract may be withheld or retained by way of lien by the Owner against any of its claim in respect of payment of a sum of money arising out of or under any other contract made by the contractor with the owner or GUVNL or any of its subsidiary companies.

b) It is an agreed that the sum of money so withheld or retained under this clause by the Owner will be kept withheld or retained as such by the owner till its claim arising out of the same contract or any other contract is either mutually settled or determined by the arbitrator or competent court, as the case may be, and the Contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money withheld or retained under this clause and as may be duly notified to the contractor."

12.0 It shall be ensured that Cell phone including SIM card for communication purpose shall be provided by the contractor having Android OS with 4G internet facility plan at each substations & expenditure shall be borne by contractor to implement “OMS (Outage Management System)”.

13.0 Relationship with employee:

Every bidder should, at time of submission of bid, give a declaration as under,

“If in any Bidder Company / Firm, the interest (i.e. Shareholding in company and share in partnership firm) of any employee of the tendering Company or his / her relative as defined in section 2(77) of the Company’s Act. 2013 is 10% or more, the tendering Company will not deal with such Company / Firm at all.

Tenderer therefore, must specifically disclose the fact in his technical bid. Non-disclosure of such facts would immediately disqualify the tenderer for further dealing with the tendering company."

14. Conflict of Interest among Bidders / Agents

A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of Procuring Entity's interests. The bidder found to have a conflict of interest shall be disqualified. A bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:

a) they have proprietor/ partner(s)/ Director(s) in common; or

b) they receive or have received any direct or indirect subsidy/ financial stake from any of them; or

c) they have the same legal representative/ agent for purposes of this bid; or

d) they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another bidder; or

e) bidder participates in more than one bid in this bidding process. Participation by a bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/ sub-assembly/ assemblies from one bidding manufacturer in more than one bid.

f) in cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorize only one agent/ dealer. There can be only one bid from the following:

    1. The principal manufacturer directly or through one Indian agent on his behalf; and
    2. Indian/ foreign agent on behalf of only one principal.

g) a Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid;

h) in case of a holding company having more than one independently manufacturing units, or more than one unit having common business ownership/ management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Bidders must proactively declare such sister/ common business/ management units in same/ similar line of business.

i) Bidder shall not act in contravention/ violation to the provisions of competition act, as amended from time to time.

Every bidder should, at the time of submission of bid, give a declaration, that bidder shall not have conflict of interest with other bidders, as above.

15. Use of 'Call Before u Dig' (CBuD) mobile application:

Bidder is note that it is mandatory to use 'Call Before u Dig' (CBuD) mobile application for all excavators prior to any type of excavation / digging.

16. Responsibility for correctness of the information submitted in the bid lies with bidder. If any information furnished in the bid is proved to be false at a later date, GETCO reserve right to reject the bid and the bid will not only be rejected but the bidder will be BLACKLISTED as per GUVNL Policy.

17.0 Contract Performance Guarantee:

17.1 As a contract performance security, the successful bidder, to whom the work is awarded, shall be required to furnish a Performance Guarantee of one third amount of Bank Guarantee every year in place of full contract price Bank Guarantee of 3 years in the first year itself. However, while doing so, it shall be ensured that such Bank Guarantee shall be with GETCO at any point of time. Therefore, one third amount of Bank Guarantee of 3 years at a time valid for 3 years shall be taken by GETCO

17.2 The Performance Guarantee shall cover additionally the following guarantees to the Owner. The successful Bidder guarantees the successful and satisfactory Operation and Maintenance of the substation under the Contract, as per the specifications and documents.

17.3 The Contract Performance Guarantee is intended to secure the performance of the entire contract. However, it is not to be construed as limiting the damages stipulated in other clauses in the Bid documents.

17.4 The Contract Performance Guarantee will be discharged without any interest on successful completion of the contract and only after the performance guarantee condition is fulfilled. The Contractor shall furnish Contract Performance Guarantee(s) for the proper fulfilment of the Contract in the prescribed form **within fifteen (15) days of "Notice of Award of Contract".** The performance guarantee(s) shall be as per terms prescribed. ***The Bank Guarantees furnished should have clear one time validity till the completion of the order in all respect of 37 Months (3 years +1 month) from the date of LOA for Regular Bidder***. ***The Bank Guarantees furnished should have clear one time validity till the completion of the order in all respect of 37 Months (3 years +1 month) from the date of LOA for New-1 and New-2 Bidder and same shall be extended if contract is extended.*** Bank Guarantee for interim period will not be allowed. If by any reason the contract period is extended, then contractor should undertake to renew the Bank Guarantee at least one month before the expiry of the validity failing which Board will be at liberty to redeem the same, without entering into further correspondence in the matter.

17.5 No interest will be allowed on amount of Security deposit.

17.6 The termination of contract under this clause shall neither entitle the contractor to reduce the value of the contract performance guarantee nor the time thereof. The contract performance guarantee shall be valid for the one third amount of Bank Guarantee every year in place of full contract price Bank Guarantee of 3 years in the first year itself. However, such Bank Guarantee shall be with GETCO at any point of time. Therefore, one third amount of Bank Guarantee of 3 years at a time valid for 3 years shall be taken by GETCO.

17.7 Contract performance guarantee shall be valid / extended till the pendency of contract period or extended contract period, whichever the case may be, of the last allotted substation under this contract.

Profile of minimum required staff personnel for Operation & Maintenance of 66KV Sub-station.

Sr. No.	Designation	No. of Person	Minimum Qualification	Remark
1	Switch Board Operator	04	DEE	Preferably having experience in O&M of 66 KV & above S/S.
2	Helper	04	SSC + ITI (Elect. / W.M.)	
	Grand Total	08		

Note: If the demand of work requires more manpower, then contractor has to arrange the same with no extra cost.

ANNEXURE: A

Supervisory Staff qualification for experience		
(A)	Job Title	Chief Supervisor
	Qualification	BE (Electrical)
	Work Experience	20 years of work experience in O&M of 66 KV OR above class substation.
	Job Description	• He is the key person who supervises the workers in the respective department. • Discusses with GETCO about the technical issues. • Analyze the MIS, KPI & testing results reports. • Assesses safety aspects of operation & maintenance activities. • Coordinates with GETCO in all aspects. • Distribution of work responsibility. • Quality control and looks after the safety of operation & maintenance activities. • Overall Supervision of allotted Substations.
	Skills	• Team building and team management skill. • Technical knowledge. • He must possess motivating skill. • Must have the ability to manage crisis situation.
	Nos. of Person	01 (One), Regular employee
(B)	Job title	Senior Supervisor / Supervisor
	Qualification	BE (Electrical)
	Work Experience	5 years & 3 years of Work experience in O&M of 66 KV OR above class substation for Senior Supervisor & Supervisor respectively.
	Knowledge	
	(A) Operation	Ability to analyses fault based on key system parameters on real time basis i.e. Voltage, PF, load etc. and take corrective action, Knowledge of grid code, Line Clear procedure, Restoration of power, fault readings on relay and protection system, etc.
	(B) Maintenance	Knowledge of substation equipment maintenance practices i.e. preventive, predictive and condition based maintenance, Analysis of testing results and remedial measures, knowledge of PPE & safety, Inventory management, etc.
	Skills	Good technical behavioural and communication skills both verbal and written, ability to guide/educate subordinates.
	Nos. of Person	One per more than 25 nos. & 5 nos. of Substations for Senior Supervisor & Supervisor respectively. (Regular employee)

BIDDING SCHEDULES (F)

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FINANCIAL CAPABILITY

Name of Bidder :

_____
_____
_____

Sr. No.	Details	Amount Rs. In lacs	Remarks
1	**2**	**3**	**4**
~~1.~~	~~Solvency and Income Tax clearance.~~		~~A Scheduled Banker's Certificate of present Solvency be attached and last Income Tax certificate~~
2.	~~Annual turnover for last three years, for the scope of work.~~		
3.	~~Price of the biggest job carried out, for the scope of work.~~		

Signature of Authorised representative Of Company / Agency
NAME: _____
STATUS: _____
Name of tendering Company

CERTIFICATE – "A"

Tender for Supply & Erection of _____

Firms Letter Head

Tender No. TR/

Due On:

I / We_____ authorized signatory of

M/s._____ hereby certify that

I / We_____ is not related with

Other firms who have submitted tenders for the same items under this inquiry / Tender.

Seal of the Firm

Place:

Date:

Signature of the Tenderer

With Designation.

Tender No: ACE(P&C)/Contracts/E-516/SS/66KV O&M

No Deviation Certificate

Tender for "**66KV class substations for Operation and Maintenance contract for 545 Nos. of substations for a period of three years** on percentage basis as per tender specifications complete along with all the tender Terms and Conditions.

In connection with above subject, I / we confirm the following**:**

A. I/ We, the undersigned, have read and understand the Tender Specification No. **ACE(P&C)/Contracts/E-516/SS/66KV O&M**.

B. The accepted price components in the bid are **firm prices** in line with Tender Specifications and shall stand valid till completion of the Contract, if awarded.

C. I / We declare that our bid is strictly in line with Tender Specifications and there is no deviation. Further, I / we also agree that additional conditions / deviations, if any found in bid, the offer shall be out rightly rejected without assigning any reason thereof.

Signature of Authorized representative
of Company / Agency

NAME: _____
STATUS: _____

Name of BIDDER

DETAILS OF THE FIRM

NAME OF THE FIRM:		
A		
1	Address of Registered Office	
2	Contact Personal	
3	Designation	
4	Residential Address	
5	Phone Nos. (Office and Residential) and Mobile Numbers.	
6	Fax No.	
7	E mail address	
B		
1	Address of works	
2	Contact Personal	
3	Designation	
4	Residential Address	
5	Phone Nos. (Office and Residential) and Mobile Numbers	
6	Fax No.	
7	E mail address	

Details of Experience

Details of Operation & Maintenance orders executed by the bidders of various sub-station of 66 KV and above class

Period: IN LAST TWO YEARS

Name of Bidder:

_____
_____
_____

Sr. No.	Order No. / Date	Description of Work	Period	Order Amount in Rs.	Name of Order Placing Authority
1	2	3	4	5	6

Note: Certificate for satisfactory work completion from order placing authority of Board/ Organization should be invariably attached with this schedule**.**

Signature of Authorized representative Of Company / Agency
NAME: _____
STATUS: _____
Name of tendering Company

LIST OF PERFORMANCE CERTIFICATES

Sr. No.	Name of the Authority by whom certificate is issued	Reference No. & Date	Details of items/Description of work
1	2	3	4

Annexure-IV

Under taking

Specification No: ACE(P&C)/Contracts/E-516/SS/66KV O&M

Sub: 66KV class substations for Operation and Maintenance contract for 545 Nos. of substations for a period of three years.

In connection with above subject, I / we confirm that our firm is not declared in NCLT under Insolvency & Bankruptcy Code. Further, I / we also agree that, if any found NCLT under Insolvency & Bankruptcy Code, the offer shall be out rightly rejected without assigning any reason thereof.

Signature of Authorized
Representative of
Company/Agency

NAME:_____ STATUS:

_____

Name of bidder Company

Details of Human Resources

Details of the human resources available with the bidder for the successful performance of the contract.

Name of Bidder:

_____
_____
_____

Sr. No	Designation	Name	Qualification	Professional experience & details of works carried out.	Remarks

Signature of Authorised representative Of Company / Agency
NAME: _____
STATUS: _____
Name of tendering Company

Details of Tools / equipment available on hand with the bidder at the works

Name of Bidder:

_____
_____
_____

Sr. No.	Name of Equipment	Capacity	No. of Units	Remarks

Signature of Authorized representative Of Company / Agency
NAME: _____
STATUS: _____
Name of tendering Company

Latest Income - Tax clearance Certificate

to be submitted separately with the offer

DETAILS OF PARTNERS / DIRECTORS WITH THEIR ADDRESS

Name of Bidder:

_____
_____
_____

Sr. No.	Designation	Name (address)	Office address with Phone Numbers	Residence	Working Place
1	2	3	4	5	6

Signature of Authorized representative Of Company / Agency
NAME: _____
STATUS: _____
Name of tendering Company

Memorandum / Articles of associations or constitution of firm

with the names of partners / directors. (To be submitted separately with the offer duly sealed and signed.)

Attested copy of Resolution of partners / Board / Authority

acceptable by law of the firm authorizing a particular person to sign tender and related documents on behalf of the company. (To be submitted separately with the offer duly sealed and signed.)

GUJARAT ENERGY TRANSMISSION CORPORATION LIMITED

Vadodara

Date :

I N T E G R I T Y P A C T

OUR ENDEAVOUR

To create environment where Business Confidence is built through Best Business Practices and is fostered in an atmosphere of trust and respect between providers of goods and services and their users for the ultimate benefit of society and the nation.

ACE(P&C)/Contracts/E-516/SS/66KV O&M.

66KV class substations for Operation and Maintenance contract for 545 Nos. of substations for a period of three years.

GETCO COMMITMENT

- To maintain the highest ethical standards In business and professional
- Ensure maximum transparency to the Satisfaction of stakeholders.
- To ensure to fulfill the terms of agreement / contract and to consider objectively the viewpoint of parties.
- To ensure regular and timely release of payment on due dates for work done.
- To ensure that no improper demand is made by employees or by anyone on our behalf.
- To give maximum possible assistance to all the Vendors / Suppliers / Service provider and other to enable them to complete the contract in time.
- To provide all information to suppliers/ contractors relating to contract / Job which facilitate him to complete the contract / job successfully in time.
- To ensure minimum hurdles to Vendors/ suppliers / contractors in complete of agreement / contract / work order.

PARTY'S COMMITMENT

- Not to bring pressure / recommendations outside GETCO to influence its decision.
- Not to use intimidation, threat, inducement or Pressure of any kind on GETCO or any of it's employees under any circumstances.
- To be prompt and reasonable in fulfilling the contract, agreement, legal obligations.
- To provide goods and / or services timely as per agreed quality and specifications at minimum cost of GETCO.
- To abide by the general discipline to be maintained in our dealings.
- To be true and honest in furnishing information including payment to agents / sub-agent.
- Not to divulge any information, business details available during the course of business relationship to others without the written consent of GETCO.
- Not to enter into carter / syndicate / understanding whether formal / non-formal so as to influence the price.

Seal & Signature
(GETCO Authorized Signatory)

Name :

Designation :

Seal & Signature
(Party's Authorized Person)

Name :

Designation :

A N N E X U R E - 'X'

Vendor must fill up below details & should place at the top of the Technical Bid.

(1) PRICE [AS PER TENDER SPECIFICATIONS]:

(2) GST [IN PERCENTAGE]:
Please quote your GST Registration No.:

(3) INCOME TAX PAN NO.
Please quote your Income Tax PAN No

(4) PF Code No.
Please enclose attested copy of Provident Fund Certificate

(5) PENALTY TERMS AGREE:
(Please specify YES / No.)

(6) SECURITY TERMS AGREE:
(Please specify YES / No.)

(7) P.B.G. TERMS AGREED (Wherever applicable):
(P.B.G. – Performance Bank Guarantee)

(8) DELIVERY TERM:

(9) PAYMENT TERMS AGREE:
(Please specify YES / No.)

(10) Work involved:

(11) TELEPHONE NO. & FAX No.:

(12) AUTHORISED PERSON OF THE FIRM:

(13) NAME OF THE PROPRIETOR:
PARTNERS, DIRECTORS [AS THE CASE MAY BE],
ALONG WITH ADDRESS, TELEPHONE, FAX NO. Etc.

SCHEDULE –G

PROFORMA FOR CONTRACT AGREEMENT

(Non Judicial Stamp Paper of ₹ 300/-)

This Agreement is made at BARODA the_____ day of _____ in the Christian Year Two thousand Twenty One between M/s. _____ (address of office) _____ (hereinafter referred to as "THE CONTRACTOR" which expression shall unless excluded by or repugnant to the contract include its successors or permitted assigns) of the ONE PART and the Gujarat Energy Transmission Corporation Ltd, having their Head office at Vidyut Bhavan, Race Course, Baroda 390 007 (hereinafter called "The GETCO" which expression shall unless excluded by or repugnant to the context include its successors or assigns) of the other part.

WHEREAS the aforesaid GETCO has accepted the tender of the aforesaid contractors for _____ _____ ___ as per GETCO's LOI/LOA No. _____ _____ hereinafter called "the works" and more particularly described and enumerated or referred to in the specification, terms and conditions prescribed in the order letter, covering letter and other letters and schedule of price which for the purpose of identification have been signed by Shri _____ on behalf of the contractors and by ---------- ---------- on behalf of the GETCO, a list whereof is made out in the Schedule hereunder written and all of which said documents are deemed to form part of this contract and included in the expression "The works" wherever herein used, upon the terms and subject to the conditions hereinafter mentioned.

AND WHEREAS THE GETCO has accepted the tender of contractors for the construction of the said works for the sum of ₹ _____ Rupees (_____ _____) upon the terms and subject to the conditions herein mentioned.

NOW THIS AGREEMENT WITNESSESS AND IT IS HEREBY AGREED AND DECLARED THAT.

