



POWER DEVELOPMENT DEPARTMENT
TENDER SPECIFICATION NO: SEPD/NIT- 201/2011

PART - I (SECTION - 1 & II)

GENERAL TERMS AND CONDITIONS

AND

PART- II (SECTION- III)

**TECHNICAL SPECIFICATIONS
OF**

220 KV & 132 KV ,3150 Amp, SF-6 Circuit Breakers

**FOR VARIOUS GRID STATIONS
IN
JAMMU & KASHMIR STATE**

2011

Tenders to be submitted to:
The Chief Engineer,
Elect. Planning & Design Wing,
220 KV Grid Station Premises, Gladni,
Narwal- Bala, Jammu.-180006

Correspondence Address :
Superintending Engineer,
Elect. Planning & Design Circle,
220 KV Grid Station Premises,
Gladni, Narwal- Bala, Jammu.
- 180006.

**Office of the Superintending Engineer, Electric Planning & Design Circle PDD, 220
KV Grid Station Premises, Gladni Narwal Bala Grid Station Complex, Jammu.
TELE-FAX- 0191-2476252.**

To

M/s _____

No. SEPD/J/NIT-201/2011.

Sub:- Procurement, of 220 KV, 132 KV SF-6 Circuit Breaker complete with all accessories required for various Grid Stations in Jammu & Kashmir State against Tender specification No:SEPD/NIT-201/2011

Ref:- Your letter No.

Dated:

Dear Sir,

As desired vide your letter referred above, please find enclosed the requisite tender documents for NIT specification No. SEPD/J/NIT-201/2011 comprising of two parts as under:-

- a) General Terms & conditions, Part-I Section-I&II).
- b) Technical specification of 220 KV, 132 KV SF-6 Circuit Breaker required for various Grid stations in Jammu & Kashmir State Part-II (Section-III).

The tender duly completed in all respects should reach the office of the Chief Engineer, Elect. Planning & Design Wing, 220 KV Grid Station premises Gladni Narwal Bala Jammu (J&K State)- 180006 on or before 15-03-2011 upto 12.00 hrs. which shall be opened on the same day or any other convenient working day at 14.00 hrs.

Yours sincerely,

Superintending Engineer,
Elect. Planning & Design Circle,
PDD, Jammu.

Copy to :-

1. The chief Engineer, Planning & Design Wing, Jammu PDD 220 KV Grid Station premises Gladni, Narwal- Bala, Jammu for information.

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PART –I

Section – I

GENERAL TERMS & CONDITIONS

OF

TENDER SPECIFICATION NO.SEPD/NIT-201/2011

FOR

220 KV & 132 KV ,3150 Amp, SF-6 Circuit Breakers

FOR

VARIOUS GRID STATIONS

OF

JAMMU & KASHMIR STATE.

SECTION - I

GENERAL TERMS AND CONDITIONS

1.1 INVITATION:

The Superintending Engineer, Electrical Planning and Designs Circle, Power Development Department, 220 KV Grid complex Gladni , Narwal-Bala Jammu-180006, on behalf of the Governor of Jammu & Kashmir State, hereby invites sealed tenders for the supply of **220 KV & 132 KV ,3150 Amp, SF-6 Circuit Breakers** as indicated in SCHEDULE of SPECIFICATION AND REQUIREMENTS viz. Annexure I&II. (Part-II, Section III). The purchaser reserves the right to modify the schedule of requirement, technical particulars and specifications at any time and then place orders as whole or in part and to reject any or all tenders received without assigning any reason whatsoever.

The tender document can be downloaded from the Website www.panddpddjk.in. Such tenders will enclose a DD of Rs.5000/- only pledged to The Chief Engineer, Electric Planning and Design Wing Jammu with their bids.

1.2 GENERAL CONDITIONS:

The tender should be submitted in triplicate. Each copy should be separately tagged and clearly marked as **ORIGINAL, DUPLICATE** and **TRIPLICATE**. The tenders should be submitted in double sealed covers, both addressed to the Chief Engineer, Electric Planning and Design, Jammu(J&K) and sent either under registered cover or deposited in the office of Chief Engineer,

Electric Planning and Design Wing, 220 KV Grid Station Premises Gladni, Narwal-Bala, Jammu-180006, on or before 15-03-2011 Upto 12:00 Noon. Both inner and outer covers should be sealed and superscribed as " **TENDER FOR 220 KV & 132 KV ,3150 Amp, SF-6 Circuit Breakers AGAINST NIT NO : 201/ 2011 DUE ON 15-03-2011.**"

The tender should also invariably contain the name of the bidder firm.

The tenders should be prepared in 2 separate parts, marked Part-I and Part-II, and submitted in separate sealed covers. Part-I of the tender shall be superscribed "**QUALIFICATION FOR NIT NO: 201/2011**" and shall contain **Earnest Money**, list of **past supplies** and **past performance** duly supported by necessary documents, year wise **Turn Over, Income Tax Clearance Certificate, Guaranteed Technical Particulars**, technical details, authenticated Photostat copies of **Test Certificate of similar/ higher ratings** from Govt. approved test houses/laboratories, **Catalogues / Drawings, Registration Certificate / Industrial License, Check List** to ensure supply of essential information and such information as enumerated below:-

- 1.2.1.(a) Earnest money for an amount of Rs.7,00,000/- shall be paid by the tenderer in the form of CDR/BG pledged to the Chief Engineer, Elect. planning and Design Wing, Jammu. Photocopies of the CDR/BG shall also be enclosed with duplicate and Triplicate copies.

- (b) The local units registered with the Industries Department, Jammu and Kashmir State, shall pay earnest money as per directives issued by the State Government from time to time.
- 1.2.2(a) **List of orders** for similar items (Equipment having same or higher capacity) received and executed in the last three years giving reference to the orders, status of supplies etc.
- Note:-** Photocopies of last three Purchase Orders executed(of State Electricity Boards/Govt.Deptt.) are required to be enclosed with the offer.
- (b) Attested photocopies of the **Type Test Certificates** from Govt. approved Test Houses/ Laboratories in respect of Equipment of **similar ratings** or **of higher ratings of the same Voltage level**, failing which the bid shall not be evaluated. In case of bids accompanied with type tests certificates of higher ratings, the tenderer will have to get the **Type Tests Conducted** for the similar rating equipment at his **own cost** if the order is placed with the firm.
- 1.2.3 **Performance Certificates of similar or higher rated equipment** from SEBs /Government Departments etc. for proving past performance, duly supported by documents.
- 1.2.4 (a) Year wise **Capital Turn Over** of the tenderers for the last three years.
- 1.2.4 (b) Income Tax clearance certificate.
- 1.2.5 **Guaranteed Technical Particulars** for the items quoted.
- 1.2.6 (a) No deviations in general /commercial terms and conditions shall be acceptable . NIT condition shall be binding.
- 1.2.6 (b) No Technical deviations shall be accepted until and unless it has been properly reflected in the Schedule – C (i.e. Schedule of Deviations)

1.2.6 (c) tenderer will have to quote for the full quantity of the NIT. Any offer quoting for lesser quantity is liable to be rejected.

