GUJARAT ENERGY TRANSMISSION CORPORATION LIMITED
TRANSMISSION CIRCLE
Navsari

GETCO

TENDER SPECIFICATION
FOR

Name of Work:- Work of erection of 66KV equipment, structures, control wiring, yard Lighting, Control-Room & Staff-Quarter Electrification etc at 66KV Vyara-II S/S.

Estimated Cost – Rs. 1898393.70
Tender fee – Rs. 1900.00
EMD – Rs. 18990.00
Time limit- 3 MONTHS

TECHNICAL BID

TENDER NO.TCNS/ETP-84/2015
SE (TR), Navsari invites “On line Tenders” (e-tendering) for the purchase of following items. Tender Papers & Specifications may be downloaded from Web site [https://getco.nprocure.com](https://getco.nprocure.com) (For view, download and on line submission) and GUVNL/GETCO website [www.gseb.com](http://www.gseb.com) & [www.Getcogujarat.com](http://www.Getcogujarat.com) (For View & download only). Tender fee may be paid along with submission of tender in EMD cover, for respective tender. “All the relevant documents of tender to be submitted physically will be received only be Registered Post A.D. or Speed Post addressed to Superintending (TR) Gujarat Energy Transmission Corporation Limited, Circle Office, Navsari. “NO COURIER SERVICE OR HAND DELIVERY” will be allowed. All the bidders, in respect of tender item must have vendor registration with the GTECO or their any subsidiary company viz. prior to the date of opening of technical bid of the tender otherwise their bids will not be considered eligible for technical scrutiny and as such, their technical bids will not be opened.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Tender No.:</td>
</tr>
<tr>
<td>2</td>
<td>Purchase of / Work of</td>
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<tr>
<td>3</td>
<td>Tender Fee (non refundable)</td>
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<tr>
<td>4</td>
<td>Estimated cost without ST/VAT in Rs. Lacs</td>
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<tr>
<td>5</td>
<td>Earnest Money Deposit amount in Rs.</td>
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<tr>
<td>6</td>
<td>Time limit</td>
</tr>
<tr>
<td>7</td>
<td>Registration of Contractor</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>
</tr>
<tr>
<td>9</td>
<td>Physical submission of all the relevant documents, last date up to 15.00 hours. By RPAD or SPEED POST only.</td>
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<tr>
<td>10</td>
<td>Date of opening of Tender fee, EMD cover, Vendor registration and technical bid physical as well as on – line opening at 16.00 Hours.</td>
</tr>
<tr>
<td>11</td>
<td>Tentative Date of on – line opening of Price bid, (if possible), at 11.00 Hours</td>
</tr>
<tr>
<td>12</td>
<td>Prices</td>
</tr>
</tbody>
</table>

Note; Validity of tender shall be 180 days from the date of opening of technical Bid
IMPORTANT:

1. All the relevant documents as per requirement of the Tender also to be submitted physically along with the Tender Fee, EMD cover in sealed cover on OR before due date and time. All such documents 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. The tender in physical form is to be submitted in single copy instead of duplicate mentioned in the tender (the price bid is not to be submitted with the physical documents). (All the online Annexures & Price bid i.e. Annexure - 1 to 14, GTP and price bid are not to be submitted with the physical documents).

2. Any deviation found in Data / Details / Documents between on line offer (E-tendering) and physically submitted documents (Tender document fee, EMD, Vender Registration, Technical and commercial documents etc.) of bidder, offer of the same bidder will not considered and no any further communication in the matter will be entertained. Physical copy is for reference only and tender will be evaluated on Data / Details / Documents of the on line offer. For any discrepancy between online & physical bid. Online bid is considered as final. Whatever item quoted in Annexure-IV/(4) are consider for technical evaluation. The quantity, ED & ST/VAT offered in online price bid shall be considered as final in case of any discrepancy.

3. It is mandatory for all the bidders to submit their tender documents by both forms viz. on – line (E-tendering) and physically in schedule time. If tender documents submitted in only any one form, say either by on line or physically, in that case the same tender will not be considered.

4. 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 submit supporting authentic documents in the physical 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.)

5. Bidders are requested to remain in touch with the website for any amendment / corrigendum or extension of due date etc.

Any technical questions, information and clarifications that may be required pertaining to this enquiry should be referred to: GETCO reserves the right to reject any OR all tenders without assigning any reasons thereof.

Download Tender Documents in (PDF Format) which consists of:

Part – I: Commercial Terms & Conditions

Part – II: Technical Specifications & GTP’S, Schedule “A” indicating the quantities & items, drawing if any.

To view the PDF file please use “Acrobat Reader” soft ware which can be downloaded from “Adobe” website. Note:

In case bidder needs any difficulty in accessing / submission of online 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 Infotower, 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

Supt Engineer (TR), Navsari
TENDER FOR THE WORK OF

“Work of erection of 66KV equipment, structures, control wiring, yard Lighting, Control-Room & Staff-Quarter Electrification etc at 66KV Vyara-II S/S.”

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➢ Special Conditions of Contract
➢ Forms & Appendices to be filled in by the bidders.
➢ Schedule B
GUJARAT ENERGY TRANSMISSION CORPORATION LIMITED  
VADODARA

Date:

INTEGRITY PACT  
OUR ENEAVOUR

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 a the nation.

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 / supplier / 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 its 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:

Seal & Signature  
(Party’s Authorized Person)

Name:
SAFETY CUM INDEMNITY BOND
(On Non-judicial Stamp paper of value not less than Rs. 100.00)

KNOW ALL MEN BY THESE PRESENTS that we, _______ by this SAFETY CUM INDEMNITY BOND Executed on this ______________ Day of ______________ 2014. 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 favor 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 VidyutBhavan, 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 Labor 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 here in above issued by the OBLIGEE, it is found that the CONTRACTOR has not complied with guide lines 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 Labor 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:

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Amount of Contract in Rs.</th>
<th>Penalty amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Up to 1 Lac</td>
<td>Rs.5000/-</td>
</tr>
<tr>
<td>2</td>
<td>Above1 Lac to 10 Lac</td>
<td>Rs.40000/-</td>
</tr>
<tr>
<td>3</td>
<td>10 to 100 Lac</td>
<td>Rs.100,000/-</td>
</tr>
<tr>
<td>4</td>
<td>&gt; 100 Lac</td>
<td>1.0 % of contract value</td>
</tr>
</tbody>
</table>

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 do 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.

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(Signature with seal of The CONTRACTOR)
In the presence of:
1. 
2. 
ANNEXURE-A

OUR ENDEVOUR - Safety a habit

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 as the nation, safety guidelines are agreed upon by the agency as under.

Safety is our prime concern and zero accident is our goal. In order to prevent the accident, while execution of works in indoor and outdoor systems of GETCO, the following guideline and preventive measures are identified.

<table>
<thead>
<tr>
<th>Indoor safety precaution</th>
<th>Outdoor safety precaution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The method of work required T&amp;P and manpower should be discussed between GETCO supervisor, contractor’s supervisor and gang leaders.</td>
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</tr>
</tbody>
</table>

Prior to execution of work a joint survey must be conducted by GETCO supervisor and contractor’s supervisor for risk assessment.
- Clearly identify the work location, to distinguish between the equipment that is dead and other equipment / part that may be live.
- Disconnect equipment from supply.
- Protect against other live parts.
- Take special precautions when close to bare conductors / Bus bar.

Prior to execution of work a joint survey must be conducted by GETCO supervisor and contractor’s supervisor and DISCOM line man in order to identify the following:
  a. HT/LT line or tap line crossing under each span of line of the work.
  b. Isolation point of each line crossing.
  c. Each line crossing & isolation point under each span must be discussed and noted in Maintenance register with sketch.

Following safety guidelines are mandatory for all contractors operating in GETCO premises for Electrical, non-electrical & civil works.
1. The contractors must provide advance planning of work to concerned in-charge of substation in writing.
2. Before starting any work whether switch yard, “permit to allow to work” must be taken from control room in-charge.
3. Utilizing Electrical / non-electrical equipments, safety rules must be implemented.
4. If the work is to be carried out on Sunday or public holiday, the necessary permission must be taken in advance, requesting in writing.
5. Unwanted person including children of labors will not be allowed at working site/ in the switchyard and in the prohibited area.
6. Any electrical work or electrical connections Contractor’s supervisor and GETCO Supervisor must ensure all isolations physically with adequate earthing technically prior to give clearance to gang leader for taking up job. While execution of stringing work, the identified line crossing must be isolated / de-energized and written clearance should be obtained from concerned DISCOM supervisor. The isolation of Tap line must be physically seen and verified by Contractor and GETCO supervisor. At D.O. fuse junction contractors person should be posted to ensure that no person restore D.O. supply while work is under execution Contractor’s supervisor must ensure that concern
to equipment for any other work must be carried out by certified electrician/wiremen with adequate size of wire through MCB as per I.E. Rule.
- Live penal area / bus bar must be isolated and sealed / bifurcated with red color tape for visible warning.
- Display Board must hang on LCP panel.
- Transformer must be switched off whenever and wherever contractor and line workers are not satisfied with isolation, earthing or any equipment performance of GETCO, it will be pointed out and work shall begin only after resolution. Contractor shall not take up job in absence of GETCO authorized person. All wire temporary connection & material whenever erection activity has any connection and disconnection work of busbar, string bus.

<table>
<thead>
<tr>
<th>All workers / labor of contractor &amp; supervisors must use personal protective equipment (PPE) during the work like gloves, safety belt, Safety shoes, Helmet, earthing rods, etc, duly approved by GETCO.</th>
<th>All workers / labor of contractor &amp; supervisors must use personal protective equipment (PPE) during the work like gloves, safety belt, Safety shoes, Helmet, earthing rods, Live line detector etc, duly approved by GETCO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The local earthing must be done at the place of work before execution of any work.</td>
<td>The local earthing must be done at the place of work before execution of any work.</td>
</tr>
<tr>
<td>11 kV breakers in panel must be switched off and racked out only after ensuring no voltage in breaker and without door opening.</td>
<td>Circuit breaker opening is not isolation and isolator on either side must be opened. No work during rains and cloudy weather condition.</td>
</tr>
</tbody>
</table>
| Transmission line activities.  
1) Used of Voltage detector to ensure outage.  
2) Earthing at three points, local, left & right side of bus bar / string bus.  
3) Match line color code with color of wrist band. | Local earthing of electrical equipments like filter M/c, welding machine, testing kits etc. is must. Crane shall only be used for material handling and erection. Working platform shall only be used for work in switchyard. |
SECTION - E I
GENERAL TERMS AND CONDITION

1.1 INVITATION OF TENDER:

1.1.1 The Superintending Engineer (TR), Navsari for and on behalf of "GUJARAT ENERGY TRANSMISSION CORPORATION LTD", having its Head Office at Vidyut Bhavan, Race Course, Vadodara - 390 007, hereafter called the "GETCO" intends to invite Tender for “Work of erection of 66KV equipment, structures, control wiring, yard Lighting, Control-Room & Staff-Quarter Electrification etc at 66KV Vyara-II S/S.” as detailed in this specification

1.2 QUALIFYING REQUIREMENT OF THE BIDDER:

1. Registration : Bidder quoting for the bid shall have a registration with GETCO/STU/CTU.

2. Experience:
   (I) Bidder shall have executed minimum of 01 Nos. of 66/11KV substation with state or central Transmission utility or major industries OR 03Nos. of 66Kv bays i.e. Transformer/Feeder Bays at same or different locations. Substation include minimum two nos. of feeder bays, one no of Transformer bay.
   (II) The Bidder shall have valid Electrical Contract License and approved Vendor of GETCO/STU/CTU, registered under Sales-Tax Act, Service Tax Act and should have CPF/PF Registration Certificate.

3. Solvency: Latest bank solvency certificate from any Nationalized/Scheduled Bank of a sum of minimum 20% of the total estimated cost of the tender.

4. Provident Fund Code: Separate provident fund code number towards firm registered with Regional P. F. Commissioner.

5. Profit & Loss Account Statement: The Bidder should submit certified Xerox for audited copy of the Balance sheet with profit and loss account of last three Years.

6. Nature of Firm: Attested copy of Partnership Deed, Power of Attorney, if any, for signing the bid documents in case of partnership firm & self affidavit for proprietorship firm. All such documents shall have to be NOTARISED.

7. VAT Registration: The Bidder shall be registered under the “GUJARAT VALUE ADDED TAX – ACT”. The certified Xerox copy of such registration under Gujarat VAT Act indicating “TIN” shall have to be submitted along with the bid by the bidder.

8. I.T. PAN CARD: The bidder should submit the attested zerox copy of PAN Card of their firm.

9. Service tax registration: The bidders should submit the certified copy of service tax registration Form ST-2 of their firm

10. Welfare cess Registration: Registration of the contractor’s site under “The building & other construction worker’s welfare cess Act 1996” before commencement order.
Qualifying requirements for construction of 66/132/220/400KV substations/ bays

Erection of 66kV substation :-

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Qualifying Requirements</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Registration</td>
</tr>
<tr>
<td></td>
<td>The Bidder shall be registered contractor of GETCO.</td>
</tr>
<tr>
<td>2.</td>
<td>Technical Criteria</td>
</tr>
<tr>
<td></td>
<td>1. Bidder shall have executed minimum 01 No. of 66/11KV substations with State or Central Transmission Utility or major industries OR 03 Nos. of 66KV bays i.e. Transformer/ Feeder Bays at same or different locations. Substations include minimum two nos of feeder bays, one no. of Transformer bay.</td>
</tr>
<tr>
<td></td>
<td>2. The bidder shall have valid Electrical Contract License and approved Vendor of GETCO /STU/CTU, registered under Sales – Tax Act, Service Tax Act and Should have CPF/PF Registration Certificate.</td>
</tr>
<tr>
<td>3</td>
<td>Financial Criteria</td>
</tr>
<tr>
<td></td>
<td>The bidder shall submit the Bank Solvency of the amount which is 20% of the total estimated cost or the tender.</td>
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</tbody>
</table>

Erection of 132 kV substation and feeder bays up to 132kV:

<table>
<thead>
<tr>
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<th>Qualifying Requirements</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Registration</td>
</tr>
<tr>
<td></td>
<td>The Bidder shall be registered contractor of GETCO.</td>
</tr>
<tr>
<td>2.</td>
<td>Technical Criteria</td>
</tr>
<tr>
<td></td>
<td>1. Bidder shall have executed minimum 02 Nos. of erections contracts of 66/11KV or higher voltage class substations at two different locations with State or Central Transmission Utility or major industries, Substations include minimum one no. of Transformer bay.</td>
</tr>
<tr>
<td></td>
<td>2. The bidder shall have valid Electrical Contract License and approved Vendor of GETCO /STU/CTU, registered under Sales – Tax Act, Service Tax Act and Should have CPF/PF Registration Certificate.</td>
</tr>
<tr>
<td>3</td>
<td>Financial Criteria</td>
</tr>
<tr>
<td></td>
<td>The bidder shall submit the Bank Solvency of the amount which is 20% of the total estimated cost or the tender.</td>
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Erection of 220KV Bays :-

<table>
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<th>Sr. No</th>
<th>Qualifying Requirements</th>
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<tbody>
<tr>
<td>1</td>
<td>Registration</td>
</tr>
<tr>
<td></td>
<td>The Bidder shall be registered contractor of GETCO.</td>
</tr>
</tbody>
</table>
2. **Technical Criteria**
   1. Bidder shall have executed minimum 01 No. of 132/66KV or higher voltage class substations with State or Central Transmission Utility or major industries, OR equivalent Nos. of 132KV or higher voltage class Bays at same or different locations. Substations include minimum one no. of Transformer bay.
   2. The bidder shall have valid Electrical Contract License and approved Vendor of GETCO/STU/CTU, registered under Sales – Tax Act, Service Tax Act and Should have CPF/PF Registration Certificate.

3. **Financial Criteria**
   The bidder shall submit the Bank Solvency of the amount which is 20% of the total estimated cost or the tender.

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### Erection of 400KV Bays :-

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Qualifying Requirements</th>
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<tbody>
<tr>
<td>1</td>
<td>Registration</td>
</tr>
<tr>
<td></td>
<td>The Bidder shall be registered contractor of GETCO.</td>
</tr>
</tbody>
</table>

2. **Technical Criteria**
   1. Bidder shall have executed minimum 01 No. of 220/66KV or higher voltage class substations with State or Central Transmission Utility or major industries, OR equivalent Nos. of 220 KV or higher voltage class Bays at same or different locations. Substations include minimum one no. of Transformer bay.
   2. The bidder shall have valid Electrical Contract License and approved Vendor of GETCO/STU/CTU, registered under Sales – Tax Act, Service Tax Act and Should have CPF/PF Registration Certificate.

3. **Financial Criteria**
   The bidder shall submit the Bank Solvency of the amount which is 20% of the total estimated cost or the tender.
1.3 DEFINITION:

1.3.1 The "GETCO" shall mean the Gujarat Energy Transmission Corporation Ltd, Vadodara and shall include their authorized representatives.

1.3.2 The “Contractor” shall mean the bidder, whose tender has been accepted by the GETCO for award of the contract and shall include his authorized representatives.

1.3.3 The "Engineer-in-Charge" shall mean the authorized officer of the GETCO to act as Engineer-in-Charge to supervise the work for the purpose of the contract.

1.3.4 The "Specification" shall mean the tender forming a part of the contract along with proforma, schedules and drawings.

1.3.5 The "order" shall mean the official letter issued by the GETCO, informing the bidder that his tender has been accepted.

1.3.6 The “Contract” shall mean the agreement to be entered into by the GETCO with the contractor and shall include the commercial, technical and general conditions, schedules, drawings and any other conditions specifically agreed between the parties forming a part of the contract.

1.3.7 The “Contract Value” shall mean the total amount indicated in the contract agreement as per order placed by the GETCO and calculated from the provisional quantities indicated in the tender.

1.3.8 The "Warranty Period" shall mean the period during which the Contractor shall remain liable for repair/replacement of any defective work performed by the Contractor under the contract.

1.3.9 The "Completion Period" shall mean the period starting from the date of issue of commencement given by executing authority and required to complete the line work including handing over the line for charging.

1.3.10 The "Work" shall mean the activities to be carried out for shifting of transmission line, using tower materials, bolts & nuts, cement, line materials viz. conductor, earth wire, their hardware and accessories etc. supplied by the GETCO and using materials like sand, grit, tor steel bars, earthing materials etc. by the contractor under the contract.

1.4 TENDER DETAILS:

As per page No. 2.

1.5 AMENDMENT OF TENDER:

At any time prior to the submission of tenders, the GETCO may, for any reason, whether at his own initiative or response to a clarification requested by bidder, modify the Tender conditions by amendment.
The amendment will be issued on the code/GETCO web site or by mail or by fax to all bidders, which will be binding to them.

1.6 **THE TENDER:**

1.6.1 The tender should be submitted only in the prescribed forms issued by the GETCO duly signed and sealed by the tenderer.

1.6.2 The tenders must be sent by Registered Post / Speed Post only so as to reach this office on or before specified date & time. Due care should be taken to see that the tenders sent are posted early enough to ensure their delivery by the prescribed date or even earlier.

1.6.3 **E.M.D. at the rate of 1% of the value of the items offered is payable. The EMD is payable by Demand Draft in favour of the Gujarat Energy Transmission Corp. Ltd on any Schedule / Nationalized Banks in Navsari.**

1.6.4 No Interest will be allowed against payment of E.M.D. Documents towards Payment of Earnest Money Deposit (EMD) may please be kept in the enclosed EMD cover only, which is attached along with this tender document. First the EMD cover will be opened and if the documents towards payment of EMD are found OK then only Tender Cover will be opened which may please be noted. EMD will be forfeited (i) if the tender which it covers is withdrawn during the validity of the offer and (ii) the Tenderer fails to furnish / deposit the security deposit as per below clause no.12.

EMD of the unsuccessful tenderer will be refunded within 180 days of placing of the order with the successful Tenderer and when the Tenderer asked for refund to the Accounts Officer of the GETCO, the original receipt of the EMD together with the advanced stamped receipt should be furnished along with application for refund of EMD.

1.6.5 The tenderer 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.

1.6.6 The offer should be valid for a minimum period of 180 days from the date of opening of tender.

1.6.7 Bidder should quote for any one / or for all the line/s under this specification. Tender submitted shall be for the complete scope of work for a particular line as envisaged in this specification. Tender submitted for partial scope of work of any line will not be accepted.
1.6.8 The bidder shall be deemed to have satisfied himself with all the conditions and circumstances affecting the prices and possibility of executing the work. The bidder shall fix his prices taking into account the site & its surroundings, approach roads etc. No idling / mobilizing / demobilizing / remobilizing OR any other type of claim shall be admitted and paid on any part of the work.

1.6.9 The tenderer should fill in all schedules and submit all the details called for in this specification in prescribed Proforma only.

1.6.10 The tenderer should submit attested copies of The GETCO Resolution of firm/ power of attorney authorizing particular person to sign tender and related documents.

1.7 **AUTHORISED REPRESENTATIVE:**

1.7.1 All the tenderers are requested to mention the name of their authorized representative with full address in the tender documents.

In case the representative is changed during the course of execution of the contract, such changes shall be notified by the successful tenderer, failing to which, The GETCO shall not accept any responsibility.

1.8 **REJECTION OF TENDER:**

1.8.1 The bidder is expected to examine all instructions, terms, conditions, schedules and other details called for in this specification and fully informed himself to all which may in any way affect the work or cost thereof. Failure to furnish the required information or submission of tender not substantially responsive to specification will be at the bidder's risk and may result in rejection.

1.8.2 The offer is liable to be out rightly rejected in case the bidding schedules are not filled in and the prices and particulars are given in other format. Further the offer containing -

a) Different rates for the same items i.e. rates quoted in the slabs.

b) Deviation / Addition / Alterations / Omissions in bidding Schedules. Deviation and contradictions to the terms and conditions specified in this tender are liable to be summarily rejected.

1.9 **GETCO'S RIGHT:**

1.9.1 The GETCO reserves the right of terminating this contract or part thereof at any time during its pendency without giving notice of Termination or the reasons thereof.
1.9.2 The GETCO will be entitled to deduct directly from the bills, to be paid to the contractor any sum or sums payable by him and which sum / sums the GETCO is required to pay as a principal employer on account of contractor default in respect of all liabilities referred to.

1.9.3 The bidders shall specifically note that any overwriting or corrections or manuscript in the bid shall be ignored and will not be considered authentic unless the same are signed with Bidder's Stamp / Seal.

1.9.4 The GETCO reserves the right to split the contract into two or more bidders for the lines covered in the specification or for particular line. In such cases, the term for completion period will be negotiated.

1.9.5 In case of any doubt or interpretation of the terms and condition, the decision of the Superintending Engineer (Trans), Gujarat Energy Transmission Corporation Ltd, Navsari will be final and binding to the bidder and no dispute in this regard will be entertained.

1.9.6 The GETCO reserves the right to accept any bid or reject any or all bids or cancel withdraw invitation to bid without assigning any reason. Such decision of the GETCO shall not be subject to question by any bidder or the GETCO shall bear no liability whatsoever for such decision.

1.10 MATCHING OF END COST:

In case the GETCO decide to award CONTRACT on matching end cost basis, the bidder has to reduce all the quoted rates proportionately. The reduction on overall basis will not be accepted (i.e. all unit rates of erection schedule shall be reduced proportionately by difference in percentage).