1. The contractors shall do and perform all works and things in this contract mentioned and described or which are implied therein or there from respectively or are reasonably necessary for the completion of the works as mentioned and at the times, in the manner and subject to the terms and conditions and stipulations contained in this contract, and in consideration of the due provision, executions, supply and completion of the works agreed to by the contractor as aforesaid the Board doth hereby covenant with the contractor to pay all the sums of moneys as and when they become due and payable to the contractors under the provisions of the contract. Such payment to be made at such times and in such manner as is provided by the contract.
2. The conditions and covenants stipulated here-in-before in this contract are subject to and without prejudice to the rights of the Board to enforce penalty for delays and / or any other rights whatsoever including the right to reject and cancel on default or breach by the contractor of the conditions and the covenants as stipulated in the general conditions, specifications, forms or tender schedule etc. attached with GETCO's Order No. _____ _____.

   The contract value, extent of supply & erection works, delivery dates , specifications and other relevant matters may be altered by mutual agreement and if so altered shall not be

deemed or construed to mean or apply to affect or alter other terms and conditions of the contract and the general conditions and the contract so altered or revised shall be and shall always be deemed to have been subject to and without prejudice to said stipulation.

SCHEDULE

List of documents forming part of the contract:

1. GETCO's Tender Specification No. _____ and contractor's offer opened on dated ____/____/2015
2. GETCO LOI / LOA No. Dtd. _____ / _____/ 2021
3. Contractor's acceptance of LOI / LOA vide letter no. _____.
4. Contractor's MOA dtd. _____.
5. Contractor's Power of Attorney / Board Resolution authorizing person to sign on behalf of Firm.

In witness whereof the parties here to have set their hands and seals this day and month, year first above written.

1) Signed, sealed and delivered by
(Signature with name, Designation and official seal)
For and behalf of M/s. _____ (Signature)
_____
Address: _____
_____

In the presence of (Full Name, Address and Signatures)
i) _____ (Signature)
_____
_____
ii) _____ (Signature)
_____
_____

2) Signed, Sealed and delivered by

Add. Chief Engineer (Procurement & Contract)
(Signature with name, Designation and official seal)

For and on behalf of Gujarat Energy Transmission Corporation Ltd Vidyut Bhavan, Race Course, BARODA - 390 007.

In the presence of name, Full address and Signature:

(i)_____
_____
_____

(ii)_____
_____
_____

SCHEDULE – G

Acceptance letter

(TO BE SUBMITED ON FIRM's LETTER HEAD)

Ref. No. Date:

To
The Add.Chief Engineer (Procurement & Contract)
Gujarat Energy Transmission Corporation Ltd,
Sardar Patel Vidyut Bhavan
Race Course
VADODARA – 390 007

Subject: _____

Reference: LOI/ LOA/A/T No. _____

We hereby acknowledge, agree and accept your LOI/LOA/A/T under reference above with terms and conditions mentioned therein.

(Signature)

Designation _____

SCHEDULE – G

E. M. D. BANK GUARANTEE FORMAT

Format for EMD BG is attached separately

SCHEDULE –G

Performance BG Format Attached separately. Please refer the same.

SCHEDULE – G

INDEMNITY BOND

(Non Judicial Stamp Paper of Rs. 300/-)

KNOW ALL MEN BY THESE PRESENTS that we, M/s. _____
(hereinafter called "the Contractor" which expression shall, where the context so admits, include their heirs, executors, administrators and legal representatives, successors and permitted assigns) are hereby held and firmly bind unto the Gujarat Energy Transmission Corporation Ltd (hereinafter called "the GETCO" which expression shall, where the context so admits, include its successors and assigns) to refund the full amount of materials supplied by the GETCO under the terms and conditions of LOA/AT No. _____ dated _____ against any loss damage or deterioration of whatsoever nature occurs to said materials supplied by the GETCO and which are in the custody of the contractor at their works site, on behalf of the GETCO, at _____ (name of line) _____ and / or if any of the said materials, when inspected by any officer authorized by the GETCO in this behalf, is found to be damaged, lost, deteriorated in quality or quantity, the contractor hereby agrees to bind himself to indemnity and at all times keep indemnified the GETCO against all loss, damage and deterioration to the any material supplied by the GETCO during his custody and shall pay in cash on demand from the GETCO within 30 days the market value of such materials which is lost, damaged or deteriorated in full to the GETCO and shall also hereby authorize the GETCO to deduct the said sum from any sum due to the contractor or any sum which may at any time become due to the contractor under the above referred contract or any other contract entered into by the contractor with the GETCO.

AND WHEREAS the contractors do hereby agree to be responsible for the safe custody and protection and preservation of the said materials against all risks, excluding war risks and against loss, damage and deterioration of whatsoever nature in respect of the said materials while it remains in the custody and possession of the contractor.

AND WHEREAS the said materials shall at all times be open for inspection by any officer authorized by the GETCO

Now the conditions of the above written bond are such that the contractor shall pay the full amount forthwith to the GETCO in the event of loss, damage or deterioration or whatsoever except due to circumstances arising out of war in respect of the materials supplied by the GETCO and shall fully and effectually indemnify and keep indemnified to the GETCO against such loss, damage and deterioration.

The contractor shall keep the said materials open at all times for inspection by the officers authorized by the GETCO and produce at anytime when demanded.

THE WITNESS WHERE OF: We the
Said M/S _____
_____ (Signature of contractor)

(Seal of Firm)
Here to signed at _____this day_____In the presence of

1. Name : _____
   Address: _____
   _____
   _____ (Signature)

2. Name : _____
   Address: _____
   _____
   _____ (Signature)

SCHEDULE – H

SAFETY CUM INDEMNITY BOND

(On Non-judicial Stamp paper of value not less than Rs. 300.00)

KNOW ALL MEN BY THESE PRESENTS that we, _____ by this SAFETY CUM INDEMNITY BOND Executed on this _____ Day of _____ 2013. I/We Having Registered Office _____(herein after called **"**THE CONTRACTOR**"** which expression shall mean and includes my /our heirs, executors, administrators and legal representatives, successors and permitted assigns) do hereby binds myself/ourselves and also our company/firms after having the power to bind by this promise and undertaking in favour of the Gujarat Energy Transmission Corporation Limited (GETCO), Vadodara a State Transmission Utility under The Electricity Act, 2003 having its registered office at Sardar Patel Vidyut Bhavan, Race course, Vadodara.(hereinafter called as GETCO, which expression shall mean and include its legal representative, administrators assigns) has agreed under the terms and conditions of the contract no._____ dated_____made between _____ and _____for the contract of the _____value of Rs. _____ interalia on production of Safety Cum Indemnity Bond.

We do hereby undertake and agree to Indemnify and keep Indemnified GETCO from time to time to the extent of Rs._____ Rupees_____only against any losses or damages, costs, charges and expenses caused to or suffered by reason of the CONTRACTOR while Project, R&M, O&M work including work carried out by outsourcing agency, failing to take proper care or not complying the guidelines given hereunder as per Annexure-A and instructions which may be given from time to time during the continuance of the contract and we further undertake to unconditionally pay the amount claimed by the GETCO on demand and without demur to the extent aforesaid.

Whereas the CONTRACTOR has/have been awarded to execute the job/works under order no._____, dated _____ for _____ issued by the GETCO after having observing necessary formalities, the details of which is described in the order no._____ dated _____ and whereas the said job/works will be /likely to be done in places covered under Employees' State Insurance Act,1948 (ESI) and /or the Workmen Compensation Act,1923 and /or other laws relating to the Labour Management and Welfare Act. (Respective Amendments)

And whereas according to the condition of the Contract the CONTRACTOR is under obligation to execute this Safety cum Indemnity Bond before the commencement of actual execution of work

Now the indenture witnesses that I/We the CONTRACTOR do hereby undertake to follow the guidelines as per Annexure-A prepared by the GETCO.

Further we the CONTRACTOR agree that the GETCO shall be sole judge of and as to whether there has been any breach of the guidelines as per Annexure-A of this bond and as to the extent of the loss, damages, costs, charges and expenses caused to or suffered by the GETCO.

We the CONTRACTOR further agree that our liability under this bond shall not be discharged because of the change in the constitution of the GETCO or for the extension of the time limit or for any other reason.

We the CONTRACTOR further agrees to the given terms and conditions:

a. That the CONTRACTOR undertakes /undertake to indemnify and keep harmless the GETCO from all claims, actions, proceedings and risk, damage danger to any person whether belonging or not belonging to the. CONTRACTOR.
b. That the CONTRACTOR shall keep harmless the GETCO from all claims, compensation, damages any proceedings in respect of any of its employee / workmen under the Workmen Compensation Act or any other laws for the time being in force.
c. That, if during the course of execution of work as stated in the contract order mentioned hereinabove issued by the OBLIGEE, it is found that the CONTRACTOR has not complied with guidelines as per Annexure-A or terms and conditions / formalities within the meaning of Employees' State Insurance Act,1948 (ESI) or Workmen Compensation Act 1923 or any other

laws relating to the Labour Welfare for the time being in force, and also has not observed the safety norms in accordance with the law prevailing at the place of work/job to the satisfaction of the GETCO, the GETCO shall have the right to stop the execution of work/job and the period of such stoppage shall not be taken into account for the calculation of the total period of completion of work for which the CONTRACTOR is responsible to complete the work/job and it will be deemed that discontinuance was due to default of the CONTRACTOR .

d. That, if any time, due to exigency, GETCO as the Principle Employer, becomes liable to pay any such compensation mentioned hereinabove, whether on failure of the CONTRACTOR or for any other reason, the GETCO shall have the right to recover the said amount from any amount receivable by GETCO or any bank guarantee deposited or anything payable whether in connection with this contract or other contract by the CONTRACTOR to the OBLIGEE.
e. That the CONTRACTOR is/are aware and accept that for the persistent or repeated violation of any guidelines as per Annexure-A and terms and conditions mentioned in this Safety cum Indemnity Bond, GETCO shall have right to terminate the contract of work issued to the CONTRACTOR .
f. In case if any safety related fatal Electrical / Mechanical accident occurred to any employee of agency or outsider due to negligence or non-compliance of GETCO safety norms then in addition to the compensation and liability as per statutory requirement, contractor / agency is hereby agreed to pay the penalty amount as given below:

Sr. No	Amount of Contract in Rs.	Penalty amount
1	Up to →1 Lac	Rs.5000/- plus GST as applicable
2	Above1 Lac to → 10 Lacs	Rs.40000/- plus GST as applicable
3	10 to --→ 100 Lacs	Rs.100,000/- plus GST as applicable
4	> 100 Lacs	1.0 % of contract value plus GST as applicable

g. I/We the CONTRACTOR hereby confirm that in case of any dispute/difference for settlement of claims under this Safety Cum Indemnity bond the courts in Gujarat State wherever job/work is performed or as per GETCO norms shall have the jurisdiction to decide the rights & liabilities of the parties while adjudicating the matter of claims under this Safety Cum Indemnity Bond.
h. This Safety cum Indemnity Bond shall continue and hold good until it is released by the GETCO in Writing on the CONTRACTOR's application after the Contractor has discharged all his obligations under the order mentioned hereinabove and submitted a "NO DEMAND CERTIFICATE" from the GETCO under the said order. The Safety cum Indemnity Bond shall be valid for a CONTRACT PERIOD and renewable thereof (Claim Period).
i. This Safety cum Indemnity Bond and the guidelines as per Annexure-A herein contained are in addition to And not by way of limitation or substitution for any other guarantee, indemnities Hereto before given to the GETCO by the CONTRACTOR and this indemnity does not Revoke or limit such indemnities or guarantees. IN WITNESS WHEREOF the Parties hereto have executed this indenture the day the year First hereinabove written.

(Signature with seal of The CONTRACTOR)

In the presence of:
1.
2.

Submit with QR BId

CONFIRMATION OF DETAILS OF BIDDER

Bidders are required to furnish following information specifying YES / NO

1)		Whether the Bid is on Percentage rate basis as called for.	Yes / No
2)		Whether rebate furnished is in percentage basis as called for.	Yes / No
3)		Whether the Bid is submitted by RPAD./Hand delivery/Speed post	Yes / No
4)		Whether all pages of Bid Specifications are sealed and signed by the Bidder.	Yes / No
5)	a)	Whether the Bidder is registered with GETCO	Yes / No
	b)	In case of "Yes", please furnish following details:	
		i) Registration Letter No. & date.	
		ii) Class of Registration	
		Iii) Validity	
	c)	Whether Bidder is having PF Code No.	Yes / No
6)	a)	Whether EMD paid. (DD / BG)	Yes / No
	b)	In case "Yes", furnish details	Yes / No
7)		Whether following documents as specified are submitted.	
	a)	Human Resources detail.	Yes / No
	b)	Availability of tools, equipments etc.	Yes / No
	c)	Details of orders executed / on hand	Yes / No
	d)	Financial capability.	Yes / No
	e)	Experience as specified.	Yes / No
	f)	Latest Income-tax certificate	Yes / No
	g)	Company's Articles Of Association	Yes / No
	h)	Details Of Partners / Directors	Yes / No
	i)	B.R./P.A. Authorising Person	Yes / No
	j)	Power of Attorney of Consortium Members	Yes / No.

Signature of Authorized Representative of Company/Agency

NAME:_____

STATUS:_____

Name of tendering Company

Schedule-16

I / WE, confirm that following documents are attached with the Technical bid of the offer.

Sr.No.	Details	Confirmation (Tick √ any one)
1	Firm's details as per "Annexure –1"	YES / NO
2	DETAILS OF THE EXPERIENCE Annexure II	YES / NO
3	Performance certificates as per "Annexure-3"	YES / NO
4	Certificate of Important Instruction & certificate-A	YES / NO
5	Board's technical specification duly signed and with seal of firm.	YES / NO
6	ANNEXURE - 'X'	YES / NO

a) Seal of the Firm **Signature of the Tenderer**

Date:

NOTE: ALL THE DOCUMENTS SHOULD BE PROPERLY FILED AND SHOULD BE GIVEN FLAG MARKING FOR IDENTIFICATION.

To be submitted with Q.R BID (On letter head with following declaration)

Declaration regarding " Relationship with Employee"

Relationship with Employee:

Every bidder should, at the time of submission of bid, give a declaration as under.

" If in any Bidder Company/firm, the interest (i.e. Shareholding in company and share inpartnership firm) of any employee of the tendering Company or his/her relative as defined in Section 2(77) of the Company's Act 2013 is 10% or more, the tendering company will not deal with such company/firm at all. Tenderer therefore, must specifically disclose this fact in his technical Bid. Non-disclosure of such facts would immediately disqualify the tenderer for further dealing with the tendering company"

Signature of Signature of Authorized representative of Company / Agency

NAME:

_____

_____

STATUS:

_____

_____

Name of BIDDER

To be submitted with Q.R BID (On letter head with following declaration)

Declaration regarding "Conflict of Interest amount Bidders/Agents"

A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of Procuring Entity's interests. The bidder found to have a conflict of interest shall be disqualified. A bidder may be considered to have a conflict ofinterest with one or more parties in this bidding process for particular quoted item, if:

a) they have proprietor/ partner(s)/ Director(s) in common; or

b) they receive or have received any direct or indirect subsidy/ financial stake from any of them; or

c) they have the same legal representative/ agent for purposes of this bid; or

d) they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another bidder; or

e) bidder participates in more than one bid in this bidding process. Participation by a bidderin more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/ sub-assembly/ assemblies from one bidding manufacturer in more than one bid.

f) in cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorise only one agent/ dealer. There can be only one bid from the following:

1. The principal manufacturer directly or through one Indian agent on his behalf; and
2. Indian/ foreign agent on behalf of only one principal.

g) a Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid;

h) in case of a holding company having more than one independently manufacturing units,or more than one unit having common business ownership/ management, only one unitshould quote. Similar restrictions would apply to closely related sister companies. Bidders must proactively declare such sister/ common business/ management units in same/ similar line of business.

i) Bidder shall not act in contravention/ violation to the provisions of competition act, as amended from time to time.

Every bidder should, at the time of submission of bid, give a declaration, that bidder shallnot have conflict of interest with other bidders for particular quoted item, as above.

Signature of Authorized representativeof Company / Agency

NAME:

_____

_____

STATUS:

_____

Name of BIDDER

GUJARAT ENERGY TRANSMISSION CORPORATION LIMITED
Sardar Patel Vidyut Bhavan, Race Course, Vadodara: 390007
CIN U40100GJ1999SGC036018
Email: aceproc.getco@gebmail.com
An ISO 9001:2015 Certified Company
Website: www.getcogujarat.com

TENDER SPECIFICATION FOR

OPERATION AND MAINTENANCE CONTRACT FOR 66 KV SUBSTATIONS

TENDER SPECIFICATION NO. ACE(P&C)/Contracts/E-516/SS/66KV O&M

PART – II

TECHNICAL SPECIFICATION FOR OPERATION & MAINTENANCE

PART – II

(A) GENERAL INFORMATION FOR TECHNICAL TERMS & CONDITIONS FOR OPERATION & MAINTENANCE WORKS:

1.0 GENERAL

1. (a) Contractor has to deploy the staff immediately on allotment of the substation & instruction of GETCO. However, if the contractor fails to start work within one month from the date of issuance of Letter of Intent (LOI) then penalty shall be applicable as per relevant clause

   Further, during contractual period, if any new or additional substation has been allotted, the contractor shall have to take over the allotted substation immediately as soon as the substation is ready for commercial use. However, if the contractor fails to start work within 15 days from the date of issuance of Letter of allotment / intimation to take over the substation by EIC, then penalty shall be applicable as per relevant clause

   (b) Regular / New Contractor should meet appropriate and applicable qualifying requirement as per clause No.5.00 of SCC (Part-I).