1.2.7 Part-II of the tenders shall be super scribed "**PRICE BID AGAINST NIT NO: 201/2011 FOR 220 KV & 132 KV ,3150 Amp, SF-6 Circuit Breakers**".

This shall contain price quoted, delivery period, terms of payments, legal/ General Terms and other Conditions. The rates should be quoted separately for F.O.R.Jammu(Consignee's stores)as well as F.O.R.Srinagar(Consignee's stores) . However, breakup of the same shall be given as (a) Ex-Works cost (b) Excise Duty (c) CST (Without Form-C/D) (d) Freight & Insurance (e) Local Taxes(Entry Tax & Toll Tax)

1.2.8 On the due date of opening of the tenders, only the part-I i.e. qualification bid will be opened. The date of opening of part-II(i.e. price bid) shall be intimated only to those bidders whose part-I of the tender is found to be meeting with the technical part of the specifications. In case due date happens to be a holiday, the tender will be accepted and opened on the next working day or any other date convenient to the tender opening committee.

1.2.9 In case, it is not convenient/possible to open price bids on due date, the price bids will be opened on any other subsequent convenient day. In the later case the tenderer who qualify for opening of the price bids shall be intimated about the date of opening of these price bids.

1.2.10 Any tender not sent in separate and sealed covers as stipulated above shall not be entertained and is liable to the rejected/returned. Any tender not complying with aforesaid stipulations in Part-I and Part-II is liable to be rejected.

1.2.11 Any tender received by hand or by post after the due date of receipt of the tenders shall not be entertained even if the tender has been posted from the sending end before the due date of the opening.

1.2.12 The tender must be complete in all respects. The subsequent

Clauses shall be carefully studied for the sake of submitting a complete and comprehensive tender. Failure to comply with any of these instructions or the offer with insufficient particulars, which is likely to complicate the fair comparison of the tender, shall not be considered. Any telegraphic offer, not followed by confirmation before the due date will not be considered.

Tenders from only manufacturers will be accepted from the tenderers who have either purchased the Tender document from the office of the Superintending Engineer , against payment of Rs. 5,000.00 or has downloaded from the website & has enclosed the D.D. of Rs. 5,000.00 with the offer.

1.2.13 In the price bid, the tenderer shall clearly indicate the break-up of their quoted rates/prices i.e. ex-works rate, element of duties and taxes, packing and forwarding charges, transit insurance, freight etc. However, the prices offered shall be Ex-destination basis. It shall be the responsibility of the contractor to deliver the goods/equipment at Ex-destination in good condition.

1.2.14

1.3 **PREPARATION OF TENDER:**

The tender shall be prepared in a formal manner with all quotations stated both in words and figures. There shall be no cuttings. Corrections, if any, such as totaling etc. should be neatly done and signed. A systematic form of totaling should be adopted to avoid any ambiguity with detailed description of the equipment offered.

1.4 **SCOPE:**

The specifications cover the design, manufacture testing, supply and delivery of 220 KV & 132 KV, 3150 Amp SF-6 Circuit Breakers and its erection, testing and commissioning shall be executed at site by the

Department/ Bidder as listed in the schedule of requirements (Section III) (Refer Schedule – G). The successful tenderer, on whom order is placed for supply of equipment, shall be responsible for supervision of testing and commissioning of equipment ordered if required at site for which tenderer should quote separately.

1.5 RAW MATERIAL:

All the raw material to be used in the manufacture of the goods /equipment to be supplied against the purchase order shall be of the best quality of its kind obtained from the market. The supplier shall be solely responsible for procurement of raw material required for this purpose.

1.6 EARNEST MONEY/SECURITY DEPOSIT:

1.6.0 Tenders shall be accompanied along with the earnest money in the form of CDR/Bank guarantee pledged to Chief Engineer, Electric Planning & Designs Wing, Jammu for an amount of Rs. 7. 00 lacs valid for one year.

1.6.1 Tenders not accompanied by the correct amount of earnest money shall be rejected and their price bid is liable to be ignored.

1.6.2 In case of successful tenderers, the amount of earnest money will be treated as part of security deposit. The actual amount of security deposit to be obtained will be subject to a minimum of 5% of the value of contract.

1.6.3 The successful tenderer, whenever it happens to be a private person or firm, has to furnish security deposit @ 5 % of the value of the order as the case may be . The Earnest money will be adjusted towards security deposit in the case of successful tenderer for faithful execution of the contract.

- 1.6.4 The earnest money will be forfeited in case of withdrawal/ revision of prices of their offer within the validity of the tender.
- 1.6.5 In case of the unsuccessful tenderers, the earnest money shall be refunded within 60 days from the issue of the purchase order to the successful tenderer.
- 1.6.6 Security deposit shall be released in favour of successful tenderer after obtaining report with regard to successful execution of the contract from the consignee.

1.7 PLACE OF MANUFACTURE AND INSPECTION:

The tenderer shall state in his tender the make, the place of manufacturer, testing and inspection of the equipment offered in the tender. The purchaser or his duly authorized engineer shall have access to tenderer's works at any time during working hours for the purpose of inspecting the manufacture and testing of material and complete equipment and the tenderer shall provide the necessary facilities for inspection. For any particular inspection, at least three weeks advance notice shall be given. No material shall be dispatched without prior inspection and approval of test certificate by the purchaser or is authorized Inspection Agency unless otherwise directed. However the department reserves the right to get the material/equipment inspected through CPRI.

1.8 PRICES:

- 1.8.1 The Quoted Prices shall be Variable with the base date one month prior to the date of opening of tender.