1.11 CONTRACT:
1.11.1 The work covered by this Specification shall be carried out and governed by the GETCO's/ GEB’s Booklet of "General Terms and Condition of Contracts" appended herewith excepting where conditions specified in this Specification conflict with similar conditions in the Booklet. The tenderers will be deemed to be fully aware of this Booklet and any ignorance of the same will not exempt the contractor from his liability to abide the same.

1.11.2 The Contractor shall not execute any part of the shifting work through sub-contract without obtaining prior written permission from the GETCO.
1.11.3 Such permission given by the GETCO will not relieve the contractor from any liability or obligation under the contract. The contractor shall be responsible for workmanship, quantity and quality of the work done by the sub-contractor or his workmen.

1.11.4 The GETCO shall have right to obtain the agreement, order and other conditions entered into by the contractor with any of the sub-contractor/s. The technical particulars of the work to be executed by sub-contractor shall be subject to approval of the GETCO.

1.12 **EFFECT AND JURISDICTION OF CONTRACT:**

1.12.1 The contract shall be considered as having come into force from the date of issue of order, which is accepted by the Contractor.

1.12.2 The laws applicable by the contract shall be the laws in force in India. The courts of Navsari shall have exclusive jurisdiction in all the matters arising under this contract.

1.13 **COMPLETION PERIOD:**

1.13.1 The Tenderer should agree with activity wise time bound programme for completion of check survey work including minor survey work & preparation of profiles (if required), stub-setting, foundation, erection of towers & extension, stringing of conductor & earth wire, testing & commissioning of the line etc. appended herewith.

1.14 **FORCE MAJEURE:**

1.14.1 The following clauses which substantially affect the performance of the contract shall only be considered as force majeure conditions.

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 the party affected by the 'Force Majeure' shall within fifteen (15) days from the occurrence of such a cause, notify the other party in writing of such cause with sufficient documentary proof.
1.14.2 Notwithstanding any provision mentioned above, the GETCO shall not be in any way be liable for non-performance either in whole or in part of any contract or for any delay in performance thereof in consequence of strikes, shortages, combination of Labour or workman or lockout, breakdown or accident to machinery or accidents of whatever nature.

1.14.3 The Contractor or the GETCO shall not be liable for delays in performing their respective obligations resulting from any force majeure causes as defined above. The date of completion will be extended by a reasonable time by mutual agreement.

1.14.4 In case of damage or destruction of any property or equipments belonging to the Contractor due to force major causes, the GETCO shall not be liable for the same.

1.15 ARBITRATION:
1.15.1 All questions, disputes or differences whatsoever, which may, at any time, arise between the parties i.e. the GETCO and the Contractor upon, or in relation to or in connection with the contract, shall be referred to sole Arbitrator appointed by the Chairman, GETCO, for that purpose, who shall be a retired High Court Judge or a retired District Judge and the decision of the said Arbitrator shall be final and binding upon the parties. Reference to the Arbitrator shall be governed by the provisions of The Arbitration & Conciliation Act, 1996 as amended from time to time and the Rules made there under. The arbitration proceedings shall be conducted at Vadodara, Head Office of GETCO or at any such place as the sole Arbitrator may determine. The award of the sole Arbitrator shall be final and binding upon the parties.

1.15.2 Performance under this contract shall, if reasonably possible, continue during the arbitration proceedings, and no payments due or payable by the GETCO shall be withheld unless they are the subject matter of the arbitration proceedings.

1.16 LABOUR LAWS:
1.16.1 Persons below the age of 18 years shall not be employed for the work.

1.16.2 No female worker shall be employed in the night shift between 07.00 p.m. and 06.00 a.m. next day.

1.16.3 Contractor 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.
1.16.4 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:

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.

Payment of deposit in respect of each contract labour at the rate of Rs.30/- with the Office of Commissioner of Labour as per the Contract Labour (Regulation and Abolition) Act.

**Labour license should be submitted immediately before the starting of work and before submission of RA bill. It is contractor`s responsibility to collect form 5.**

Licence fee as prescribed under the Contract Labour (Regulation and Abolition) Act and Rules framed there under depending upon the number of workmen.

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.

The Weekly off should be given to workers and same should be shown in muster roll submitted.

Identity Cards as prescribed under the Factories Act with photo affixed thereto, for identification.

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.

Payment of compensation in case of accidental injury.

Provision of crèche if the female labourers employed are more than 30.

Maternity Leave as per the provisions of the Maternity Benefit Act.

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.
1.16.5 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. The PF challan with ECR should be submitted with Bills (month wise).

1.16.6 DEPOSIT LINKED INSURANCE SCHEME:
The contractor shall have to deposit 1/2 % 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.

1.16.7 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.

1.16.8 PAID LEAVE FACILITY:
Paid Leave Facility at the rate of one day for every twenty days worked by the Contract Labor, shall be provided by the Contractor to his workers. He shall maintain Leave Records, Leave Cards, for individual laborer which shall be duly verified, approved and certified by the Authorized Officer of the GETCO.

1.16.9 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 purchaser shall not be responsible for any payments of compensation to the workers/supervisor of the contractor for fatal or non-fatal accidents during the tendency of the contract.

1.16.10 the contractor shall employ adequate number of experienced staff at site for daily supervision and for maintenance of various registers and records required under the law and contract. No payment for supervision shall be admissible.

1.16.11 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 whatever, 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 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 or his Sub-Contractor and the Contractor shall indemnify and keep indemnified the GETCO against all claims, demands, proceedings, cost, charges and expenses whatsoever in respect thereof or in relation thereto.

1.16.12 **WORKMEN'S COMPENSATION AND EMPLOYER'S LIABILITY INSURANCE**

Insurance shall be affected for the entire Contractor's employee engaged in the performance of this contract. If any of the work is sublet, the Contractor shall require the Sub-Contractor to provide workmen's employer's liability insurance for the latter's employees such employees are covered under the Contractor's Insurance. Workman compensation policy should be taken immediately and to be submitted to HR section.

1.17 **WAGES TO BE PAID & TIME OF PAYMENT ETC. BY THE CONTRACTOR**

The Contractor shall pay minimum wages per day to his Labors/Workers as per rates fixed under the minimum wages act. The wages of every Contract Labor 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.

The Contractor shall give his Telephone Number and Address to the GETCO, so that, in case of labour trouble etc. the Contractor can be contacted. The Contractor shall arrange to have his office outside the factory premises and the Contractor keep himself present throughout the working hours.

1.18 **REGISTRATION WITH PROVIDEND FUND OFFICE**

1) The separate P.F. code issued from P.F. commissioner is required to be taken by contractor. The contractors who do not possess separate P.F. code number of RPFC, their tender will not be considered for acceptance. The contractor should mention separate P.F. code number allotted by PPFC, along with the tender.

1.19 **REGISTRATION CERTIFICATE:**

The bidder should be registered with GETCO or PWD office of Gujarat state Govt. and bidder should produce latest registration certificate.

1.20 **BANK SOLVENCY CERTIFICATE**

Every bidder shall enclose the solvency certificate. In absence of this, the tender may not be considered by the GETCO.
1.21 Bids shall be submitted as under:

Cover-I Earnest Money Deposit (Bid-Security), Annexure (A), as per relevant Clause of SCC duly signed and Contractor’s covering letter. Tender fee details (as per tender notice)

Cover-II Technical Bid (PART-I & II)-Qualifying Requirements. Must contain conditions and schedules of Part-III without prices and Technical Data Requirement Sheets as per Part-II. (Cover I, II and III will be collectively called Technical Bid).

All above 2 covers should be enclosed in main envelope.

The price bid is not to be submitted with the physical documents.

Signature of Contractor

Superintending Engineer (TR)
GETCO, CO, Navsari
1. The Gujarat Energy Transmission Corporation Ltd., Navsari hereinafter called ‘GETCO’/ ‘OWNER’ intends to receive bids for “Work of erection of 66KV equipment, structures, control wiring, yard Lighting, Control-Room & Staff-Quarter Electrification etc at 66KV Vyara-II S/S.” detailed in the accompanying specifications in accordance with Terms and Conditions herein. The bids shall be prepared and furnished as per these instructions.

2. **The validity of tender is 180 days from the date of opening of technical bid**

3. All commercial terms and conditions except rates shall be indicated in the technical & commercial bid only.

4. The Tenderers shall specifically note that the Tenders are invited on percentage basis only.

5. The tenderers will ensure submission of the Tenders duly filled in before the due date and time.

6. **Security deposit:** - The contractor will have to pay the Security Deposit at 5% of the order value on placing the order out of which 2.5% will have to paid by demand draft / FDR in the name of ‘GUJARAT ENERGY TRANSMISSION CORPORATION LTD/A/c. name of bidder’ within 7 days from the date of the issue of LOI, and the remaining 2.5% will be recovered from the first two R.A. Bills and higher percentage of security deposit may be fixed at the direction of The Superintending Engineer. Alternatively you may pay the entire S.D. in the form of FDR/B.G.as per approved format of the GETCO issued by Nationalized/Scheduled Bank. FDR/B.G. issued by some co-operative bank is acceptable. The security deposit will be refunded only after the completion of guarantee period of 1 year of work done or finalization of final bill whichever is later. **If contractor fails to make the payment of S.D within 10 days after receipt of LOI; than EMD will be forfeited.**

7. **Contract Period :-** The time allowed for completion the work is **Three Months** from the date of the commencement of the work, failing which the penalty ½% per week or part thereof on delayed portion of work and / or supply value subject to ceiling of 10% of the total contract value will be imposed.

8. The time limit for the work may be reduced and contractor should make all his efforts to complete the work within stipulated time limit as may be given by the Engineer in charge depending upon emergency of work, GETCO reserves the right to reduce the time limit without giving any notice.

9. **SERVICE TAX :-**
   (i) Contractor has to submit the Service Tax Registration certificate (ST-2).
   (ii) Contractor should be registered for the service under which they shall pay the service tax for this contract.
   (iii) Contractor has to submit invoice with each RA bill & Final Bill and in which it shall be specifically mention the nature of service & code under which the amount of service tax payable by contractor and payable by GETCO (if any) without fail.

10. **WELFARE CESS:-**
    1. As per the Welfare Cess Act, the welfare cess @ 1% is applicable on supply and erection items for supply, erection, testing & commissioning of substation, transmission lines, EPC/Turnkey projects, and civil works.
    2. Contractor shall get registered under Welfare Cess Act before commencement of work in required head as per nature of work. Office of the Factory Inspector is authorized at present as a registering authority.
    3. GETCO shall pay the welfare cess by way of reimbursing to contractors on production of documentary evidence of payment. Registration charges will not be reimbursed.
    4. The contracts for which supply or part supply of material are in the scope of GETCO, then contractors shall deposit welfare cess on estimated cost of supplied
items to GETCO on progressive basis of utilization. As this part of welfare cess is on GETCO account, the same shall be reimbursed to the contractor on receipt of request letter along with documentary evidence of payment. For calculation of welfare cess on supply part, valuation as per MR shall be taken and informed to the contractor for payment. This will be over and above the A/T value. The modality of payment/reimbursement of welfare cess will be as under.

5. On receipt of A/T, the contractor / bidder will get them registered under Welfare Cess Act and submit the documentary evidence to the concern office. Copy of Registration certificate shall be submitted before submission of 1st RA bill.

6. Before release of payment of first R.A.Bill, the contractor has to submit the documentary evidence of registration. Only thereafter, the bill will be processed for payment.

7. Before release of payment of subsequent R.A.Bills, the contractor has to submit the documentary evidence of payment of welfare cess of previous R.A.Bill.

8. The welfare cess shall be reimbursed to the contractor on submission of copy of documentary evidence of payment by observing due formalities.

11. **Service tax & welfare tax shall be reimbursed on production of proof of such payments made by the contractor to the appropriate department.**

12. The contractor will have to give indemnity bond for material on Non-judicial Stamp paper of value Rs. 100/- to GETCO as per attached format. The cost of stamp paper will be born by the contractor.

13. The contractor will have to give safety cum indemnity on Non-judicial Stamp paper of value Rs. 100/- to GETCO against any possible claim of compensation for damage to contractor’s staff or any of third party during the execution of work. The cost of stamp paper will be born by the contractor.

14. **Also the successful bidder will have to execute Agreement on stamp paper of value Rs.100/- at our Transmission Circle, GETCO, Navsari before commencement of works as per GETCO’s prescribed Performa. The cost of stamp paper will be borne by the contractor.**

15. **Guarantee:** It is the responsibility of the contractor to handover the complete work free of all defects. If within a period of one year from the date of handing over the work it is noticed that any defects occurs due to bad workmanship, it is the duty of the contractor to rectify / replace the same at his own cost. If within seven days from the date of receipt of such notice, the contractor does not take up the work, same will be carried out at his risk and cost.

16. 10% retention money will be deducted from each R.A. Bills against material issued to contractor.

17. 10% amount of bill will be retained from each RA bill for the work executed after the scheduled date of completion and on finalization of time limit extension by competent authority, this amount will be released after deducting amount towards the time limit penalty if any.

18. As regard damage the materials, equipment and worker of the contractor, he himself will be responsible. If there is any compensation to be paid in respect of “WORKMAN” compensation act of any other statutory provisions, the same will have to be paid by the contractor direct. If he thinks fit he may take necessary insurance cover, at his cost.

19. The quantum of the work as mentioned in estimate/schedule – ‘B’ is tentative and it can be varied or differed as per site condition. The payment shall be made only on actual work executed or order quantity, whichever is less.

20. **The Tenderer will be abided by and fulfill all the terms and provisions of the “Tender & Contract” for works as applicable and incase of any default there to the GETCO shall forfeit the S.D. or any other action as may be decided by Superintending Engineer (TR), GETCO, Navsari.**

21. The cost of damages, if any will be recovered from the Contractor’s bill. The assessment of which will be done by field Engineer at his sole discretion and his
decision shall be binding to the contractor and shall be considered as final and unchallengeable.
22. GETCO shall deduct the Income-Tax and other taxes as per prevailing rules from each and every bill.
23. No part rate or reduced rate shall be allowed in final bill.
24. The contractor has to follow all labour laws, safety rules and regulations. The GETCO does not take any responsibility in case of accident or injury to the workers. The safety/ security of men, materials and equipments shall be sole responsibility of the contractor.
25. The compliances of all Central/ State Govt. rules, safety and insurance rules etc. and that of local body, is a must condition for the agency.
26. The Gujarat Energy Transmission Corporation Limited does not bind itself to accept the lowest or any tender. GETCO reserves the right to reject any or all tender without signing any reasons whatsoever.
27. The erection work should be commenced immediately from the date of receipt of instructions from office and should be completed within thereafter.
28. The tender includes all minor accessories and items of work which are not have been specifically mentioned in the specification schedule etc. but are essential for completion of work. The contractor will not be eligible for any extra payment in respect of such minor accessories and items of work.
29. Tenderer will be qualified only who have submitted all the required documents as mentioned in tender notice.
30. No higher rate or revised rate will be applicable for the work, if work is held up/ closed due to whatever so reasons.
31. GETCO will not pay any idle charge for any site conditions or any circumstances.
32. In case of any dispute/ doubt, the decision of Superintending Engineer (TR), GETCO, Navsari shall be unchallengeable, final and binding to the contractor.
33. The contractor has to remain in close day to day contact with Engineer in charge of work i.e. DE(Const) Navsari who will issue detailed instruction for the commencement of the work.
34. Contractor will abide by and fulfill all the terms and conditions and general terms and condition of the contract for works available in the office.
35. All other general terms and conditions as prevailing in the GETCO shall be applicable to the contract.
36. The contractor will have to complete entire job as per directive and instruction of Engineer in charge. If he fails to do so entire work will be carried out at contractor’s risk and cost.
37. The contractor must engage sufficient knowledgeable persons round the clock, exclusively for oil filter machine provided by GETCO for oil filtration work. No loss of oil should occur and in case if occurs; its cost will be recovered from contractor’s bill. The contractor has to apply sufficient nos. of cycles for oil filtration works as decided by the Engineer in charge.
38. The tender shall be issued to only the experienced contractor who has completed such job of similar nature and magnitude satisfactorily in time. However, filling of on line tender, does not qualifies the tenderer to offer the bid.
39. Tender offer without payment of EMD required certificate, documents, list of tools, tackles, equipments etc. required for execution of job will be out rightly rejected without assigning any reason thereof and decision of Superintending Engineer (TR), GETCO, Navsari will be final and unchallengeable.
40. The Contractor will be governed by The GETCO’s general conditions of works contract. The Booklet will be available in the concerned office in any working days. In the event of placing order, the contractor will have to sign this booklet along with other document and agreement. All the usual terms and conditions of the GETCO, through the same might have not been mentioned in this specification or contractor booklet will
applicable to this contract, and the decision of the Superintending Engineer shall be binding on the contractor.

41. After completion of the work, all the surplus materials issued by the GETCO shall be returned by you to the respective center of the GETCO as per instruction of Engineer in charge at your cost.

42. Specification in any items mentioned in tender are subject to change without any prior notice and binding to the contractor.

43. If the work is required to be carried out during fix outage then the contractor has to deploy adequate man power, material, tools etc. well in advance and has to complete the entire work during this specific outage period only, failing to which GETCO shall be at liberally to deduct the amount of revenue loss due to prolong outage.

44. If required by GETCO you shall have to provide free to and fro traveling facility to our Junior Engineer or Technical staff for the work.

45. The contractor shall not refuse to execute the work order at any time and it will be his sole responsibility to execute and complete this work as per the instruction of Engineer in charge.

46. For shortages of any materials issued by the GETCO for the work, recovery shall be made from you, on the basis of prices of the materials (prevailing on the date of settlement of materials account) plus 15% supervision charges.

47. No subcontractor, Power of Attorney shall be allowed without prior approval of competent authority.

48. All the materials issued by GETCO shall be transported to the work site on same day and to be preserved in safe custody failing to which GETCO shall initiate legal action if required. Similarly as per instruction of Engineer in charge, you have to credit the material at GETCO store without any loss of time failing to which GETCO shall initiate legal action if required.

49. No tools, tackles, manpower, crane facilities etc. will be provided by the GETCO.

50. The contractor has to submit the list of tools, tackles, equipments with him along with his tender offer. The tender without this list and other required documents (as mentioned above herein the tender) should be rejected out rightly.

51. The contractor has to deploy minimum 8 to 10 skill labours/ fitters at site daily failing to which GETCO shall deduct 1,000/- per day from the bill.

52. The bidder shall specifically note that GETCO will not pay any extra amount towards any type of claim except for the description indicated in Schedule – B’. The party has to carry out all other/ additional required activities/ works as directed by Engineer in charge which is not mentioned in Schedule but required to be completed as per site condition and for this work no extra payment shall be made by GETCO.

53. GENERAL:-

a) The interpretation of specifications doubts etc.:- In case of any doubts about what is mentioned in specification or schedule or elsewhere, the tenderer should get all doubts cleared from the Department in writing and in advance of filling in the Tender. In case of difference of opinion about interpretation of specification etc the decision of Superintending Engineer, Transmission Circle, GETCO, Navsari will be final and shall be binding to the contractor.

b) Accounts of Materials issued:- The contractor shall have to maintain accurate day to day and item wise account of use of issued materials which shall be got checked from time to time by the representative of the GETCO. The contractor will be responsible for custody and preserving the issued materials till the work is handed over by the contractor after completion.

c) The contractor has to maintain site register, covering all the daily details of material receipt and utilization, progress of work etc. This register shall be checked and signed by Engineer in charge and Executive Engineer during the site visit. Any bill without site register shall not be passed.
54. The contractor shall be responsible for breakages, losses and theft of material during transit or erection after the materials issued from the stores till the completion of work and is taken over by the GETCO.

55. The contractor will be responsible for the loss, distribution of deterioration of the materials, stores or articles supplied to him by the GETCO, even if such a loss distribution or deterioration has occurred under any circumstances whatsoever beyond his control as if the materials, stores or articles so supplied were his property.

56. The contractor shall co-operate with the GETCO in recording measurement etc. as expeditiously as possible and he shall fulfill all the requirements which are necessary to finalize the accounts on the basis of its records and pay him such amount as if found due to him together with the amount of security deposit. If any remaining payable to him after deduction there from the amount due by him to the GETCO. The GETCO shall not entertain further claim from thereafter.

57. The competent authority can delete any item in schedule of the tender, if he feels that the rate quoted by the contractor for that item is abnormally high when compared to the estimated rates.

58. Delivery of Material: - All material/equipment required for this work as per schedule shall be delivered at any store centers of Const. Division, Navsari jurisdiction and contractor has to take delivery from these stores at his own cost only.

59. You will ensure that completion of erection work i.e. all works connected with substation having been completed correctly as per Indian Electricity Rules & procedure. Any extra cost involved due to incompleteness of work or bad workmanship found out Subsequently shall be set right forth with by you at your own cost.

60. Billing and Payment Terms
   (a) The contractor shall have to submit the RA bill of order to the concerned Deputy Engineer of sub-division of concerned division for payment once in a month period.
   (b) 90% payment of amount claimed covering various activities such as excavation, foundation, erection, earthing, stringing of bus bar and earthwire including insulator hoisting works against R.A. bills duly certified by EIC within 60 days from the date of R.A. bill.
   (c) Balance 10% of erection value shall be paid within 60 days against completion of work only after settlement of material account statement of items supplied, used, erected and successful commissioning of Sub-Station line the same amount will be release in final bill only and payment will be made only after passing of final bill.
   (d) If net payable amount is more than Rs 5.0 Lacs, payment will be released from circle office/corporate office.
   (e) The payment will be released within 60 days. However, in case of any delay due to any eventuality no interest charges shall be paid.
   (f) All the bills in accordance with the above clauses must be submitted with the following information:
      1) Item wise work done during billing period.
      2) Item wise cumulative work done.
      3) Account for material consumed and balance stock.
      4) For non-submission or part submission of above information, an additional 5% amount of the respective RA bill shall be withheld and shall only be released at the time of final bill.

61. PROTECTION OF PROPERTY AND CONTRACTOR'S LIABILITY
The Contractor shall be responsible for any damage resulting from his operations. He shall also be responsible for protection of all persons including members of public and employees of the Owner and the employees of other Contractors and Sub-Contractors and all public and private property.
62. Quantities given in the Schedule of erection in price Bid are to be executed by the contractor at the rates accepted by the Board in the A/T. In case of any deviation in tower quantity / type of tower / length of line, excavation / concreting resulting into an increase in which event the field officer shall obtain prior approval of the Head Office and excess quantity shall be paid only at the accepted rate of the A / T. No any Excess work / amount to be executed without prior approval of competent authority.

63. The erection work beyond contractual ceiling amount shall be done only after approval from the GETCO authority.

64. **CONTRACTOR’S SITE ESTABLISHMENT**
The Contractor shall at all times keep posted an authorized representative for the purpose of the Contract. Any written order or instruction of the Engineer or his duly authorized representative shall be communicated to the said authorized resident representative of the Contractor and the representative shall be available at a stated address for this purpose.

65. **CO-OPERATION WITH OTHER CONTRACTORS**
Contractor shall co-operate with all other Contractors or tradesmen of the Owner, who may be performing other works on behalf of the Owner and the workmen who may be employed by the Owner and doing work in the vicinity of the Works under the Contract. The Contractor shall also so arrange to perform his work as to minimize, to the maximum extent possible, interference with the work of other Contractors and their workmen. Any injury or damage that may be sustained by the employees of the other Contractors and the Owner, due to the Contractor’s work shall promptly be made good at the Contractor’s own expense.