2. The contractor shall carry out the Operation and maintenance activities as per the scope of work. He will be responsible for up-keeping of entire switch-yard / all equipments, control room and other allied constructions, buildings of substation. The work shall be executed as per the equipment wise check lists mentioned in part II (Maintenance Schedule). All the records shall be maintained and submitted to the GETCO authority regularly in hard as well as soft copy. Regarding any item, if any dispute is there e.g. Scope of work etc. the decision of GETCO shall be final and binding to the contractor. If any deviation / deficiency in Operation and maintenance schedule are found, penalty shall be imposed accordingly.

3. For Operation, there will be three shifts each of eight hours preferably i.e. from 6:00 hours to 14:00 hours, 14:00 hours to 22:00 hours and 22:00 hours to 6:00 hrs or approved by EIC . **The contractor shall provide separate** Supervisor **/ Engineer per maximum 4 (Regular Bidder) / 5 (New Bidder) Nos. of substations**. The contractor shall provide Operator & helper for each shift. For the weekly off, relieving staff will also be provided by the contractor. For any overtime work by the staff of contractor, payment is to be made by the contractor. **The attendance of all staff must be through Biometric attendance machine either finger print or retina only.**

3. The contractor has to get the shift schedule approved every month well in advance before 7 days from **Engineer in Charge of GETCO**, who will be posted out respective sub-station. The authorization chart of staff engaged by the contractor for duty is to be displayed in the control room duly approved by Engineer in-charge of substation. Any change in the staff employed should be first approved by concerned EE (TR), GETCO.

5. The Shift Operator, helper at the place of duty shall be confined to inside of the substation area during duty hours.

6. Necessary instructions for Operation & Maintenance of the substation will be provided for the safe operation of the substation after the award of contract.

7. The operating staff should be conversant with operation / utilization of fire extinguishers & safely applications in emergency. If training is required by the contractor's staff, GETCO may provide the same at the cost of the contractor.

8. **The contractor shall arrange all types of consumables as per attached list - III.** Cannibalism in any form or any short from any spare equipment in substation is strictly prohibited.

9. Minor spares like fuses, indicating lamp, trip coil, closing coil, contactors, terminal connections, lugs etc. to keep system in operation will be included in the scope of the contractor at his cost. The contractor shall arrange all types of spares as per attached list - II

10. All equipments & its major spare will be provided by owner. However, the contractor has to provide its labour at his own cost for replacement of the same excluding work on transformer which requires opening of tank & winding check. However, in transformer radiator, bushing replacement work, cooling system, electrical wiring, oil leakages is to be attended by contractor.

11. As per maintenance requirement the Spares are required to be replaced after discussion & mutual understanding with concern GETCO's Engineers and MOM is to be prepared for the same.

12. Major overhauling of all equipments is in the scope of Owner.

13. The contractor must have minimum Tools & Plants as per list No.I and testing equipments as per list No. IV. Owner reserve right to verify the list before the award of work.

14. The contractor has to carry out all tests on switch yard equipments at site as per Operation & maintenance scope on his own. However, contractor may outsource those tests which are to be carried out at NABL accredited lab approved by Govt or to a qualified testing agency to the satisfaction of respective SE (TR) / EE (Testing). Payment will be made to contractor as per contract, no payment to outsource agency will be made by GETCO in this regard.

15. Any damage / failure of equipment due to wrong operation will be the responsibility of the contractor & the amount due to loss of this will be recovered. Any disputes regarding this, the decision of C.E. (TR) will be final and binding to contractor.

16. For any addition / removal / augmentation of equipment / bay in substation during contractual period, the operation & maintenance as per scope of the contract shall be carried out by contractor without any additional cost. Due to addition / removal / augmentation of equipment / bay in substation, the contract value shall not change for revised scope / condition.

17. The factors affecting the percentage availability of power supply like PSD, TT, SF, ESD, Zero Power will be considered for substation availability calculation.

    Emergency load shedding, under frequency tripping, failure of transformer & tripping of transformer on Buchholz, Differential relay & overloading relay etc. in substation having single transformer will not be considered for substation availability calculation.

18. In any abnormal conditions like Mob attack etc., police protection will be arranged by GETCO after intimation by contractor.

19. All Operation, Maintenance & Testing records are to be maintained properly in the given formats by printing all the register / soft copies as per requirement. All required stationary / registers shall be provided by the contractor at his own cost. Contractor will assist EIC to update inventory, test results and other relevant records in E-urja / TAMS or any other future developments. After completion of contract, all records / registers / soft copies shall be handed over to EIC.

20. The engineer deployed by the contractor must stay near nodal sub-station / quarter provided in the nodal substation and should be available all the time to tackle emergency in group of sub-stations. He should be provided with a mobile phone with SIM card by the contractor at his own cost. Contact details will have to be shared with EIC and EE (Tr)

21. It will be mandatory for the Contractor to take possession of at least one quarter if available at that substation. The rental charges payable by the contractor for various types of quarters as under.

Type of quarters	B/C/II	D/E/III	F/IV
Rent/month	Rs.2120/-	Rs.1360/-	Rs.730/-

GETCO shall deduct the rent of one quarter of appropriate category irrespective of possession of quarter taken or not.
The electricity bill of the allotted quarter shall be paid by contractor as paid by other consumers of the DISCOM.

22. Before taking over of the substation, contractor has to provide Bio-Metric attendance system using finger print or retina, in the substation, at his own cost.

2.0 SECURITY AND SAFETY

Agencies shall keep the main gate of the substations locked and take all appropriate actions to safeguard the assets of GETCO. Watch ward of sub-station shall be the responsibility of the contractor. In case of theft / damage to the GETCO's properties / equipment / assets, the contractor shall be solely responsible and GETCO reserves the right to recover the appropriate amount against the theft / damages from the contractor.

3.0 OBLIGATIONS OF GETCO

a) GETCO shall handover the Substation in good and maintainable condition before the contractual work is commenced by the personnel deployed by the Contractor.
b) GETCO shall provide sufficient quantity of Furniture required for smooth operation and maintenance activities. The contractor shall keep furniture in good condition. If required, repairing of furniture shall be done by Contractor at his cost.
c) Instruction/operation & maintenance Manuals for the equipments, Panel Wiring Drawings, as well as the Switch Yard layout drawing will be provided by GETCO.
d) The Yard lighting, Street Lighting (if any) and Control Room lighting shall be complete and in working condition at the time of charge is handed over to the contractor. However, further replacement of the Bulb / Tube Lights / Chock / HPSV & HPMV lamps and accessories etc will be in the scope of the Contractor.
e) Water supply if available from the Bore shall be made available.
f) Internal Roads and clear access will be available in the Substation and the same shall be maintained by Contractor at his own cost.
g) Services for Civil engineering required for addition / alteration shall be arranged by GETCO.
h) Any addition / alteration in the Control Room, Cable routes or equipment positions shall be done by GETCO.
i) Before commencement of work, the inventory of all sub-station equipments and other materials will be taken jointly with concern Engineer In-charge of GETCO, and after completion of period of contract the same will have to be handed over to the concern Engineer in charge in good / working condition.
k) For proprietary software viz. PLCC, DAS, e-urja GETCO will provide support.

4.0 LICENSES

The Contractor shall obtain and maintain the necessary labour license, electrical license from Government of India / Government of Gujarat and any other statutory license required for the faithful performance of the contract and he must be in possession of P.F. Account Number. Contractor has to comply all rules & regulations of Government of India and Government of Gujarat pertaining to this contract and subsequent time to time changes/ amendments thereof. Any liability arising out of non-compliance or breach due whatsoever reason including but not limited to ignorance at any point of time shall be sole responsibility of contractor.

5.0 WORK & SAFETY REGULATIONS

5.1 It will be the responsibility of contractor to take all required steps to adequately safe guard their personnel during carrying out the work and /or operation and to ensure that the work is carried out in such a manner that maximum safety of the staff is ensured.

The Contractor shall also be responsible for provision of all safety notices and safety equipment required both by the relevant legislations and the standard engineering safety practices and EIC, as he may deem necessary.

5.2 All equipment/ procedure used in Operation and Maintenance by Contractor shall meet Indian/International Standards and where such standards do not exist, the Contractor shall ensure these to be absolutely safe. All equipment shall be strictly operated and maintained by the Contractor in accordance with manufacturer's Operation Manual and safety instructions and as per Guidelines / rules of GETCO in this regard.

5.3 Periodical examinations and all tests for all lifting / hoisting equipment, tools & tackles shall be carried-out in accordance with the relevant provisions of Factories Act 1948, Indian Electricity Act 1910 and associated Laws / Rules in force from time to time. A register of such examinations and tests shall be properly maintained by the Contractor and will be promptly produced as and when desired by the Engineer in charge of substation

5.4 The Contractor shall provide suitable safety equipments & PPE of prescribed standard to all employees and workmen for safe operations and maintenance activities.

5.5 The Contractor shall provide safe working conditions to all workmen and employees at the Site including safe means for operation & maintenance activities.

5.6 The Contractor shall not connect any electrical appliances used for testing / maintenance / any other activities to power source until he is satisfied that;

a. The appliance is in good condition and is fitted with suitable plug;
b. The appliance is fitted with a suitable cable having two earth conductors, one of which shall be an earthed with metal sheath surrounding the cores.

5.7 No electric cable in use by the Contractor / Owner will be disturbed without prior permission. Proper care shall be taken while working particularly for open loose wires temporary laid for any special requirement.

5.8 **No repair work shall be carried out on any live equipment. The equipment must be declared safe by the on duty operator deployed by the contractor and a permit to work shall be issued by the on duty operator deployed by the contractor before any repair work is carried out by the Contractor**. While working on electric lines / equipment, whether live or dead, suitable type and sufficient quantity of tools will have to be provided by the Contractor to electricians/workmen/officers working on it. **The work is to be carried out under advance intimation & approval from EIC of GETCO.**

5.9 In case any accident occurs during the Operation / Maintenance and / or other associated activities undertaken by the Contractor thereby causing any minor and / or major and / or fatal injury to his employee/s and / or any persons due to any reason, whatsoever, it shall be the responsibility of the Contractor. Contractor shall promptly inform the same to the Engineer in prescribed form and also to all the authorities envisaged under the applicable laws. For any fatal / non fatal electrical / mechanical accident GETCO will have no liability.

5.10 The Engineer in charge of GETCO shall have the right, at his sole discretion, to stop the work, if in his opinion the work is being carried out in such a way that it may cause accidents and endanger the safety of the persons and/or property, and/or equipment until all the points are compiled.

5.11 The Contractor shall not be entitled for any damages / compensation for stoppage of work due to safety reasons.

5.12 It is mandatory for the Contractor to observe, during the operation & maintenance of the works, requirements of Safety Rules which would generally include but not limited to following

a) Each employee shall be provided with initial indoctrination regarding safety by the Contractor or its supervisor, so as to enable him to conduct his work in a safe manner.
b) No employee shall be given a new assignment of work unfamiliar to him without proper introduction as to the hazards incident thereto, both to himself and his fellow employees.
c) Employees must not leave naked fires unattended. Smoking shall not be permitted around fire prone areas and adequate fire fighting equipment shall be provided at crucial location.
d) There shall be a suitable arrangement at every substation under the contract for rendering prompt and sufficient 'First aid' services for all kind of injuries.
e) Requirements of ventilation in underwater working to licensed and experienced divers, use of gum boots for working in slushy or in inundated conditions are essential requirements to be fulfilled.

5.13 The Contractor shall follow and comply with all GETCO Safety Rules, relevant provisions of applicable laws pertaining to the safety of workmen, employees, plant and equipment as may be prescribed from time to time without any demur, protest or contest or reservations. In case of any discrepancy between statutory requirement and GETCO Safety Rules referred above, the latter shall be binding on the Contractor unless the statutory provisions are more stringent.

a.	Fatal injury or accident (These are causing death)	Rs.1,00,000 per Person
b.	Major injuries or accident causing injury to 25 % or more permanent disablement to any person, Workmen or employees.	Rs. 20,000 per person

Permanent disablement shall have same meaning as indicated in Workmen's Compensation Act. The compensation mentioned above shall be in addition to the compensation payable to the workmen/employees under the relevant provisions of the Workmen's Compensation Act and rules framed there under or any other applicable laws as applicable from time to time. In case the Owner is made to pay such compensation then the Contractor is liable to reimburse the Owner such amount in addition to the compensation indicated above.

5.14

3. In case of fatal accident to employee of contractor / GETCO / outsider at any sub-station due to negligence on the part of contractor then GETCO reserves the right to take any of the following actions at sole discretion:

   a) Sub-station shall be handed over to other agency at the risk and cost of contractor
   b) Suspension of registration for a period of one year.
   c) Debar contractor for participating for future next tender
   d) Short clause of this contract.

4. In case of non-fatal accident to employee of contractor / GETCO / outsider at any sub-station due to negligence on the part of contractor then GETCO reserves the right to keep company under watch for a period of one year. In case of fatal/non-fatal accident during the watch period, GETCO reserves the right to take any of the following actions at sole discretion:

   a) Sub-station shall be handed over to other agency at the risk and cost of contractor
   b) Suspension of registration for a period of one year.
   c) Debar contractor for participating for future next tender
   d) Short clause of this contract.

5.15 The contractors shall deploy their minimum technically qualified staff as mentioned in Profile for minimum required staff personnel for Operation and Maintenance to perform round the clock for maintenance of 66 KV sub-stations and switchyard. These staff will report to Station Engineer, regarding day to day progress and other scheduled works in respect of carrying out maintenance work of sub-station & switchyard. The Station Engineer should be posted per maximum 4 nos. (Regular Bidder) / 5 nos. (New Bidder) of substation, who will make himself available at site as and when required by GETCO within the shortest possible time upon intimation in addition to his scheduled visits, in connection with relevant work of the Contract.

(B) Sub-station Operation:

List of indicative activities for **'Operation'** of 66 KV Substation included in scope of work. The list is for reference only; contractor has to perform all the activities as per instruction of EIC and for safe operation of equipment/substation and grid as a whole:

1. Switching **'ON'** and **'OFF"** of power supply on any or on a number of feeders / transformers / Buses with or without isolator operation, altering / interrupting supply system / network of Sub-stations in a limited way or partial manner.

2. Operational activities concerning to switchyard / control room equipments:-

   (a) Switchyard equipments:- Transformers, breakers, CTs, PTs, Isolators, capacitors, lightening arrestors and other equipments.
   (b) Control room equipments: Control and Relay panels, OLTC Panels, relays, batteries, battery chargers, LTDB, DCDB etc.

3. Safe Operations of equipments to be carried out in live and/or dead supply conditions as per system requirement in substation as a whole or partial manner.

4. Emergency operations to safe guard the equipment/system - Taking suitable actions to counter any abnormal condition arising on account of any abnormalities like over loading, over voltage, under frequency, excessive temperature rise, etc. which may result into partial or total grid failure.

5. **Routine / regular activities for operation of 66 KV Sub-Stations**:

   a. Supervision of proper functioning of switch yard equipments in service and protective relay inside the control room. Recording of condition of equipment in shift duty registers on hourly basis. Any abnormality / deviation of condition of substation equipments shall be intimated immediately to the in-charge engineer of substation for remedial actions.

   b. Recording of load flow data on hourly basis such as:-
   - Load in feeders.
   - Load on Transformer(s)
   - Voltage on 66 KV side of switchyard.
   - Temperature of the transformer oil
   - Temperature of the winding of transformer
   - SF6 / Air Pressure / Hydraulic Oil Pressure in the Circuit Breaker.
   - Charger current / voltage
   - Voltage / specific gravity reading of pilot cell of battery sets once in a day.
   - Leakage current / Surge counter monitoring of L.A. – once in a day
   - To Check oil level in main/ OLTC conservator tank of Transformer.
   - To issue / return Line Clear / Work Permit as per GETCO's standard practice, the proper handing over / taking over of shift charge including pending LCP/Work permit.
   - Checking of DC healthiness in each shift.

   The reading / status be recorded hourly in the log sheet to be provided by the contractor at own cost as per the prescribed Performa given by Engineer in-charge of the Sub-station.

   c. Recording of bus voltage & remedial measures to maintain 11 KV bus voltages from 11 KV to 11.50 KV bus voltages by selecting appropriate tap and switching on / off the capacitor bank as per the operating requirements. However, optimal use of capacitor bank shall be ensured by using tap changer.

   d. Recording of pilot cell reading such as specific gravity (S.G.) and cell Voltage of pilot cell and terminal voltage of battery set in each shift for maintaining the condition of the battery. On every Monday next incremental cell no. shall be selected as new pilot cell for the week. Also the earth leakage current is to be recorded in each shift on the log sheet of the battery register / log sheet.
   e. Any special operation instruction given by Engineer in-charge of Sub-station are to be followed **for operating as per the authorization chart** by the shift staff of the contractor.

f. Operation of 66 KV Substations may be carried out as per the **standard manual** to be provided at respective Sub-station.