Clear cut IEEMA Formula for working out variations along with value of all parameters must be indicated. The ceiling for price variation must also be stated which will be taken into account while comparing the offer. Price Variation would be applicable both on Positive as well as Negative side. Ceiling should be limited to +/- 10 %.

1.8.2 The prices shall be quoted separately FOR Jammu(consignee's stores) as well as F.O.R Srinagar (consignee's stores) which will form the basis of the contract. It shall be the responsibility of the contractor to deliver the goods /equipment at site in good condition. Besides, the Ex-works price, duties and taxes applicable, shall also be mentioned in order to compute the Excise Duty and CST component etc. indicating clearly the rates applicable/ chargeable. Any ambiguity in this regard shall be dealt in accordance with the departmental practice.

1.8.3 The rates quoted should be both in figures and words. No extra payment, unless otherwise specified, will be made for packing, carriage, handling and transportation of material.

1.9 VALIDITY/ EXTENSION OF VALIDITY AND CLARIFICATIONS:

1.9.1 The tender should be unconditionally valid for a period of 365 days from the date of opening of the tenders. Any tenderer revising the offer within the validity period is likely to be black listed.

1.9.2 Bidder shall not be requested or permitted to alter their bids after the deadline of receipt of bids/ tenders. The purchaser shall ask the bidders for clarification needed to evaluate their bids but shall not ask or permit the bidders to change the substance or price of their bids after the bid opening. Requests for clarification and the bidder's response shall be made in writing.

1.9.3 EXTENSION OF VALIDITY OF BIDS:

Purchaser shall complete evaluation of bids and award of contracts within the initial period of bid validity so that extensions are not necessary.

Any extension of bid validity if required shall be requested from all the bidders in writing. Bidder shall have the right to refuse to grant such an extension without forfeiting their bid security, but those who are willing to extend the validity of their bids, shall be required to provide a suitable extension of bid security.

1.9.4 Any party who makes post tender developments directly or indirectly may be blacklisted for a period of three (3) years.

1.10 DELIVERY :

The delivery of equipment/material, unless otherwise specified in Annexure- II i.e. Schedule of Requirements, may be required to commence within 6 months from the issue of the purchase order and completed within 3 months thereafter.

1.11 DAMAGES FOR DELAY FOR NEGLIGENCE IN EXECUTION OF ORDERS:

1.11.1 For supplies with respect to delivery schedule stipulated above, a Penalty @ ½% (Half percent) of the cost of the undelivered portion per week of the period of delay subject to a maximum of 5% cost of undelivered equipment as damages will be leviable. However, in case of part of equipment supplied within the delivery period but which can not be commissioned due to the late delivery of portion of such equipment, the damages will be recovered at the rate of ½% per week of the period of delay, subject to a maximum of 5% of the total contract price as damages.

- 1.11.2 In case the supplier fails to rectify/ replace the defective/ damaged material (including transit damages / shortages) supplied by them within one month from the date of intimation of such shortages/damages, a penalty of ½% per week, subject to a maximum of 5% the cost of equipment that could not be commissioned due to failure of the firm to rectify/ replace the defective/ damaged material.
- 1.11.3 In case of failure to deliver, in full or part of the equipment within delivery period, purchaser will have the right to make a risk purchase at the cost of supplier or cancel the contract and claim reasonable compensation /damages.

1.12 TERMS OF PAYMENT:

- 1.12.1 Unless otherwise provided, 90% of the value of the item of equipment despatched after satisfactory inspection against R.R/ despatch documents through recognized bank (J&K Bank) and balance 10% after receipt and verification of material in good condition in consignee's stores.
- 1.12.2 100% payment with taxes and duties shall be made against receipt and verification of material at consignee's stores if material is despatched by road transport.
- 1.12.3 Advance payment clause is not accepted since it requires Govt. sanction which is time consuming process. Advance payment clause shall alter evaluation of bid as per standard practice of the department.

- 1.12.4 Payment against letter of credit is not acceptable since it requires Govt. sanction which besides time consuming is normally denied.

1.13 WARRANTY:

1.13.1 The supplier shall be responsible to replace free of cost along with the transportation and insurance expenses to the purchaser up to the destination, the material specified in the schedule of requirements, the whole or any part of the material which under normal, proper use and maintenance prove defective due to design or manufacturing defects or bad workmanship within 12 months from the date of commissioning or 18 months from the date of despatch, which ever expires earlier provided the consignee gives prompt notice of such defects to the supplier. Such replacement shall be the supplier's responsibility. Supplier's responsibility arising out of supplying of materials or its use within warranty period or otherwise, shall not in any case exceed the cost of correcting the defects or replacing the defective equipment within or even beyond the expiry of the period mentioned above. The firm shall have to furnish performance guarantee value @ 5% of the purchase order.

1.13.2 The above provisions shall also apply to the material replaced/repared by the supplier under this clause in case the same is again found to be defective within 12 months from its replacement/repairs.

1.14. INSURANCE:

1.14.1. The rates are required to be quoted on FOR Destination basis. However, it is the responsibility of the supplier to deliver the goods

in sound condition at the destination. For this purpose, the supplier shall insure the material against all risks during transit for full delivered value of the material up to destination. All formalities in connection with making/settling of claims, with railways / Roadways and Insurance Company, shall be carried out by the supplier. Necessary information required in connection with making/settling such claims, shall be provided by the consignee.

All damages and/or shortage during transit as covered by the insurance shall be made good immediately on receipt of such information from consignee without waiting for settlement of the claims. However, in case of apparent damages and/or shortage, the consignee shall obtain the loss/damage certificate from the Railway / Transport authorities and send the same to the supplier within a period of 30 days from the date of receipt of material. A certificate shall be submitted by the supplier with each consignment to this effect that the material has been duly insured.

- 1.14.2 The consignee shall report losses and damages to the firm within 30 days of the arrival of the equipment at site. It will however, be the suppliers responsibility to prefer timely claims on the insurance underwriters and to arrange replacement thereof to the consignee within 30 days without waiting for settlement of claims with underwriters etc.

1.15. INTIMATION TO CHIEF ENGINEER, PLG. & DESIGNS POWER DEVELOPMENT DEPARTMENT AND CONSIGNEE.

1.15.1 The supplier will have to intimate the probable date of dispatch followed by telegraphic/Fax intimation regarding the actual date of RR to the Consignee to enable him to arrange payment, failing which demurrage, wharf age etc. will be to suppliers account. A copy each of such intimation should also be sent to Chief Engineer, Planning & Designs Power Development Department, Jammu and Chief Engineer of concerned System and Operation Wing, for ready reference Simultaneously.