66. **PROTECTION OF WORK**
The Contractor shall have total responsibility for protecting his works till it is finally taken over by the Engineer. No claim will be entertained by the Owner or by the Engineer for any damage or loss to the Contractor’s works and the Contractor shall be responsible for complete restoration of the damaged works to original conditions to comply with the specification and drawings.
1. TAKING DELIVERY AND INSURANCE:

1.1 The contractor has kept S/S & line materials in safe custody and transport to the respective sites and will be reasonable for any damages to or loss of all materials at any stage during transportation or erection or taking over of the line by GETCO.

1.2 The Contractor has to open site store and ensure for safe custody of all the stored materials at his own cost.

1.3 The Contractor shall have total responsibility for the entire materials stored loose, semi assembled and/or erected by him at site in his custody. The Contractor shall make suitable security arrangements is at own cost to ensure the protection of all materials, equipments and works from theft, fire pilferage and any other damages and loss, it shall be the responsibility of the contractor to arrange for security till the works are finally taken over by the Corporation.

2. STORAGE-CUM-ERECTION INSURANCE:

2.1 The contractor shall take suitable storage-cum-erection insurance cover at his cost to the extent of 100% cost of s/s/line materials, which are required to complete the sub-station /line. Bidder shall have to take the comprehensive Marine cum Erection (MCE) insurance policy against any loss, damage, theft, pilferage, fire etc. for the complete period of storage, fire etc. for the complete period of storage, erection and commissioning up to the time of taking cover of the sub-station/line by GETCO. The contractor shall deal directly and pursue the claim with the Insurance Company and shall be responsible in regard to maintenance of all insurance coverage as well as for settlement of claim. The proof of insurance policy taken by the successful contractor shall be furnished / submitted to Engineer-in-charge of GETCO. No material shall be issued to bidder/erection agency in absence of such insurance policy. The risk shall be covered for lifting of materials from store to final handing over to GETCO. Further in absence of the above insurance policy, R.A. bill payment will be withheld.

2.2 In the event of any damage, theft, loss, pilferage, fire etc, Contractor will be responsible to lodge, pursue and settle all the claims with the insurance company for all items, materials and the corporation shall be kept informed about it. Contractor shall replace the lost/damaged materials/items promptly irrespective of the settlement of the claims by underwriter and ensure that the work progress is as per agreed schedule. The loss, if any, such replacement will have to be borne by the contractor and GETCO will not entertain any claim/representation in this regard. However it will be contractor’s responsibility to insure the entire project till the line / sub-station or any other project / works is taken over by the GETCO.

2.3 The approximate material cost for the work of Work of erection of 66KV equipment, structures, control wiring, yard Lighting, Control-Room & Staff-Quarter Electrification etc at 66KV Vyara-II S/S is Rs 26046807.93.

3. INSURANCE

3.1 The Contractor at his cost shall arrange, secure and maintain all insurance as may be pertinent to the Works and obligatory in terms of law to protect his interest and interests of the Owner against all perils detailed herein. The form and the limit of such insurance as defined herein together with the underwriter in each case shall be acceptable to the Owner. However, irrespective of such acceptance, the responsibility to maintain adequate insurance coverage at all time during the period of Contract shall be of Contractor alone. The Contractor’s failure in this regard shall not relieve him of any of his contractual responsibilities and obligations. The insurance covers to be taken by the Contractor shall be in the joint name of the
Owner and the Contractor. The Contractor shall, however, be authorized to deal directly with Insurance Company or Companies and shall be responsible in regard to maintenance of all insurance covers. Further the insurance should be in freely convertible currency.

3.2 Any loss or damage to the material during handling, transportation, storage, erection, and all activities to be performed till the successful completion of commissioning of the line shall be to the account of the Contractor. The Contractor shall be responsible for preference of all claims and make good the damages or loss by way of repairs and/or replacement of the equipment, damaged or lost. The transfer of title shall not in any way relieve the Contractor of the above responsibilities during the period of Contract. The Contractor shall provide the Owner with copy of all insurance policies and documents taken out by him in pursuance of the Contract. Such copies of documents shall be submitted to the Owner immediately after such insurance coverage. The Contractor shall also inform the Owner in writing at least sixty (60) days in advance regarding the expiry/cancellation and/or change in any of such documents and ensure revalidation, renewal etc., as may be necessary well in time.

3.3 The perils required to be covered under the insurance shall include, but not be limited to fire and allied risks, miscellaneous accidents (erection risks) workman compensation risks, loss or damage in transit, theft, pilferage, riot and strikes and malicious damages, civil commotion, weather conditions, accidents of all kinds, etc. The scope of such insurance shall be adequate to cover the replacement/reinstatement cost of the equipment for all risks up to and including delivery of goods and other costs till the equipment is delivered at Site. The insurance policies to be taken should be on replacement value basis and/or incorporating escalation clause. Notwithstanding the extent of insurance cover and the amount of claim available from the underwriters, the Contractor shall be liable to make good the full replacement/rectification value of all equipment/materials and to ensure their availability as per project requirements.

3.4 **PENALTY FOR DELAY:**
The bidder should note that the completion time allowed for carrying out the work should be strictly observed. Any delay that may take place in supply and erection beyond contractual cutoff date stated as per stipulated delivery period shall be subject to the penalty ½% per week or part thereof on delayed portion of work and/or supply value subject to ceiling of 10% of the total contract value will be imposed.
TERMS & CONDITIONS REGARDING INDUSTRIAL LAWS AND OTHER RELATED MATTERS

1) Wages to be paid at time of payment etc. by the contractor.
   a. The contractor shall pay minimum prevailing rates per day or as may be specified hereafter or rates fixed under the minimum wages Act. Whichever is higher. The wages or very contract labour employed by him under this contact shall be paid by him before the expiry of 7th day of the month in respective of which the wages are payable (i.e. wages of a month have to be paid by him in the first week of the next month). The payment shall be disbursed in the presence of management representative during the working hours in factory premises and the contractor shall get the entries certified in the register of wages by the representative of the GETCO. Any default will result in cancellation of contract forthwith or also the contractor shall be paid punishable to the extent of Rs.100/- fine per each day.
   b. The contractor shall give his telephone number and address to the GETCO so that in case of labour troubles etc. the contractor can be contacted. The contractor shall arrange to have his office outside the factory premises and the contractor shall keep himself present throughout the working hours.

2) Labour Laws

   (A) Person below the age of 18 years shall not be employed for the work.
   (B) No. female worker shall be employed in the night shift between 7 p.m. to 6 a.m.
   (C) Contractor shall maintain a valid labor license under the contract labour (Regulation and Abolition) Act for employing necessary manpower to be required by him. In the absence of such license the contract shall be liable to be terminated without assigning any reason thereof.
   (D) The contractor shall at his own expenses comply with all labour laws and keep the GETCO indemnified in respective 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 charge etc. at the rates make applicable from time to time by Government of Gujarat/Government of India or other statutory authority.
   (ii) Payment of deposit in respect of each contract labour at the rate as per admissible 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 employed by the contractor.
   (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) Identify cards as prescribed under the factories Act with photo at fixe there to the same identification. Liabilities as per industrial Disputes Act any payment to the contractor’s employees arising out of any claim or disputes under the industrial Disputes Act, 1947 or any other labour laws.
   (vi) Payment of compensation in case accidental injury.
   (vii) Maternity leave as per the provisions of the maternity Benefit Act. 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.
3) **Provident fund & Family pension Scheme:**

The contractor shall submit along with his bill (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 at admissible (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 concern regional Provident Fund Commissioner office.

4) **Deposit Linked Insurance Scheme:**

The contractor shall have to deposit ½ % of the wage in respect of employees who is a member of the Provident Fund as the contribution to the deposit. Linked insurance Scheme with concern regional Provident Fund Commissioner office.

5) **Administrative Charges:**

Administrative charges for maintaining provident fund A/C shall be deposited by the contractor with concern regional Provident Fund Commissioner office at the rates applicable.

6) **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 and approved/certified by the authorized officer of the GETCO.

7) **Workmen’s compensation fund & Employer’s Liability Insurance:**

The contractor shall cover all his employees under workmen’s compensation fund and under the liability insurance. Insurance shall be affected for the entire contractor’s employee engaged in the performance of this contract. If any of the work is subject to the contractor shall require the sub-contractor to provide workmen’s compensation and employer’s liability insurance for the latter’s employees unless such employees are covered under the contractor’s insurance.

8) The contractor shall employ adequate number of experienced staff at site for dial supervision and for maintenance of various register and records required under the law and contract No. payment for supervision shall be admissible.

9) **Contractor to Identify the GETCO:**

The contractor shall indemnify the GETCO and every member officer and employees of the GETCO also, engineering in charge and his staff against all actions, proceeding, claims demands, costs and expenses which may be made against the GETCO or Government for or in respective of formance of his obligation under the contract documents. The GETCO shall not liable for or in respective of or in consequence of any accident or injury to any workman or other person in the employment of the contractor or his sub-contractor and the contractor shall indemnify and keep indemnified the GETCO against all such damage and compensation and against all claims, demands, proceedings costs, charges and expenses whatever in respective thereof in relation thereto.

10) The GETCO reserves the right to terminate this rate contract at any time during its tendency without giving notice of termination or any reasons thereof.

11) The GETCO will be entitled to deduct directly from the bills, to be paid to the contractor any sum or payable by you and which sum/sums the GETCO is required to pay as principal employer on account of your default in respect of all liabilities referred to in above clauses.
ERECTION CONDITIONS OF CONTRACT

1.0 GENERAL

1.1 The following shall supplement the conditions already contained in other parts of these specifications & document and shall govern the portion of the work of this Contract to be performed at Site.

1.2 The Contractor upon signing of the Contract shall, nominate a responsible officer as his representative at Site suitably designated for the purpose of overall responsibility and coordination of the works to be performed at Site. Such person shall function from the Site office of the Contractor during the pendency of Contract.

2.0 REGULATION OF LOCAL AUTHORITIES AND STATUTES

2.1 The Contractor shall comply with all the rules and regulations of local authorities during the performance of his field activities. He shall also comply with the Minimum Wages Act, 1948 and the Payment of Wages Act (both of the Government of India) and the rules made thereunder in respect of any employee or workman employed or engaged by him or his Sub-Contractor. He shall abide by labour laws and others as specified in the special conditions of contract.

2.2 All registration and statutory inspection fees, if any, in respect of his work pursuant to this Contract shall be to the account of the Contractor. Should any such inspection or registration need to be re-arranged due to the fault of the Contractor or his Sub Contractor, the additional fees to such inspection and/or registration also shall be borne by the Contractor.

3.0 OWNER'S LIEN ON EQUIPMENT

The Owner shall have lien on all equipment brought to the Site for the purpose of erection, testing and commissioning of the equipment to be supplied & erected under the Contract. The Owner shall continue to hold the lien on all such equipment throughout the period of Contract. No material brought to the Site shall be removed from the Site by the Contractor and/or his Sub-Contractors without the prior written approval of the Engineer.

4.0 ACCESS TO SITE AND WORKS ON SITE

4.1 Suitable access to and possession of the Site shall be afforded to the Contractor by the Owner in reasonable time.

4.2 The works so far as it is carried out on the Owner’s premises, shall be carried out at such time as the Owner may approve and the Owner shall give the Contractor reasonable facilities for carrying out the works.

4.3 In the execution of the works, no person other than the Contractor or his duly appointed representative, Sub-Contractor and workmen, shall be allowed to do work on the Site, except by the special permission, in writing of the Engineer or his representative.

5.0 CONTRACTOR’S SITE ESTABLISHMENT

The Contractor shall at all times keep posted an authorized representative for the purpose of the Contract. Any written order or instruction of the Engineer or his duly authorized representative, shall be communicated to the said authorized resident representative of the Contractor and the representative shall be available at a stated address for this purpose.

6.0 CO-OPERATION WITH OTHER CONTRACTORS

6.1 The Contractor shall co-operate with all other Contractors or tradesmen of the Owner, who may be performing other works on behalf of the Owner and the workmen who may be employed by the Owner and doing work in the vicinity of the Works under the Contract. The Contractor shall also so arrange to perform his work as to minimize, to the maximum extent possible, interference with
the work of other Contractors and their workmen. Any injury or damage that may be sustained by
the employees of the other Contractors and the Owner, due to the Contractor’s work shall
promptly be made good at the Contractor’s own expense.

7.0 DISCIPLINE OF WORKMEN

The Contractor shall adhere to the disciplinary procedure set by the Engineer in respect of his
employees and workmen at Site. The Engineer shall be at liberty to object to the presence of any
representative or employee of the Contractor at the Site, if in the opinion of the Engineer such
employee has misconduct himself or is incompetent or negligent or otherwise undesirable and
then the Contractor shall remove such a person objected to and provide in his place a competent
replacement.

8.0 CONTRACTOR’S FIELD OPERATION

8.1 The Contractor shall keep the Engineer informed in advance regarding his field activity plans and
schedules for carrying-out each part of the works. Any review of such plan or schedule or method
of work by the Engineer shall not relieve the Contractor of any of his responsibilities towards the
field activities. Such reviews shall also not be considered as an assumption of any risk or liability
by the Engineer or the Owner or any of his representatives and no claim of the Contractor will be
entertained because of the failure or inefficiency of any such plan or schedule or method of work
reviewed. The Contractor shall be solely responsible for the safety, adequacy and efficiency of
plant and equipment and his erection methods.

8.2 The Contractor shall have the complete responsibility for the conditions of the Work-site including
the safety of all persons employed by him or his Sub-Contractor and all the properties under his
custody during the performance of the work. This requirement shall apply continuously till the
completion of the Contract and shall not be limited to normal working hours.

9.0 PROGRESS REPORT

9.1 The Contractor shall furnish three (3) copies each to the Engineer of progress including if any,
photographs of the work done at Site.

9.2 The monthly progress report detailing-out the progress achieved on all erection activities shall
highlight comparison to the schedules. The report shall also indicate the reasons for the variance
between the scheduled and actual progress and the action proposed for corrective measures,
wherever necessary.

10.0 MAN-POWER REPORT

10.1 The Contractor shall submit to the Engineer, on the first day of every month, a man hours
schedule for the month, detailing the man hours scheduled for the month, skill-wise and area-
wise.

11.0 PROTECTION OF WORK

The Contractor shall have total responsibility for protecting his works till it is finally taken over by
the Engineer. No claim will be entertained by the Owner or by the Engineer for any damage or
loss to the Contractor’s works and the Contractor shall be responsible for complete restoration of
the damaged works to original conditions to comply with the specification and drawings.

12.0 EMPLOYMENT OF LABOUR

12.1 The Contractor will be expected to employ on the work only his regular skilled employees with
experience of his particular work. No person below the age of eighteen years shall be employed.

12.2 All traveling expenses including provisions of necessary transport to and from Site, lodging,
allowances and other payments to the Contractor’s employees shall be the sole responsibility of the
Contractor.

12.3 In case the Owner becomes liable to pay any wages or dues to Labour or any Government agency
under any of the provisions of the Minimum Wages Act, Workmen Compensation Act, Contract
Labour Regulation Abolition Act or any other law due to act of omission of the Contractor, the Owner may make such payment and shall recover the same from the Contractor’s bills.

13.0 FACILITIES TO BE PROVIDED BY THE OWNER

13.1 Space

Land for Contractor’s Store, Workshop etc.

a) The Engineer shall at his discretion and for the duration of execution of the Contract make available at site, land for Transmission of Contractor’s field office, workshop, stores, etc. required for execution of the Contract. Any such temporary Transmission shall be done by the Contractor at his cost.

b) On completion of work the Contractor shall hand over the land duly cleaned to the Engineer. Until and unless the Contractor has handed over the vacant possession of land allotted to him for the above purpose, the payment of his final bill shall not be made.

13.2 Electricity:

Power supply:
Where power supply is available with the Owner for Transmission purpose the same will be provided at the job site at one point of the distribution system as may be decided by Engineer. Electricity furnished will be 440 volts, 3 phase, 50 cycles and 230 volts, 1 phase, 50 cycles. Each Contractor shall provide and install all necessary transformers, switchgears, wiring fixtures, bulbs and other temporary equipment for further distribution and utilization of energy for power and lighting and shall remove the same on completion of the work. Should, however, electricity be used in the Contractor’s labour/staff colony, the power so consumed shall be charged at the prevailing tariff rate of the GUVNL as prevalent for that area at the time of award of work; the supply may be withdrawn if the power is used for purposes other than for the work of the project and the Contractor shall not be entitled to any claim whatsoever on account of any such action taken by the Engineer. For this purpose, contractor shall have to apply to DISCOM for separate temporary connection on his name.

14.0 FACILITIES TO BE PROVIDED BY THE CONTRACTOR

14.1 Tools, tackles and scaffoldings
The Contractor shall provide all the Transmission equipments; tools, tackles and scaffoldings required for pre-assembly, erection, testing and commissioning of the equipment covered under the Contract. He shall submit a list of all such materials to the Engineer before the commencement of work at Site. These tools and tackles shall not be removed from the Site without the written permission of the Engineer.

14.2 First-aid

14.3 The Contractor shall provide necessary first-aid facilities for all his employees, representatives and workmen working at the Site. Enough number of Contractor’s personnel shall be trained in administering first-aid.

14.4 Cleanliness

14.4.1 The Contractor shall be responsible for keeping the entire area allotted to him clean and free from rubbish, debris etc. during the period of Contract. The Contractor shall employ enough number of personnel to keep the work area clean. Materials and stores shall be so arranged to permit easy cleaning of the area. In areas where equipment might drip oil and cause damage to the floor surface, a suitable protective cover of a flame resistant, oil proof sheet shall be provided to protect the floor from such damage.

15.0 LINES AND GRADES

All the works shall be performed to the lines, grades and elevations indicated on the drawings. The Contractor shall be responsible to locate and lay-out the works. Basic horizontal and vertical control points will be established and marked by the Engineer at site at suitable points. These
16.0 FIRE PROTECTION

16.1 The work procedures that are to be used during the erection shall be those, which minimize fire hazards to the extent practicable. Combustible materials, combustible waste and rubbish shall be collected and removed from the Site at least once each day. Fuels, oils and volatile or inflammable materials shall be stored away from the Transmission and equipment and materials storage areas.

16.2 All the Contractor’s supervisory personnel and select number of workers shall be trained for fire fighting. Enough of such trained personnel must be available at the Site during the entire period of the Contract.

17.0 SECURITY

The Contractor shall have total responsibility for all equipment and materials in his custody/stores, loose, semi-assembled and/or erected by him at Site. The Contractor shall make suitable security arrangements ensure the protection of all materials, equipment and works from theft, fire, pilferage and any other damages and loss.

18.0 PRE-COMMISSIONING TRIALS AND INITIAL OPERATIONS

The pre-commissioning trials and initial operations of the equipment erected by the Contractor shall be carried out in presence of contractor and is deemed considered as part of the work completion. If it is anticipated that the above test may prolong for a long time, the Contractor’s workmen required for the above test shall always be present at Site during such tests and trials.

19.0 MATERIALS HANDLING AND STORAGE

19.1 All the equipment furnished under the Contract and arriving at Site shall be promptly received, unloaded, transported and stored in the storage spaces by the Contractor.

19.2 Contractor shall be responsible for examining all the shipment and notify the Engineer immediately of any damages, storage, discrepancy etc, for the purpose of Engineer’s information only. The Contractor shall submit to the Engineer every week a report detailing all the receipts during the week. However, the Contractor shall be solely responsible for any shortages or damages in transit, handling and / or in storage and erection of the equipment at Site. Any demurrage, wharf age and other such charges claimed by the transporters, railways etc, shall be to the account of the Contractor.

19.3 The Contractor shall maintain an accurate and exhaustive record detailing out the list of all equipment materials received by him for the purpose of erection and keep such record open for the inspection of the Engineer in-charge.

19.4 All equipment shall be handled very carefully to prevent any damage or loss. The equipment stored shall be properly protected to prevent damage either to the equipment or to the floor where they are stored. The equipment from the store shall be moved to the actual location at the appropriate time so as to avoid damage of such equipment at Site.

19.5 All electrical panels, control gears, motors and such other devices shall be properly dried by heating before they are installed and energized. Motor bearings, slip ring, commutators and other exposed parts shall be protected against moisture ingress and corrosion during storage and periodically inspected.

19.6 All the electrical equipment such as motors, generators, etc. shall be tested for insulation resistance at least once in three months from the date of receipt till the date of commissioning
and a record of such measured insulation values maintained by the Contractor. Such records shall be opened for inspection by the Engineer.

19.7 The consumable and other supplies likely to deteriorate due to storage must be thoroughly protected and stored in a suitable manner to prevent damage or deterioration in quality by storage.

19.8 All the materials stored in the open or dusty location must be covered with suitable weatherproof and flame proof covering material wherever applicable.

19.9 If the materials belonging to the Contractor are stored in areas other than those earmarked for him, the Engineer will have the right to get it moved to the area earmarked for the Contractor at the Contractor’s cost.

19.10 The Contractor shall be responsible for making suitable indoor storage facilities to store all equipment, which require indoor storage. Normally, all the electrical equipment such as motors, control gears, generators, exciters and consumables like electrodes, lubricants etc. shall be stored in the closed storage space. The Engineer, in addition, may direct the Contractor to move certain other materials, which in his opinion will require indoor storage, to indoor storage areas, which the Contractor shall strictly comply with.

20.0 TRANSMISSION MANAGEMENT

20.1 The field activities of the Contractors working at Site, will be coordinated by the Engineer and the Engineer’s decision shall be final in resolving any disputes or conflicts between the Contractor and other Contractors and the tradesmen of the Owner regarding scheduling and coordination of work. Such decision by the Engineer shall not be a cause for extra compensation or extension of time for the Contractor.

20.2 The Engineer shall hold weekly meetings of the Contractor at Site, at a time and place to be designated by the Engineer. The Contractor shall attend such meetings and take notes of discussions during the meeting and the decision of the Engineer and shall strictly adhere to those decisions in performing his works. In addition to the above weekly meeting, the Engineer may call for other meetings either with individual Contractors or with selected number of Contractors and in such a case the Contractors if called, will also attend such meetings.

20.3 Time is the essence of the Contract and the Contractor shall be responsible for performance of his works in accordance with the specified Transmission schedule. If at any time, the Contractor is falling behind the schedule, he shall take necessary action to make good for such delays by increasing his work force or by working overtime or otherwise accelerate the progress of the work to comply with the schedule and shall communicate such actions in writing to the Engineer, satisfying that his action will compensate for the delay. The Contractor shall not be allowed any extra compensation for such action.

20.4 The Engineer shall, however, not be responsible for provision of additional labour and/or materials or supply or any other services to the Contractor except for the coordination work between various Contractors if any at site.

21.0 FIELD OFFICE RECORDS

The Contractor shall maintain up to date copies of all drawings, specifications and other Contract Documents and any other supplementary data complete with all the latest revisions thereto. The Contractor shall also maintain in addition the continuous record of all changes to the above Contract Documents, drawings, specifications, and supplementary data, etc. effected at the field and on completion of his total assignment under the Contract shall incorporate all such changes on the drawings and other Engineering data to indicate as installed conditions of the equipment furnished and erected under the Contract. Such drawings and Engineering data shall be submitted to the Engineer in required number of copies.

22.0 CONTRACTOR’S MATERIALS BROUGHT TO SITE
22.1 The Contractor shall bring to Site all equipment, components, parts, materials, including Transmission equipment, tools and tackles for the purpose of the works under intimation to the Engineer. All such goods shall, from the time of their being brought vest in the Owner, but may be used for the purpose of the works only and shall not on any account be removed or taken away by the Contractor without the written permission of the Engineer. The Contractor shall nevertheless be solely liable and responsible for any loss or destruction thereof and damage thereto.