6. Operators shall record battery voltage, its charging current 'DC healthy' status of indicators / lamps, installed in the panels & hourly reading of the Amp. Meter/ Voltmeter, frequency etc will be recorded in the register in the specified manner. Complete log sheet would be filled on hourly basis by the operators apart from inspection of the switch yard.

7. Sample for the log sheet, register, LCP / work permit will be provided by the Engineer in-charge of the sub-station. The log sheet, LCP / work permit book & formats are to be got printed by the contractor & the cost of composing, printing, paper, binding etc. for the log sheet register, LCP / work permit book, pen etc. required for operation & maintenance of the substation will not be reimbursed to the contractor.

8. The staff on duty shall not allow any outside person to enter in the substation premises without permission of Owner's appropriate authority. Proper written record of person with name & contact details shall be maintain with entry & exit timings.

9. Tripping of lines/Equipments & its restoration including occurrence / abnormalities is to be informed to EIC of S/S of GETCO. In case of failure in reporting such incidence a token penalty will be levied as per relevant penalty clause.

10. During tripping of any Lines / Feeder / Equipment the relays / Facias / Alarms observed in control room panels are to be noted immediately and carefully before resetting the same and the equipment not to be charge again without ensuring that the Relays / Facias are not indicating any heavy fault / Damaged to equipment. This is to be informed immediately to Engineer In-charge of sub-station and concern authority. In sort for charging the equipment / lines it is to make sure that no fault persist and there is relays / Facias appeared does not indicate likely hood of damaged to equipment or chances to damaged equipment.

11. Load shedding activity is to be carried out as per LDC/ALDC/GETCO's instruction

12. Feeder wise load shedding timings is to be recorded in register.

13. DAS is to be operated & maintained.

14. Reports from DAS is to be recorded in log book / registers etc. as per formats.

15. Daily as well as monthly Substation loss, Max. Voltage /Min. voltage/Max.load /Min.load (element wise / substation) etc. is to be calculated & recorded and shall be reported as per requirement.

16. Category wise load data daily & monthly e.g. Ag/Jyotigram/Industrial etc . is to be recorded and shall be reported as per requirement.

17. Back up of DAS is to be taken on regular interval and same shall be submitted to EIC on monthly basis.

18. Defects is to be recorded and to be inform to station engineer deployed by contractor and shall be attended in minimum time.

(C) Sub-station Maintenance:

List of indicative activities for **'Maintenance'** of 66 KV Substation included in scope of work. The list is for reference only; contractor has to perform all the activities as per instruction of EIC and for safe operation & maintenance of equipment/substation and grid as a whole:

(I) ROUTINE / PREVENTIVE MAINTAINANCE:

1. The detailed activities of maintenance schedule shall be submitted by the bidder to GETCO in line with GETCO's guide lines on award of contract. The schedule maintenance shall also include all the routine maintenance of equipment as per the department guide line/ GETCO's standard practice. The maintenance schedule shall be prepared for all equipment covered under the scope of this Contract & time to time amended based on addition / removal of equipment / bays and shall be got approved by GETCO prior to commencement of work. All periodical maintenance registers shall be submitted to GETCO with due certificates / observations**.** Contractors is responsible for comparing & analyzing test results with respect to previous records and take suitable / required preventive action thereof to ensure performance of equipment.
2. The contractor shall attend day-to-day maintenance work like checking of battery sets, availability of 'DC supply' / Auxiliary supply, cleaning of all control & Relay penal / M. K. Boxes / Junction Boxes, tightness checking of terminal - connectors, nuts – bolts. List out the defect as & when noticed and attend the same.
3. The scope of contract also includes Switchyard / Road, illumination system, water supply arrangement etc. For Air condition, any minor spares like filter, oil, glands related to operation of AC plant shall be in contractor scope if required.
4. The contractor shall also maintain protection system including relay co-ordination and settings, liaison / co-ordination as per guideline of GETCO and other statutory authorities. The testing of relays & protection system is to be carried out in presence of GETCO's Engineer only.
5. The contract also includes loading / unloading / transportation of equipment / Material within sub-station premises excluding power transformer.
6. The detailed activities listed in maintenance schedule is as per but not limited to scope of work.
7. The contractor shall inform GETCO's officials well in advance for taking power shut down (Outage) as and when required for preventive / periodical maintenance/ESD in 66KV sub-stations and switchyard.
8. The contractor shall keep all the tools and tackles as per List No. I & shall arrange testing instruments as per List No. IV. All required tools and plants should be kept ready at the Sub-station. When any material/spares is procured by contractor for replacement of defective part/material, replaced/defective – damaged material will be retained and/or disposed off as per standard practice by the contractor in consultation with EIC.
9. The contractor shall arrange all types of consumables / spares required for routine / periodical maintenance for sub-station including but not limited to fuses, indication lamps, PVC tapes, luminary lamps like HPSV / HPMV lamps, Fluorescent tube, welding electrode, cotton waste, cleaning cloth, distilled water, Battery solution, petroleum jelly, HT Compound, (including first-aid items as per IE Rules) etc., during the period of Contract. All the costs of consumables and material required for routine / periodical maintenance are to be included in the scope of works.
10. The switchyard of substation, surrounding of the substation equipments should be neat and clean in respect of wild grass / shrubs etc. The same shall be cleaned regularly from the switchyard. The certificate in this regard is to be issued by concerned EIC endorsed by EE(TR) monthly RA bill.
11. The switchyard shall be maintained properly, illuminated and secured from entry of un-authorized persons and/or animals.
12. Periodical checking, cleaning and maintaining electrolyte level of Battery cells. The battery terminals / connectors shall be protected from getting rusted / deteriorated due to saline climate by applying suitable rust preventive coating of approved make and applying petroleum jelly for better contact and connection of battery cells.

13. The maintenance of the 66 KV Substation, Equipment i.e. transformers, breakers, Isolator, PT, CT, LA, Station Transformer and other equipments are to be done by the contractor as per the schedules and procedure of GETCO such as monthly maintenance, quarterly maintenance and emergency maintenance work etc.
    a) The shutdown for the maintenance of substation equipments will be approved by Engineer in charge of GETCO on submission of request by contractor / his authorized representatives. The records are to be maintained in register by the contractor as per Performa provided by Engineer in charge and the same to be certified by Engineer in charge of GETCO before passing of monthly bill. The required T&P as per enclosed List-I are in the scope of contractor.
    b) All the load data shall be recorded / entered by the operators of the contractor as directed by Engineer in charge of sub-station.
    c) The maintenance of 66 KV Sub-stations, transformers, breakers, CTs, PTs, lightning arrestors, isolators, batteries & battery chargers and other equipments shall be carried out as per the standard practice of GETCO.
14. The proper performance of the equipment and system shall be sole responsibility of the contractors. If the nature of repairs is minor (which is not covered under GP / warranty) for any of the equipment installed in the sub-station, the rectification of the same shall be sole responsibility of the contractor. The contractor should not link the performance of the equipment with customer warranty. However, for within GP defects OEM shall be immediately contacted with intimation to EIC. The contractor should have tie up with OEM & should have adequate technical knowledge to attend such defects.
15. Hot points in switchyard shall be checked and attended.
16. Periodic checking of clamps, connectors, jumpers etc. & thermography of yard & equipment shall be carried out.

(II) Breakdown Maintenance:

a. The scope of breakdown maintenance shall include all the services required for replacement of defective equipment/parts due to equipment failure. The equipments / major spares will be provided by GETCO. For replacement of failed / defective equipment, major spares the contractor will arrange for labour / men-power and its payment is under the scope of the contractor. However, replacement of failed power transformer shall not be in the scope of the contractor.
b. If any outage is required to be extended for further period beyond scheduled time due to whatsoever reason, it shall be informed to GETCO authority in sufficiently advance time.
c. All special testing equipment required for maintenance is to be arranged by the contractor as per attached list.
d. In case of damage to equipment including collapse of structure / foundation etc. caused due to natural's calamities / acts of God, GETCO will supply replacement or equipment / parts and spares etc. If GETCO is not able to supply the replacement of equipments / spares, the contractor shall arrange, only with the written approval of CE (Tr), for procurement of equipment / spares to be replaced as per GETCO's specification and subsequent inspection, the cost of which will be reimbursed to the contractor as per prevailing GETCO SOR/ARC/ any latest GETCO work/ purchase order whichever rate is lower upon production of invoice of the same.
e. During the execution of contract, if any kind of repairs is considered to be of the major nature and it is absolutely necessary to be undertaken at work place of manufacturers / suppliers, it should be reported to GETCO immediately and only with the written approval of CE (Tr) the same may be taken up. The cost of which will be reimbursed to the contractor as per prevailing GETCO SOR/ARC/ any latest GETCO work/ purchase order whichever rate is lower upon production of invoice of the same.
f. The contractor shall maintain all Tools and Plants / items in his scope at the sub-station. All break downs including electrical / mechanical shall be promptly attended by the contractor and routine spares shall be arranged by the contractor. Special spares related to equipments shall be arranged by the GETCO. Spares for motors / compressor including rewinding etc. shall be arranged by the contractor at his own cost.

(III) MAINTENANCE OF SUB STATION:

1) POWER TRANSFORMERS

The 5 MVA / 10MVA / 15MVA / 20MVA, 66/11KV or 66/22 KV Transformers shall be maintained as per the standard practice as well as the Maintenance Manual provided by the Original Equipment Manufacturer (OEM).

1. The Transformers and its accessories shall be kept under surveillance round the clock. The readings of OTI & WTI shall be taken at an interval of one hour.
2. Any occurrence / abnormality of the transformers shall be promptly reported to supervisor and E.I.C of GETCO and shall be promptly attended. If the occurrence is beyond the scope or purview of the personnel on duty, the same shall be promptly reported to supervisor and E.I.C of GETCO.
3. Visual observation for physically healthiness of the Transformer shall be recorded on day-to-day basis by the operating staff and in case of any abnormalities like, oil leakage, sparking on the Clamps & Connectors, mal-functioning of accessories, Tap Changing mechanism, WTI, OTI etc. in the defect register and the report shall be made immediately to the supervisor and Engineer-in-charge of GETCO.
4. The oil level shall be regularly monitored and topping shall be done in the presence of GETCO officials. The required quantity of Transformer oil shall be made available by the GETCO free of charge at site. In case of any oil leakage, the same shall be attended by contractor at the earliest.
5. The Silica Gel shall be periodically changed by the contractor. The cost of Silica Gel shall be borne by the contractor.

2) CIRCUIT BREAKERS

(a) The Circuit Breakers shall be maintained as per the Maintenance Schedule provided by the OEM.
(b) All the checks of daily, weekly, monthly and yearly shall be exercised as per the Instruction Manual.
(c) All the parameters which are likely to affect the performance of Breaker shall be kept under the controlled condition as per the recommendations of OEM.
(d) The visual observation for physically healthiness of the Breaker shall be done round the clock for any apparent change in physical appearance or electrical performance of the equipments, Hot Spots, Alignment, etc. For any abnormality, the report shall be made to supervisor and EIC.
(e) All the operating mechanism, DC supply & Control Circuits shall be periodically checked-up and kept in good condition by cleaning, removal of dust, oxidation etc. All the contacts and wires on the Kiosk of the equipment shall be kept in healthy condition without any sign of oxidation.
(f) It should be ensured that, all the kiosks shall be Vermin Proof & Moisture Proof.

3) CTs / PTs

(a) The maintenance should be carried out as per the maintenance schedule /instructions provided by OEM.
(b) The terminal kiosk of the C.T shall be periodically checked for Vermin Proofing & Moisture Proofing. The secondary terminal shall be free of rusting, pitting and oxidation. The shorting links if any, shall be in their proper healthy position.
(c) The equipment shall be visually checked for physically healthiness round the clock. Any Hot Clamp on the CT Primary shall be got promptly attended.
(d) Oil level shall be kept under observation and remedial measures required shall be taken appropriately.

4) ISOLATORS.

a) The Isolators shall be kept in good operating condition all the time.
b) Jaws of the Isolators and springs etc., shall be maintained regularly to ensure reliable operation.
c) The Isolator structure and its foundation etc., should be kept under observation for proper vertical alignment and in plumb position.
d) All the interlocks shall be in operating conditions.

5) LIGHTNING ARRESTER

a) Lightning Arresters and its counters should always be in good condition.
b) The earthing pits of the Lightning Arresters should always be kept under activated condition.
c) The counter reading of Surge Counter shall be taken every day.

6) GANTRIES & INSULATORS.

The bus gantries and insulators shall be kept under observations for any rusting, deformation or external defects. The insulators should be periodically cleaned by taking shut-down.

7) CABLE TRENCH

The personals employed by the contractor shall also keep the Cable Trenches neat and clean free from any dirt and other materials, regularly.

8) MAINTENANCE OF CONTROL & RELAY PANELS.

The contractor shall meticulously maintain the Control & Relay Panel with respect to annunciations, Semaphore Indicators and Mimic Diagram as well as Indicating Lamps, Hooters etc. The Control & Relay Panel shall also be kept neat and clean outside and inside. The Heater and lighting arrangements etc., within the Control / Relay cubical will always be maintained in good condition. The Contractor shall ensure the Vermin Proofing of the Control / Relay cubical / 11 KV Bus all the time and any material required for Vermin proofing and minor gasket changing etc., shall be arranged by the Contractor at his cost.

9) EARTHING

The earthing system of the Substation in general and that of Panels, Transformer equipments, L.As/Breakers etc., in particular shall be always kept activated. The Transformer Neutral end earthings shall be meticulously maintained. The earthing resistance (Meter shall be provided by Contractor as approved by EIC of GETCO) shall be measured at an interval of **06 Months** and record of the same shall be maintained. Preferably, earthing resistance measurements shall be carried out in presence of the authorized representative of GETCO. Earth resistance of individual pit should be less than 1 Ohm.

10) BATTERY & BATTERY CHARGER (STATION PLCC & VHF BATTERY &BATTERY CHARGER.

a) Batteries of the Substation shall be always kept in healthy condition by periodical maintenance. The battery shall be maintained as per the standard practice as well as the Maintenance Manual provided by the Original Equipment Manufacturer (OEM). The details of the Battery condition shall be recorded in the specific Register on day-to-day basis.
b) Battery Charger shall also be maintained meticulously and its function shall be checked weekly by draining the batteries. The Battery Charger shall be maintained as per the standard practice as well as the Maintenance Manual provided by the Original Equipment Manufacturer (OEM). The D.C. supply available from the Chargers shall be monitored regularly and its record shall be maintained.
c) Topping up in this cell if required (Distill Water / Solution) same will be in the scope of contractor.

11) LT PANEL BOARD

The L.T Panel Board shall be maintained regularly and any defects observed with regards to its contacts, overheating of any part etc., shall be attended immediately by contractor at his own cost including replacement of MCBs.

12) 11KV BUS & CAPACITOR BANKS.

The maintenance of 11KV Bus & capacitor Banks should be done as per the standard practice and in case of failure of any capacitor cell, it should be reported to the EIC by the Contractor.

13) FIRE PROTECTION SYSTEM

All the personnel employed by the Contractor shall get themselves acquainted with the Fire Protection System & Fire extinguishers and operation of the equipments provided in the Substation premises, so that in case of emergency they can promptly use them. Mock Fire Drill shall be carried out once in every **three** months for fire preparedness in presence of all the personals and supervisor. Fire extinguishers will be provided by GETCO. Contractor shall ensure that all the fire buckets are filled with sand and hanging at appropriate fire stand.

14) YARD LIGHTING / CONTROL ROOM LIGHTING:

Yard & Control Room should be properly illuminated & to be maintained regularly.

(D) Check list for Operation:

1. OPERATIONS:

- Hourly:
  - Taking Readings of all meters installed at control panel.
  - Air and Gas pressures of Gas circuit breakers.

- Oil & winding temperatures of Transformers.
- Checking any sparking or flash over in the substation.
- Taking readings of Battery Charger Voltages & Amp. Loading.
- All the activities as per standard practice of GETCO.

➢ Daily / Each shift:
- Checking of cooling system of Transformers. i.e. running of fans and pumps of transformer on auto & manual mode.
- Checking of the operations of compressors of circuit breaker.
- Taking readings of surge arrestor counters of lightning Arrestors.
- Checking contacts of isolators are in proper position or not.
- Checking of oil levels of all bushings, main & OLTC Conservator, CTs and PTs etc.
- Checking of air / gas / oil leakages if any for circuit breakers.
- Checking of condition of silica gel.
- Checking of battery set terminal voltage, voltage & specific gravity of pilot cell.
- Cleaning of Premises, Battery room, control relay panels etc.
- Maintaining log books & daily check list.
- Issuing line clear to the authorized person as per GETCO's norms.
- Obey the instructions of LDC/ALDC/GETCO for load shedding.
- Calculation of maximum and minimum voltage/load/current/Percentage s/s losses etc. as per GETCO's standard practice and record in register & log-sheet.
- Draining of the air / moisture from air conservators of circuit breakers.
- Checking of Yard and control room lighting.
- All the activities as per standard practice of GETCO.

➢ Weekly:
- Checking of oil level of compressors oil of circuit breakers.
- Checking of specific gravity and cell voltage of each Battery cell of Battery set.
- Watering to the earth pits if necessary.
- All the activities as per standard practice of GETCO.