1.16 CENTRAL SALES TAX/ VALUE ADDED TAX/ ENTRY TAX AND EXISE DUTY:

1.16.1 The material on order is required for use in transmission/ distribution of electrical energy to public.

Local Taxes i.e. Value Added Tax /Entry Tax, as applicable ,shall be levied on the goods/equipment.

1.16.2 CENTRAL SALES TAX.

FORM-C/D shall not be furnished by the Deptt. CST is required to be quoted accordingly.

And When the CST is to be paid by the supplier, the same shall be paid by the consignee subject to the submission of the following certificate:

- A. Certified that the transaction on which tax has been claimed, has been/ will be included in the return submitted/to be submitted to the Sale Tax Authorities for the assessment of the sales tax and the amount claimed from the Power Development Department has been/shall be paid to the Sales Tax Authorities.

- B. Certified that the goods on which sales tax has been charged have not been exempted under Central Sales Tax Act, as per provisions of the rules made thereunder, and the charges on account of the sales tax of these goods are correct under the provision of the relevant Act or rules made thereunder.
 - C. Certified that we shall indemnify the Power Development Department in case it is found at a later stage that wrong or incorrect payment has been made on account of the sales tax paid by us.
 - D. Certified that the payment has been made under protest. The bills for the sales tax and insurance charges, if any, shall be submitted separately.
 - E. The Power Development Department being a department of the J&K Government, as such, CST shall be payable extra without furnishing any declaration form.
- 1.16.3 The tenderer shall reflect ED & CST as actually applicable/ chargeable at the time of tendering and shall furnish proof (Certificate from the Superintendent, Excise duty, concerned range) for confirming ED / CST rates quoted.
- 1.16.4 For evaluation of bids for comparison, the ED / CST component shall be worked out on the basis of quoted rates only in case it is well evidenced, otherwise it shall be worked out as per maximum ED / CST rates received against the tender notification.
- 1.16.5 For actual payment of ED/ CST, the quoted rates shall be the

basis, if the rates prevalent / ruling at the time of valid actual delivery are at par or higher than the quoted rates. However, in case the ruling rates of ED / CST at the time of valid actual delivery are lower than the quoted rates, then the ruling rates shall be the basis of actual payment of ED / CST.

1.16.6 The documentary evidence in respect of ED / CST actually paid at the time of actual delivery shall be furnished by the tenderer as a proof thereof.

1.16.7 The supplier shall pay service tax as applicable for the services rendered and charged by him

1.17 CHARGES:

No variation or modification on waiver of any of the terms and provision hereafter shall be deemed valid unless mutually agreed upon by purchaser and the supplier in writing.

1.18 PACKING:

All material shall be suitably packed and despatched, and shall be conforming to the relevant ISS, railway / highway rules, and transported direct to site and the supplier shall be responsible for all damages/losses due to improper packing. All crates shall be marked with proper signs indicating up and down side of the crates and also unpacking instructions considered necessary by the supplier. The contents of crates shall have place marks corresponding to the number in the packing list to enable easy identification. The quoted prices shall be deemed to include the cost of packing.

1.19 SPECIAL INSTRUCTIONS:

- a. Tenders not submitted on the lines indicated above are liable to be rejected without correspondence.

- b. Requests for extending the above mentioned due date of receipt of tenders is likely to be ignored.

- c. Tender will be entertained from manufacturers of equipment only. However local representative appointed by the principals (i.e. manufacturers) can obtain the tender document on behalf of the manufacturers.

- d. No printed general conditions of sales attached with the tender shall be accepted. Any technical deviation from the clauses in the tender specification must be clearly reflected in the Schedule of deviations viz Schedule C, otherwise it shall be deemed that offer is in line with the requirement of specifications.

- e. The tenderer will submit with the offer, the performance report issued by the Electricity Boards/Government Departments in respect of equipment of similar specification supplied under different purchase orders executed earlier by the tenderer/manufacturer.

- f. Tenderer will quote for the full quantity of the NIT. Any offer quoting for the part quantity is liable to be rejected.

- g. The tender should be accompanied by a reference list of purchase orders received/executed by the tenderer for similar equipment of same specification as indicated in NIT in the following proforma:

Designation and Full particulars Of the purchaser	Purchase order No. & date	Quantity and brief description of equipment
1	2	3
Status of supplies		Performance remarks
4.		5.

1.20 INTERCHANGEABILITY:

Corresponding parts of similar items shall be interchangeable in every respect.

1.21 CANCELLATION:

The purchaser reserves the right to cancel the purchase order in case of default on the part of the supplier and also prior to receipt of intimation regarding taking in hand of the manufacture of material against the purchase order.

1.22 DESPATCH INSTRUCTIONS:

The equipment/material shall be despatched to Jammu/ Srinagar duly consigned to the consignee to whom R/R and other dispatch documents are to be sent through J&K Bank Limited. All bank charges for negotiation of RR etc. shall be to the suppliers account. A telegraphic /Fax information shall have to be sent to the consignee to retire the documents without delay and make further arrangements for proper dispatch. It is to be noted that no RR shall be accepted or acknowledged without being preceded by a proforma invoice along with test certificate well in advance, to ensure the consignee to check that bill/s have been raised as per

terms of the order and that the equipment/material has been duly tested.

1.23 ADDITIONAL QUANTITY:

The purchaser reserves the right to order additional equipment as specified upto 50% of the ordered quantities at the same rate and conditions any time during the pendency of the contract.

1.24 CIVIL SUIT/LEGAL REMEDY:

All legal proceedings in connection with the order will be subject to the jurisdiction of local courts of Jammu & Kashmir.

1.25 ARBITRATION:

In case of any doubt, dispute or difference arising out of the purchase order, the case shall be referred to the State Government for decision under J&K State Arbitration Act only.

1.26 EXECUTION OF CONTRACT:

It will be obligatory on the part of the successful tenderer to execute a legal contract/agreement with the purchaser on stamped paper immediately after the issue of the purchase order.

Sufficient number of extra copies of the contract and specifications shall be supplied, the cost of which shall be deemed to have been included in the tender prices.