22.2 The Owner shall have a lien on such goods for any sum or sums which may at any time be due or owing to him by the Contractor, under, in respect of or by reasons of the Contract. After giving a fifteen (15) days notice in writing of his intention to do so, the Owner shall be at liberty to sell and dispose off any such goods, in such manner as he shall think fit and to apply the proceeds in or towards the satisfaction of such sum or sums due as aforesaid.

22.3 After the completion of the Works, the Contractor shall remove from the Site under the direction of the Engineer the materials such as Transmission equipment, erection tools and tackles, scaffolding etc. with the written permission of the Engineer.

23.0 PROTECTION OF PROPERTY AND CONTRACTOR'S LIABILITY

23.1 The Contractor shall be responsible for any damage resulting from his operations. He shall also be responsible for protection of all persons including members of public and employees of the Owner and the employees of other Contractors and Sub-Contractors and all public and private property.

24 INSURANCE

24.1 In addition to the conditions covered under the Clause entitled ‘Insurance’ in General Terms and Conditions of Contract of this Volume-I, the following provisions will also apply to the portion of works to be done beyond the Contractor’s own or his Sub-Contractor’s manufacturing Works.

24.2 Workmen’s Compensation Insurance

This insurance shall protect the Contractor against all claims applicable under the Workmen’s Compensation Act, 1948 (Government of India). This policy shall also cover the Contractor against claims for injury, disability, disease or death of his or his Sub-Contractor’s employee, which for any reason are not covered under the Workmen’s Compensation Act, 1948. The liabilities shall not be less than:

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<tr>
<th>Workmen’s Compensation Liability</th>
<th>As per statutory provisions</th>
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24.3 Comprehensive General Liability Insurance

The insurance shall protect the Contractor against all claims arising from injuries, disabilities, disease or death of members of public or damage to property of others, due to any act of omission on the part of the Contractor, his agents, his employees, his representatives and Sub-Contractors or from riots, strikes and civil commotion.

24.4 The hazards to be covered will pertain to all the works and areas where the Contractor, his Sub-Contractors, his agents and his employees have to perform work pursuant to the Contract.

24.5 The above are only illustrative list of insurance covers normally required and it will be the responsibility of the Contractors to maintain all necessary insurance coverage to the extent both in time and amount to take care of all his liabilities either direct or indirect, in pursuance of the Contract.

25.0 UNFAVOURABLE WORKING CONDITIONS
The Contractor shall confine all his field operations to those works, which can be performed without subjecting the equipment and materials to adverse effects during inclement weather conditions, like monsoon, storms etc. and during other unfavorable Transmission conditions. No field activities shall be performed by the Contractor under conditions, which might adversely affect the quality and efficiency thereof, unless special precautions or measures are taken by the Contractor in a proper and satisfactory manner in the performance of such Works and with the concurrence of the Engineer. Such unfavorable Transmission conditions will in no way relieve the Contractor of his responsibility to perform the Works as per the schedule.

26.0 PROTECTION OF MONUMENTS AND REFERENCE POINTS

The Contractor shall ensure that any finds such as relic, antiquity, coins, fossils, etc. which he may come across during the course of performance of his Works either during excavation or elsewhere, are properly protected and handed over to the Engineer. Similarly the Contractor shall ensure that the bench marks, reference points, etc, which are marked either with the help of Engineer or by the Engineer shall not be disturbed in any way during the performance of his Works. If any work is to be performed which disturbs such reference the same shall be done only after these are transferred to other suitable locations under the direction of the Engineer. The Contractor shall provide all necessary materials and assistance for such relocation of reference points etc.

27.0 WORK & SAFETY REGULATIONS

27.1 The Contractor shall ensure proper safety of all the workmen, materials, plant and equipment belonging to him or to GETCO or to others, working at the Site. The Contractor shall also be responsible for provision of all safety notices and safety equipment required both by the relevant legislations and the Engineer, as he may deem necessary.

27.4 All equipment used in Transmission and erection 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.

27.5 Periodical examinations and all tests for all lifting/hoisting equipment & 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 or by the person authorized by him.

27.6 The Contractor shall provide suitable safety equipment of prescribed standard to all employees and workmen according to the need.

27.8 The Contractor shall provide safe working conditions to all workmen and employees at the Site including safe means of access, railings, stairs, ladders, scaffoldings etc. The scaffoldings shall be erected under the control and supervision of an experienced and competent person. For erection, good and standard quality of material only shall be used by the Contractor.

27.9 The Contractor shall not interfere or disturb electric fuses, wiring and other electrical equipment belonging to the Owner or other Contractors under any circumstances, whatsoever, unless expressly permitted in writing by GETCO to handle such fuses, wiring or electrical equipment

27.10 Before the Contractor connects any electrical appliances to any plug or socket belonging to the other Contractor or Owner, he shall:

a. Satisfy the Engineer that the appliance is in good working condition;

b. Inform the Engineer of the maximum current rating, voltage and phases of the appliances;

c. Obtain permission of the Engineer detailing the sockets to which the appliances may be connected.
27.11 The Engineer will not grant permission to connect 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 metal sheath surrounding the cores.

27.12 No electric cable in use by the Contractor/Owner will be disturbed without prior permission. No weight of any description will be imposed on any cable and no ladder or similar equipment will rest against or attached to it.

27.13 No repair work shall be carried out on any live equipment. The equipment must be declared safe by the Engineer and a permit to work shall be issued by the Engineer 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.

27.14 In case any accident occurs during the Transmission/erection or other associated activities undertaken by the Contractor thereby causing any minor or major or fatal injury to his employees due to any reason, whatsoever, it shall be the responsibility of the Contractor to promptly inform the same to the Engineer in prescribed form and also to all the authorities envisaged under the applicable laws.

27.15 The Engineer 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. In such cases, the Contractor shall be informed in writing about the nature of hazards and possible injury/accident and he shall comply to remove shortcomings promptly. The Contractor after stopping the specific work can, if felt necessary, appeal against the order of stoppage of work to the Engineer within 3 days of such stoppage of work and decision of the Engineer in this respect shall be conclusive and binding on the Contractor.

27.16 The Contractor shall not be entitled for any damages/compensation for stoppage of work due to safety reasons as provided in para 27.15 above and the period of such stoppage of work will not be taken as an extension of time for completion of work and will not be the ground for waiver of levy of liquidated damages.

27.17 It is mandatory for the Contractor to observe during the execution 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, 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 work site for rendering prompt and sufficient first aid to the injured.

j) 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.

27.18 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 causing death
   Rs. 1,00,000/- per person
b. Major injuries or accident causing 25% or more permanent disablement to 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.

28.0 CODE REQUIREMENTS

The erection requirements and procedures to be followed during the installation of the equipment shall be in accordance with the relevant Codes and accepted good engineering practice, the Engineer’s drawings and other applicable Indian recognized codes and laws and regulation of the Government of India.

Signature of Contractor

Superintending Engineer (TR)
GETCO, CO, Navsari
PART – II

TECHNICAL PARTICULARS FOR ERECTION, OF EQUIPMENT AT SUB-STATION

3.1 SCOPE:

3.1.1 The scope for erection works covered under this section consist of:

i) Taking delivery of equipments and other material from the Board’s stores, checking them, transporting to site's stores and keeping in safe custody by contractor.

ii) To take suitable storage-cum-erection insurance of equipments/materials issued by the Board.

iii) Distribution of all materials to erection site at 66kv Sub Station.

iv) Structure/Equipment erection including fixing of attachments, accessories and tack-welding of structures.,

v) Stringing of ACSR/AAAC Panther conductor bus with fixing of insulators, Hardware, dampers, spacers etc.

vi) Workmanship guarantee of all the activities carried out from (i) to (v).

3.1.2 The successful Contractor shall carry out all addition/alteration required to complete the transformer for commissioning.

3.1.3 The Board will supply equipments, structure materials, bolts-nuts, structure accessories / attachments, insulators, insulator-hard wares, conductor, accessories, ground wire, ground wire accessories, Control cable etc. required for erection of equipments and other associated works.

3.1.4 All works shall be carried out in accordance with the revised and latest Provisions under Indian Electricity Act and Rules made hereunder.

3.1.5 The contractor at his own cost shall arrange all the erection tools required during execution of work. The Contractor solely is responsible for any damage and / or loss of his erection tools.

3.1. The Contractor shall be fully responsible for completing all the above works till the complete transformer is taken over by the Board, and thereafter up till guarantee period.

3.1. The methods of erection are not dealt with in detail but are left to the Contractor
who shall exercise his own judgment with regards to actual handling of equipments & materials and in deciding upon the best methods to be adopted for all the erection activities.

3.1. The successful bidder shall carry out all the erection works in accordance with structural drawings, and other erection drawings etc. provided by the Board.

3.2 LAYOUT OF SUB STATION

3.2.1 The proposed layout of the sub station is available with concerned field office. The bidders are presumed to have acquainted themselves with the site before submitting their offer.

3.2.2 The successful bidder has to collect from concerned field office the detailed layout drawing along with the following drawings for the sub station duly approved by the Board immediately on receipt of the Order. He shall also arrange visit of proposed site jointly with Board’s representative for important marks coming across the scope of works under the contract. Structural drawings of 66 KV Structures listed at Schedule - B

3.3 TECHNICAL INSTRUCTIONS TO THE BIDDER

3.3.1 The works shall be carried out strictly as per the erection manuals and shall fully comply with the relevant Indian Standard. The IE rules and Acts in force from time to time shall also be applicable during pendency of the contract.

3.4 ERECTION AND COMMISSIONING TOOLS & TACKLES.

3.4.1 The contractor shall provide all tools/tackles, jigs and fixtures, winches, alignment tools, welding sets, , breaker handling devices, all consumable items and Transmission equipment as required to install the equipments and to complete the work in all respects and shall necessarily include (but not limited to ) bolts, nuts, rivets, welding rods, shims, wedges, packing sheets, packing compounds, oil installation and protection of individual equipment in storage and during erection.

3.4.2 This shall also cover proper alignment, tack welding tagging, laying marking of and connection of cables, fabrication supply and installation of all support structures for installation of various electrical equipment and cables

3.4.3 Provision of cable glands, ferrules, and cable lugs tags sealing kit (for HT cables) shall also be arranged by the contractor.

3.4.4 Erection of various equipment shall be done strictly as per manufacturer's instructions

3.4.6 All additional iron framework erected to put the equipment in operational
condition shall be provided with two coats of primer and two topcoats of finish paint.

3.4.7 Special care shall be taken to make the enclosed equipment protected against entry of rates, lizard, and creeping reptiles, which may create electrical short circuits.

3.5.0. **COMPLETION OF ERECTION (GENERAL)**

3.5.1. Equipment shall be considered to have been completely erected when the following activities have been completed.

3.5.2 Moving of all equipments to the respective foundations.

3.5.3. Fixing of anchor bolts or tack welding as required.

3.5.4 Leveling and alignment of equipment.

3.5.5 Assembling of all accessories such as relays, CTs, PTs, meters instruments etc. as described in the job specifications.

3.5.6. Drying of equipment as required and testing of oil for dielectric strength.

3.5.7 Filtration and filling of oil as required.

3.5.8. Cable laying, termination with continuity checks.

3.5.9. Applying of finishing coat of pain wherever required.

3.5.10. Mounting of lighting fixtures & connections.

3.5.11. Testing of all system with operation of all protection system.

3.6.0 **ERECTION OF SWITCHYARD STRUCTURES.**

3.6.1. Erection of switchyard structure shall mean erection of gantry column, beams, equipment support structure and lighting mast, VHF masts, watch and ward observation posts if any.

3.6.2 The foundation work of switchyard structure is not in the scope of this tender. The foundation with concreted anchor bolts shall be made available by GETCO well in time to enable the contractor of this work to get a clear working front.

3.6.3. The switchyard structure shall be made available to the contractor in the knocked down condition either at site or from any other store of GETCO in the radius of 100 KMs. Small parts like cleat, plate fasteners step bolts and other accessories (if any) shall also be supplied as above separately.

3.6.4. Before commencement of the erection work, the contractor shall check cast foundations and anchor bolts for their individual and mutual distances and also for the correctness of concreted bolts in terms of number and verticality. In case of any disagreement with the lay out drawing, the matter may be referred to Engineer in charge for remedial measures who in turn will arrange
such remedial measures. However, the contractor shall also render necessary assistance in the matter.

3.6.5. The erection of structure shall be done strictly as per the approved set of structural drawings to be given by the GETCO. The erected column for bringing the structure in alignment or bringing the structure in plumb shall be allowed.

3.6.6. The erection of column/beams shall be done in phased manner on already erected column. The elevation faces of the beam should be first fastened to the column one by one and thereafter plan bracings should provide one by one to complete the beam geocentric Pre-stressing of beam member for alignment should be avoided. In case of difficulty in fabricated material or otherwise, the Engineer in charge should be contacted for remedial measures who in turn will take necessary action. However the contractor shall also render necessary assistance in this work to Engineer in charge for speedy completion of work. The load points rings bracing shall also be provided as per drawings.

3.6.7. The Cross-connected beams should be perfectly at right angle and matching with respective faces of the column. No column or beam shall be erected with missing members.

3.6.8. The method of erection is not being dealt with in detail here. However, while making the rigging arrangement, it should be ensured that no column beam or part thereof is damaged due to misjudgment. All the members, plates, cleats, bolts, buts and other accessories should be fitted to the column, beam support structure as per the approved drawing.

3.6.9. After the erection of beam and column, the bolt nuts should be properly tightened and center punched. The thread protruding bolt should be dented in the contact surface of nut at 3 point 120 degrees apart to eliminate loosening of bolt due to vibration. The stringing of bus bar conductor be done only after getting certificate from Engr. in charge that all bolts &nuts are provided as per approved drawings and tightened.

3.6.10. The equipment support structure should also be erected like gantry column. They should well be in plumb with all members fitted as per approved drawings and bolt nuts properly tightened. The contractor shall also take care to see that the alignment of foundation of equipment support structure is well done. The equipment support structures shall be erected as per the approved drawings.

3.7 **GANTRY STRINGING (BUS BAR STRINGING)**
3.7.1. After the erection of gantry structure and equipment support structure is over, the contractor shall take up bus bar and line gantry structure stringing.

3.7.2. The configuration of bus contractor shall obtain type of conductor to be used from the purchaser well in advance. The sag and tension of the bus bar conductor and line conductor shall be coordinated with the help of Engr in charge so that a mutual distances of the strung conductor and the ground clearance of the strung conductor does not cross the limit set out in the electricity rules and acts.

3.7.4. The method of handling the conductor accessories is not dealt in details, however, contractor can himself get informed about the same and see that conductor and other material is handed over properly and is string scratch free to the extent possible. No joint or use of repair sleeve will be permitted in the bus bar and line gantry stringing. While stringing between twin and quadruple bundle conductor, care shall be taken to keep tension in all sub conductors equally. Adjustment in the sag shall be carried out by sag adjustment plate if provided in the tension insulator strings.

3.7.5. All the insulator strings to be used on the structure shall be properly cleaned with the cloth. Compression dead end joints of the conductor shall be made after proper marking. There should not be any difference in he position of dead end compression joints amongst the sub conductors of a twin or quadruple bundle conductors. All the tension insulator string shall be double tension type. The pilot insulator string or a guide insulator string shall be single suspension type. The corona control ring space clamp and other accessories if any on insulator stringing shall also erected as per the drawing.

3.7.6. The earth wire to shield the conductors from lighting stroke shall be provided along the column in each bay of the switchyard and across, as per the switchyard lay out and sectional view drawing and as per the instruction of Engineer in charge. the earth wire shall be fitted with all accessories like suspension clamp, tension clamp cross by clips, copper earth bold etc. completed. No mid span joint shall be permitted in the switchyard earth wire stringing.

3.7.7. After the bus bar and line gantry stringing work is over, the contractor shall provide droppers for the equipment connection to bus bar or line conductors by using prescribed clamps and connectors the configuration of dropper shall be obtained by contractor from the GETCO as per requirement. The dropper is to be provided with ACSR Panther conductor.

3.8 ERECTON OF SECONDARY EQUIPMENTS.
3.8.1. The secondary equipments like PI, CT, CVT, PT, LA (Surge arrestors) wave trap etc. shall be procured by the contractor from the site store centre or other store centers of the GETCO and transported to the site at the cost of contractor. The contractor shall also do loading and unloading of the equipment.

3.8.2. After the arrival of equipment at site, packing shall be gently removed without causing any damage to the equipment. The equipment shall be checked for its correctness of dimension, make etc. as per the approved drawing. The equipment then shall be cleaned by a piece of cloth and made ready for erection.

3.8.3. The equipment shall be mounted on the ready pedestal (of masonry) or steel structure as the case may be and checked the same for its verticality. Transmission of masonry pedestal is not in the scope of this work.

3.8.5. In case of CT, PT and CVT, the junction box or terminal box of the equipment shall be opened, cleaned and all their connections should be checked.

3.8.6. The arcing horns or corona control rings shall be provided as per the approved drawing. Similarly all fittings etc. shall also be provided as per the approved drawings.

3.8.7. The electrical connection of the equipments through jumpers or through 4" aluminum pipe shall be carried out along with the cable connection of respective equipment to the marshalling kiosk or to the control relay panels. The connection of high voltage terminal of equipment shall not be resorted to, unless secondary connection or cabling work to control equipment is over. Testing of equipment shall also be done to ensure the correct wiring sequence of the equipment and continuity before energizing equipment by EHV.

3.8.8. Polarity of the equipment to be connected on HV side should be checked prior to erection. The oil level (if any) of the equipment should be checked for its totality. If level is found to be inadequate, topping filling of oil should be resorted. The GETCO will supply the quantity of oil required.

3.8.9. Fuse, links, etc provided in the secondary box of the equipment shall be checked for their position and continuity and any lacuna observed will be set right before taking the equipment for commercial use.

3.9 ERECTION OF CIRCUIT BREAKER:

3.9.2. The circuit breaker shall be taken delivery from the site/other stores of GETCO and transported to the work place well in time on loading/unloading.
The crates containing the insulators and important parts and accessories shall be opened carefully keeping them in their proper position. Insulator parts and other accessories shall be thoroughly cleaned for any deposits of dust or other particles.

3.12.3 The breaker shall be brought on the pedestal of masonry or steel frame as the case may be) in up right position without any inclination. The main parts of the equipments shall be assembled as per approved drawing to be submitted by GETCO. The GETCO arrange Service of commissioning engineer of circuit breaker manufacturer. However, the contractor will not remain contended with the instruction and guidelines given by the commissioning engineer and shall also use his own judgment in better erection of commissioning practice of circuit breaker.

3.12.4 After the placement of circuit breaker in position the kiosk of the breaker shall be thoroughly inspected and any lacuna found shall be reported to the Engr in charge of the work. The HT terminal connection shall be done only after the terminals of the equipment kiosk are made to the marshalling kiosk and or to the control/relay panels. Polarity of the equipments shall also be ensured before physical erection.

3.12.5 The method of erection of breaker is not dealt with in details; however, it is recommended that breaker poles shall be erected only by using telescopic crane or other suitable mechanical arrangement. The rigging should be tool proof.

3.12.6 The operating mechanism in the breaker Kiosk and contacts as well as the power supply circuits (AC/DC) shall be properly checked for its operation worthines. All piping for gas/air shall be laid as per the approved drawing. The air receiver or compressor shall be positioned as per the relevant drawing. Minor fittings and fabrication or grouting work required to place these articles or accessories shall be done by the contractor without any extra cost to the purchaser. In case of breakers with spring mechanism the trials of the mechanism by actuating should be done to ensure its' line worthiness.

3.12.7 EHV side of the breaker should be aligned to a incoming and outgoing bus conductor. While erecting the breaker, the operating mechanism without the porcelain insulator should be laid perfectly to avoid any mal functioning of the breaker.

3.12.8 Earthing points of the breaker as well as attached Kiosk shall be connected to earth grid by means of risers already available nearby the equipment. Any
other erection checks and pre-cautions indicated in the Manual furnished by the respective supplier of the equipment shall be studied well by the contractor and the provisions there of shall be implemented as far as possible.

3.13.0 **ERECTION OF POWER TRANSFORMER**

3.13.1 The purchaser laid readily on the rails and plinth shall make a power transformer of appropriate capacity available. However, the contractor using proper tools shall do minor adjustment or shifting requirement for proper alignment of the equipment and tackles jacks taking due care.

3.13.2 Bushing of HV, LV, and IV side shall be picked up from the site or other store of the purchaser and shall be made open by removing the casing/covers and packing whatsoever may be. The bushing shall be cleaned by the cloth. The bushing shall be handled very carefully and preferably should be opened and erected in presence of the Engineer In charge or his authorized representative. Before taking up the erection work of bushing and accessories, conservator tank and the transformer tank should be thoroughly cleaned from outside to remove all dust and other material deposited on it.

3.13.3. For fixing the bushing, the opening provided on the transformer tank/turret shall be removed and bushing should be connected to it. The current transformer and other accessories in the turret should be carefully handled while erecting bushings.

3.13.4 The radiators should be mounted on the pedestals already available at site. The proper leveling and alignment of the radiator should be done. Any minor nature of civil or foundation work, if required should be done by the contractor at his cost. However, if already provided pedestal are totally misaligned and it is not possible to erect radiators upon it with slight modifications, the matter should be brought to the notice of Engineer in charge who will take appropriate action to remove the anomaly. As a matter of fact, the contractor may, before taking up the erection work on hand, satisfy himself that the alignments of pedestal provided for various radiator and piping headers are as per the approved drawing from the respective supplier of transformer and remedial measures should be taken much ahead of actual erection work.

3.13.6. The Kiosk of the equipment shall be inspected for its internal wiring fuse, link temperature indicator, de-humid fire power connection, control circuits etc. If any deviation compared to the approved drawing is observed, the matter should be brought to the notice of Engineer in charge and if it is of trivial
nature, corrective measures should be taken by the contractor himself. All the piping or wiring from various measuring points to the Kiosk should be checked for its trueness and continuity.

3.13.7. Buchholz relay will be erected on the transformer tank as per the standard practice.

3.13.8 After the erection of various accessories indicated above, filling of oil under vacuum should be started. If required random sampling and testing of oil being filled in should be carried out. The oil level in the conservator tank, condenser bushing etc. should be checked for its desired mark. After the oil filling work is over, final filtration of oil to obtain desirable low PPM should be done. Filter machine of 1000 GPH capacity having one pass facility of reputed make approved by Engineer in charge for filling and filtration work shall be brought by the contractor himself.

3.13.9. Internal testing on the transformer and its accessories for operation worthiness shall be done following oil filtration work. However, the commissioning of the transformer either from LV or HV side should be done only after the installation of control panels in the control room, its connections to the transformer and complete unit testing of transformer. The commissioning work should be done as per the instruction of Engineer in charge or his authorized representative.

3.14.0 ERECTION OF ISOLATORS.

3.14.1 Isolators of the switchyard shall be with or without earth blade type centre breaks type etc. The isolators shall be procured by the contractor from the site stores of the GETCO and transported to the work site. All the spare parts shall be properly unpacked cleaned and made ready for erection.

3.14.2 Before erection, the contractor shall obtained copies of approved drawing of respective equipments. The isolators shall be erected on the ready galvanized structures. However, foundation for them will be available readily the respective points in the switchyard.