➢ Monthly:
- Checking Auto / Manual operations of OLTC.
- Check earthing points & their contact, Tighten wherever required.
- Preparation of monthly checklist and events log for the month.
- All the activities as per standard practice of GETCO.

➢ Events:
- Logging auto / manual operations of OLTC.
- Logging the break down events with relay indications etc.
- Logging shut down events, log of operations during shut down period.
- Maintaining visitors registers along with their comments & details of their visits.

(E) Check list for Maintenance:

Transformers:

➢ Hourly:
- Check oil & winding temperature, check for abnormalities.

➢ Daily:

- Check oil levels of bushings, OLTC & Main conservators. Check for abnormalities.
- Check cooling system of transformer. i.e. running of fans and pumps of transformer on auto & manual mode.
- Check condition of silica gel. Recondition if found pink in colour.

➢ Weekly:
- Draining the air / moisture from air reservoirs.
- Check the oil of compressor oil.

➢ Half Yearly:

- Cleaning of all the bushings & inspection there of.
- Checking of Horn gap distance & its tightness.
- External cleaning of radiators
- Checking of auto staring of cooler pump/fans.
- Earth resistance measurement.
- Checking of marshaling box

➢ Yearly:

- Routine Oil testing as per IS 1866
- DGA through NABL accredited Lab approved by Govt.
- Low Voltage testing including winding resistance.
- Tan delta & capacitance measurement of winding & bushings
- IR/PI value of transformer.
- Maintenance of OLTC driving mechanism & operational check.
- Checking of transformer trouble operating devices i.e Buchholz relay/PRV/OTI/WTI etc.

Over and above all the activities to be carried out as per standard practice of GETCO.

Circuit Breaker (Out Door):

➢ **Daily**
- Drainage of moisture from Air reservoir.

➢ **Half Yearly**
- Cleaning of circuit breaker body & bushings & visual inspection there of. Touch up painting on metal part wherever required.
- Check tightness of clamps/connectors/bolts & Nuts.
- Check working of heater in MK box /control cubicles/panels.
- Check working of operating mechanism including oiling/greasing as recommended by OEM/ as per requirement.
- Complete maintenance of Air compressor i.e
  - ❖ maintenance of motor & starter
  - ❖ measuring & recording of motor current
  - ❖ Check Air pressure switch settings
  - ❖ Check oil level, oil quality & replace if required or replaced as OEM recommended
  - ❖ Check Air filter & replaced if required or replaced as OEM recommended.
  - ❖ Check V belt tension
- Insulation Resistance measurement test & comparison with past history.
  - ❖ Breaker in open condition: Top-Earth, Bottom-earth, Top-bottom
  - ❖ Breaker in close condition: Top/Bottom-Earth
- Arresting air leakages.
- Check the settings of air and gas pressure switches.

➢ **Yearly:**
- Check of MK box,Panels,Control cubicles includes
  - ❖ Cleaning,
  - ❖ Vermin proofing/sealing.

- ❖ Check rusting/painting
- ❖ Check tightness/cleaning of contact area of control cable.

- Check structure/equipment earthing
- Check foundation condition
- Check SF6 Gas low pressure alarm, Lock out setting & verification of indication/annunciation
- Check oil level & oil condition i.e measurement of DS (dielectric strength) value of oil with 2.5mm gap in oil circuit breaker
- Check & lubricate the operating mechanisum
- Logic checks of operation of circuit breakers i.e
  - ❖ Tripping through each protection, verify annunciation & indication
  - ❖ CB operation by TNC switch.
  - ❖ CB operating by emergency trip
  - ❖ Indication checks i.e trip Ckt. Healthy, SF6 Gas/Air pressure Normal etc.
  - ❖ Annunciation checks i.e trip ckt. Faulty, DC faulty, breaker lock out etc.
- Checking the ON / OFF Timings of circuit breaker poles and measurement of travels of each pole at 66 KV side.
- Measurement of static contact resistance
- Checking of pole discrepancy relay & timer.
- Checking of close & trip coils current.

Over and above all the activities to be carried out as per standard practice of GETCO.

Circuit Breaker (In Door):

Please do not violate any Safety guide lines

Hourly:

- DC health check
- Checking of PT voltage availability
- Checking of DC leakage.

Daily:

- Checking of vermin proofing.
- Cleaning the panels relays, covers blowing dust from outside.
- Checking the working of indicating lights, annunciation system, bell, buzzer & hooter etc.

Weekly:

- Visual inspection of mechanism & its operation for any looseness (This activity shall be performed during feeder under LCP of load shedding. No separate/special outage is to be taken for such activity)

Half Yearly:

- Insulation Resistance measurement test & comparison with past history.
  - ❖ Breaker in open condition: Top-Earth, Bottom-earth, Top-bottom
  - ❖ Breaker in close condition: Top/Bottom-Earth
- Checking of heater working condition.
- IR value of bus & comparison with past history & corrective actions there of.
- Breaker's tripping test through relay.
- Checking of breaker interlock & shutter operation

Yearly:

- Check Panel earthing.
- High voltage test in case of VCB.
- Checking of trip/close coil current.

Over and above all the activities to be carried out as per standard practice of GETCO.

Current & Potential Transformers:

- Monthly:
  - Checking of bellow expansion.

- Half yearly:
  - Visual inspection/ cleaning of porcelain parts & metallic parts.Touch up painting on metal part wherever required.
  - Check tightness of clamps/connectors/bolts & Nuts.
  - Check of oil level & leakage including visibility of oil level indicator.
  - Check condition of bellow i.e
    - Check operation of bellow
    - Check oil leakage of bellow
    - Check working of heater in MK box.
  - Earth resistance
  - Checking of Marshaling box

- Yearly:
  - Check of MK box,Panels,Control cubicles includes
    - Cleaning,
    - Vermin proofing/sealing.
    - Check rusting/touch up painting wherever required**.**
    - Check tightness/cleaning of contact area of control cable.
  - Check secondary terminal connection with due care.
  - Check structure/equipment earthing
  - Check foundation condition
  - Insulation Resistance measurement test & comparison with past history.
    - Primary-Earth
    - Secondary-Earth
  - Measurement of Tan delta & capacitance

Over and above all the activities to be carried out as per standard practice of GETCO.

Lightning Arresters :

- **Daily:**
  - Checking the readings of surge arrestor counters.

- **Half Yearly:**
  - Visual inspection/Cleaning of Lightning Arresters body & porcelain part,
  - Tightening of nuts and bolts.
  - Checking of surge arrestor leakage current meter in green zone.
  - Checking of earth connection between surge arrestor, surge monitor & earth.

- **Yearly:**
  - Measurement of LCM
  - Check structure/equipment earthing
  - Check foundation condition

Over and above all the activities to be carried out as per standard practice of GETCO.

- **Control & Relay Panels:**

  - Daily:

    - Cleaning the panels, relay covers Blowing dust from **outer** side of panels and 11 KV breakers.
    - Checking the working of indicating lights, annunciation lights, bell, buzzers and hooters,
    - Checking fuses.

- Yearly:

  - Testing of all relays as per manufacturer's recommendations.
  - Taking alarm and tripping trials of all equipments.
  - Functional checks of all control circuits by primary injection.
  - Earth resistance Measurement.
  - Checking of DC logic circuit for trip/close function.
  - Check rusting/touch up painting wherever required

Over and above all the activities to be carried out as per standard practice of GETCO.

❖ **Battery sets:**

- Daily:

  - Cleaning of all cells, checking battery contacts.
  - Checking voltage & specific gravity of pilot cell of Battery set.

- Weekly:

  - Checking specific gravity & cell voltage of all cells of Battery set and correcting wherever necessary. Cleaning & applying petroleum jelly to all connecting points.
  - Tightening nut bolts of each cell.
  - Draining the battery up to 25 % of the rated value and then boost charging.

Over and above all the activities to be carried out as per standard practice of GETCO.

❖ **Earthing System:**

- Monthly:
  - Check earthing & points & their contact, Tighten wherever required.
  - Watering of earth pits if necessary.

- Yearly:
  - Check earth resistance of grid and individual earth pits.

❖ **General Maintenance:**

- Daily:
  - Cleaning of Premises, Control room, Grass cutting etc.
  - Checking of Yard and control room lighting, replacement of materials like fixtures fittings and lamps etc. –As & when required but within 2 days of defect.

- Yearly:
  - Tightening nut bolts of Structures, Bus bar connections, Hard wares, Earth wires etc.
  - Cleaning of Insulator Discs, Bus post insulators etc.

Note: Over and above check list, the contractor has to refer Annexure-A (Scope of work for substation Equipment maintenance)

LIST - I

MANDATORY TOOLS & TACKLES TO BE KEPT AT SUBSTATION END BY THE CONTRACTOR

- Set of Discharge rods. Minimum 6 Nos**.** of Discharge rods with adequate capacity of earthing wire.
- Tester for electrical supply checking.
- Complete set of all sizes of double ended, Ring, Tubular & box spanners, hammer, hack saw, pipe wrench, high speed blade, pliers set – 1 Sets
- Contractor shall arrange crane / derrick or any other lifting tool for replacement of equipment in the substation as per tender specifications.
- Complete set of all sizes of screw drives – 1 Sets.
- Minimum 3 sets of heavy duty insulated hand gloves suitable for working voltage of 33 KV system or above as per IEC 60903
- 6 Nos. of Helmets, 3 Nos. of Safety Belts as per approved IS/IEC
- 2 Nos. of heavy duty dry cell or rechargeable (without acid) torches.
- 3 Nos. of Rain coats & 3 sets of Gum boots.
- 1 No. of first aid box with required medicines.
- Any other Tools / Instruments required for safe O&M of substation, but not listed above.
- 1 Bundle of 20 mm and 1 Bundle of 10 mm polypropylene rope. for 04 nos. of substation for regular bidder / 05 nos. of substation for new bidder.

LIST - II

MANDATORY SPARES TO BE KEPT AT SUBSTATION END BY THE CONTRACTOR:

- Contactors / Control wire/ Ferrule / Lugs.
- ON / OFF switches as per requirement
- Minimum 20 Nos. Nut bolts, washers of each size used in substation.
- Minimum 02 Nos. Panel Bulbs of each ratings/size/colour used in substation.
- Minimum 05 Nos. HRC fuses of each ratings used in substation.
- Min 02 Nos LED Bulbs, 02 Nos portable Tube lights, HPSV or HPMV (as required) etc.
- Lighting material for yard, CR and in S/S premises
- LT fuses & Switches.
- Small gaskets & gaskets for CT/ PT.
- Battery charger **minor** spares.
- Different size / type of terminals.
- Glass & steel Bottle for taking Oil sample **(as & when required).**
- At least 2 Nos. of each closing & Tripping coils of all types of circuit breakers.
- Sets of clamp Connectors.

LIST – III

MANDATORY CONSUMABLES TO BE KEPT AT SUBSTATION END BY THE CONTRACTOR:

- Minimum 1Kgs. of Petroleum jelly and 5Kgs. of Silica gel.
- Thinner/ paint/ brush/wire brush
- Door rubber ring.
- Lubricating oil / Compressor oil
- Minimum 50 Ltrs. of Distilled water.
- Minimum 1 Ltr. of Battery acid.
- Minimum 5 Nos. of Bottles of Cleaning agents.
- M seal epoxy compound, sealing compounds, paint, red oxide, etc.
- Hardware (GI & Cadmium passivated), control copper wires, Various types of clamps & connectors.
- Fuses, Fuse wire, insulation tape, emery paper, HT Tape, indication lamp, Luminary lamps (i.e. HPSV / HPMV), Florescent Tubes etc.
- Coke, salt, cotton waste, waste cloth cleaning agents viz. soap, detergent powder etc.
- Registers, stationary, Blank CDs etc. require for operation & maintenance work.
- Providing & fixing of **11 KV / 22 KV** XLPE power cable termination kits of all required sizes shall be carried out by the contractor as and when require during failure.

Following consumables are to be provided by contractor at substation as & when required

- HSD for DG set if required.

LIST: IV

MANDATORY EQUIPMENTS/INSTRUMENTS TO BE KEPT AT SUBSTATION END BY THE CONTRACTOR:

- IR tester (5 KV). (**as & when required)**
- Multi meter
- Hydrometer **(02 Nos.)** to check specific gravity of battery sets.
- Thermometer **(02 Nos.)**
- Live line Voltage detector as per GETCO specification
- Bio Metric Attendance Machine with either fingertip or retina.
- Arc suit as per GETCO specification
- Telescopic Aluminium Ladder

Following EQUIPMENTS/INSTRUMENTS are to be provided by contractor at substation as & when required

- Thermovison camera with group of sub-stations not more than 5 nos.
- Tan- delta testing kit
- Contact resistance kit.
- Breaker time testing kit (Circuit Breaker Analyzer).
- DCRM (Dynamic contact Resistance kit)
- Oil testing kit for BDV & PPM.
- Earth resistance tester
- Relay testing kit
- Vacuum Interrupter Tester.
- Turn Ratio Kit
- Winding resistance Kit
- Transformer testing kit

Note: Other testing kits not specifically covered above for carrying out maintenance as per specified schedule in the specification may be tied up by bidder with external expert agencies.

GUJARAT ENERGY TRANSMISSION CORPORATION LIMITED

GUJARAT ENERGY TRANSMISSION CORPORATION LIMITED
SARDAR PATEL VIDYUT BHAVAN
RACE COURSE, VADODARA - 390 007

OPERATION AND MAINTENANCE CONTRACT

FOR 66 KV SUBSTATIONS

TENDER SPECIFICATION

NO. ACE(P&C)/Contracts/E-516/SS/66KV O&M

PART – III

Price Schedule

SCHEDULE – III

PRICE – SCHEDULE(For Regular/New Bidder)

BIDDING DOCUMENTS FOR

Tender NO. ACE(P&C)/Contracts/E-516/SS/66KV O&M

For Operation and Maintenance of 66KV Class Sub-stations for a period of three years

Sr. No.	Particulars	Qty	Unit Rate/ Sub-station/ Year (Rs.) without tax	Total Amount / three year per one (1) substation (in Rs.) without tax
1	The Operation & Maintenance of 66 KV Sub Station on contract basis as per the scope of work for a period of three (3) years. (SAC Code: 9987)	545 Nos.	21,14,372.01	63,43,116.03
2	Testing of Sub-station equipments with testing kit of contractor at 66 KV sub-station as per Annexure-C (SAC Code: 9983)	545 Nos.	1,51,642.58	4,54,927.74
3	Total Amount (1+2)	545 Nos.	22,66,014.59	67,98,043.77
4	GST @**18.00 %** on item (3) above		4,07,882.63	12,23,647.88
5	Total amount with GST (3+4)		**26,73,897.22**	**80,21,691.66**
6	Total tender Amount for three year with GST (sr. no.5 X 545)		**145,72,73,984.9**	**4,37,18,21,954.05**

(Rupees In words **Rs. Four Hundred Thirty-Seven Crores Eighteen Lakhs Twenty-One Thousand Nine Hundred Fifty-Four and Paise Five only**)

I am /we are willing to carry out the work stated above at (in fig) ---------- % (in words) ---------- ---------- percentage BELOW/ABOVE the estimated cost for _____ **Nos. of substations**. The amount of tender works out with above percentage is Rs. ---------- (in Figures) ---------- (in words), which is inclusive of all taxes & duties.

I am/we are to confirm that our above quoted rates are Percentage Basis with Variable Price. & inclusive of all taxes including GST as stipulated in Tender specification.