1.27 VARIATIONS:

The tenderer should specify the limits of variation that are likely to occur in various parameters of the equipment/material at the stage of quotation and that of supply. In other words, indication of variation at tendering stage and detailed designing stage be clearly brought out. Any variation beyond the

tolerance of relevant Indian Standards shall not be accepted. Where such parameters are not covered by ISS, the variation shall be restricted to that mutually agreed upon.

J.E

Asstt. Ex. Engineer

T.O

Executive Engineer

Superintending Engineer

PART I

SECTION-II

SECTION – II

SUPPLEMENTARY CONDITIONS OF TENDERS (TO BE READ ALONGWITH SECTION-I)

2.1 SCOPE:

This section of the specification deals with supplementary conditions of contract in addition to those stipulated in Section-I. Detailed specification and particulars of equipment are given in the subsequent section-III (Part-II) and these sections shall be deemed to form part of the detailed specification for the equipment. The tenderers may also note that certain other conditions have been stipulated under this section dealing with technical specifications. The offer, therefore, should satisfy these conditions also in addition to those mentioned under Section-I.

2.2 LOCATION:

VARIOUS GRID STATIONS SCATTERED THROUGHOUT THE STATE OF J&K.

2.3 COMMUNICATION AND TRANSPORT:

The bridges and culverts enroute from Jammu Railway Station to respective sites have a limited loading capacity and, therefore, the weight of the heaviest package shall be restricted to limit, if any, specified in Annexure-II.

2.4 DELIVERY AND THE COMPLETION PERIOD:

Early delivery of equipment may be an important consideration in the award of contract. The tenderers shall, therefore, quote shortest delivery period possible.

2.5 QUANTITIES:

The quantities of the equipment are given in Annexure-II viz. the Schedule of Requirement in Section- III. The purchaser reserves the right to increase or decrease the final quantities at time of placing the order for which rates quoted/accepted shall be valid.

2.6 COMPLETENESS OF TENDER:

The tenders shall be complete in all respects and shall include all minor accessories not specifically mentioned in the specification schedules, but which are essential for the completeness of work. The tenderer shall also not be eligible for any extra cost in respect of such minor accessories, not specifically included in the tenderer's specification schedules.

2.7 EXTRAS:

2.7.1 The tenderer shall, when asked in writing by the purchaser, perform extra work and furnish extra material not covered in the specification or included in the schedule but which may form inseparable part of the work contracted for.

2.7.2 For such material supplied or items of work done, for which rates are not available in the contractor schedule, payment shall be made at the rates as mutually agreed upon between the purchaser and the tenderer. This shall, however, not apply to the minor accessories

specified in clause 2.6 for which no extra amount is payable.

2.8 SPARES:

The tenderer shall recommend the quantity required and quote spare parts as in his opinion would be required for Ten years normal working of equipment offered. He shall also quote unit rate for additional spare parts. The spare parts shall comply with requirement of specification for complete equipment. The tenderer shall be required to supply such additional quantities of spare parts at contract price as may be ordered from time to time after the expiry of the contract. In case the tenderer contemplates to close down the manufacture of the item ,he shall intimate the purchaser well in time to decide.

2.9. PRICES:

2.9.1 Item wise prices shall be quoted for various items of equipment as given in Annexure-II.

2.9.2 The tenderer shall quote variable prices FOR Consignee Stores separately for Jammu as well as for Srinagar which shall form the basis for the evaluation of bids and subsequently the financial comparison of bids. In this connection clause 1.8 may be referred to.

2.10 STANDARDS:

Unless otherwise specified, all material and equipments shall comply in all respects with the requirement of the latest issue of Indian Standards or International Electro Technical/ Commission Standards (IEC). If the tenderer offers equipment manufactured to

standards other than those mentioned above, their salient points compared to the specified standards shall be clearly brought out in the tender, making at the same time, necessary corrections for operation under the conditions specified therein. A complete set of the standard specifications adopted by the tenderer shall in that case, be supplied in English language.

2.11 MAKERS STANDARDS AND DEPARTURE FROM SPECIFICATIONS:

- 2.11.1 The general principles on which these specifications are drawn is to permit adaptation of modern manufacturing standards and the tenderer is requested to tender for his own standard equipment as far as possible provided these comply in all respects with the conditions of the specifications given in Part-II of the NIT.
- 2.11.2 Should the contractor wish to depart from the provision of these specifications either on account of manufacturing practice or for any other reason, he shall specifically draw attention to the proposed point of departure in the schedule of deviations in specifications, which will enable relative merits or demerits of his proposals fully appreciated or known.
- 2.11.3 Any deviation in Commercial and General Terms and Conditions shall not be entertained. Except for the Technical deviations which are specifically brought out in the schedule of deviations viz Schedule-C,

it shall be taken that the tender fully conforms to the requirements of the technical specification. In the event of NIT specifications and the General Terms and Conditions and tendered specifications and General Terms and Conditions are found to be at variance , the NIT specifications and General Terms/ Conditions shall be held binding.

- 2.11.4 Except for the Technical deviations which are specifically brought out in the schedule –C, it shall be taken that the tender fully conforms to the requirements of these technical specifications. In the event of NIT specifications and the general terms conditions and contract specifications general terms and conditions are found to be at variance during the execution of the contract, NIT specifications and general terms conditions shall be held as binding, unless the Technical deviations have been duly approved by the purchaser.

2.12 INTERCHANGEABILITY:

All parts shall be made accurately to standard gauge wherever possible so as to facilitate replacement and repair. All corresponding parts of similar equipment including the spare parts shall be interchangeable.

2.13 MATERIALS AND WORKMANSHIP:

- 2.13.1 All materials shall be of the best class and capable of satisfactory

operation when exposed to the tropical sun and other specified atmospheric conditions. All works shall be performed and completed in a thoroughly workman like manner and shall follow the modern practice in the manufacturing and installation of equipment, not withstanding any omissions in these specifications.

2.14 FAILURE TO MEET WITH GUARANTEE AND REQUIREMENTS OF THE SPECIFICATIONS:

2.14.1 Should the factory tests for the operation of equipment under specified service conditions, show that it does not meet with guarantees and/or requirement of the specifications, it shall be optional with the purchaser to accept or reject the equipment and direct the contractor to proceed at once to furnish such new parts as may be necessary to make it meet the guarantee and requirements.