3.14.3 The contractor shall check the erected support structure for their alignment vertically and tightness of fasteners before mounting the isolators parts on them. The contractor shall also verify the mounting arrangement for the operating mechanism on this structure and suitable for the same. In case of any shortcoming the matter may be reported to engineer in charge. Any modification of trivial nature for the structure of fixtures shall be carried out free of cost.

3.14.4 The parts of the isolators, fixed and moving contacts earthing rode etc. shall be handled very carefully to avoid breakage or distortions. The erection shall be carried out using mechanized erection tools. The polarity of the isolator polls shall be properly identified
and also the direction of the opening should be pre-determined. It should be ensured that in the entire switchyard the isolator open and close uniformly (direction point).

3.14.5 The operating mechanism for the line contacts shall be thoroughly checked for their accessories as per approved drawing and it should be ensured that all the connection fuses links dehumidifiers lighting sockets electric motors are in their proper position. Any deviation from the approved drawing should be got set right with the help of Engineer in charge. Position. Any deviation from the approved drawing should be got set right with the help of Engineer-in-Charge.

3.14.6 While erecting the isolator, it should be ensured that it should be properly aligned with respect to bus conductors or line conductors bus provided in the switchyard. The erected isolator shall be within the plumb. The operating mechanism rods, pole and rotating insulators shall be checked for their proper function. The testing of the wiring to the kiosk should also be done to ensure its operation worthiness. The final commissioning of the isolator should be done only after connection to control panel is affected. However prior to that it should be ensured that the physical movement of the fixed and moving contacts and reach of them is within the prescribed limit.

3.15.0 ERECTION OF CONTROL AND RELAY PANELS.

3.15.1 The contractor shall procure the control and relay panel from site store or any other stores of the GETCO and transport the same to the erection site. The cases containing the panel shall be unpacked carefully and shall be nicely cleaned. In case any of external damage is observed, same shall be brought to the notice of Engineer In-charge. The panel shall be unpacked in up side up position. After an external visual inspection, the panel door shall be opened and checked for the circuit connection, terminal connector, dehumidifier, power connection etc.

3.15.2 A front side of the panel shall be checked for any damage to the meter indicator, hooter, semaphore indicators

3.15.3 Any lacuna in the equipments, circuits, fittings, dimensions etc. observed shall be brought to the notice of Engineer in charge who will try to impose remedial measures.

3.15.4 The relay panel should also be checked for type, of schemes adopted for protection, internal connection, fascia indicator etc. Any difference observed should be brought to the notice of Engineer in charge who will take necessary action.

3.15.5 The panel shall be erected along cut outs provided in the slab concrete, in the order, it is decided, by Engineer in charge or which is approved by authorized drawing.

3.15.6 The size and number of cores of cables be brought from the equipment to control panel,
control panel to relay panel and back to equipment shall be pre-determined by study.

3.15.8 After the erection of control panel and relay, panel, all the equipments, accessories indicators etc. alongwith the internal wiring and other accessories provided with the kiosk of the panels.

3.16.0 LAYING OF CONTROL CABLES AND TERMINATIONS THEREOF

3.16.1 Laying and termination of control Cable work shall generally includes following:

a) Control and power cable from individual equipments kiosk to the field kiosk.

b) Laying and termination of Control and L.T power cable from field -kiosk to control room equipment (i.e. LT switchgear, DC battery and control panel/relay panel.)

c) Laying and termination of Cable from the transformer kiosk to transformer panel and upto AC/DC supply source.

d) Laying & termination of Control cables from control panel to relay panel and vice a versa.

e) Laying & Termination of cable from DC/AC source, battery room L/T switch gear room to control/relay panel.

g) Laying & termination of cable from 11KV/400 V Distribution transformer to LT switch gear room.

h) Laying & termination of cables from Station transformer to distribution transformer in the switchyard as well as in the residential. quarter area.

i) Laying & termination of LT power cable from station transformer to fire protection system kiosk (If required).

3.16.2 GETCO will provide the cable schedule for the various control schemes, protection schemes and metering scheme as well as communication, scheme etc.

3.16.3 ‘The contractor shall transport the required size of control and power cable from the purchaser’s site store to any other stores from where the same allotted and transport it to its site store.

3.16.4 The control cables shall be terminated using correct type of lugs and further prodded with ferules giving the identification number of various cores of the cable. Correct type of tools for termination shall be used to secure a rigid connection of the cable tray along
with the cable trenches. Normally mild steel, racks and cable trays are provided in the cable trench. However, the purchaser may it its’ own discretion prefer to utilize fiber reinforced poly propylene (FRP) cable racks and trays. In such an event, the racks and trays, will be supplied by the Purchaser to the contractor in a knocked down condition. The contractor shall assemble the rack and provide trays on them as per the approved drawing given by the purchaser. If FRP trays and racks are to be utilized, the contractor will have to take extra care while laying the cable through different layer and racks to avoid any displacement or distortion of the FRP racks. However, if the laying of pre-fabricated FRP racks and trays fall in the scope or FRP rack/tray supplier, the contractor shall co-ordinate and synchronize his cable laying activities with respective supplier of FRP rack/trays.

3.16.5 Utmost care shall be taken by the contractor to prevent damage to outer insulation and the armors of the cables. No joint to the cable shall be permitted. unless situation so warrants and Engineer in charge permits the same.

3.16.6 After laying, all the ‘power and control cable shall be properly identified giving the serial either a number and details of end connections.

3.17.0 ERECTION OF BATTERY AND BATTERY CHARGER

3.17.1 The contractor shall procure the material required for installation of batteries sets and battery charger from the site store or any other stores of the Purchaser and transport this material to the work site.

3.17.2 All the container/packing of the battery and battery charger shall be opened carefully to prevent any damage to the equipment. The equipment than shall be cleaned to remove any dust or other un-warranted deposition. The battery rack shall be placed in such a fashion that rows of battery cell can be conveniently connected to each other. The contractor shall obtain the drawing of arrangement of battery racks and its connection to floats charger and boost charger with reference to the floor space. The battery cells shall be filled with requisite amount of electrolyte with proper specific gravity and up to the mark of maximum-level indicated on the battery cells. All the cells shall be connected in the series to obtain total voltage of the 224V AC. However, Individual cell shall also be checked for their voltage across terminal before series connection.

3.17.3 The battery rack shall be provided with bottom insulating material to prevent any leakage of current to the earth. Similarly individual battery cell shall be provided with insulation supports to wooden rack to prevent any body leakage. The purchaser shall supply wooden racks and acid distilled water etc.
3.17.4 The connection of the battery shall be done through a cable and same shall be terminated in the LV room (AC/DC) before commissioning of the battery and battery charger. The entire battery room shall be completely cleaned. Similarly racks and battery cells shall also be cleaned for any deposits of electrolyte and other particles.

3.17.5 A connection of boost charger shall be secured from the AC supply provided in the LT switchgear room.

3.17.6 All the accessories supplied for measuring the specific gravity and testing etc. provided by the supplier shall be return to the Engineer in charge or shall be placed at proper place in the battery room under intimation to Engineer in charge.

3.17.7 Load test on the commissioned battery sets shall be taken as per the instruction of the Engineer in charge and performance of the battery cells float boost charger shall be observed for few hours. Test load then shall be removed and battery shall be ultimately connected to the LV room for its onwards utilization in control indication and protection circuits.

3.17.8 The following checks are recommended for battery

i) Checking of completion of civil/ventilation requirement of battery room.

ii) Checking of adequacy of charger output/requirement with respect to current required for battery charging as per the manual.

iii) Checking for availability of safety devices, water and first aid box.

iv) Checking the polarity of connections between battery and charger.

v) Visual inspection test for level and leakages.

vi) Checking of layout as per approved drawing.

vii) Checking of IR value from positive to earth and negative to earth.

viii) Checking of voltage per cell and total voltage between positive negative and earth to positive/negative.

ix) Checking of tightness of connectors on each cell.

x) Checking of capacity test and hourly measurement of specific gravity and voltage for each cell.

xi) Charging-discharging cycle as per standard practice, and as per instruction of Engineer-in-charge.
3.17.9 The following checks are recommended for battery charger.

i) IR test

iii) Checking for charging mode of batteries, TRant current and TRant voltage mode.

iv) Load test on charges by running of DC drives (if there and by liquid resistance system).

v) Checking of thickness of earthling connections.

viii) Check for functional operation of charger, auto manual change over from float to boost to float etc.

ix) Check for AC ripple in boost and float made after charging.

x) Check and polarity of cables connected to battery

3.18.0 EARTHING ARRANGEMENTS: (TECHNICAL TERMS & CONDITIONS)

3.18.1 The earthing work shall include laying of the earth mat in the switchyard as per the approved drawing making special earth pits for outdoor equipments and control room equipments, providing risers from the earth mat up to the equipment structure plinth, driving earth electrode in the soil as per the approved drawing and connecting it by welding covering maximum area to the earth mat.

3.18.2 All the steel materials required for laying earth mat and driving the earth electrode as well as risers shall be supplied by the contractor which includes earth mat flats, bars for electrodes etc.

3.18.3 The other materials like charcoal, salt, CI Pipe, form boxes etc shall also be supplied by the contractor.

3.18.4 The pits for laying earth mat includes excavation and back filling shall be made as per design in the entire switchyard and buried at the depth as per approved design. The earth electrodes shall be driven into the soil, cable trench by driven making the holes etc. as per the approved drawing. The connection of electrode to the earth mat shall be done as per the drawing enclosed.

3.18.5 The junctions of earth mat (along and across) shall be done with full double welding. At the joints bending whichever require painting anti corrosive leakage bituminous compound provided by the Contractor. The welding shall be capable of withstanding the thermal stresses developed due to high fault current passing through the grid. The connection of risers to the earth grid shall be secured as per the instructions of Site Engineer. After the laying of earth mat is over, the same shall be covered by the excavated earth. All the consumables such as welding electrodes, bolt nuts, blare bituminous compound layers, the contractor at his own cost shall procure test link etc. The welding machine shall also be arranged by the contractor. The metered power supply shall be made available to the
contractor as per the prevailing rates, terms and conditions of supply of the Board. The contractor at his own cost shall do the fabrication of earth mats as per the site requirement. All the surplus steel materials shall be retained to the purchaser after the work is over.

3.18.6 The individual earth pit as per the appended drawing shall be prepared. The minimum depth of the pit excavation shall be 2.5 mtr. The earthing pipe shall project 150 mm above the ground. The earthing leads for connecting the earth electrode and earth mat to the equipments shall be done as shown in the drawing. Earthing strip lying by digging 600 mm depth and 450 mm vide trench by joint with providing 2 Nos. G.I bolt nuts and welding and apply the blue bituminous compound anti corrosive and as per instruction of Engineer In charge. The earthing flat where required to be connected on structure or equipment shall be fastened with not less than two G.I bolts & done as per aesthetic view and bend in right angle properly with equipment. After making the pit and providing the layers of salt charcoal as shown in the drawing the pit shall be watered and back filling should also be done along with the watering. The excess earth after the filling of the earth pit shall be removed from the site and shall be stacked away as per the instruction of engineer in charge. The top of the pipe shall be covered with funnel and the cast iron cover shall be provided on the top of the chamber by the Contractor. The resistance of the earth pit should be measured before and after earth filling work to ensure its power worthiness. If the earth resistance is not less than 1 Ohm, remedial measures shall be taken as per the instruction of engineer in charge at no extra labour cost to the Board. All he readings of the earth pit resistance taken shall be recorded in the register and counter signed by the representatives of the contractor and the Board.

3.18.7 The installation of earth pit done as per drawings in pits the tentative quantity of salt and charcoal shall be 2.5 CMT.

3.18.8 The earth pit shall be serially numbered as per the instructions of engineer in charge on 125 mm x 125 mm 1.6 mm thick mild steel plate with red letters in white background. Numbered plate shall be fitted on 70 cm galvanized angle of 25 x 25 x 3 mm with G.I bolt & nuts. The Contractor shall supply the materials required for this. Item includes drilling of the holes, fixing of bolt nuts and painting and lettering shall be done by the contractor.

3.19 GENERAL:

3.19.1 The Contractor shall ensure that at the end of each sub-activity the Surplus materials are immediately removed from the work-site and the surplus excavated earth is spreader around to avoid loss or injury to the public/equipments.

3.19.2 The Contractor has to return all surplus materials after reconciliation of material account in good and useable condition. The contractor shall settle the final bill including signature on all relevant papers required for passing of
final bill, excess/saving statement and time limit extension proposal. If any within three months from the date of charging/commissioning or taking over by the Board of the Sub Station.

3.19.3. Most of all equipments should be erected in presence of the concerned engineer from OEM/GETCO engineer.

3.19.4. After complete erection and operation, contractor's supervisor should attend the site whenever called from GETCO for further testing commissioning of equipments/panels etc.

3.19.4. After complete erection and operation, contractor's supervisor should attend the site whenever called from GETCO for further testing commissioning of equipments/panels etc.

3.20Erection:

1. All erection work is to be carried out as per the manual of OEM (Original equipment manufacturer) and instruction of engineer-in-charge.
2. All equipment erection charges are inclusive of shifting dragging handling of the respective equipment up to S/s erection site from its S/s site store.
3. Contractor has to ensure safe shifting dragging erection of all equipments to comply with labour laws I.E. rules etc.
4. All erection charges are inclusive of fixing of clamp connectors, all necessary accessories to the respective equipment.
5. Transformer erection charges cover shifting dragging, handling etc. for its bushings radiators conservator tank and allied accessories.
6. All erection work includes erection insurance to be arranged by the contractor at his cost.
7. All the required tools and tackles like conductor, earth wire compression, jointing machine, cutting machine, welding set etc, are to be arranged by the contractor at his cost.
8. For electrical lighting work prevailing SOR of Electrical work of R&B of GOG is to be followed.

3.21Dismantling:

3.21.1 To ensure safety & Technical parameters in safe guard during dismantling, in person of concerned Engineer in charge. Also to stack the materials at safe place in proper stacking manner.
Penalty Clause:

 Penalty:

1. In case if any safety related fatal Elect. / Mech. 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 shall be penalized as under:

2. 

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Amount of Contract in Rs.</th>
<th>Penalty amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Up to $\rightarrow$ 1 Lac</td>
<td>Rs.5000/-</td>
</tr>
<tr>
<td>2</td>
<td>Above 1 Lac to $\rightarrow$ 10 Lacs</td>
<td>Rs.40000/-</td>
</tr>
<tr>
<td>3</td>
<td>10 to $\rightarrow$ 100 Lacs</td>
<td>Rs.100,000/-</td>
</tr>
<tr>
<td>4</td>
<td>$&gt;$ 100 Lacs</td>
<td>1.0 %</td>
</tr>
</tbody>
</table>

3. Reporting:
   2.1 The contractor shall inform concerned Ex. Engineer Const/TR in writing within 24 hours of fatal/Non-fatal accident occurred to human being.
   2.2 The GETCO investigating officer findings in to accident shall be final and binding to the contractor /Agency.

4. Safety Requirement:
   3.1 Kick off Meeting exclusively for safety shall be done in each contract in presence of contractor’s site in charge and supervisor. Safety document shall be handed over and vital safety norms and key points of safety related to project shall be explained and recorded for commitment by erection contractor.
   Such records are mandatory for clearing first erection bill.
   3.2 During site visit by GETCO official of Executive Engineer and above rank, the following checks during execution of work shall be covered.
   3.21 Safety equipments available and utilize.
      (a) Helmet.
      (b) Safety belt.
      (c) Safety shoes.
      (d) Live line Voltage detector
   3.22 Safety procedure adopted.
      (a) Permit to work
      (b) Earthing at the place of work.
      (c) Adequate supervision.
   3.23 T & P physical Check. (Healthiness and Quality)
      (a) P.P.rope.
      (b) Wire rope and sling.
      (c) Earthing rod
3.3 If above-mentioned safety requirements found violated in any of the above three conditions shall attract penalty of Rs.1000/-per occasion. (Max. Rs.3000/-for violation of three conditions)

During subsequent visit, if violation is found, then double penalty shall be deducted from the bill of the Contractor/Agency.

Signature of Contractor

Superintending Engineer (TR)
GETCO, CO, Navsari
Safety Instruction for Contractors:

Following safety guidelines are mandatory for all contractors operating in GETCO premises /on transmission lines for Electrical, non-electrical & civil works.

1. The contractors must provide advance planning of work to concerned in-charge of substation in writing.
2. The list of workers/ lab ours with name and address must be given to S/s In charge prior to commencement of work by the contractor.
3. The copy of group insurance policy with list of name of workers covered.
4. The list of T&P and safety equipment (PPE) having tested and checked by GETCO officials at site.
5. The working procedure must be specified with timings of working hours indicating tea break & lunch break period.
6. Before starting any work whether switch yard, on line or in colony “permit to allow to work” must be taken from control room in-charge.
7. Utilizing Electrical/non- electrical equipments, safety rules must be implemented.
8. All workers /labour & supervisors must use safety equipments (PPE) during the work.
9. If the work is to be carried out on Sunday or public holiday the necessary permission must be taken in advance, requesting in writing.
10. Unwanted person including children of labours will not be allowed at working site/ in the switchyard and in the prohibited area.
11. Any electrical work or electrical connections to equipment for any other work must be carried out by certified electrician/wiremen with adequate size of wire through MCB per I.E. Rule. Ensure that all precautions are taken to prevent electrical accident,& the installation /connection is certified by Engineer in-charge.
12. No work should be done during night hours unless & until it is required under certain circumstances with the approval next higher authority and all necessary arrangement of adequate lighting with safety precautions is made.
13. Joint checking of line by In-charge, contractor & supervisor prior to commencement of work of any electrical/non-electrical work.
14. Any power line crossing, river crossing & railway crossing or any other hazards must be discussed with workers by contractor in presence of Engineer in-charge.
15. Contractors must submit list of workers with name, qualification and experience who are engaged for line maintenance/rectification job.
16. Line clear permit must be taken on power line crossing or passing nearby for safety of workers. This must be ensured by GETCO supervisor/in-charge of substation before starting the work.
17. Contractors must arrange for Shelter and drinking water facility for the labours /workers engaged with the permission of S/s in charge.
18. The method of work, required T&P and manpower should be discussed between GETCO supervisor, contractor’s supervisor and gang leaders.
19. Prior to execution of work a joint survey must be conducted by GETCO supervisor, contractor’s supervisor and DISCOM line man in order to identity the following.
Special Conditions for use of Cement in Work:

1) The rates in Schedule-‘B’ are inclusive of cement cost. Contractor has to purchase fresh 43 grade cement confirming to as per IS 8112 and of approved brand by G.E.B.
2) Contractor has to construct pakka godown at site of work so that cement bags can be properly preserved to avoid damage due to any kind of water.
3) Contractor has to bring sufficient quantities of cement bags to maintain progress of work. The work should not suffer for want of cement stock.
4) Cement should give the required strength of cement concrete.
5) To bring sufficient and timely cement at site is a responsibility of contractor. Nothing extra will be paid on account of any reason to maintain progress of work and to complete the work in scheduled time.
6) Contractor has to submit material A/c for consumption of cement used with every bills. In case of not submitting the same, bill will not be passed. Party has to submit the copy of cement / purchase bill along with each RA Bill/Final Bill.
7) No negative variation will be allowed for consumption in cement then prescribed as per booklet of technical specification of The GETCO/mix design and nothing will be paid extra for over consumption.
8) Contractor is fully responsible for safety of cement at site; nothing will be paid extra on account of safety.
9) If The GETCO’s authorized representative wants to check cement stock at site, contractor has to allow for the same at any time.
10) Contractor has to maintain day to day cement consumption/balance account at site.
11) As far as possible, contractor has to maintain supply of cement of only one brand and grade throughout the work and on account of closer/shortage of approved brand, cement of other brand in accordance of condition no.(1) will be allowed by Engineer-In-Charge.
12) Minimum cement consumption considered for cement concrete.
   a. 1:1.5:3 Ratio – 8.6 Bags per CMT (M 20)
   b. 1:2:4 Ratio – 6.5 Bags per CMT (M 15)
   c. 1:3:6 Ratio – 4.5 Bags per CMT (M 10)
   Contractor has to use minimum cement as above. Contractor should not use less than the prescribed quantities of cement even in the case of mix design recommends lower quantity.
13) Contractor will be allowed to carry out work only after physical verification of cement brought at site.
The rates indicated in schedule for concrete work shall be applicable to all the locations irrespective of soil strata and type of foundation adopted.
14) The Contractor shall have to procured cement by purchasing from the open market according to line requirement and keep sufficient quantities to avoid delay in work. Same quantity of cement is to be utilized from his own stock. Account of cement utilized at each location duly certified by concerned The GETCO’s supervisor and engineer in charge of work. The account is required to be maintain and submitted with each R.A. Bill. No payment shall be made toward cost of cement bags utilized in each running bills without submission of cement consumption details. No wastage is permitted as same is to be
procured by the contractor at his own cost from the authorized dealer approved by the GETCO. No wastages toward cement is permitted.

15) The tor steel bars required for RCC type foundation shall be procured by the Contractor in advance to avoid delay in the work.

16) No wastage is permitted for reinforcement steel and as reinforcement steel is to be procured by the contractor at his own cost. No over lapping of RCC is permitted in foundation work.

17) The GETCO reserves right to test the quality of steel and cement procured by the Contractor at any Govt. recognized Laboratory and intended to be used for the tower foundation works. The test results shall be binding to the Contractor.

Signature of Contractor

Superintending Engineer (TR)
GETCO,CO, Navsari
SECTION – E IV
SCHEDULE –A
MATERIALS

Following material will be supplied by GETCO “free of cost” for Work of erection of 66KV equipment, structures, control wiring, yard Lighting, Control-Room & Staff-Quarter Electrification etc at 66KV Vyara-II S/S.

1) G I Structures, accessories, attachments, bolts-nuts etc.
2) Conductor, conductor accessories, earth wire, earth wire accessories.
3) Insulators, insulator hardware’s. G.I.strip
4) 66 KV /11KV/LT equipments with accessories and control and relay panels
5) 110 Volt, 100 AH DC battery sets and battery chargers.
6) Various sizes of armored control cables and LT control cables.
7) PLCC equipments and PLCC panels.

Following materials / equipments will be procured / arranged by the contractor activities for 66 KV& above class sub stations.

1) Tools tackles required for erection activities. And stringing.
2) Earthing materials, MS rod, GI strip, filter machine, hydraulic crane and hydraulic jointing machine/welding machines. CI pipe, coal, salt etc.
SECTION – E IV

PART – A

SCHEDULE – 14

STORE CENTRES

Line materials will be issued from following Store Centers:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Work</th>
<th>Store Centers for issue of line materials.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Work of erection of 66KV equipment, structures, control wiring, yard Lighting, Control-Room &amp; Staff-Quarter Electrification etc at 66KV Vyara-II S/S.</td>
<td>Division (Const.) Store Vav</td>
</tr>
</tbody>
</table>

Note: Generally all required materials will be issued form above store centers. In case of non-availability of some items, contractor shall have to collect from other near by store centers without extra cost to the GETCO.

Signature of Contractor

Superintending Engineer (TR)
GETCO,CO, Navsari
SECTION – E IV

PART – B

SCHEDULE – 4

DETAILS OF REPRESENTATIVE

Details of Human Resources available with the bidder for the successful performance of contract.