Signature of Authorized representative
Company/Agency
Name: _____ Status: _____
Name of Tendering Company: _____

Note: The price bid is not to be submitted with the physical documents and No document with Price schedule to be attached

ANNEXURE: A

SCOPE OF WORK FOR SUB-STATION EQUIPMENTS MAINTENANCE

SR. NO.	EQUIPMENT	PAGE
1.	TRANSFORMER **&** REACTOR	110-115
2.	CIRCUIT BREAKER	116-118
3.	CURRENT TRANSFORMER	119-120
4.	POTENTIAL TRANSFORMER / C.V.T. / COUPLING CAPACITOR	121-122
5.	ISOLATOR	123-124
6	EARTH SWITCH	125
7.	LIGHTINING ARRESTOR	126
8.	WAVE TRAP	126
9.	BATTERY & CHARGER	127-129
10.	FIRE PROTECTION SYSTEM	129-131
11.	D.G. SET	131-132
12.	L.T. PANEL, L.T. SWITCH GEAR & L.T. TRANSFORMER	132-133
13.	STATION EARTHING SYSTEM & BUS BAR	133
14.	GENERAL	134
15.	PROTECTION SYSTEM	134-137
16.	THERMOVISION SCANNING OF SWITCH YARD	137-139

1. TRANSFORMER & REACTOR

SR. NO.	CHECK LIST	SCOPE OF WORK	MATERIALS / METERS / EQUIP. REQUIRED	PERIODICITY
1.	Checking of bushing Oil level	Bushing oil level of all bushing to be checked through visual inspection, if found below mark or observed change in colour, same to be note down in a maintenance register	--	**Daily** without shutdown.
2.	Checking of oil level in conservator	Main conservator oil level to be visually checked at oil level glass indicator as well as at M.O.G. The oil level indicated should be recorded along with oil temperature. If oil level found above or below normal level, it may be necessary to add or remove some oil. (At an oil temperature of 45° the conservator should be half filled).	--	**Daily** without shutdown
3.	Checking of oil level of OLTC conservator	O.L.T.C. conservator oil level should be visually checked from oil level indicator. If level found low or high, it may necessary to add or remove the oil.	--	**Daily** without shutdown
4.	Checking of oil leakage and general body inspection	All joints both welded & with gaskets must be checked for any sign of oil leakage. All valves, all radiator valves, radiator caps, windows, oil level glass, M.O.G. fitting and all radiators are to be thoroughly inspected for any sign of oil leakage. If a leakage is suspected on gasket, the joint must be tightened to stop/minimize leakage and the same shall be noted in the register. If leakage is at welded joint, then same shall be informed to the concerned EIC immediately. The external transformer surface shall be inspected thoroughly for any kind of rust and	1. Required size of spanners 2. Marker pen or any other permanent marking devices. 3. Steel wire brush/emery paper no 100,150,180 & 320 4. General purpose thinner 5. Synthetic enamel paint of approved shad (IS:2932) 6. Zinc chromate primer (IS:104) 7. Paint brush. All items are to be arranged by contractor.	On a regular basis without shut down OR As and when required.

		should be attended by applying primer and finish paints		
6.	Checking condition of silica-gel in breathers	Visual inspection of all breathers silica gel & its colour should be blue. If silica gel becomes saturated and turns pink in colour, it shall be replaced. The silica gel inside the breather generally becomes pink from bottom to top over a period of time. Any de-colorization at top or at sides, indicate leakage in container and need to be attended immediately.	1. Silica gel of proper size 2. Breather (container only) of required size Material will be arranged by Contractor.	On a regular basis without shutdown OR As and when required.
7.	Checking of oil level in oil seal of breather	Check that oil level is correct in oil cup at the breather base and fill oil if the level found low.	Oil will be arranged by GETCO.	On a regular basis without shutdown OR As and when required.

- **HALF YEARLY AND YEARLY**

SR. NO.	CHECK LIST	SCOPE OF WORK	MATERIALS / METERS / EQUIP. REQUIRED	REMARKS
1.	Cleaning of all bushings & its inspection thereof, checking of horn gap distance & its tightness.	The insulators of all transformer bushings shall be cleaned to remove salt and dirt / dust deposition. All insulators should be thoroughly checked for any crack or decolourization of surface. If any abnormality observed, same shall be informed to the EIC immediately and got attended. Intactness of the horn gap rods and its distance to be checked & if required same to be adjusted as per the commissioning manual.	1, Cotton waste Material to be arranged by contractor.	Half Yearly shutdown & As and When Required.
2.	External cleaning of radiators	All radiators are to be cleaned of dust, insects and other air borne impurities, possible rust damages are to be removed and the surface treatment to be restored to original state as applied for main tank.	As listed for main tank Sr.no. 4 to be mentioned	Half Yearly shutdown

3.	Maintenance of OLTC driving mechanism & operational check.	Check manual operation of the tap changer, up and down the full range and ensure mechanical locking. - Check electrical interlock while the handle is inserted. - Continuity check should be done for any discontinuity during tap changing operation.		Yearly Shutdown
4.	Checking of transformer trouble operating devices i.e. Operations & Indications **(i) Buchholz relay by oil draining** (ii)O.T.I. & W.T.I. (iii)Pressure relief device	Close both the valves, provided for Buchholz, drain the oil from Buchholz slowly by loosening the drain plug, observe alarm first and tripping next with indication at facia. Tighten the drain plug, open the conservator side valve first, drain air from the Buchholz then open the main tank side valve for making the Buchholz normal. Ensure alarm & trip relay has been reset. If it does not reset, then attend the Buchholz relay. Replacement of terminal cover gasket, tightening & cleaning of the studs. Cleaning of the oil glass externally. Checking of O.T.I. & W.T.I. for alarm & tripping with indications at set temperature. If deviation is there, same should be got rectified. Check for electrical tripping operation by manual method and confirming of indication at panel. Cleaning & tightening of the connection & terminal cover.	Terminal cover gasket is to be arranged by contractor.	Yearly shutdown
5.	Checking of marshalling box	- Complete cleaning of marshalling box - Tightening of all terminals - Checking of S/W & contactors - Checking of space heaters - Vermin proofing	Required material is to be arranged by contractor.	Half yearly without shutdown

		- Checking of door rubber ribbon if found broken, same should be replaced. - Cleaning of glass - Checking of M.K. box earthing & confirm the connection with earth grid / earth pit.		
8.	**Earth resistance**	Measurement of earth resistance of neutral earth pit & transformer body earth pit by isolating the earth strips. The results shall be recorded in the register and if the resistance values are found to be high, then same shall be informed to the EIC immediately.	Earth resistance measuring kit – to be arranged by contractor.	Yearly shutdown

- **CONDITION BASED MAINTENANCE**

SR. NO.	CHECK LIST	SCOPE OF WORK	MATERIALS / METERS / EQUIP. REQUIRED	REMARKS
1.	B.D.V., P.P.M. & oil routine test of transformer as per IS:1866	Collection of oil sample from sampling valve in a standard oil sample bottle and same to be tested for Routine Tests in standard laboratory like, ERDA, C.P.R.I. etc and results shall be intimated to EIC immediately.	Routine oil test sample bottle, D.G. oil test sample bottle, etc. Material to be arranged by Contractor	Yearly without shutdown. Its record shall be available at control room
2.	Testing of oil for D.G.A	Collection of oil sample in a special D.G.A. sampling bottle with due care same should be tested in a standard govt. approved trans. Oil testing lab. After getting test results from lab it is to be compared with previous results as well as with first commissioning results. Any rising trend of FAULT GASES should be compared with ROGERS RATIO method of fault diagnosis.	D.G.A. sample bottle is to be arranged by contractor.	Yearly without shutdown Its record shall be available at control room
3.	Tan δ & capacitance measurement of bushing & main	All jumpers connected on the bushings are to be removed to have a proper isolation. Properly clean all the bushings. All safety precautions as	Tan delta kit will be arranged by contractor.	Yearly shut down

	windings (This test is avoided when relative humidity is in excess of 75%)	recommended by the manufacturer may be followed strictly. All combination for tanδ measurement of winding & bushing must be followed. Compare test results with earlier results and pre-commissioning test results required for trend analysis. The changes in Capacitance and tanδ values are caused by deterioration of insulation, contamination or physical damage. Same is to be inform to engineer in charge.		
4.	Measurement of winding resistance at all tap positions	- All windings (i.e. H.V., L.V. & tertiary) resistance to be measured at all taps (on tapping side) with winding resistance kit - Ambient temp & winding temperature to be noted down. Results obtained are to be compared with previous one as well as with factory test results. Any abnormalities reveal loose connection, high contact resistance, dry brazing, broken strands. Same to be conveyed to engineer in charge.	Winding resistance kit To be arranged by contractor.	Yearly shutdown
6.	All low voltage routine tests (a) Magnetic balance test	This test is conducted in three phase transformer to check the imbalance in the magnetic circuit. No winding terminal should be grounded; zero voltage or very negligible voltage induced in any winding should be investigated. This test should be carried out before winding resistance measurement.	- Low Voltage Test Kit - Class 0.5, Voltmeter, Ammeter - Turns Ratio Meter - Clip on Meter etc. To be arranged by contractor.	Yearly shutdown

	(b) Magnetizing current measurement	This test is to be conducted for H.V., L.V. & I.V. by applying low voltage at respective winding. Supply voltage must be noted without fail. Results are compared with previous results as well as factory test results. Any rise in magnetizing current reveal defect in magnetic core structure, failure in turn to turn insulation, shifting of winding or problems in tap changers, provided that turns ratio, winding resistance & impedance tests are normal. In such abnormality re-energizing is not permitted till the cause of abnormality found & its rectification be done.		
	(c) Turns ratio test	This test is to be carried out at all taps for all phases with the help of standard make turns ratio meter. Results are compared with the standard turns ratio it should be with in limit as per IS 2026.		
	(d) Impedance measurement test (Short circuit test)	This test is to be carried out at all taps and primary side and secondary side current for each phase be measured & recorded in variably. Any marginal deviation in phase current as well as current observed in neutral will show dry brazing, O.L.T.C. problem, loose connection etc. In such cases re-energizing is not permitted till the cause is traced out & the rectification of the same is done. To detect any winding movement. To detect Polar impurities in insulation condition. To check aging of paper.		

2. CIRCUIT BREAKER

SR. NO.	CHECK LIST	SCOPE OF WORK	MATERIALS / METERS / EQUIP. REQUIRED	REMARKS
1.	Cleaning of breaker interrupter support insulator, etc.	The insulators of circuit breaker, support insulators, are to be cleaned from salt and dirt/dust deposition. Close inspection of insulators, defects like cracks developed etc.. If any abnormality is observed, shall be conveyed to Engineer in charge.	Cotton waste etc. to be arranged by contractor	Half yearly shutdown
2.	Checking of C.B. operating time, including pre-insertion timing. (a) Closing time (b) Tripping time (c) 'C-O' timing:	C.B. operating time to be measured by Breaker Timing Kit. Operating time shall be measured for trip coil 1 &2. Note down the same. The timing for 'C-O', 'O-C' & O-C-O by giving respective command & note down the same. Any abnormality noticed, shall be conveyed to Engineer In charge immediately.	Circuit Breaker timing kit and associated accessories to be arranged by contractor.	Yearly shut down
3.	Measurement of Static contact resistance	C.B. should be in close position and isolators on both side of CB should be in open position. The ohm meter operates on the four wire measurement principal and having minimum 100A DC capacity. If the value obtained exceed permissible limit i.e. 150 $\mu\Omega$, the problem of high contact resistance should be brought to the notice of Engineer in charge immediately.	Static Resistance Measurement Meter of 100A DC with associated accessories. To be arranged by contractor.	Yearly shutdown
4.	Pneumatic operating system			Yearly shutdown

	lockout & its allied equipments (a) Compressor start/Stop switch : (b)C.B. closing lock out: Checking of air compressor	 Check the auto operation of air compressor by closing the isolating valve of C.B. Release air into atmosphere. Note down the value of pressure at which compressor starts building up air pressure and pressure at which compressor stops. Release air from the isolated zone to atmosphere. Note down pressure at which C.B. closing Lockout contacts of pressure switch get actuated. If any deviation is observed in pressure switch setting, it is to be set accordingly as per the pressure shown in the C.B. manual. Checking of air compressor oil level, quality of oil, air filter, V-belt tension etc. and to be replaced if required.	All required spares/ consumables for the job will be arranged by contractor.	
5.	Checking of healthiness of operating counter	Check the operating counter operation by physically tripped the breaker.		Yearly shutdown
6.	Checking tightness of foundation bolts	Check that all foundation bolts are in tight position by applying appropriate size of spanner to each bolt.		Yearly shutdown
7.	Check structure earthing healthiness	Ensure secured joint & earthing strip at structure and with earth pit any looseness be attended.		Half yearly shutdown
8.	SF6 gas monitoring	SF6 gas monitoring shall be carried out on a regular basis as per OEM guidelines, if SF6 gas volume is found less than prescribed value, EIC shall be informed immediately.	--	On a regular basis OR As and when required

9.	Checking of control cabinet	(a) Checking of tightness of all cable terminations in Marshalling box. (b) Checking of door sealing gaskets and replacement if necessary. (c) Repainting of metallic surface if needed, (d) check intactness of earthing (e) Checking of space heater (before monsoon) (f) Lubrication of moving parts (Spring charge mechanism etc.)as per OEM manual (g) Cleaning and vermin proofing of control cabinet. (h) Checking of gas pressure low alarm, breaker lockout annunciation by shorting corresponding contacts	Required material for replacement is to be arranged by contractor.	Half yearly without shutdown
10.	Insulation resistance measurement	Measure I.R. value with 5 kV megger between Breaker terminals (phase wise) keeping breaker in "OFF" condition & between breaker terminals to Earth keeping breaker in "ON" condition, Note down the ambient Temp., record above results. If any change in IR value be informed to Engineer in charge.	5KV Megger of good quality is to be arranged by contractor.	**yearly with shutdown**

3. CURRENT TRANSFORMER

SR. NO.	CHECK LIST	SCOPE OF WORK	MATERIALS / METERS / EQUIP. REQUIRED	REMARKS
1.	Cleaning of insulator & visual inspection of C.T. condition of top cover & tank	Clean the external surface of insulators, tanks & top cover thoroughly, Check for any oil leakage and for hair crack & rusting. If found same to be intimated to EIC immediately.	--	Half yearly with shutdown
2.	Checking of bellow expansion	Check for the bellow expansion on movement through level glass. Bellow expansion if noticed, shall be brought to the notice of the Engineer in charge immediately.	--	On a regular basis without shutdown OR As and when required
3.	Checking of oil leakage in terminal box & tightening work	Open out the secondary terminal cover and observe for any oil leakage, clean the same, tight all studs & vermin proofing.		Half yearly with shutdown
4.	Insulation resistance measurement	Measure I.R. value with 5 kv megger between Primary to Earth, Primary to Secondary. Note down the ambient Temp., record above results. If any change in IR value be same shall be brought to the notice of the Engineer in charge immediately.	Megger (Insulation resistance tester) of good quality is to be arranged by contractor.	**yearly with shutdown**
5.	Capacitance & Tanδ measurement	C.T. terminal jumper to be disconnected, Measurement is to be carried out at 02 kV to 10 kV level with highest sensitivity level. Test tap should be disconnected from the ground before measurement and to be grounded after measurement. As CTS are in high induction area, testing instrument should be able to suppress the interference.	Capacitance and Tanδ measurement kit with accessories to be arranged by contractor.	Yearly with shutdown

		Tanδ value in no case should exceed the permissible value. Change in capacitance value can be within +10%, -5% of original value An increase in only Tanδ indicate of deterioration of cellulose insulation whereas increase in both tanδ and capacitance value indicate entry of moisture in the insulation. Same is analysed & reported to the s/s in charge.		
6.	C.T. earthing	Check intactness of earthing joints at both the ends and tighten the same.		**Yearly with shutdown**
7.	Marshalling box	(a) Checking, tightening & cleaning of all terminals. (b) Checking of healthiness of gasket if needed replace the same. (c) Checking of space heater & illumination (d) Cleaning & marshalling box & junction box. (e) Vermin proofing (f) Checking of star point earthing and M.K. Box earthing arrangement with grid.	All required materials of good quality is to be arranged by contractor.	Half yearly with shutdown

4. POTENTIAL TRANSFORMER / C.V.T. / COUPLING CAPACITOR

SR. NO.	CHECK LIST	SCOPE OF WORK	MATERIALS / METERS / EQUIP. REQUIRED	REMARKS
1.	Checking of crack, rusting of metallic parts, checking for crack in connecting joints.	Cleaning of all insulator stacks & metallic parts .Check thoroughly for any crack in insulator and rusting of metallic part; same to be recorded and intimated to EIC.	All required materials to be arranged by the contractor	Half yearly Shutdown
2.	Checking of oil leakage in terminal box & tightening the same.	Clean the terminal cover, check for any sign of oil leakage, and tighten the connections.		Half yearly Shutdown
3.	Insulation resistance measurement	Measure I.R. value by 1 kV Insulation Tester between H.V. terminal to earth, note down the temperature & record the value obtained. Primary neutral end to Earth connection shall be opened before IR value measurement. Primary neutral to Earth connection shall be connected and ensured after IR value measurement	Megger is to be arranged by contractor.	Yearly shutdown
4.	Capacitance & Tanδ measurements	Measurement is to be carried out 2KV to 10KV test kit. PLCC earth connection is to be removed from HF point and earth connection to be removed from neutral points of EMU tank. Measurement has to be taken in UST mode standard procedure (As specified by kit supplier) for measuring capacitance and Tanδ in charged switchyard condition should be followed. Measurements are to be carried out in main &	Tan delta test kit will be arranged by Contractor.	Yearly shutdown

		reverse mode/polarity and average value to be computed.		
5.	Measurement of secondary voltage	To evaluate the healthiness of capacitive voltage transformer by measurement of secondary voltage w.r.t. other phase C.V.T. and also C.V.T. of same phase installed in other feeder. Any drift in secondary voltage of CVT has to be analyzed and action to be taken accordingly. Care should be taken during voltage measurement and measurement be carried out with precise volt meter only.	Precise digital volt meter. Same to be arranged by contractor.	**Yearly W/S**
6.	Checking of earthing	Check the intactness of earthing for main tank as well as for neutral end earthing.	-	**Yearly W/S**