2.14.2 If after installation, the operation of the equipment proves to be unsatisfactory to the purchaser, he shall have the right to operate it until it can be taken out of service without loss to him, for correction of defects, errors or for replacement in case of rejection.

2.15 INSPECTION AND TESTING:

2.15.1 The tenderer shall state in his tender the place of manufacturing, testing and inspection of various items of equipment included in these specifications.

- 2.15.2 All materials shall comply with the requirements of tests specified in the governing standards and in addition to such other tests as are stipulated in these specifications.
- 2.15.3 Duplicate copies of the manufacturer's test certificate shall be submitted to the Purchaser as soon as tests are completed.
- 2.15.4 In addition to the aforesaid test and those included in the Contract, the purchaser reserves to himself the right of having at his expense, any inspection or test of reasonable natures carried out at materials.
- 2.15.5 All material and requirements covered under these specification shall be submitted for inspections by the purchaser and/or authorized agent/agents during the various stages of the manufacture. The demand for inspection shall be made in time so that inspection can be carried out according to schedule. No portion of the work shall be considered complete in accordance with the terms of the tender unless the purchaser/his authorized agents shall have certified in writing that the same has been inspected and approved by him.
- 2.15.6 The suppliers shall be at his own expense provide to the purchaser and/or the authorized agent/s of the purchaser all reasonable facilities and such accommodation as may be necessary for satisfying

themselves that the material are being and/or have been manufactured in accordance with the requirements. The authorized agents of the purchaser shall have full and free access at any time during the execution of the contract to the contractor's works for the aforesaid purpose, and they may require the contractor to make arrangements for inspection of items at any other place specified by the agents, and if the contractor has been permitted to employ the services of sub-contractors, he shall in his contract with the sub-contractor reserve to the authorized agents of the purchaser a similar right.

2.15.7 The contractor shall provide without any extra charges all materials, tools, labour and assistance of every kind which the authorized agent of the purchaser may demand of him for any test and examination other than special or independent test which he shall require to be made in the contractor's premises and the contractors shall bear and pay all costs to attendant thereon.

2.15.8 The Bidder/ Contractor shall offer the equipment of its patent type for which all the type tests [as per relevant IS/IEC specifications] have already been got done without any financial involvement on the part of the purchaser .

The equipment shall be inspected by CPRI on behalf of the Department . The inspection charges, on this account, shall be initially borne by the contractor in the first instance which shall be reimbursed to the contractor as per actual against documentary evidence when the same is billed for in the Invoice

The firm shall have to arrange all the routine, acceptance tests through CPRI as per the relevant IEC/IS specifications amended up to date. The firm shall also furnish the type tests certificates to the CPRI Inspector and obtain their clearance . However, if the CPRI Inspector is not satisfied with any of the type test reports the firm shall have to get the

equipment type tested for that very particular test at their own cost as per the relevant IEC/IS specifications.

2.16 INSTRUCTION BOOKS/MANUALS AND SPARE PARTS:

2.16.1 The contractor shall supply nine sets, free of cost of the following:-

- a) Complete Instruction book/manuals for erection, testing and commissioning of equipment.
- b) Full instructions for the operation and maintenance of the equipment.
- c) List of spare parts with prices.

2.16.2 The instruction book shall be supplied well before completion of the delivery period of the equipment.

2.17 DRAWINGS:

2.17.1 The tenderer shall submit alongwith his tender all drawings as called for in the technical specifications.

2.17.2 Within thirty days of the receipt of the order the contractor shall furnish to the purchaser free of cost ten sets of all contract drawings listed in schedule-I including all accompanying descriptive pamphlets. These drawings shall demonstrate fully the apparatus to be furnished that will conform to the provision and intents of the specifications. The drawings shall be accurately drawn to scale and shall be clear to read all information in English language. Subsequently, revisions of these drawings, if any, shall also be submitted for approval of the purchaser

in a similar manner before fabrication, manufacture or assembly is commenced.

- 2.17.3 Within one month from the date of receipt of the proper and correct drawings and other descriptive pamphlets, the purchaser shall communicate the approval to the contractor, if no discrepancies are noticed in the drawings.
- 2.17.4 After approval of the drawings by the purchaser the contractor shall within one month furnish six sets of approved drawings together with one set on translucent prints for suitable reproduction by direct contact method.
- 2.17.5 Upon approval by the purchaser, the drawings shall become the contract drawings and thereafter, the contractor shall not depart from them in any way whatsoever except with the written permission of the purchaser.
- 2.17.6 Any manufacturing work in connection with the equipment prior to the approval of the drawings shall be at the contractor's risk. The contractor shall make changes in the designs which are necessary to make the equipment conform to the provision and intentions of these specifications without additional cost to the purchaser. Approval of the contract drawings shall not be considered to have relieved the contractor of any part of contractors obligation to meet all the requirements of contract or of the responsibility for the correctness of the contractors drawing submitted for approval.

2.18 NOTICE TO CONTRACTOR:

A notice to the contractor may be sent by mail or cable to his address given in the tender or delivered by hand/posted to his duly authorized representative at site. Such delivery/posting shall be deemed as good services of such notice.

2.19 FINANCIAL RESOURCES AND EXPERIENCE:

2.19.1 The tenderer is requested to submit a statement of facts in details as to his previous experience in performing a similar or comparable work and of the business and technical organisation, financial resources and manufacturing facilities available and to be used in performing the contract work.

2.19.2 The tenderer is further requested to furnish the information specifically on the following points:-

- A) Standing of the firm as designer and manufacturer of the equipment covered by the specifications.
- B) Particulars of equipment/material etc. produced so far at his works.
- C) List of important locations for which material have been supplied and/or erected in India or else where.
- D) Bankers report.
- E) Income and sales tax clearance certificates.
- F) Yearly turnover.

2.20 PATENT RIGHTS:

The contractor shall at his cost defend any claim which infringes any patent of the country of origin or India if notified promptly in

writing and given authentic information and assistance for the defence, and contractor shall pay all damages and costs awarded against the purchaser in such suit or proceedings for patent infringement. In case the equipment in such suit or proceedings is held constitute infringement and the use of the equipment or parts thereof is prohibited, the contractor shall at his own expenses either procure for the purchaser the right to continue using the equipment, or parts thereof, or replacement of same with non-infringing one, or remove the equipment and refund the purchaser prices plus transportation and installation costs thereof, besides payment of damages suffered by the department.