Name of the Bidder: _____________________________________________________

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Designation</th>
<th>Name</th>
<th>Qualification</th>
<th>Professional experience &amp; details of work carried out</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Project Manager</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Engineer-in-Charge of site work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Site Engineer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Number of Skilled Employees.</td>
<td></td>
<td>(Only Nos.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Number of unskilled Employees.</td>
<td></td>
<td>(Only Nos.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Signature of Authorised Representative
Company / Agency
NAME: ____________________________
STATUS: __________________________

Name of tendering Company

Signature of Contractor

Superintending Engineer (TR)
GETCO, CO, Navsari
Details of plant and equipment available on hand with the bidder for use on this work.

Name of the Bidder: _____________________________________________________

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Equipment</th>
<th>No. of Units</th>
<th>Kind &amp; make</th>
<th>Capacity</th>
<th>Age &amp; Condition</th>
<th>Present Location</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Signature of Authorised Representative
Company / Agency
NAME : ______________________
STATUS : _____________________
Name of tendering Company

Signature of Contractor
Superintending Engineer (TR)
GETCO, CO, Navsari
SECTION – E IV

PART – B

SCHEDULE – 6

Details of erection orders executed by the bidder of various Transmission lines.

Period: (During last FIVE Years.)

ERECION OF TRANSMISSION LINE ON TOWERS UPTO & ABOVE 132KV CLASS ONLY.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Order No./Date</th>
<th>Description of work</th>
<th>Order Qty.</th>
<th>Order Amount</th>
<th>Name of Order placing authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Completion date as per order</th>
<th>Date of commencement of work</th>
<th>Date of actual completion of work</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>

Note: Certificate for satisfactory work completion from competent authority of The GETCO/ organization who placed the order should be invariably attached with this schedule.

Signature of Authorised Representative
Company / Agency
NAME: ______________________
STATUS: ____________________
Name of tendering Company

Signature of Contractor

Superintending Engineer (TR)
GETCO,CO, Navsari
SECTION – E IV
PART – B
SCHEDULE – 7
FINANCIAL CAPABILITY

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Details</th>
<th>Amount Rs. In lacs</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Solvency</td>
<td></td>
<td>A scheduled Banker’s Certificate of present solvency be attached.</td>
</tr>
<tr>
<td>2</td>
<td>Annual turnover for last five years.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Price of the biggest job carried out.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Signature of Authorised Representative
Company / Agency
NAME : __________________________
STATUS : ________________________
Name of tendering
Company

Signature of Contractor

Superintending Engineer (TR)
GETCO, CO, Navsari
Based on available men power, tools-tackles, machinery and financial resources, our erection capacity is as under:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of activity</th>
<th>Unit</th>
<th>Capacity per Annum per gang</th>
<th>No. of Persons per gang.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Preliminary and check Survey including profiles.</td>
<td>Km.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Foundation</td>
<td>Nos.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b)</td>
<td>Cu.M.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Tower erection</td>
<td>Nos.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Stringing</td>
<td>Km.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Signature of Authorised Representative
Company / Agency
NAME: _______________________
STATUS: ______________________
Name of tendering
Company

Signature of Contractor
Superintending Engineer (TR)
GETCO,CO, Navsari
SECTION – E IV

PART – B

SCHEDULE - 9

LATEST INCOME – TAX CLEARANCE CERTIFICATE
SECTION – E IV

PART – B

SCHEDULE – 11

DETAILS OF PARTNERS / DIRECTORS WITH THEIR ADDRESS

Name of bidder: _____________________________________________________________

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Designation</th>
<th>Name</th>
<th>Residence (address)</th>
<th>Working Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>1)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Signature of Authorised Representative
Company / Agency
NAME : ______________________
STATUS: ______________________
Name of tendering Company

Signature of Contractor

Superintending Engineer (TR)
GETCO, CO, Navsari
SECTION – E IV
PART – B
SCHEDULE – 12

MEMORANDUM / ARTICLE

OF ASSOCIATION

OR CONSTITUTION OF FIRM

WITH THE NAMES OF

PARTNERS / DIRECTORS.

(TO BE SUBMITTED SEPARATELY WITH THE OFFER DULY SEALED AND SIGNED)
SECTION – E IV

PART – B
SCHEDULE – 13

ATTESTED COPY OF RESOLUTION OF THE PARTNERS / THE GETCO / AUTHORITY ACCEPTABLE BY LAW OF THE FIRM AUTHORISING 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)
SECTION – E IV
PART – C
SCHEDULE – 1
PROFORMA FOR AGREEMENT
(Non Judicial Stamp Paper of Rs. 50/-)

CONTRACT AGREEMENT

THIS AGREEMENT is made at BARODA the_____________ day of ___________ in the Christian Year one thousand nine hundred ninety ___________ between M/s. __________________________ (address of office)
________________________ (hereinafter referred to as “THECONTRACTOR” which expression shall unless excluded by or repugnant to the context include its successors or permitted assigns) of the ONE PART and the Gujarat Energy Transmission Corporation Ltd, having their Head office at 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 SECOND PART.

WHEREAS the aforesaid The GETCO has accepted the tender of the aforesaid contractor for work of ____________________________ as per The GETCO’s Order 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 ____________________________ (authorised signatory) on behalf of the contractors and by the Chief Engineer (Trans), Gujarat Energy Transmission Corporation Ltd, Vidyut Bhavan, Race Course, Baroda 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 work of ____________________________ for sum of Rs. ____________________________ Rupees ____________________________ upon the terms and subject to the conditions herein mentioned.

NOW THIS AGREEMENT WITNESSESS AND IT IS HEREBY AGREED AND DECLARED THAT.
The contractors shall do and perform all works and things in this contract mentioned and described or which are implied therein or therefrom 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, erection and completion of the works agreed to by the contractor as aforesaid the GETCO 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.

The conditions and covenants stipulated here-in-before in this contract are subject to and without prejudice to the rights of the GETCO 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 The GETCO’s Order No. ______________________________

The contract value, extent of works, completion 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:
The GETCO’s Tender Specification No. TR II/TL/ __________ and contractor’s offer opened on dated ____/____/199
The GETCO’s contract booklet – “Tender & Contract of Works”.
The GETCO’s order No. TR II/ TL/ Dtd. _____/______/ 199
Contractor’s acceptance of order vide letter No. ____________.
Contractor’s Partnership Deed dtd. ________________.
Contractor’s Power of Attorney / The GETCO Resolution authorising person to sign on behalf of Firm.

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

Signed, sealed and delivered by

For and behalf of M/s. ____________________________ (Signature)

Address: ________________________________

________________________

In the presence of (Name And Address)

i) ________________________________ (Signature)

______________________________

ii) ________________________________ (Signature)
Signed, sealed and delivered by for and on behalf of Gujarat Energy Transmission Corporation Ltd Sardar Patel Vidyut Bhavan, Race Course, BARODA - 390 007.

In the presence of name and address:

_____________________________________

_____________________________________  

_____________________________________

NOTE: 1) Copies of all documents forming part of the contract and listed in schedule (from tender invitation to A/T and parties acceptance letter there of) be sealed and signed by the authorised signatory of the firm be submitted with the agreement.

2) Attested copy of resolution of the Partners / The GCTCO / Power of Attorney acceptable by law authorising particular person to sign on behalf of firm be invariably enclosed along with submission of Agreement.
BANK GUARANTEE NO : ______________

Issued on Dated______________

We Bank of _______________ (Name of issuing bank, branch & address) hereby agree unequivocally and unconditionally to pay immediately on demand in writing from the Gujarat Energy Transmission Corporation Ltd or any Office authorised by it in this behalf, any amount up to and not exceeding Rs. ________________ (Rupees ____________________________) to the said Gujarat Energy Transmission Corporation Ltd on behalf of M/s. ________________ (name of The GETCO’s contractor) ________________ who have entered into a contract for the supply/works specified below:

A/T No. ________________ dt. ________________ for supply/works of ________________ (name of work) ________________

This Agreement shall be valid and binding on this Bank up to and inclusive of ________________ (Date ________________ ) ________________ and shall not be terminable by notice or by change in the constitution of the Bank or the Firm of contractors/Suppliers or by any other reasons whatsoever and our liability hereunder shall not be impaired or discharged by any extension of time or variations or alterations made, given, conceded or agreed with or without our knowledge or consent, by or between parties to the said within written contract.

NOTWITHSTANDING anything contrary contained in any law for the time being in force or banking practice, this guarantee shall not be assignable, transferable by the beneficiary (i.e. GETCO). Notice or invocation by any person such as assignee, transferee or agent of beneficiary shall not be made only by the beneficiary directly.

NOTWITHSTANDING anything contained herein before our liability under this Guarantee shall be restricted to Rs. ________________ (Rupees ____________________________ ) ________________ only(in words). The Guarantee shall remain in force until ________________ (Date of validity of the Guarantee). Unless demands or claims under this Bank Guarantee are made to us in writing on or before ________ (date should be one month after the above validity period of BG), all rights of Beneficiary under the Bank Guarantee shall be forfeited and we shall be released and discharged from all liabilities there under.

PLACE :

DATE :
Please mention here complete Postal Address of the Bank with Branch code; Telephone and Fax Nos.

Name of DESIGNATED BANKS:
1. All Nationalized Banks including Public Sector Banks, IDBI Bank Ltd.
2. Private Sector Banks authorized by RBI to undertake the state Government Business, which are (i) AxisBank(ii) ICICI Bank(iii) HDFC Bank

Note: The banks shall be the banks recognized/notified by the Finance department, Government of Gujarat (GOG) from time to time.

PARTY TO TAKE NOTE PLEASE BEFORE SUBMITTING THEIR BANK GURANTEES

1. A/T no and date to be written on every page of bank guarantee & its Extension.
2. If B/G amount is more than Rs 50,000.00 kindly take sign of two bank officer with their respective Employee code no.
3. Valid confirmation letter of the concerned Bank in an approved format should be attached with every Bank Gurantee and its extension.
4. Stamp paper should be valid & recent one and date of issuing of stamp paper should not be beyond six months, in any case.
5. Round seal and signature of two bank officers should be affixed on every B/G paper.
INDEMNITY BOND

KNOW ALL MEN BY THESE PRESENTS that we, Messers ___________________ ________________ (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 steel cement and other materials supplied by the GETCO under the terms and conditions of A/T 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 authorised 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 cement, steel or 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 authorised 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 authorised by the GETCO and produce at anytime when demanded.

THE WITNESS WHEREOF: We the
Said M/S ________________________
________________________________
(Signature of contractor)
(Seal of Firm)
hereto signed at __________________
this day _________________________
In the presence of
________ Name ____________
_________ address ____________ (Signature)
________ Name ____________
_________ address ____________ (Signature)
# DAY-TO-DAY PROGRESS REGISTER

**Name of LINE:**

A/T No. _______________ Date: _______________

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Activity</th>
<th>Unit</th>
<th>Today Workdone</th>
<th>Materials utilised</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Foundation</strong></td>
<td>Nos.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) Excavation</td>
<td>Cu.m.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) Concrete</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>c) RCC Steel</td>
<td>MT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>d) Stubs</td>
<td>MT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td><strong>Tower Erection/ ‘H’ frame erection</strong></td>
<td>Nos.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) Super Structure</td>
<td>MT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) 3 Mtr. Extension</td>
<td>MT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>c) 6 Mtr. Extension</td>
<td>MT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>d) 9 Mtr. Extension</td>
<td>MT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>e) 12 Mtr. Extension</td>
<td>MT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>f) Special Tower</td>
<td>MT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td><strong>Stringing</strong></td>
<td>KM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) Conductor</td>
<td>KM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) Earthwire</td>
<td>KM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td><strong>Any Other Activity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) Benching/ground cutting</td>
<td>Cu.m.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) Revetment</td>
<td>Cu.m.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>c) Providing ACD</td>
<td>No.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>d) Providing Accessories</td>
<td>No.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>e) Tack welding (Per Tower)</td>
<td>Nos.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION – E IV

PART – C
SCHEDULE – 5

PROGRESS REPORT

Details of progress achieved during I / II fortnight to Month _________________

A/T No. & Date ____________________________________________________________

Name of Line ____________________________________________________________

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Erection Activity</th>
<th>Unit</th>
<th>Total Work Involved</th>
<th>Work done upto last fortnight</th>
<th>Work done during fortnight</th>
<th>Total work done upto this report</th>
<th>Balance work to be done</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Details of work done quantities :

Details of work done (activity wise, location wise) :

________________________________________

Signature of Authorised Representative
Company / Agency

NAME: ____________________________
STATUS: ____________________________

Name of tendering
Company
SECTION – E IV

PART – C

SCHEDULE – 6

SAG – TENSION (STRINGING) CHART

Sag and Tension Chart suitable for _______________ Conductor / Earthwire.

Name of Line :

Order No.

<table>
<thead>
<tr>
<th>Loc. No. From To</th>
<th>Indiv. Span</th>
<th>Equiv. Span</th>
<th>T/S</th>
<th>Tension /Sag Values at temperature Deg. C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Min 02</td>
<td>04</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Remark :- Prior approval be obtain before commencing the stringing work from Head Office for sag tension (Stringing) chart.

Signature of Authorised Representative
Company / Agency
NAME : ______________________
STATUS : ______________________
Name of tendering
Company
**SECTION – E IV**

**PART – C**

**SCHEDULE - 7**

**MATERIAL ACCOUNT**

(STATEMENT TO BE ATTACHED WITH MONTHLY RUNNING ACCOUNT BILLS)

1) Statement giving item wise details of monthly receipt of line material from GETCO and consumption for erection of line for the Month of ____________________.

2) A/T No. & Date : ________________________________

3) Name of Line : ____________________________________

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Items</th>
<th>Prov. Requiren</th>
<th>Receipt of Material from GETCO</th>
<th>Consumption of Material in Line</th>
<th>Actual wastage</th>
<th>Balance quantity of material in stock</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Qty. rcvd. Upto last month</td>
<td>Qty. rcvd. This month</td>
<td>Qty. rcvd. Till this month</td>
<td>Qty. utilised upto last month</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

signature of Authorised Representative

Company / Agency

NAME : ____________________

STATUS: ____________________

Name of tendering Company
SECTION - E IV

PART - C

SCHEDULE – 8

(TO BE SUBMITTED ON THE LETTER HEAD OF THE FIRM)

Reference No. Date :

To
The Chief Engineer (TR.)/V.P. (Project)
Gujarat Energy Transmission Corporation Ltd
Sardar Patel Vidyut Bhavan
Race Course
VADODARA – 390 007

Sub:____________________________________________________________
_______________________________________________________________

Ref: A/T No. _______________________________

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

Signature of Authorised Representative
Company / Agency

NAME: _____________________

DESIGNATION: _____________

Note : To be signed by authorised person on behalf of the Firm.
SECTION – E IV
PART – C
SCHEDULE – 9
BANK GUARANTEE EXTENSION FORMAT
(To be executed on non-judicial stamp paper of Rs. 50/-)

(Name and address of the Bank issuing the Bank Guarantee extension.)

Place:
Date:

EXTENSION OF BANK GUARANTEE NO. ____________ Dtd.______________ of Rs. ______________.

The validity period of our subject Bank Guarantee issued in your favour on behalf of M/s. ________________________________ is hereby extended upto ____________________.

Notwithstanding any thing mentioned herein before, our liability under this guarantee is restricted to an amount not exceeding Rs.________________________(Rupees __________________________ only) and it will remain in force till ____________ (validity date) ____________.

All other terms and conditions mentioned in the original Bank Guarantee will remain unaltered. This extension forms an integral part of the above quoted original Bank Guarantee and may be kept thereto.

Place:

Signature of authorized
Authority of Bank

Seal of Bank

Date:
GUJARAT ENERGY TRANSMISSION CORPORATION LIMITED
TRANSMISSION CIRCLE
Navsari

GETCO

TENDER SPECIFICATION
FOR

Name of Work :- Work of erection of 66KV equipment, structures, control wiring, yard Lighting, Control-Room & Staff-Quarter Electrification etc at 66KV Vyara-II S/S.

(Note: Price bid should not be submitted in hard copy)

PRICE BID
Part – II
(Price schedule)

TENDER NO.TCNS/ETP-84/2015
Name of Work: Work of erection of 66KV equipment, structures, control wiring, yard Lighting, Control-Room & Staff-Quarter Electrification etc at 66KV Vyaara -II S/S.