5. DISCONNECTOR SWITCH (Isolator)

(A) Main contacts & assembly

SR. NO.	CHECKLIST	SCOPE OF WORK	MATERIALS / METERS / EQUIP. REQUIRED	Periodically
1.	Cleaning of support insulators &checking for crack	All support insulators are to be thoroughly cleaned and inspected for any damage or minor crack	Required cleaning materials to be arranged by contractor.	Half Yearly Shut down
2.	Checking of tightness of bolts, nuts & pins etc.	Check all the nut bolts & pins for tightness & if found corroded replace the same.	Required size of nut bolts, pins to be arranged by contractor.	Half Yearly Shut down
3.	Cleaning and lubrication of main contacts, pins, bearings	Clean all moving joints, main contacts, apply standard grade lubricating oil / grease to the moving joints & petroleum jelly to the main contacts.	Grease and oil be arranged by contractor.	Half Yearly Shut down
4.	Operation check of isolator &alignment	Check operational movement of vertical rod &horizontal rod by moving the operating handle. There should be an easy operation. Similarly check the main contacts alignment any mis- alignment be attended.	-	Half Yearly Shut down
5.	Main contact resistance measurement	Resistance measurement is to be done with four wire measuring principal, approximately 100A current flow through the contacts. The value of contact resistance is directly displayed on digital display screen.	Digital micro ohm meter of sufficient D.C. Source be arranged by contractor.	Yearly Shutdown
6.	Checking& interlock	Check & confirm in no case isolator should operate when earth switch is on.	-	Half Yearly Shut down
7.	Checking of earth connection of structure.	Check & confirm intactness of earth connection with structure with earth grid. Any nut bolts or earth bond found deteriorated, same shall be replaced.	Any earth bond required to be replaced – shall be arranged by contractor.	Half Yearly Shut down

(B) OPERATING MECHANISM OF ISOLATORS

SR. NO.	CHECKLIST	SCOPE OF WORK	MATERIALS / METERS / EQUIP. REQUIRED	REMARKS
1.	Checking & lubricating of linkages including transmission gear	Check all linkages as mechanism, tighten the same. Apply lubricating oil & grease as needed.	Oiling & grease be arranged by contractor.	Half Yearly Shut down
2.	Checking& tightening of stop bolt	Check the tightness & condition of stop bolt if required replace the same.	-	Half Yearly Shut down
3.	Cleaning of aux-switch contacts and greasing with silicon	Clean all aux-switch contacts, any contact found burnt same to be re terminated at available spare contact.	Cleaning solution etc. to be arranged by the Contractor.	Half Yearly Shut down
4.	Lubricating of operating mechanism hinges, lock joints on levers, bearing	Check dryness of operating mechanism and apply lubrication accordingly at hinges, lever and at bearings. Check for any play with bearing.	Necessary consumable is to be arranged by contractor.	Half Yearly Shut down
5.	Checking for all mounting bolts for tightness.	Check the condition of mounting bolts if found rusted, replace accordingly otherwise tighten all bolts.	Necessary bolts nuts to be arranged by Contractor.	Half Yearly Shut down
6.	Checking of healthiness of door gasket	Check the door gasket condition, if found deteriorated, replace the same.	Gasket to be arranged by contractor.	Half Yearly Shut down
7.	Checking& tightening of electrical connection	All electrical connection are required to be cleaned and checked for proper tightness.	-	Half Yearly Shut down
8.	Checking of earth connection of box	Check intactness of earth connection of box with earth grid. If found loose or deteriorated, attend the same.	-	Half Yearly Shut down

9.	Electrical operation through motors	Operation to be ensured wherever available.	Contactor, fuse, switch etc. to be arranged by contractor. It should be in working condition.	Half Yearly Shut down

6. EARTH SWITCH

SR. NO.	CHECKLIST	SCOPE OF WORK	MATERIALS / METERS / EQUIP. REQUIRED	REMARKS
1.	Checking and alignment of earthing blade	Check & confirm of perfect alignment of earth blade by physical operation. Any misalignment shall be rectified.	-	Half Yearly Shut down
2.	Checking of tightness of bolts, nuts and pins etc.& lubrication of pins &bearing	Check all nut bolts, pins for tightness by applying proper size of spanner. Apply lubrication on each hinge points & grease at bearing places	Necessary consumable is to be arranged by contractor.	Half Yearly Shut down
3.	Cleaning & contacts & lubrication	Clean thoroughly the earth blade contacts and apply petroleum jelly.	Necessary consumable is to be arranged by contractor.	Half Yearly Shut down
4.	Checking of copper flexible connectors	Check tightness &condition of flexible copper bond, if found deteriorated replaced the same.	Flexible copper bond is to be arranged by Contractor.	Half Yearly Shut down
5.	Checking earth connections of earth switch structure & mechanism box	Thoroughly check the earth connection of earth switch& its structure, mechanism box, if any looseness or deterioration observed to be rectified accordingly.	-	Half Yearly Shut down
6.	Operation of earthswitch	Check operation of earth switch ensure that it makes contact firmly & easily. Also verify the interlock with respective isolators.	-	Half Yearly Shut down

7.	Contact resistance measurement	Measure the contact resistance of the earthswitch by a micro ohm meter if found high than check the jaw, spring tension and surface condition and take actionaccordingly.	Micro ohm meter is to be arranged by contractor.	**Yearly Shut down**

7. SURGE ARRESTORS

SR. NO.	CHECKLIST	OPE OF WORK	MATERIALS / METERS / EQUIP. REQUIRED	REMARKS
1.	Cleaning of insulator &external inspection	Clean the insulator thoroughly and inspect closely for any damage or crack.	-	Half Yearly Shut down
2.	Checking of earthconnection between surge arrestor, surge monitor and earth.	Check the tightness of earthconnection& its condition at all junction points.	-	**Yearly Shut down**
3.	Checking of leakage current	This is online testing. Measure the leakage current through leakage current measuring meter. Record the same, compare it with previous result as well as prescribed by the manufacturer. Abnormality if noticed, shall be informed to the engineer in charge.	Leakage current test kit for this job is to be arranged by Contractor.	**Yearly W/O Shut down**

8. WAVE TRAPS:

SR. NO.	CHECKLIST	SCOPE OF WORK	MATERIALS / METERS / EQUIP. REQUIRED	REMARKS
1.	General inspection & tightness & cleanliness	General visual inspection and check the tightness at both end. Clean the unit thoroughly. Particularly bird nest etc.. Any loose /deteriorated clamp, replace the same.	-	Half Yearly Shutdown

2.	Cleaning &post insulator (if provided)	Clean P.I and visual inspection for any crack		- do -
3.	Thermo vision scanning of joints	This is an on line scanning. It is recommended to inspect in max. load condition of the circuit. Note down the load and temperature of the joints with location.	Thermo vision camera tobe arranged by contractor.	**Half Yearly W/O Shutdown**

9. BATTERIES

1.	Cleaning complete batteries &visual inspection for any electrolyte leakage Condition of containers, top plate sealing, vents	Clean the complete battery set by cotton waste. Thoroughly check for any sign of electrolyte leakage. If observed, attend immediately. Abnormality like bulging of cells, cracks in container etc. shall be informed to engineer incharge	-	Weekly
2.	Measurement of specific gravity and voltage of cell and solution level check.	This measurement is tobe taken only after switching off the battery charger. Measure voltage of each cell by electronic voltmeter &specific gravity if cell voltage observed below 1.75V or specific gravity below 1.160 should be separate charging. Any low level of electrolyte cell topping is to be done with DM water. Abnormality like bulging of cells, cracks in container etc. shall be informed to engineer incharge	Measuring instrument& DM water is to be arranged by contractor. Broken / non-working vent plugs, level indicators shall be replaced by the contractor.	Weekly
3.	Discharge cycle for battery set	AC supply to battery charger shall be made off. After 15 minutes, voltages shall be measured and recorded for all battery cells. Battery-set voltages shall be monitored continuously. Hourly readings of batter-set voltages shall be recorded. If during the discharge cycle, battery set voltages drop below 100 Volts, Discharge cycle shall be stopped. Discharge cycle duration shall be kept around	Necessary instrument is to be arranged by contractor.	weekly

		6 hours. Thereafter, boost charging shall be given to the battery set, for required time period as per OEM manual.		
4.	Checking& tightening of cellto cell connections &applying of petroleum jelly.	Check all cellto cell connections & if needed tight the same. Apply petroleum jelly.	Petroleum jelly is tobe arranged by contractor.	Weekly
5.	Checking of battery cable connection	Check the battery cable connection at both end& tightening the same.	-	Half Yearly
5.	Checking of any earth fault.	Check & confirm any earth and earth fault detection system. Rectify the same immediately	-	As observed
6.	Battery impedance testing	Check the each cell for battery impedance any abnormal impedance if cell should be replaced.	Necessary instrument is to be arranged by contractor. Battery Cells shall be arranged by Contractor.	Yearly
7.	Discharge test of battery sets (Run down test)	This test is to be carried out as per recommendation of manufacturer. Strictly observe hourly cell reading. If any cell shows voltage below 1.75 V, immediately stop the discharge process. Replace the cell or by pass for further process. Finally confirm the AH capacity of the set. Similarly charging of the set is also to be perform with great care. Earlier bubbles and overheating of cell show defective cell same is required to be replaced.	**Spare Battery cell will be provided by GETCO.**	Yearly
8.	Exhaust Fan	Check working of exhaust fan.		Monthly

BATTERY CHARGER

SR. NO.	CHECKLIST	SCOPE OF WORK	MATERIALS / METERS / EQUIP. REQUIRED	REMARKS
1.	Cleaning &visual inspection, checking, tightening of electrical connection	First confirm the condition of associated battery set. Switch off the A.C. supply. Clean the charger, check for any looseness of connections &tighten the same.	All the material is to be arranged by contractor & in case of any fault in charger is to be rectified by Contractor.	Half Yearly
2.	Operation check & check of all indicating & measuring meters.	Check & confirm, float& boost section operation with auto-manual mode for constant voltage& constant current features. Simultaneously confirm the healthiness of respective indicating & measuring meters. Defective meter Shall be replaced confirm the parallel operation of both section.	Meters for replacement are to be provided by contractor.	Half Yearly
3.	Alarm check	Check complete alarm i.e. U/V, O/V single phasing, earth leakage		Half Yearly
4.	Check earthing of the charger	Check & confirm the healthiness &condition of earthing of charger		Half Yearly

1.	**AIR COMPRESSOR**	Cleaning/replacement of air filter	All required materials/consumable is to be arranged by contractor.	Half Yearly
2.		Checking of compressor oil and replace, if necessary		Half Yearly
3.		Cleaning of compressor valves, gaskets, valve plate, if found deteriorated, replace the same.		Half Yearly
4.		Operational check of oil level switch		Half Yearly
5.		Cleaning and checking for sealing of the breather valve.		Half Yearly
6.		Cleaning of NRV/HP tank		Half Yearly

10. FIREPROTECTION SYSTEM

1.	**FIREALARM SYSTEM**	Sequence tests for annunciation in control room panel	Required material is to be arranged by contractor.	Half Yearly
2.		Smoke test		Half Yearly
3.		Cleaning		Half Yearly
4.		Battery electrolyte checking& providing if necessary.		Weekly
1.	**DIESEL ENGINE**	Checking of auto starting of diesel engine	All required material is to be arranged by contractor.	Half Yearly
2.		Checking of oil level, top up if required		Half Yearly
3.		Checking/replacement of fuel oil/lub. Oil/ air filters		Half Yearly
1.	**JOCKY PUMP**	Check leakage and lubrication work	All required material is to be arranged by contractor.	Half Yearly
2.		Pump over hauling if needed		Half Yearly
1.	**V-BELT DRIVE**	Check the pulley bolts and tightness of belt	All required material is to be arranged by contractor.	Half Yearly
1.	**STRAINERS**	Cleaning of oil strainer	All required material is to be arranged by contractor.	Half Yearly
1.	**MOTORS**	General cleaning, foundation bolt checking, terminal cover cleaning & tightening of connection	All required material is to be arranged by contractor.	Half Yearly
1.	**PUMPS**	Checking of operation of hydrant pumps, sump pumps & jockey pump	All required material is to be arranged by contractor.	Half Yearly
2.		Adjustment of glands for leakages & tightening of nut-bolts		Half Yearly
3.		Checking of alignment of pump sets.		Half Yearly

4.		Replenishment of grease (if needed)		Half Yearly
5.		Overhauling (if needed)		Half Yearly
1.	**HYDRANT SYSTEM**	Checking of pressure of the hydrant system at the remote end, auto starting of pumps diesel engine	All required material is to be arranged by contractor.	Half Yearly
1.	**DELUGE SYSTEM**	Operation of deluge system, check outlet pressure, check alarm, check starting of diesel electrical pumps	All required material is to be arranged by contractor.	Half Yearly
1.	**ELECTRICAL PANEL**	Clean all distribution circuit, confirm on/off operation of switch, tightening the connections check tightness of earth connection and its condition.	All required material is to be arranged by contractor.	Half Yearly
1.	**GENERAL**	Greasing of all valves	All required material is to be arranged by contractor.	Half Yearly
2.		Painting of pipes, air lines M.K. box (if required)		Half Yearly
1.	**FIRE EXTINGUISHER**	Refilling of fire extinguisher at regular interval as per latest guide line of GETCO corporate office.	All required material is to be arranged by contractor.	Regular Interval
1.	NIFPS	Maintenance and checking shall be carried out as per OEM manual at prescribed frequency. Any abnormality shall be informed to the in charge engineer.	All required minor consumables to be arranged by the contractor.	

11. DIESEL GENERATING SET

SR. NO.	CHECKLIST	SCOPE OF WORK	MATERIALS / METERS / EQUIP. REQUIRED	REMARKS
1.	Check lubricating system	Thoroughly check any sign of lubricating oil leakage, replacement of oil filter as per recommended running hours.	All required material is to be arranged by contractor.	Half Yearly
2.	Cooling system	Check for radiator air blocking and coolant level. Check for fan hub, drive pulley and water pump		Half Yearly
3.	Air Intake system	- check of air leak - cleaning of air filter - Replacement of air cleaning system		Half Yearly
4.	Fuel system	- Check of governor linkages, fuel transfer pump fuel line connection - Drain sediments from fuel tank, change fuel filter and clean fuel tank breather. -	All required material is to be arranged by contractor.	Half Yearly
5.	Main generator	- Check for air inlet restriction - Checking and cleaning of slip ring and its brushes - Checking for electrical connection for tightness - Stator winding I.R. measurement. - Testing of prot,/control relay& alarm		Half Yearly
6.	Exhaust	- Check for air leaks & exhaust restriction, tight exhaust main fold& turbo charge cap screw		Half Yearly
7.	General	- Battery voltage, Sp. Gravity measurement, Checking of electrolyte level, if needed top-up		Half Yearly
A	L.T. Panel	- Cleaning of panels, bus barpost insulator, tightening of connections		Half Yearly

		- Checking of indicating meters - Checkfor change over facility - Relay fasting - Checkforpanelearthing		
B	L.T. switchgear	- Check operation/indications in off load condition of air CB - Check spring charging of air CB - Oiling, greasing & tightening of operating mechanism.	All required material is to be arranged by contractor.	Half Yearly
C	33 kv/22KV/11 kv circuit breaker & isolators	- Functional check (trip/close) - Cleaning of insulators, tightening of terminal connection of CB, CTS, PTS isolators etc. - Measurement of trip time -Alignment check of isolators - IR Value measurement	5KV Insulation tester and all other required materials shall be arranged by the contractor	Half Yearly
D	L.T. transformer	Cleaning of H.V., L.V. insulators, main tank and checking for any oil leakage. If found leakage it is to be attended. I.R. value measurement Testing of oil B.D.V. Testing / checking of O.T.I. / W.T.I (if provided) Checking healthiness of pressure relief diaphragm Checking healthiness of B/Z relay. Checking tightness of earth connection	Megger &Oil testing Kit is to be provided by contractor.	Half Yearly
E	Station earth resistance measurement	- Check intactness of all earth pit connections - Measure individual earth pit resistance if value found high, rectify / reactivate the same & watering to be done. - Measure overall earth grid resistance.	Earth resistance measuring kit to be provided by contractor.	Yearly

		It is recommended to measure earth pit resistance in dry weather condition.		
F	Bus bar, jumpers, connectors, clamps	- Cleaning of insulators & visual check for any crack. - Checking of tightening of all jumper connectors, clamps. If found damaged replace the same - Removal of hot spot. - Checking of earthing connection of all structure. - Repainting, rust removal of all structures & equipments if needed.	All required materials like clamp connectors to be arranged by contractor.	Half Yearly

12. GENERAL

1.	Control room lighting &yard light	Regular maintenance & checking of sufficient lighting in control room as well as yard. Any short fall or damage should immediately replace / repaired.	All required material is to be arranged by contractor.	Regularly
2.	Yard cleaning &cable trench maintenance	Complete cleaning of yard by removing/ regular grass cutting, Complete maintenance of cable trench by providing missing cover & replacement of broken cover, Internal cleaning of cable trench before monsoon, maintaining of water drainage system for cable trench and out letting arrangement from yard.	All required material is to be arranged by contractor.	As& when required.
3.	Water pipeline for earth pits	Regular maintaining and watering to each earth pit	All required material is to be arranged by contractor.	As& when required.
4.	Switchyard fencing	Regular checking of yard fencing or any breakage (if barbed wire – chain-link fencing) and if found attend immediately. Painting as and when needed.	All required material is to be arranged by contractor.	As& when required.

5	Cleaning of Colony and Yard Roads.	Colony and Switch Yard Roads are to be cleaned regularly.	---- do ----	As and When Required.