2.21 RESPONSIBILITY FOR OBTAINING INFORMATION AND TAKING ACTION IN TIME:

Whenever any information or clarification in respect of designs or construction of materials have to be obtained from the purchaser/various other authorities, the contractor shall be responsible for taking action well in time so that there are no delays on this account. The contractor shall also take prompt action in all other matters such as indenting necessary railway wagons etc. The completion period offered in the tender shall be deemed to include the time taken for such incidental work. The request for extension of the delivery of completion dates on such ground shall not be entertained.

2.22 PACKING AND MARKING:

2.22.1 The equipment shall be packed suitably for transportation direct to site in a manner suitable for tropical conditions and the contractor

shall be responsible for all damages due to improper preparation for transportation and inadequate packing.

2.22.2 Special care should be taken to provide ample protection against termites and mechanical devices. For transport by road from the rail head to site wherever necessary proper arrangements for attaching slings for lifting shall be provided. Markings on packing shall be clearly marked with signs showing the up and down sides of the boxes and any handling and unpacking instruction considered necessary. Bolts, nuts etc. shall be supplied in boxes suitably packed to prevent stacks being torn in transit. The contents of such packages shall bear marking that can be readily identified from the packing list. All packing cases, packing material shall remain the property of the purchaser.

2.22.3 Each part shall properly match and marked to ensure correct assembly on alignment of part in the field.

2.23 **CONDITIONS OF CONTRACT:**

The work covered in this specification shall be carried out in accordance with the conditions of the contract as per E.C. 31 of J&K Financial Code Volume-II.

2.24 **INSTRUCTIONS TO TENDERERS:**

Tenders shall be submitted in the bidding schedule, included in the last part of the presentative specification. These schedules must be duly filled in, signed and submitted by the tenderer failing which the offer is likely to be ignored.

2.25 **CLIMATIC CONDITIONS:**

2.25.1 The climatic conditions in Jammu Province:

1. Minimum temperature of Air in shade	-6°C
2. Maximum temperature of Air in shade	46°C
3. Maximum temperature of Air in Sun	60°C
4. Relative Humidity:	
Maximum	82%
Minimum	10%
5. No.of rainy days per year	85 Approx.
6. Average rainfall per year	118mm
7. Average No.of thunderstorm days/year	30 days
8. No.of months tropical monsoon	3 months (July-Sept.)
9. Maximum wind pressure	130kg/mt ²
10. Height above sea level	2500 m
11. Seismic coefficient:	
Horizontal	0.1 g
Vertical	0.95 g

2.25.2 CLIMATIC AND ISOCERAUNIC CONDITIONS OF KASHMIR VALLEY:

I. The climate and isoceraunic conditions at the site of work are approximately given as under:-

1)	Maximum temperature of air in shade.	30.61°C
2)	Minimum temperature of air in shade.	-20°C
3)	Maximum temperature of air in Sun	45°C
4)	Height above sea level	2500m
5)	Maximum relative humidity	90%
6)	Minimum relative humidity	15%
7)	Average number of thunder storm days per year	15
8)	Average rainfall	80cm
9)	Maximum wind pressure	100kg/m ²
10)	Average number of rainy /cloudy days per annum	106

For purpose of specifications, the limit of max. ambient Temperature shall be 40°C peak and 35°C average over a 24 hour period (minimum temperature of the air in shade of –20°C may be noted.)

II. The equipment offered shall be suitable for continuous operations at their full rated capacity under the above conditions.

III. PROTECTION AGAINST EARTH QUAKES:-

All the supporting structures should withstand repeated earth quake(suitable for zone-V condition) and wind loads of 130kg/m² on the projected area (Non-simultaneous) without damage and spurious operation of the equipment due to heavy vibrations.

J.E**A.E. E.****T.O.****Executive Engineer****Superintending Engineer**

PART-II

SECTION –III

TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS FOR 220 KV & 132 KV SF-6 CIRCUIT BREAKERS

3.1 SCOPE:

This specification covers the design, manufacture, assembly, testing at manufacturer's works, supplying and delivery of 220 KV & 132 KV, SF-6 circuit breakers complete with all accessories required for satisfactory operation at various Grid Stations scattered throughout the State of Jammu & Kashmir, as detailed in the schedule of requirements appended to these specifications. This inquiry is subject to section I, General conditions of contract and section II, supplementary conditions of contract.

3.2 TECHNICAL REQUIREMENTS:

220 KV & 132 circuit breakers shall be suitable for outdoor operation under the climatic condition at site as specified in the clause 2.25 of general conditions of NIT.

3.2.1 The tender shall be accompanied, besides the detailed description, with complete technical particulars, drawings and typical type test reports of breakers. The tenderer will also supply the list of purchasers within the country and outside where such breakers are already working along with their performance report.

3.2.2. The circuit breakers shall have the following ratings:

S.No.	Description	245 KV Class	145 KV Class
1	Type of circuit breakers	220 KV, SF-6(Sulphur Hexafluoride Gas Filled) 3 Phase Outdoor type	132 KV, SF6 (Sulphur Hexafluoride Gas Filled) 3 phase outdoor type
2	No of poles	3	3
3	Nominal system Voltage-(KV)	220 KV	132 KV
4	Rated Voltage (KV)	245 KV	145 KV
5	Frequency (Hz)	50 Hz	50 Hz
6	System of earthing	Solidly earthed	Solidly earthed
7	Rated current of CB(Amps)	3150 Amps.	3150 Amps.
8	Rated insulation Level (KV peak)	1050 KV	650 KV
9	Rated line charging breaking current (Amps)	As per relevant ISS/IEC 62271-100	As per relevant ISS/IEC
10	Breaking capacity (KA) (Symmetrical rms.)	40 KA	40 KA
11	Rated transient recover voltage for terminal fault	As per relevant ISS/IEC	As per relevant ISS/IEC
12	Rated duration of short circuit	3 second	3 seconds
13	Total break time for any current (upto rated breaking current)	3 cycles	3 cycles
14	Control circuit voltage	220 V (DC)	110 V (DC)

S.No.	1	2	3
15.	Rated characteristics for short time faults	As per relevant ISS/IEC	As per relevant ISS/IEC
16.	Operating duty	As per relevant ISS/IEC (o-t-co-t-co)	As per relevant ISS/IEC (o-t-co-t-co)
17.	Method of operation	Motor operated spring charging mechanism	Motor operated spring charging mechanism

3.3 STANDARDS:-

The circuit breaker shall comply in all respects with the requirements of latest issues of IS-2516 (Part-I/See.3/1972) or IEC-62271 and except where specified otherwise. Equipment meeting with any other authoritative standards which ensure an equal or better quantity than the standards mentioned above is also acceptable. Where the equipment offered conforms to any other standard, the salient points of difference between the standard adopted and IS-2516/IEC-62271 with comments shall be clearly brought out in the tender.