**SCHEDULE B-1: MAIN ERECTION**

<table>
<thead>
<tr>
<th>Sr No</th>
<th>Description of work/Supply</th>
<th>Unit</th>
<th>S/S Qty</th>
<th>Opposite end F/B Qty</th>
<th>Total Qty</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Erection of 66KV Breaker (All type / make) including supporting structure &amp; fixing all its accessories, fittings, connections etc. complete as per owner's/supplier's manual and instruction of E.I.C. including individual &amp; interpole wiring of operating box and that with M.K.Box. with assisting to the erection engineer Erection without crane is permitted. Rates are inclusive of dragging/loading/unloading of same from site store to erection site.</td>
<td>Set of 3 Pole</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>5821.20</td>
<td>11642.40</td>
</tr>
<tr>
<td>2</td>
<td>Erection of 66KV CT/PT (all type make) on its erected structure including complete dragging/loading/unloading of same from site store to erection site and fixing of required clamps, connectors as per instructions of E.I.C.</td>
<td>Phase</td>
<td>12</td>
<td>0</td>
<td>12</td>
<td>654.89</td>
<td>7858.68</td>
</tr>
<tr>
<td>3</td>
<td>Erection of 66KV LA (All type/make) on its erected structure including complete dragging/loading/unloading of the same from site store to erection site and fixing of required clamps, connectors, corona rings, surge counter and other accessories etc. as per inst. of E.I.C.</td>
<td>Phase</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td>436.59</td>
<td>2619.54</td>
</tr>
<tr>
<td>4</td>
<td>Erection of 66KV Centre Break Isolator (All make) with earth blade on its erected structure consisting of 3 base channels with porcelain/solid core insulator including interconnected piping with operating mechanism and accessories with final adjustment for simultaneous operating &amp; closing. The rates are inclusive of dragging/loading/unloading of the same from site store to erection site as per instruction of E.I.C.</td>
<td>Set of 3 Pole</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>3638.25</td>
<td>3638.25</td>
</tr>
<tr>
<td>5</td>
<td>- - DO - - as above but without earth blade complete.</td>
<td>Set of 3 Pole</td>
<td>5</td>
<td>1</td>
<td>6</td>
<td>2619.54</td>
<td>15717.24</td>
</tr>
<tr>
<td>6</td>
<td>Erection of 66KV Poly cone/Solid Core/Bus Post Insulator on its erected structure including minor required fabrication &amp; complete fixing of accessories and shifting of same including loading/unloading from its site store to erection site.(11 PI for new + 4 PI for exist. if required due to CPB3 bus highte)</td>
<td>No</td>
<td>8</td>
<td>7</td>
<td>15</td>
<td>291.06</td>
<td>4365.90</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Unit</td>
<td>Quantity</td>
<td>Rate</td>
<td>Amount</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>------------------------------------------------------------------------------</td>
<td>------</td>
<td>----------</td>
<td>-------</td>
<td>---------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Laying of any size of 11KV XLPE cable including excavation of trench 300mm wide &amp; 600mm deep including laying and filling up sand of 100mm layer from bottom &amp; bricks on three side of cable &amp; refilling the trench with Murram/soil &amp; ramming etc. Required bricks, sand, etc. will have to be supplied by the contractor. Rates are inclusive of shifting of cable drum to the site from S/S site store. Drum should be handled only by jacking to avoid damage to cables.</td>
<td>Mtr</td>
<td>220</td>
<td>0</td>
<td>145.53</td>
<td>32016.60</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Laying of any size of 11KV XLPE cable in ready made cable trench or in open space. Rates are inclusive of shifting of cable drum to the site from S/S site store. Drum should be handled only by jacking to avoid damage to cables.</td>
<td>Mtr</td>
<td>500</td>
<td>0</td>
<td>66.15</td>
<td>33075.00</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Erection of 66KV Equipment/Lighting Mast/ VHF Mast structure including punching of nut bolts. Rates are inclusive of minor required fabrication and shifting of same up to erection site from its s/s Store.</td>
<td>MT</td>
<td>21</td>
<td>5</td>
<td>2619.54</td>
<td>68108.04</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Erection of 66/11KV, class Power Transformer with complete mounting of all the accessories i.e. bushings, radiators, conservator tank etc. including laying of cable between all accessories/mounted on the transformer/ marshalling KIOSK, painting of rail and neutral supporting channels, filling and filtration of oil with filter machine as per direction of E.I.C. manufacturer Engineer or as per instruction manual. Required filter machine shall be arranged by the contractor.</td>
<td>MT</td>
<td>0.5 MVA</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Stringing of Single ACSR Zebra Bus complete in all respect with fixing of all fitting, insulators and all accessories as per the instruction of E.I.C.</td>
<td>RmtrPerPhase</td>
<td>150</td>
<td>180</td>
<td>330</td>
<td>66.15</td>
<td>21829.50</td>
</tr>
<tr>
<td>12</td>
<td>Preparing and fixing of required length of jumpers of single Panther/ Dog in the switchyard on respective Bus &amp; equipments, tensioning, Compressing &amp; dressing of jumpers complete as per instruction of E.I.C.</td>
<td>RmtrPerPhase</td>
<td>300</td>
<td>0</td>
<td>300</td>
<td>17.46</td>
<td>5238.00</td>
</tr>
<tr>
<td>13</td>
<td>Dismantling of 66KV Bus complete in all respect with removing of all fittings, insulators and all accessories hardwares,dead end connections etc as per the instruction of Engineer-in-charge during the specified outage and crediting material to nearest store with weight.</td>
<td>Job work</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>3000</td>
<td>3000.00</td>
</tr>
<tr>
<td>14</td>
<td>Dismantling of 66KV S/S structure, Bus structure complete in all respect with removing of all fittings, insulators and all accessories hardwares,dead end connections etc as per the instruction of Engineer-in-charge during the specified outage and crediting it to nearest store.</td>
<td>MT</td>
<td>0</td>
<td>1.5</td>
<td>1.5</td>
<td>4177.13</td>
<td>6265.70</td>
</tr>
<tr>
<td></td>
<td>Removing of existing feeder bay/Xmer bay jumpers in the switchyard on respective Bus &amp; equip., Also Connect the same at New Bus with new jumpers as per instructions of Engineer-in-charge.(Inclusive fixing of all Clamp / Connectors) during specified outage. Single MOOSE/ZEBRA/PANTHER/DOG Job Work</td>
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</tr>
<tr>
<td>15</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>5000</td>
<td>5000.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Installation of <strong>earthing strips</strong> as shown below including digging of 600mm depth and 450mm wide trench/fixing on structure as per attached drawing including fixing arrangement with two bolt arrangement, jointing with nut-bolts and lap welding and applying zinc rich paint on welded joints including supply of GI Nuts &amp; bolts as per specification. No HR shall be given in laying of strips size <strong>50x6mm G.I. Strips / copper strips</strong>.</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>Mtr</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Providing bore for bore type earthing with drilling of minimum 200 mm dia bore up to 18mtr depth in any type soil or rock strata as per instruction of EIC which includes inserting 50X6mm flat in bore depth the to be connected to the earthing grid at junction point by proper welding at both end. this includes cutting , fabrication &amp; welding of flat also surrounding areas of / with mixture of coke, charcoal, salt, black cotton soil , as per instruction of EIC...<em>(Wherever applicable as per soil strata &amp; approval from Engg. Dept.)</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Installation &amp; Fixing of ground rod 20 /24 mm dia. Bar in 50mm dia. Bore in any type of soil except hard rock, 3000mm deep from bottom of trench including cutting of steel bar welding with grid bar/ strip and back filling of bore with black cotton soil / bentonite powder as per attached drg. Required steel rod shall be supplied by Contractor.</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Installation of earthing pits as per drawing attached herewith by providing <strong>100 mm inner diameter cast iron pipe</strong>(cenrifugal casted,flange type) of 13 mm thickness and 3000 mm length.Work includes includes fabrication and fixing of GI strips for earthing connection as per drawing attached. Excavated earth pits/bores should be filled by mixture of coke, charcoal, salt and black cotton soil up to top. Further this includes providing of Brick masonry chamber of size 450 mm x 450 mm and depth up to 1000 mm as per the instruction of EIC including light type CI cover with frame and applying 12 mm thick cement plaster in 1:3 inside and to all the exposed faces up to 300 mm below.Foundation level, curring etc.complete. Extra earth should be removed away from the site s/s premises or refilling earthing pits if requirered.All required materials for job such as C.I. pipe cover with frame,salt,cement,sand,charcoal gravel,bricks etc.to be supplied by the contractor.Required bolt,nuts and washers,number plates or painted plates also shall be arranged by the</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>No</td>
</tr>
<tr>
<td>No</td>
<td>Description</td>
</tr>
<tr>
<td>----</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>17</td>
<td>Providing and fixing <strong>inspection chamber of precast cement Hume pipe</strong> of size 600mm diameter, 600mm length and 50mm Thick with 50mm thick cover having 100mm hole for watering to pit including excavation up to 300mm depth in any kind strata, the pipe will be 300mm above ground after fixing two coats of white wash with painting of pit number complete as per instruction of EIC.</td>
</tr>
<tr>
<td>18</td>
<td>Erection of <strong>66KV Control Panel, relay panel</strong> or C/R panel or RTCC panel including grouting of panel, jointing with adjoining panels with providing required B/N including required fabrication for joining panels &amp; entry of control cables and complete vermin proofing.</td>
</tr>
<tr>
<td>19</td>
<td>Erection of <strong>11KV CB panel set (2+6) and second incomer/bus coupler with Adaptor</strong> of any make including grouting and jointing with adjoining panels, including required fabrication for entry of power cable, control cable and complete vermin proofing, Job includes supply of required bolts, nuts etc.</td>
</tr>
<tr>
<td>20</td>
<td>-DO- but Erection of <strong>LT panel board &amp; battery charger</strong> of any make as per manufacturers instruction manual including grouting, vermin proofing etc.</td>
</tr>
<tr>
<td>21</td>
<td>Erection of <strong>100AH, 110Volt D.C. battery set on wooden/FRP stand</strong> as per instruction manual of supplier, including first filling of battery electrolyte, proper connection of cells and applying, charging/discharging cycles as per manufacturer’s instruction manual and instruction of EIC.</td>
</tr>
<tr>
<td>22</td>
<td>Erection of <strong>station transformer of 11KV/430V, 63/100KVA</strong> on its plinth, grouting of foundation bolts, fixing of channels, D.O. fuse by fabricating str.&amp; its painting, danger board etc. including connection with power cable/LV cable</td>
</tr>
<tr>
<td></td>
<td>Description</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>23</td>
<td>Providing and fixing of 11KV Drop out fuse of rated voltage 12KV ,50Hz frequency and rated normal current of 100 Amps with all required fabrication and IEC</td>
</tr>
<tr>
<td>24</td>
<td>Providing and fixing of 11KV Pin insulator for Station transformer D.P. Structure as per IEC with all required B/N. The insulator shall be manufactured as per IS -731/1971</td>
</tr>
<tr>
<td>25</td>
<td>Erection of 1 Pole Girder structure for XLPE cable / Neutral Earthig with fixing of channels, angles, necessary fabrication and fixing of Wooden Clamp on it with excavation including back filling work. This item includes painting with red oxide and two coats of silver colour of Asian/British/Nerolac. (Required girders, channels, angles, etc. shall be supplied by GETCO)</td>
</tr>
<tr>
<td></td>
<td>a) For XLPE cable including supply of 6 Nos. Wooden clamp for XLPE Cable of station transformer</td>
</tr>
<tr>
<td></td>
<td>(b) For Neutral Earthing of X'mer</td>
</tr>
<tr>
<td>26</td>
<td>Fabrication for erection of any Equipment/Structure/panel or anywhere in s/s &amp; F.B. at other ends as per Inst. Of E.I.C.</td>
</tr>
<tr>
<td>27</td>
<td>Erection of supporting structure for 11KV Power Cable termination at 11kv bushing for 15MVA transformer and station x'mer(also suitable for erecting DO fuse) including necessary minor fabrication as per DGR &amp; inst. of E.I.C. and painting with one coat of red oxide and one coat of alluminium paint. Material for supporting structure will be supplied free of cost by GETCO.</td>
</tr>
<tr>
<td>28</td>
<td>Providing &amp; fixing on above support str. of Set of following Items on 11KV support structure system for power cable of 66/11KV Transformer as per GETCO drawing and instruction of EIC. 1) Alu. alloy bus bar of size 75X20x2000 mm : 03 Nos. 2) 11KV Post Insulator of PCD 127 mm - 12 No 4) Copper laminated fusion welded flexible jumper of size 75 X 10 X 600 mm having 2000 Amp capacity : 03 No</td>
</tr>
<tr>
<td>29</td>
<td>Erection of 11KV D.P. Structure (Girder/PSC Pole) including required fabrication in Top Channel, Cross Bracing, Level Piece etc with providing required b/n. Works also includes painting with one coat of Red Oxide, Two coat of approved make alluminium paint. Job also includes erection of 11kv LAs</td>
</tr>
<tr>
<td>Page 94 of 108</td>
<td>94</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>30</strong> Providing &amp; fixing 11 kV gang operated, 400 Amp. Capacity, AB switch on 11 kV outgoing DP structure with required minor fabrication for fixing of AB switch as per instruction of Engineer in charge.</td>
<td><strong>No</strong> 12 0 12 6000 72000</td>
</tr>
<tr>
<td><strong>NOTE</strong>: (1) This item will be executed if required.</td>
<td></td>
</tr>
<tr>
<td>(2) Before procurement of AB switch, Make, Drawing &amp; other technical specifications shall have to be got approved from Ex. Eng. (Const.).</td>
<td></td>
</tr>
<tr>
<td><strong>31</strong> Providing of <strong>M15 Grade Concrete</strong> for various equipment structure, Guy, 11kV DP, M.K. Box, Neutral channels, cable support channel, grouting of Pole/ Flood light structure with cement, sand &amp; metal in proportion of 1:3:6 respectively. The rates are inclusive of supply of sand, metal, water &amp; cement. Muffing and with smooth cement mortar (1:6) finish.</td>
<td><strong>Cmt</strong> 29 0 29 5549.25 160928.25</td>
</tr>
<tr>
<td><strong>31</strong> <strong>Excavation in Hard Rock</strong> for excavation of Earthing Pits/trnchs, Yard Light Poles etc.</td>
<td><strong>Cmt</strong> 5 0 5 551.25 2756.25</td>
</tr>
<tr>
<td><strong>32</strong> Loading, Transporting &amp; Unloading of all SS material like SS Structure, indoor &amp; out door SS Equipments, DP Structure, earthing materials etc. for Ss &amp; opposite end leader bay - Store to SS Site</td>
<td><strong>Job</strong> 1 0 1 54400 54400.00</td>
</tr>
<tr>
<td><strong>33</strong> Supply &amp; laying of <strong>1 CoreX25mm2, armoured Copper Cable</strong>, multi-strand flexible of approved make ISI marked in ready made trench or PVC pipe from Battery Charger to Battery Set including termination at both side as per inst. of EIC.</td>
<td><strong>Mtr</strong> 45 0 45 210.00 9450.00</td>
</tr>
<tr>
<td>Providing and fixing of various type of sign Board, sticker, Big Sign Board, earthing pit board, earthing pit Board &amp; Single line diagram etc as per instruction of IEC. Sticker of red, white, black Letters are to be utilised for various sign board.</td>
<td><strong>Job</strong> 1 0 1 26250.00 26250.00</td>
</tr>
<tr>
<td>Earthing Pit Board Size:- 6&quot; x 6&quot; - 30 Nos.</td>
<td></td>
</tr>
<tr>
<td>Safety Slogan Board, Hard Sheet board size 2’ x 2’ and 4mm thick (Gujarati Language)- 2 Nos.</td>
<td></td>
</tr>
<tr>
<td>Safety Slogan Board, Hard Sheet board size 3’ x 2’ and 4mm thick (Gujarati Language) with red and Yellow colour.- 03 Nos.</td>
<td></td>
</tr>
<tr>
<td>Single line diagram size 5’ x 3’ Digital with Alluminium frame with fitting and as per approved diagram given by IEC.-01 No.</td>
<td></td>
</tr>
<tr>
<td>Big sign board size 5’ x 4’ and 2mm thickness indicating sub station name digital with S.S. rod with hole &amp; as per approved symbol with fitting charge.- 01 No.</td>
<td></td>
</tr>
<tr>
<td>Switch yard sign Board 12&quot; X 6&quot; with 2 mm Thickness black &amp; white Gujarati language.- 25 Nos.</td>
<td></td>
</tr>
<tr>
<td>Safety Slogen Board size 2&quot; x 6&quot; in side control room.-05 Nos.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Description</td>
</tr>
<tr>
<td>---</td>
<td>-------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>35</td>
<td>Providing and Fixing of fire stand from 75mm GI pipe A class ISI mark heavy duty having 5ft width and 4ft height as per inst of Engr. In charge work includes cutting, drilling, welding of pipe as required. Fabrication and supply of 16mm dia meter hook required size for buckets. 4 Nos. of fire buckets are to be provided fire stand should grouted with excavation of pit size 300mm x 300mm-2 Nos. of 600mm depth with 1:3:6 mix mufing 300mm in height including leveling of stand. The fire stand is to be painted with post box red colour of approval quality as per instruction of EIC. All required approved material including cement, sand, metal etc are to be provided by contractor.</td>
</tr>
<tr>
<td>36</td>
<td>Providing, Fabrication and erection of VHF set entena support pipe on control room by providing 25mm dia. GI pipe of length 20 feet. including providing &amp; fixing of 4 nos. of guy from GI wire 10 SWG. This job includes painting of GI pipe by good quality paint white and red alterlatively</td>
</tr>
<tr>
<td>37</td>
<td>Labour charge for fixing of 11KV XLPE indoor &amp; outdoor cable kit of any make for size 95 to 300mm2. Cable kit provided by GETCO.</td>
</tr>
<tr>
<td>38</td>
<td>Providing &amp; Fixing of RAYCEM/MSEAL/CABSEAL make heat shrinkable type 11KV XLPE Outdoor cable Termination kit suitable for 11KV, 3C x 95 sqmm to 300 sq.mm XLPE power cable by using adequate capacity of Al. lugs .</td>
</tr>
<tr>
<td>39</td>
<td>Providing &amp; Fixing of Aquaguard Total Reviva Water R.O. Plant including Commissioning &amp; Testing and also with required peripherals for installation of plant as per site condition (1) Dimension: 320 X 275 X 410 mm (2) Weight : 8 KG (3) Water flow : 8 to 12 LPH (4) Input power : 230V AC (5) RO membrence : TFC spiral You have to provide guarantee for the 12 month from the installation.</td>
</tr>
</tbody>
</table>
### Providing and Fixing of ISI Mark Rubber Matting Sheet

**Suitable for 11KV Class A**

**Per following specification.**

**Reference IS:15652-2006 with latest amendment.**

**Suitable for Voltage Class :B**

**Max Use Voltage : 11KV**

**AC proof voltage : 22KV**

**Dielectric strength : 45KV**

**Leakage current : < 10 micro ampere**

**Color RED/BLUE**

<table>
<thead>
<tr>
<th>Make</th>
<th>Vardhman or equivalent (Rubberhouse India)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>1 mtr.</td>
</tr>
<tr>
<td>Thickness</td>
<td>2.5 mm.</td>
</tr>
<tr>
<td>Surface</td>
<td>Chequred on one side and other side plain.</td>
</tr>
</tbody>
</table>

**NOTE:**

Contractor has to supply Rubber Matting sheet as per IS:15652-2006 with latest amendment specification and shall submit test certificate for routine test as per relevant IS.

### Providing & Fixing of Reputed Make ISI Mark Fire Extinguisher

**Dry chemical powder 10 kg**

**Capacity**

**Note:** Contractor shall submit Test certificate for routine test as per relevant IS.

<table>
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<tr>
<th>No</th>
<th>2</th>
<th>0</th>
<th>2</th>
<th>1995.00</th>
<th>3990.00</th>
</tr>
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</table>

**- Do - but CO2 type - 6.5Kg**

<table>
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<tr>
<th>No</th>
<th>2</th>
<th>0</th>
<th>2</th>
<th>7276.50</th>
<th>14553.00</th>
</tr>
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</table>

**- Do - but CO2 type - 22.5Kg**

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<th>No</th>
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<th>0</th>
<th>2</th>
<th>14553.00</th>
<th>29106.00</th>
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</table>

**- Do - but Mechanical foam type - 50Ltr**

<table>
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<tr>
<th>No</th>
<th>1</th>
<th>0</th>
<th>1</th>
<th>7883.40</th>
<th>7883.40</th>
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</table>

### Providing and Fixing of Phase Plate on 66KV Gantry and Bus Supporting Structure including Supply.

<table>
<thead>
<tr>
<th>Set</th>
<th>8</th>
<th>0</th>
<th>8</th>
<th>200.00</th>
<th>1600.00</th>
</tr>
</thead>
</table>

### Providing and Fixing of P.I. Support Clamps for Single Panther.

<table>
<thead>
<tr>
<th>Nos</th>
<th>8</th>
<th>7</th>
<th>15</th>
<th>300.00</th>
<th>4500.00</th>
</tr>
</thead>
</table>

**TOTAL - 1 (SCHEDULE B - 1) :** 1007379.45

### NOTES :-

1. All erection work is to be carried out strictly as per the manual of OEM (Original equipment manufacturer), FQP and instruction of E.I.C.
2. All equipment erection charges are inclusive of shifting dragging handling of the respective equipment up to S/S erection site from its S/S site store.
3. Contractor has to ensure safe shifting dragging erection of all equipments to comply with labour laws I.E. rules etc.
4. All erection charges are inclusive of fixing of clamp connectors, all necessary accessories to the respective equipments.
5. Transformer erection charges cover shifting, dragging, handling etc. for its bushings, radiators, conservator tank and allied accessories and oil filling, filtration (if required).
6. All erection work includes erection insurance to be arranged by the contractor at his cost.
7. This insurance charges will be reimbursed on production of Insurance policy & Money receipt.
8. All the required tools and tackles like compression jointing machine for conductor, earth wire, cutting machine, welding set, drill machine, etc are to be arranged by the contractor at his cost.
9. Contractor should complete transportation within one job as per above schedule. No extra payment will be given in any case other than this job.
10. If filtration of transformer is required in any case the filter machine shall be arranged by Contractor at his own cost.
Earthing pit activities should be done in such a way in presence of GETCO supervisor that final earthing pit resistance should be recorded as per standard. All expenditure like sufficient watering to maintain earth resistance up to the mark should be born by the contractor.

All the brought out items get to be approved from DE/EE invariably.

The execution of bore are to be carried out as per soil strata in consultation with E.E.

The Classification of hard rock strata should be got approved from E.E. invariably.

Contractor has to make arrangements for site engineer and skill labor for maintaining all activities and records as per FQP. also assisting to staff/Engineer in charge to take IR values, Earth pits values, name plate detail, oil samples etc all activities relative to commissioning of project.

Contractor has to make arrangement for skill labors for assisting to commissioning engineer, PLCC staff/engineer, SMS/testing staff/Engineer as an when require as per instruction of Engineer in charge.

After completion of project successful bidder has to submit all the records like battery charging report, control wiring schedule, earth pit lay out, earthing grid layout, power cable lay out, yard light pole and Ckt lay out etc in hard and soft copy for handing over the project.

For Colony & Yard lighting and Control Room Industrial Electrical wiring works the rates quoted shall be inclusive of providing and fixing / Installation, testing and commissioning of complete Control Room lightings, Ceiling Fans, Exhaust Fans etc.

All items / materials shall be installed / erected in accordance with specified manuals /technical guide lines of the manufacturer and as per instruction of EIC.

Cable laying, Circuit distribution and Fixture fixing shall be carried out as per GETCO Standard Drg. No.

Control Room Wiring, Fixing of fixture, Ceiling fan & Exhaust fan etc shall be carried out as per Standard Drawing No. GETCO/E/6S-STD/S-015 (R0) Sheet No 1 & 2 of 2 and GETCO/E/6SSTD/S-013 (R0) Sheet No 1 of 3 and as per instruction of Engineer In charge.

For entire control Room, Office & store etc. building wiring is to be done by Providing and fixing of ISI Marked MS conduit pipes 20mm dia. & 1.6 mm wall thickness size (Minimum Size) and PVC insulated stranded copper wire of FENOLEX/ANCHOR make as per relevant IS.

Total tilting angle for the flood light luminaries provided on pole is considered as maximum of 45 degree, looking to the tilting angle 20 degree available with luminaries itself & supporting pipe should be fabricated & welded accordingly. Also arm for fixing of Flood light luminaries shall be fix as per required angle & direction as per instruction of EIC.

EE/DE will decide the make of luminaries, fan, cable, MCB, Switches etc. and same is to be inspected at authorize depot.

Yard light pole should be inspected at the cost of contractor.

Service Tax will be reimbursed after submission of documentary evidence by the contractor for the amount which shall be lower of (1) the Amt. supported by the documentary proof of service tax paid; (2) service tax payable on the Amt. passed for payment as per terms and conditions of the order.

All the work related to the transmission line like detailed survey, check survey, tower/DP foundations, material testing, tower/DP erection, stringing, final testing, etc should be carried out as per GETCO’S standard FQP for transmission line.

Successful bidder has to appoint site engineer to maintain site register and FQP as per ISO

All work should be done according to ISO & FQP and all require documents including filled FQP, testing results, etc should be submitted while handing over the line.

The above rates are with supply of cement by the contractor.
GUJARAT ENERGY TRANSMISSION CORPORATION LTD.

ESTIMATE

Name of Work: Work of erection of 66KV equipment, structures, control wiring, yard Lighting, Control-Room & Staff-Quarter Electrification etc at 66KV Vyara - II S/S.

SCHEDULE B - 2 : CONTROL WIRING

<table>
<thead>
<tr>
<th>Sr No</th>
<th>Description of work/Supply</th>
<th>Unit</th>
<th>S/S Qty</th>
<th>Opposite end F/B Qty</th>
<th>Total Qty</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>Preparing of complete schedule of wiring for line/ transformer bay for 66KV bays in triplicate. necessary drawing will be provided by the GETCO. Schedule should be approved by EE. or DE in charge.</td>
<td>Bay</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2000.00</td>
<td>2000.00</td>
</tr>
<tr>
<td>49</td>
<td>Laying of Up to 7 Core Control Cable, 1.1KV PVC, armored copper/aluminum control cable in readymade cable trench and inside Hume pipe including binding / clamping of cable with GI wire or saddles as per the requirement including the supply and fixing of identification tags at both ends in between if required to following size (Cable will be supplied by GETCO at free of cost)</td>
<td>Mtr</td>
<td>1500</td>
<td>0</td>
<td>1500</td>
<td>6.62</td>
<td>9930.00</td>
</tr>
<tr>
<td>50</td>
<td>As above but for, Above 7 Core Control Cable</td>
<td>Mtr</td>
<td>800</td>
<td>0</td>
<td>800</td>
<td>10.97</td>
<td>8776.00</td>
</tr>
<tr>
<td>51</td>
<td>Laying of Up to 7 Core Control Cable, 1.1KV PVC armored copper/aluminum cable in ground by digging trench of suitable width and 450 mm depth in any type of soil including supply and fixing of identification tag on both end and at distance every 100 mtrs for</td>
<td>Mtr</td>
<td>100</td>
<td>0</td>
<td>100</td>
<td>21.95</td>
<td>2195.00</td>
</tr>
<tr>
<td>52</td>
<td>As above but for, Above 7 Core Control Cable</td>
<td>Mtr</td>
<td>100</td>
<td>0</td>
<td>100</td>
<td>26.57</td>
<td>2657.00</td>
</tr>
<tr>
<td>53</td>
<td>Providing and fixing ‘B’ class G.I. pipes of following size for cable protection including fixing with the structures.( Non SOR) including required ‘L’ &amp; ‘T’ band, coupling for CT,PT, Transformer, M.K.Box cabling on structure including required fabrication.(weight of pipe-25kg/meter)</td>
<td>Mtr</td>
<td>40</td>
<td>0</td>
<td>40</td>
<td>267.75</td>
<td>10710.00</td>
</tr>
<tr>
<td>54</td>
<td>(b) 50mm dia</td>
<td>Mtr</td>
<td>30</td>
<td>0</td>
<td>30</td>
<td>299.25</td>
<td>8977.50</td>
</tr>
<tr>
<td>55</td>
<td>Termination of Control Cable at Panel / M.K./ Equipments including supply of required size of brass cable glands, lugs, ferrules, PVC Binding Tape, Buttons etc. for Up to 7 Core Control Cable.</td>
<td>End</td>
<td>180</td>
<td>0</td>
<td>180</td>
<td>210.00</td>
<td>37800.00</td>
</tr>
<tr>
<td>56</td>
<td>As above but for, Above 7 Core Control Cable.</td>
<td>End</td>
<td>50</td>
<td>0</td>
<td>50</td>
<td>367.50</td>
<td>18375.00</td>
</tr>
<tr>
<td>Job</td>
<td>No</td>
<td>Description</td>
<td>Quantity</td>
<td>Rate</td>
<td>Amount</td>
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<td>57</td>
<td>1</td>
<td>Providing &amp; installation and commissioning of remote control switch board for ON/OFF control of all 11kv panel at operator table with supply of good quality metal sheet box (18 SWG) size 450 x 450 x 125 mm with door, 20 nos standard ISI make and rating industrial push button, indication lamp(LED) with installing accept/reset arrangement with required ISI marked copper flexible wire size 2.5 Sq. mm including complete wiring in PVC pipe and fixing on wall as per inst. of EIC. only 19/27 core x 2.5 sqmm cable supply by GETCO.</td>
<td>1</td>
<td>6825.00</td>
<td>6825.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>58</td>
<td>1</td>
<td>Providing &amp; Fixing of all weather proof, cold rolled sheet steel Main AC Dist. Box (MDB) having 1 Nos. of 100 Amp. MCCB &amp; 2 nos. of 63Amp MCB for O/G feeders with copper bus bar as per drawing enclosed.</td>
<td>1</td>
<td>29950.00</td>
<td>29950.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>59</td>
<td>1</td>
<td>Providing &amp; Fixing of all weather proof, cold rolled sheet steel Yard AC Dist. Box having (1) one no 63A, 4P MCB as main I/C (2) 09 Nos. of 32A, 4P, MCB as O/G feeders (3) 6 nos of 32A, DP MCB as O/G feeders as per drawing enclosed</td>
<td>1</td>
<td>24250.00</td>
<td>24250.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>4</td>
<td>Providing and fixing of all weather proof, cold rolled sheet steel junction box for CVT &amp; PT, CT terminations with 30 Nos. of disconnecting type, 'Elmex' make CATDM 4 or equivalent type connectors and required no of fuses, links etc. as per instruction of Engineer-in-charge, as per drawing enclosed</td>
<td>4</td>
<td>11550.00</td>
<td>46200.00</td>
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**TOTAL - 2 (SCHEDULE B - 2)**: 208645.50
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<tr>
<th>Sr No</th>
<th>Description of work/Supply</th>
<th>Unit</th>
<th>Qty</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>61</td>
<td>Providing &amp; fixing of all weather proof, cold rolled sheet steel AC Panel - 2 for Yard-Light AC supply having (1) 63A 4P MCB : 01 NO (2) MCX-12A contactor : 01 NO (3) Digital Timer : 01 NO (4) 20A TPN MCB : 06 NOS (5) Indication lamp “ 03 NOS (6) Push Butten : 02 NOS (7) Terminal Connector as per site requierment and other detail as per drawing enclosed including grouting &amp; Necessary fabrication of GI Angle or fixing on GI Structure and earthing with main grid as per instruction of EIC as per drawing enclosed</td>
<td>No</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62</td>
<td>Supplying &amp; laying of following size Control/L.T power cable in readymade cable trench or by excavating in any type of soil cable trench size 1 ft. wide 2.5 ft. depth and refilling the same as per the direction of EIC. Item Includes the cable laying upto termination box with clamps &amp; proper clamping of cable on gantries by GI pipe &amp; glands as per direction. Item includes providing &amp; supply of bircks, sand as per requirement. The L.T power cable to be provided by contractor as under : As per ISI 1554 (Part-I). <strong>3.5 Core x 50 mm²</strong> Aluminium cable - Armoured, from distribution X'mer to Main Distribution Board near dist. X’mer and from MDB to indoor LT panel board (LTPB), - both 2 runs.</td>
<td>Mtr</td>
<td>120</td>
<td>0</td>
<td>120</td>
</tr>
<tr>
<td>63</td>
<td>Supplying &amp; laying of following size Control/L.T power cable of FINOLEX or equivalent ISI make in readymade cable trench or by excavating in any type of soil cable trench size 300mm wide and 600mm depth and refilling the same as per the direction of EIC. Item Includes the cable laying up to termination box with clamps &amp; proper clamping of cable on gantries by GI pipe &amp; glands as per direction. Item includes providing &amp; fixing of bircks, sand as per requirement to protect cables. The L.T power cable to be provided by contractor as under : As per ISI 1554 (Part-I). <strong>4 Core x 25 mm²</strong> Aluminium cable - Armored, from LT panel board (LTPB) to Yard Light AC MK (AC Panel-2), AC Panel 1 in C.R. and yard AC Box</td>
<td>Mtr</td>
<td>105</td>
<td>0</td>
<td>105</td>
</tr>
<tr>
<td>64</td>
<td>- - do - - <strong>4/7 C x 4mm²</strong> Copper cable - Armoured, from yard-light AC panel-2 to all yard-light fixture junction boxes on LM &amp; street light pole &amp; Station transformer to Colony &amp; LT panel to watchman cabin. (Only laying, Cable will be</td>
<td>Mtr</td>
<td>650</td>
<td>0</td>
<td>650</td>
</tr>
</tbody>
</table>
4C x 2.5mm² Copper cable - Armoured, from yard-light AC panel-2 to all junction boxes on post top lantern (Only laying. Cable will be supplied by GETCO)