13. PROTECTION SYSTEM

A	Line protections (main-I & II) with line reactor Distance protection scheme for line	- Reach check of all 4 zones - Time measurement - Switch on to fault check - Power swing blocking check - Fuse failure check - Check for carrier send, received and aided trip - Over voltage feature check - LBB feature check - Trip contact check & trip test - A/R check - DR/EL initiation check - DC logic - Carrier send for remote trip -	Checking & Testing is to be carried out by the contractor with his instruments in presence of GETCO Engineer.	Yearly
	Control Panel	- Cleaning & vermin proofing of panels - Checking of semaphore operation, various indicating lamps, annunciations - Checking of DC logic circuit for trip, close function. - Calibration of panel meter (with transducer) - Checking of earthing of the panel	Checking & Testing is to be carried out by the contractor with his instruments in presence of GETCO Engineer.	Yearly

B	Power transformer relay panel 66KV C & R Panel, 11KV / 22KV Panel (1) Differential relay	- Pick up and timing test at existing setting - Operation check of highest element - Operation of the relay at existing bias setting - Characteristic test - Checking of 2nd harmonic current restrain feature. - Checking of 5th harmonic current restrain feature. - Operation of alarm and trip contacts. - Through fault current stability check. - Checking and testing of features like Over flux alarm and trip, LBB, REF protection etc.	Checking & Testing is to be carried out by the contractor with his instruments in presence of GETCO Engineer.	Yearly
	(2) Dir-over current &earth fault relay	- Pick up test as per existing plug setting - Time of operation as per relay characteristics - Operation of high set unit - Operation of alarm & trip contacts - Verification of directional features. - Checking and testing of various features like LBB, VT fuse, broken conductor, negative phase sequence current etc.	Checking & Testing is to be carried out by the contractor with his instruments in presence of GETCO Engineer.	Yearly
	(3) Over fluxing relay / feature	- Operating of over flux alarm as per relay setting. - Operating of over flux trip features. - Operation of alarm & trip contacts. - Verification & system input voltage on relay terminals.	Checking & Testing is to be carried out by the contractor with his instruments in presence of GETCO Engineer.	Yearly
	(4) LBB relay / feature	- Pick up value of relay at selected setting - Operating time of the relay - Operation of alarm & trip contacts - Verification of input current.	Checking & Testing is to be carried out by the contractor with his instruments in presence of GETCO Engineer.	Yearly

	(5) Neutral displacement relay / Neutral Current imbalance relay	- Relay pick up test as per existing setting - Relay operating time test as per relay characteristics - Operation of alarm & trip contacts - Verification of continuity of input from open delta core of RVT / from NCT - Verification of open delta voltage/ neutral imbalance current at relay terminal	Checking & Testing is to be carried out by the contractor with his instruments in presence of GETCO Engineer.	Yearly
	Over voltage / Under voltage relay / feature	- Pick up test as per existing plug setting - Time of operation as per relay characteristics - Operation of alarm & trip contacts	Checking & Testing is to be carried out by the contractor with his instruments in presence of GETCO Engineer.	Yearly
	(7) REF relay	- Relay pick up test at existing setting - Operating time of relay - Operation of alarm & trip contacts - Verification of input current	Checking & Testing is to be carried out by the contractor with his instruments in presence of GETCO Engineer.	Yearly
C	Under frequency relay	- Pick up and timing test for all stages - Verification of df / dt feature - Operation of alarm & trip contacts - Checking healthiness of tripping circuitry of respective feeder through under frequency protection - Verification of input to the relay - DC drain check - Check for blocking voltage (minimum operating voltage)	Checking & Testing is to be carried out by the contractor with his instruments in presence of GETCO Engineer.	Yearly

THERMOVISION SCANNING OF SWITCHYARD – MAINTENANCE RECORD

NAME OF SUBSTATION / CONVERTER STATION: NAME OF BAY ……..
DATE OF MEASUREMENT: AMBIENT TEMPERATURE ……

SR. NO.	POINT OF MEASUREMENT	TEMPERATURE IN DEGREE C			PERIODICITY
		R-PHASE	Y-PHASE	B-PHASE	
	All the clamp connectors in the Switchyard				
	(A) MAINBAY EQUIPMENTS				
1.	CONNECTOR/CLAMP OF WAVETRAP				**Half Yearly**
	a) Towards Lineside				
	b) Towards Bus side				
2.	**CVT**				**Half Yearly**
	a) Top clamp				
	b) First joint				
	c) Secondjoint				
	d) Electro magneto unit				
3.	**CONNECTOR/CLAMP OF S/R DISCONNECTING SWITCHES (89R)**				**Half Yearly**
	a) Towards Lineside				
	b) Towards S/R side				
	c) Disconnecting Switches contacts				
4.	**CONNECTOR / CLAMP OF S/R BUSHING**				**Half Yearly**
5.	**CONNECTOR / CLAMP OF S/R DISCONNECTING SWITCHES (89L)**				**Half Yearly**
	a) Towards Lineside				
	b) Towards S/R side				
	c) Disconnecting Switches contacts				

6.	**CONNECTOR/CLAMP OF DISCONNECTING SWITCHES BUS SIDE (89)**				**Half Yearly**
	a) Towards Breaker side				
	b) Towards Bus side				
7.	**CONNECTOR/CLAMP OF DISCONNECTING SWITCHES C T SIDE (89)**				**Half Yearly**
	a) Towards Breaker side				
	b) Towards Bus side				
	c) Disconnecting Switches contacts				
8.	**CONNECTOR/CLAMP OFCIRCUIT BREAKER (52)**				**Half Yearly**
	a) Towards Lineside				
	b) Towards Bus side				
9.	**CONNECTOR/CLAMP OF C T**				**Half Yearly**
	a) Towards Breaker side				
	b) Towards Lineside				
	(B) TIEBAY EQUIPMENTS				
1.	**CONNECTOR/CLAMP OFCIRCUIT BREAKER (52)**				**Half Yearly**
	a) Towards Lineside				
	b) Towards Bus side				
2.	**CONNECTOR/CLAMP OF C T - A**				**Half Yearly**
	a) Towards Breaker side				
	b) Towards Lineside				
3.	**CONNECTOR/CLAMP OF C T - B**				**Half Yearly**
	a) Towards Breaker side				
	b) Towards Lineside				
4.	**CONNECTOR/CLAMP OF DISCONNECTING SWITCHES BUS SIDE (89A)**				**Half Yearly**
	a) Towards Breaker side				
	b) Towards Bus side				
	c) Disconnecting Switches contacts				
5.	**CONNECTOR/CLAMP OF DISCONNECTING SWITCHES BUS SIDE (89B)**				**Half Yearly**
	a) Towards Breaker side				
	b) Towards Bus side				

	c) Disconnecting Switches contacts				
	(C) ALL JUMPER/DROPPER JOINTS RELATEDTO				**Half Yearly**
	a) MainBay				
	b) TieBay				
	c) Strung Bay				
	d) Rigid Bus (IPS Tube)				
	PERMISSIBLE LIMITS FOR THERMOVISION SCANNING				
	- TEMP. UPTO 15°C (ABOVE AMBIENT)-NORMAL				
	- TEMP. ABOVE 15-50°C(ABOVE AMBIENT)-ALERT				
	- TEMP. ABOVE 50°C(ABOVE AMBIENT)-TO BE ATTENDED IMMEDIATELY				
	(D) ALL EQUIPMENTS IN SWITCH YARD. Should be scanned (TRANSFORMERS, REACTORS, CTs, CVTs, BREAKERS, LAs etc.).				**Half Yearly**

ANNEXURE:B

: HANDING OVER - TAKING OVER NOTE:

Date: / /202_.

Name of Sub-station _____ under _____ Division.
Order No.

GETCO **M/s._____**

(1) Shri. (1) Shri.
(2) Shri. (2) Shri.

66 KV sub-station including Switch Yard, Control Room & Colony / quarters is handed over with equipments & other items as listed below.

Sr No	Description	Quantity
1	Nos. of Transformers	
2	Nos. of Bay (Please Mention Name of The Bay)	
3	Nos. of Incomer with name.	
4	Nos. of Feeders with name.	
5	Nos. of KV Incomer / Feeders with name.	

(A) Equipments: Following equipments are handed over in healthy conditions:

Sr No	Name of Equipment	Make / Type	Sr. No.	Quantity	Location / Bay	Remarks
1	66/11 KV 10 MVA TRF.				TRF-1	
2	66 KV Breakers					
3	66 KV CTs R					
	Y					
	B					
4	66 KV PTs R					
	Y					
	B					
5	66 KV LAs R					
	Y					
	B					
6	Battery Set					
7	Battery Charger					
8	C. R. Panels					
9	TRF OLTC / RTCC Panel					
10	L. T. Panel Board.					
11	66 KV Isolators					
12	11 KV Breakers					
13	11 KV Station TRF					
14	11 KV PTs					
15	VHF Set & Charger					
16	Capacitor Bank					
17	Others not listed above					

(B) Type of Structure erected at 66 KV Sub-station:

Sr No	Type of Structure	Quantity in Nos.	Remarks
1	66 KV 'S' Type Bus Structure		
2	66 KV 'FC' Type Gantry Column Structure.		
3	66 KV 'FB-1' type Gantry Beam Structure.		
4	66 KV 'FB-2' type Gantry Beam Structure.		
5	66 KV Isolator Structure.		
6	66 KV Post Insulator Structure.		
7	66 KV CT Structure.		
8	66 KV PT Structure.		
9	66 KV LA Structure.		
10	Rail Plinth set for Power TRF		
11	Fire Stand		
12	11 KV Cable Support Structure for TRF		
13	11 KV Out going Feeder Structure.		
14	Others		

(C) Type of Fire Extinguisher:

Sr No	Type of Fire Extinguishers	Make	Sr. No.	Mfg. Date	Capacity
1	Mechanical Foam Type				
2	DCP Type				
3	Fire Bucket				
4	Co2 Fire Extinguishers				
5	Any Others.				

(D) Tools, Tackles & Spares handed over to firm if any:

- **Tools & Tackle:**

Sr No	Description	Quantity	Remarks
1	For TRF		
2	For Breakers		
3	For Isolators		
4	For CTs / PTs		
5	Others		

- **Spares:**

Sr No	Description	Quantity	Remarks
1	Fresh Oil Drum		
2	Power Cables		
3	Earthing Roads		
4	Lighting wire cable drum		
5	Post Insulators		
6	FRP Ladders		
7	Earth wire of DISCOM for LST.		
8	DAS system & Computer sets.		

9	E-urja Computer Sets		
10	Other not listed above		

(E) List of Drawing / Manuals handed over to M/s.

Sr No	Description	Remarks
1	Broacher File of sub-station.	
2	Test Results (Factory, ERDA etc.).	
3	SMS commission Test results of equipments including earth pit resistance results etc.	
4	Details of equipments.	
5	Switch Yard drawing, Single line diagram.	
6	Schedule of Wiring.	
7	Instruction & Manual of 11 KV Breakers.	
8	Instruction & Manual of 66 KV Breakers.	
9	Instruction & Manual of TRF & OLTC.	
10	Instruction & Installation of battery cells.	
11	Pole Schedule.	
12	Route Map.	
13	Public Notice.	
14	Important Telephone list (Viz. Govt. Police, Fire, GETCO official, DISCOM Official etc.).	
15	Power Map (Lay out) of Sub-station	
16	ControlRoomBuilding Drawing	
17	Single line Diagram	
18	Manual for Safety Instruction.	
19	Manual for O & M	
20	Approval from Chief Electrical Inspector	
21	Copy of Government Gazettes	
22	Manual / Drawing of C & R panel for TRF & Feeder.	
23	Drawing for CT & PT.	
24	66 KV LA Manual / Drawing.	
25	11 KV panel Manual / Drawing.	
26	Station Transformer Drawing	
27	Manual / Drawing for battery charger	
28	L T Panel Manual / Drawing.	
29	Other related Documents.	

(F) Registers: (If it is handed over to firm)

Sr No	Description	Remarks
1	Energy Audit Register	
2	Battery Register.	
3	Daily Check list Register.	
4	Interruption Register.	
5	Load Shedding Register.	
6	Instruction Register.	
7	Inspection Register.	
8	Statistical Data Register.	
9	Preventive Maintenance Register	
10	Message Book.	
11	LPC Book -1.	
12	Charge Register.	
13	Weather Register.	
14	Log-sheets.	
15	Transformer Maintenance Register.	
16	CTs & PTs Maintenance Register.	
17	Breaker Maintenance Register	
18	Interruption Register.	
19	IR Value Register	
20	Load Data Register	
21	11 KV Feeder maintenance Register	
22	Attendance / Shift duty register for staff	
23	Other Register	

Note: As per terms of the contract, the Registers are to be arranged & maintained by the Contractor.

(G) Other / Misc. Sub-station Items:

Sr No	Description	Quantity	Remarks
1	Wooden Table		
2	Wooden Chair / Computer Chair		
3	Wooden Stool		
4	Wooden Key Board		
5	Wooden Cup Board		
6	Steel Cup Board		
7	Wall Clock		
8	First Aid & Electrical Shock Prevention Chart.		
9	First Aid Box		
10	Hand Gloves		
11	Rubber Matt		
12	Street Light pole with Luminaries		
13	Wall mounted Fixture		
14	Post Top Lantern on Main Gate		
15	Yard Light lights & Distribution Board		
16	Double Tube Light Fixture		
17	Calling Fan		
18	Exhaust Fan		
19	Control Room Lightning Distribution Board		
20	Decorative Lamp		
21	Lamps		
22	Emergency Chargeable Torch / Torch		
23	Telephone		
24	Empty Oil Barrels		
25	Sodium Lamp with necessary Fittings.		
26	Quarter Retaining if any.		
27	Other Items not listed above.		
28	Toilet / Urinal Block		
29	Compound Wall / Chin link fencing with Main Gate.		
30	Drainage System		
31	Internal Road		
32	Tree plantation / Garden		
33	Bore well		
34	RainWaterHarwingCanal		
35	Under Ground water tank		
36	Pump with Motor		
37	Portable water Pump		
38	Pipe line for water arrangement for earthing pit & portable water.		
39	Water cooler with R O Plant		
40	Cable trench with cover.		
41	Doors & Windows with Glass.		
42	PLCC Phone		
43	ControlRoomBuilding with over head water tank.		
44	Office room building		
45	Watch man cabin		

(H) Reading at the time of handing over the sub-station are as under:

The status of Reading. Time: Date:

Sr No	Name of Incomer / Feeder & Equipments	Reading
1	Name of incomer Lines	
2	Name of feeder Lines	
3	Transformers (HV Side)	
	Transformers (LV Side)	
4	Name of 11 KV feeders	
5	11 KV Station Transformer	
6	L. T. Panels	

Note: If any other equipments / items are not in list then you are requested to incorporate in the list. You should take care to make handing over taking over note such that each & every item is taken on paper and submit this handing over / taking over note of each & every sub-station to Corporate Office.

(I) Bio-Metric attendance device:

Date of Installation:
Make:
Sr. No.:

ANNEXTURE: C
TESTING OF EQUIPMENTS

Sr. No.	Activity to be carried out	Duration
1	**Transformers**	
a	IR & PI Value	Yearly
b	Oil routine test of transformer as per IS:1866 - Electric Strength (BDV), Water content (PPM), Neutralization value (Total acidity), Sediment & sludge, Dielectric dissipation factor (Tan delta), Specific resistance (Resistivity), Internal Tension and Flash Point	Yearly
c	Testing of oil for DGA	Yearly
d	Tan delta and capacitance measurement of bushing and main windings	Yearly
e	Measurement of winding resistance at all tap positions	Yearly
f	All low voltage routine tests	Yearly
2	**Current Transformer**	
a	Insulation resistance measurement – Primary to earth (By 5 KV Megger)	Yearly
b	Capacitance and tan delta measurement	Yearly
c	Checking of star point earthing	Yearly
3	**Circuit Breaker**	
a	Measurement of static contact resistance	Yearly
b	Checking of close / trip Coil current	Yearly
c	Measurement of Breaker Timings.	Yearly
d	High voltage test in case VCB(VI testing)	Yearly
e	Insulation resistance test	Yearly
4	**Potential Transformer**	
a	Measurement of secondary voltage	Yearly
b	Checking of star point earthing	Yearly
c	Insulation resistance measurement – Primaryto earth	Yearly
d	Capacitance and tan delta measurement	Yearly
5	**Isolator**	
a	Main contact resistance measurement	Yearly
b	Earth Switch contact resistance measurement	Yearly
6	**Surge Arrestors**	

a	Insulation resistance measurement	Yearly
b	Measurement of leakage current	Yearly
c	Checking of structure earthing	Yearly
7	**Batteries/Battery Charger**	
a	Measurement of specific gravity and voltage of pilot cell and solution level check	Daily / Weekly
b	Battery impedance testing	Yearly
c	Discharge test of battery sets (Run down test)	Yearly
d	Discharge Cycle check	weekly
8	**Protection system**	
a	Testing of all relay with logic checks	Yearly
9	Thermal Imaging of sub-station.	Half Yearly
10	DC Leakage monitoring daily & if any to be attended immediately	Daily / Immediately
11	IR Value of 11 KV Bus	Half Yearly
12	Measurement of earthing resistance of grid and individual pits	Yearly