| Mtr | 125 | 0 | 125 | 19.95 | 2493.75 |

Providing & fixing of B' class ISI marked GI. Pipe of 32/40mm dia for cable looping & road crossing with necessary elbow/band for each pole & J.Box for yard lighting & for control-room flood lights wiring work with fixing on wall with shades if required as per inst. Of EIC.

| Mtr | 60 | 0 | 60 | 189 | 11340.00 |

Providing & erection of swaged type welded GI tubular street light pole, by excavating as per inst. of E.I.C. in any type of soil confirming to relevant IS made of GI tubes of following size For Pole having Over all length 9-0 Mtr. Effective length of section. Bottom 5 Mtr. long, 114.2mm outer dia and 3.5mm thick, middle 2 mtr long, 88.9mm outer dia & 3.25mm thick, top 2 mtr long, 76.1 mm dia (outer) and 3.25mm thick with 1 Mtr long Single arm fixed by fixing bolts (4 Nos) and cap as per specifications and to be so erected that Total tilting angle for the flood light luminare provided on pole is considered as maximum of 45 degree, looking to the tilting angle 20 degree available with luminare it self & supporting pipe should be fabricated & welded accordingly.

| No | 8 | 0 | 8 | 10500 | 84000.00 |

Do - As above but for Pole having Over all length 5.0 Mtr. Effective length of section. Bottom 3 Mtr. long, 88.9mm outer dia and 3.5mm thick, middle 1 mtr long, 76.1mm outer dia & 3.25mm thick, top 1 mtr long, 60 mm dia (outer) and 3.25mm thick. as shown in drawing.

| No | 3 | 0 | 3 | 7350 | 22050.00 |

Supply and fixing of Pole/Wall/Structure mounted FRP junction box standard make of required size with clamp, providing 1 SPN MCB G class of 16 A having short ckt breaking capacity of 10KA peak of standard ISI make like L&T/ANCHOR/MDS/HAVELLS & 2 Nos. of stud type connector of standard make like Connectwell. The cable glands & lugs are also included for both incoming & outgoing cables. Amp. of standard make like MDS/HAVELLS & 2 Nos. of stud type connector of standard make like Connectwell. The cable glandes & lugs are also included for both incoming & outgoing cables.

<p>| No | 21 | 0 | 21 | 787.5 | 16537.50 |</p>
<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>70</td>
<td>Earthing to tubular pole/luminaries, by coil type earthing at 10 SWG, GI wire in earth pit of 1.5 mtr. Depth in any type of soil by using salt/ coke (charcole) 16 kgs each &amp; remaining filling with BC soil &amp; clamping the earth wire with pole &amp; Junction box.</td>
<td>No 19</td>
<td>0</td>
<td>19</td>
<td>420</td>
</tr>
<tr>
<td>71</td>
<td>Providing and fixing of Single Piece Cast <strong>Aluminium with full frame with Acrylic Cover</strong> integrated luminaries Energy Efficient flood light luminaries on swaged pole / GI structure by providing required fabrications, of Philips/CGL/Bajaj/GE/Osram make, suitable for 1 x 250 Watt HPSV/T with allied accessories such as Capacitor igniter, ballast, control gear box etc, 4 core 2.5 sq mm double insulated flexible stranded wire should be used from control gear fitting to junction box.</td>
<td>No 13</td>
<td>0</td>
<td>13</td>
<td>7875</td>
</tr>
<tr>
<td>72</td>
<td>Providing &amp; fixing of Energy efficient Street Light Luminaire on control room / sewedge pole / GI structure by providing required fabrications of PHILIPS/CGL/HAVELLS/GE/OSRAM make suitable for 4 X 24 Watt T-5 Type Energy Efficient Lamp with allied accessories such as T-5 Lamp, capacitor igniter, ballast, control gear box etc, 4 core 2.5mm2 double insulated flexible stranded wire should be used from control gear fitting to approved SMC type junction box as per inst. of EIC.</td>
<td>No 8</td>
<td>0</td>
<td>8</td>
<td>5250</td>
</tr>
<tr>
<td>73</td>
<td>Providing &amp; fixing of Post Top Lantern on Main Gate / Pole of PHILIPS/CGL/HAVELLS/GE/OSRAM make suitable for 1X 125 Watts HPMV lamp with allied accessories such as Lamp, Ballast, Control gear box etc complete fitting in all respect and 4 core x 2.5 mm2 double PVC flexible copper cable from control gear fitting to SMC junction box as per instruction of EIC. (4 no are to be provided on Main gate &amp; 3 No are to be provided on 5Mtr Tubular pole)</td>
<td>No 7</td>
<td>0</td>
<td>7</td>
<td>3675</td>
</tr>
</tbody>
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**TOTAL - 3 (SCHEDULE B - 3)**: 392621.25
GUJARAT ENERGY TRANSMISSION CORPORATION LTD.

ESTIMATE

Name of Work : Work of erection of 66KV equipment, structures, control wiring, yard Lighting, Control-Room & Staff-Quarter Electrification etc at 66KV Vyara-II S/S.

SCHEDULE B - 4 : CONTROL ROOM INDUSTRIAL ELECTRIFICATION

<table>
<thead>
<tr>
<th>Sr No</th>
<th>Description of work/Supply</th>
<th>Unit</th>
<th>S/S Qty</th>
<th>Opposite end F/B Qty</th>
<th>Total Qty</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>74</td>
<td>Providing and fixing of DBS as AC Panel - 1 for CR of ISI marked Powder coated Pearl DBS of ivory color , wall mounting, Double door Distribution board of L&amp;T, Heggar or higher make fitted with 63Amp Phase Bus bar, Earth / Neutral Bars and inter connecting wires with removable bottom gland plates for all power cable entry from bottom with DIN Channel , incoming contact and 1No - 63Amp TPN MCB 'C' Series ,6Nos-20A SP MCB 'C' Series and 13No -10A SP MCB 'C' Series All MCBs are L&amp;T, Anchor or Higher make only. Complete in all respect and as per instruction of EIC.</td>
<td>No</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>7087.5</td>
<td>7087.50</td>
</tr>
<tr>
<td>75</td>
<td>Supplying &amp; laying of following size Control/L.T power cable of FINOLEX or equivalent ISI make in readymade cable trench or by excavating in any type of soil cable trench size 300mm wide and 600mm depth and refilling the same as per the direction of EIC. Item Includes the cable laying up to termination box with clamps &amp; proper clamping of cable on gantries by GI pipe &amp; glands as per direction. Item includes providing &amp; fixing of bricks, sand as per requirement to protect cables . The L.T power cable to be provided by contractor as under :As per ISI 1554 (Part-I). 4 Core x 25 mm2 Aluminum cable -Armored, from LT panel board (LTPB) to AC Panel-1 in Control Room.</td>
<td>Mtr</td>
<td>30</td>
<td>0</td>
<td>30</td>
<td>194.25</td>
<td>5827.50</td>
</tr>
<tr>
<td>76</td>
<td>Supplying &amp; Laying Sub-main lines of 3X2.5 mm2 ( two for P &amp; N and one for Earthing)copper PVC insulated wier of ISI brand in suitable standard make steel conduit pipe having minimum 1.5 mm thickness of approved brand with ISI brand with clmpes with it’s associated accessories for various circuits amanating from AC panel 1 as per inst. of E.I.C.</td>
<td>Rmtr</td>
<td>250</td>
<td>0</td>
<td>250</td>
<td>131.25</td>
<td>32812.50</td>
</tr>
</tbody>
</table>
Point wiring for control room tube lights, fans, exhaust fans, fancy lights, water tight bulkhead lights with PVC insulated 660 V grade standard copper wire in ISI make GI conduct pipe 20 mm dia and 1.6 mm wall thickness size fitted with saddles on the wall/ceiling. Size of wire shall be with 3C x 1.5 sq.mm PVC insulated copper wire for phase and neutral and earth wire [Green] and 5 Amp Anchor/Roma or any equivalent switch as per specification with 16 guage M.S. box. The box shall be covered with 3 mm thick decorative mat finish hylum sheet. The work is all inclusive of supply and fixing of required materials as aforementioned [like M.S.conduct pipe, saddles, switches, M.S. box, ceiling Rose, flexible copper wire etc] to complete point wiring with each fixture to be earthed by SWG-12 stranded copper conductor having green color as per direction and instructions of E.I.C.

| Job   | 1       | 0       | 1       | 4725 | 4725.00 |

Providing, fixing & termination for emergency D.C. supply arrangement. This job includes supply & laying of 2C x 2.5 mm2 Copper armoured cable from battery charges to SBDC, fixing & providing SBDC & complete wiring with supply of wire & D.C. lamp (110V D.C., 100 watt-4 Nos.) in standard steel conduit pipe as per drawing No: GETCO/EE/6S-standard/S-015 as per inst. of E.I.C.

| Point | 8       | 0       | 8       | 1275.75 | 10206.00 |

Providing and fixing points wiring in GI. Conduct pipe size 20 mm dia and 1.6 mm wall thickness with single PVC insulated 2.5 Sqmm. copper wire of ISI standard good quality using 1.5mm thick suitable size ISI mark (2+3 pin in socket) Anchor brand 15 Amp. 250 Volt plug socket as separate plug point with shock proof accessories incl. indication lamp; erected on separate decorative mat finish hylum sheet board on wall with providing adequate green earthing wire as per specification and instruction of Engineer Incharge.

| Point | 8       | 0       | 8       | 855.75  | 6846.00  |

--- Do ---- as above but with single PVC insulated 3Cx1.5 sq. mm. copper wire of ISI mark plug socket for 5A domestic use separate plug points as per direction and instruction of E.I.C.

| Point | 11      | 0       | 11      | 210     | 2310.00  |

--- Do ---- as above but looped on same board i.e. no separate board, plug socket for 5A domestic use as per direction and instruction of E.I.C.

Fixing of Ceiling Fan of 1400mm sweep Havells/Crompton/Orient/usha/Cini make (ISI approved) flexible wiring by using twin core double PVC 48/0.2 mm copper flexible cord of suitable & approved make and size from ceiling rose upto fan terminal & supply and fixing of energy saver regulators, extra GI pipe of required size and length for lowering of fan if required as per instruction of EIC.

<p>| No    | 8       | 0       | 8       | 1890    | 15120.00 |</p>
<table>
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<tr>
<th>No</th>
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<th>Rate</th>
<th>Qty</th>
<th>Unit</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>83</td>
<td>Providing and fixing of 4X24W ceiling mounted indoor decorate fluorescent luminaries as per Drg No GETCO/E/06-STD/S-015 of CGL/HAVELLS/PHILIPS/GE/OSHRAM as per instruction of EIC.</td>
<td></td>
<td>13</td>
<td></td>
<td>4410</td>
</tr>
<tr>
<td>84</td>
<td>Providing and fixing of 1X28W ceiling mounted indoor decorate fluorescent luminaries as per Drg No GETCO/E/06-STD/S-015 of CGL/HAVELLS/PHILIPS/GE/OSHRAM as per instruction of EIC.</td>
<td></td>
<td>12</td>
<td></td>
<td>1050</td>
</tr>
<tr>
<td>85</td>
<td>Providing and fixing of approved make indoor fancy ceiling fitting 30mm dia including 1 X 100 Watts 250 volts Lamp as per instruction of Engineer in charge.</td>
<td></td>
<td>2</td>
<td></td>
<td>588</td>
</tr>
<tr>
<td>86</td>
<td>Providing &amp; fixing of industrial bulk head luminaries on out side C/R building and inside cable trench in C/R of Crompton Greaves make Model IBH1110BC or equivalent Havells/Philips/GE make with supply of 40Watts GSL Lamp including wiring from ceiling rose to fixture with suitable size of PVC insulated ISI marked copper wire only as per Instruction of EIC.</td>
<td></td>
<td>12</td>
<td></td>
<td>472.5</td>
</tr>
<tr>
<td>87</td>
<td>Providing and fixing of heavy duty exhaust fan in battery room size 18” of Make GEC/KHAITAN/ CROMPTON/ HAVELLS incl. M.S. lourex shutter of Fan &amp; necessary wall finishing works and applying bird proof net on outside wall with required arrangement for rain water sealing and necessary conection from ceiling rose as per Direction and instruction of EIC.</td>
<td></td>
<td>1</td>
<td></td>
<td>3675</td>
</tr>
<tr>
<td>88</td>
<td>Same as item No.1 but with Fixing of Electric bell with bell switch near officer’s table. All materials must be ISI mark and approved by Engineer I/C</td>
<td></td>
<td>1</td>
<td></td>
<td>157.5</td>
</tr>
<tr>
<td>89</td>
<td>Providing and fixing of 24 watt CFL lamp for toilet and other amenities of any standard ISI make and as per instruction of EIC.</td>
<td></td>
<td>3</td>
<td></td>
<td>157.5</td>
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<td><strong>TOTAL - 4 (SCHEDULE B - 4)</strong></td>
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<td></td>
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<td>247915.50</td>
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GUJARAT ENERGY TRANSMISSION CORPORATION LTD.

ESTIMATE

Name of Work : Work of erection of 66KV equipment, structures, control wiring, yard Lighting, Control-Room & Staff-Quarter Electrification etc at 66KV Vyara-II S/S.

<table>
<thead>
<tr>
<th>Sr No</th>
<th>Description of work/Supply</th>
<th>Unit</th>
<th>S/S Qty</th>
<th>Opposite end F/B Qty</th>
<th>Total Qty</th>
<th>Rate</th>
<th>Amount</th>
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<tbody>
<tr>
<td>90</td>
<td>Providing and fixing of open type full point wiring with OVEL shape pvc pipes with accessories with 2.5mm2 copper, insulated wire of POLYCAB/AVOCAB make. The switch board of standard companies and switches, pendent holder brackets holder, cellig rose etc. should be of SSK/ANCHOR make including earth wire of 1.5mm2.</td>
<td>Point</td>
<td>30</td>
<td>0</td>
<td>30</td>
<td>283.5</td>
<td>8505.00</td>
</tr>
<tr>
<td>91</td>
<td>As per Item No.1 but for 5 pin 5 Amp. Point wiring</td>
<td>Point</td>
<td>12</td>
<td>0</td>
<td>12</td>
<td>210</td>
<td>2520.00</td>
</tr>
<tr>
<td>92</td>
<td>As per Item No.1 but for 5 pin 15 Amp. Point wiring</td>
<td>Point</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td>735</td>
<td>4410.00</td>
</tr>
<tr>
<td>93</td>
<td>As per Item No.1 for call bell including fixing of approved call bell</td>
<td>Point</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>315</td>
<td>630.00</td>
</tr>
<tr>
<td>94</td>
<td>Circuit charges for individual circuit with 2.5mm2 copper wire in condute pipe as per Drg. And Inst. Of EIC. (1) Two Nos of power point can be looped in one circuit. (2) 8 Nos of light/fan/holder/can be looped in on circuit (3) 5 Amp plug point is to be considered as 2 Nos of light point.</td>
<td>CKT</td>
<td>12</td>
<td>0</td>
<td>12</td>
<td>283.5</td>
<td>3402.00</td>
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<tr>
<td>95</td>
<td>Providing and fixing of 1200mm ceiling fanCGL/ORIENT/USHA make white colour with all required accessories Fan is to be purchased from CGL/ORIENT/USHA make dealer and inspection is to be arranged at authorise delear deppo. Note : This is the approximate quantity, after getting net requirement of tubelight &amp; fan it is to be purchased.</td>
<td>No</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td>1680</td>
<td>6720.00</td>
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<tr>
<td>96</td>
<td>Providing and fixing of Domestic tubelight 40W with electronic chock and all the required accessories of Philips, Crompton, Bajaj. It should be got approved from EIC by showing sample of each tubelight.</td>
<td>No</td>
<td>8</td>
<td>0</td>
<td>8</td>
<td>367.5</td>
<td>2940.00</td>
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<tr>
<td>97</td>
<td>Providing and Fixing of Distribution Board 12 Way, SPN fitted with 1 No. of 25 Amp. MCB, 1 No. D.P. ELCB 32 Amp and required Nos of MCB's. The DP, MCB, ELCB should be of standard company like L&amp;T, Siemens, MDS etc.</td>
<td>No</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>3150</td>
<td>6300.00</td>
</tr>
<tr>
<td></td>
<td>Providing earth to quarter &amp; Control room 10SWG copper earth wire connecting to required installation. This work include preparation of earth pit of size 0.5M x 1.5M depth and back filling by using Soil, Charcoal 16 Kg. Each, 2Mtr. Long heavy duty 19mm PVC pipe and black cotton soil with C.I. earthing plate of 10Kg weight. as per Inst. of EIC. Required all material to be supplied by contractor.</td>
<td>No</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td>525</td>
<td>2625.00</td>
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<tr>
<td>98</td>
<td>Providing &amp; fixing of surface mounted 12-way distribution box of L&amp;T/STANDARD/MDS/INDOASIA make for electric power supply to staff quats. It includes providing and fixing of one 32A TPN, three 16A DP switch of L&amp;T/STANDARD/MDS/INDOASIA with fixing and commissioning of energy meter provided by DISCO, if required with complete wiring with 2.5mm2 copper, insulated wire of POLYCAV/AVOCAB make.</td>
<td>No.</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2100</td>
<td>2100.00</td>
</tr>
<tr>
<td>99</td>
<td>Providing &amp; fixing of <strong>Wall Mounted Fan</strong> Crompton / Orient/ PSPO / Usha / Cinni (must be ISI approved), including wiring from ceiling rose to Fan terminals of by using twin core flexible PVC to PVC 48 / 0.2 mm copper cord of suitable &amp; approved size &amp; fixing of Fan regulator.</td>
<td>No</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1680</td>
<td>1680.00</td>
</tr>
<tr>
<td>100</td>
<td>Providing and laying of 2 core, 2.5 sq. mm PVC armoured copper cable of standard ISI make, inside hume pipe / cable trench / in ground, from control room / transformer distribution board to junction box of quarter &amp; main switch of watchman cabin. During laying of cable in the ground, excavation of 300mm width and 450mm depth in soil with murrum refilling to be done. This includes supply of saddles on the wall of block as instructed and approved by E.I.C.</td>
<td>Mtr</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>126</td>
<td>0.00</td>
</tr>
<tr>
<td>101</td>
<td>TOTAL - 5 (SCHEDULE B - 5)</td>
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<td></td>
<td></td>
<td></td>
<td>41832.00</td>
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GUJARAT ENERGY TRANSMISSION CORPORATION LTD
CONSTRUCTION DIVISION, NAVSARI.

NAME OF WORK: Work of erection of 66KV equipment, structures, control wiring, yard Lighting, Control-Room & Staff-Quarter Electrification etc at 66KV Vyara-II S/S.

ERECTION PART
SUMMARY

<table>
<thead>
<tr>
<th>Part</th>
<th>Item</th>
<th>Erection in Rs.</th>
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<tbody>
<tr>
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<td>Equipment</td>
<td>1,007,379.45</td>
</tr>
<tr>
<td>B</td>
<td>Yard Lighting</td>
<td>392,621.25</td>
</tr>
<tr>
<td>C</td>
<td>Electrification Work</td>
<td>247,915.50</td>
</tr>
<tr>
<td>D</td>
<td>Control Wiring</td>
<td>208,645.50</td>
</tr>
<tr>
<td>E</td>
<td>Quarter Wiring</td>
<td>41,832.00</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>1,898,393.70</td>
</tr>
</tbody>
</table>


REMARKS:
1. Service Tax & welfare cess will be reimbursed as applicable only against submission of documentary proof of payment of service tax submitted to concern office along with monthly bill. If service provider is not liable for service tax due to turnover does not exceed prescribed limit under Finance Act, 1994 and rules, notification published there under time to time then it has to submit declaration for the same each year.

I/We have read and clearly understood the terms, conditions, schedule B and Technical specifications put by GETCO on WEB site.
I/We hereby accept all the conditions and specifications of this tender document and accordingly.
I/We am/are willing to carry out work at ______________% Above/Below of (estimated amount at (A) (In words ____________________% Above / Below) the Estimated rates at (A) mentioned above. Amount of Tender work out as under. Total amount of My Tender Rs._________________________Amt.inRs.___________________________

________________________________________

SIGNATURE OF CONTRACTOR
(With rubber stamp/seal of the company)

SUPERINTENDING ENGINEER (TR)
GETCO, Circle Office, NAVSARI