3.4 INSULATION:-

The insulation to ground, the insulation between open contacts and the insulation between phases of the completely assembled circuit breakers shall be capable of withstanding satisfactory the di-electric test voltage corresponding to basic insulation level.

S. No.	Nominal system voltage KV (rms)	Highest system voltage KV (rms)	Impulse voltage KV (Peak)	Power frequency test voltage KV (rms) to earth	Power frequency withstand Across Terminal of open C.B KV (rms)
1.	220 KV	245 KV	1050 KV	460 KV	460 KV
2.	132 KV	145 KV	650KV	275 KV	275 KV

All Technical particulars shall conform to IS 2516-1972/IEC-62271 with latest upto date amendments.

3.5 EARTHQUAKE AND WIND DESIGN:-

Each circuit breaker and its supporting structure shall be designed to withstand repeated earthquake acceleration and wind loads of 130 Kg/Sq .m. on the projected area without damage to component parts and without impairment of operation.

3.6 TRANSFORMER CHARGING CURRENT BREAKING CAPACITY:-

The circuit breakers shall be capable of interrupting any small inductive currents such as those occurring while switching off unloaded three phase transformers of 200 MVA capacity, 220/132 KV; or 50 MVA capacity, 132/33 KV; without giving rise to undue over voltage. The guaranteed over voltage values which will not be exceeded under these conditions shall also be stated in the tender.

3.7 RECOVERY VOLTAGE AND POWER FACTOR:-

Each circuit breaker shall be capable of interrupting rated short circuit breaking current under the conditions of recovery voltage corresponding to the highest system voltage and a power factor not exceeding 0.15. The circuit breakers shall be capable of satisfactory operation even under conditions of phase opposition that may arise due to faulty synchronization or otherwise. The maximum power, in accordance with relevant specifications which the circuit breakers can satisfactorily interrupt under phase opposition condition shall be stated in the tender.

3.8 TRIP FREE OPERATION:

The circuit breakers shall be trip free.

3.9 TEMPERATURE RISE :

The maximum temperature attained by any part of the equipment when in service at site under continuous full load conditions and exposed to the Sun shall not exceed the permissible limits fixed by the approved standards. When the standards specify the limits of temperature rise, these shall not be exceeded when corrected for the difference between ambient temperature at site and the ambient temperature as specified in the approved standards.

The corrections proposed shall be stated in the tender and shall be subject to the approval of the purchaser. In the case of equipment not covered by approved standards, the temperature rise of any part under above conditions shall be according to IS: 2516 (Part- I/Sec-3/1972) or IEC-62271 with upto date amendments.

3.10 CONSTRUCTION AND TYPE :

The circuit breaker shall be 3-phase. SF6 enclosed in an outdoor metal housing. Suitable bushings shall be provided on the roof of the metal housing. The bus bar shall be supported on the epoxy insulators. The provision for interior illumination and additional fittings as per requirements of the department may also be kept.

- 3.10.1 The circuit breakers shall provide rapid and smooth interruption of current under all conditions, completely suppress all undesirable phenomenon even under most severe and persistent short circuit conditions or when interrupting small reactive currents, leading or lagging. The circuit breakers offered shall be re-strike free under all operating conditions. The details of any device incorporated to limit or control the rate of rise of restriking voltage across the circuit breaker with switching inductive or capacitive loads shall not exceed 2.5 times the highest phase to neutral voltage. The actual make and break time of the circuit breakers through the range of their operating duties shall be stated in the tender alongwith guaranteed technical particulars.

3.11 MOUNTING :

Circuit breakers shall be suitable for mounting on steel structures. Load diagram for the steel structures under the severest operating conditions of the equipment shall be furnished with the tender.

3.12 BUSHING AND INSULATORS :

The basic insulating level of the bushings and insulating porcelains shall be specified and shall be suitable for insulation in contaminated atmospheres. The porcelains used shall be monogenous and free from cavities or other flaws. They shall be designed to have ample insulation, mechanical strength and rigidity for satisfactory operation and under conditions specified above. All bushing of identical ratings shall be interchangeable. The puncture strength of the bushing shall be greater than the flash over value. The bushings shall entirely be free from radio disturbance when operating

at a voltage upto or 10% above rated voltage and shall also be free from external and internal corona.

3.13 OPERATING MECHANISM :

The operating mechanism for 220 KV & 132 KV Circuit Breaker shall be Motor operated spring charging mechanism. The closing and trip coil shall be suitable for operating at 220 V/ 110 V.D.C.

Besides remote operating it should also be possible to trip and close the Circuit Breaker locally, manually and electrically. It shall also be possible to charge the spring manually when D.C. supply is not temporarily available. For this the necessary additional equipment shall be provided.

As required for maintenance, a suitable counter for recording the number of operations of Circuit Breakers shall also be provided. All working parts of the mechanism shall be of corrosion resistant material and all bearings which require greasing shall be equipped with pressure grease fittings. The mechanism shall be positive quick in action and shall be removable without disturbing the other parts of the Circuit Breaker. The mechanism and the breaker shall be such the failure of any spring will not prevent tripping and will not cause faulty tripping or closing.

3.13.1 The operating mechanism alongwith the accessories shall be mounted in a weather proof cabinet with hinged door located near the breaker. A local electrical control switch and the breaker position indicator shall be provided with for manual operation for maintenance purpose. A local/remote changed over shall also be provided in the housing.

3.13.2 The control circuits shall be designed to operate on 220 V.D.C./110 V.D.C. and it shall be possible to adopt these to work on other voltages by simply changing the operating coils. The closing and operating coils shall be designed to operate at normal voltage. A heater shall be provided in the cabinet to prevent moisture condensation. AC power supply of auxiliary shall be available at 400 V. 3 Phase, 50 Hz or 230 V single phase. Necessary cable glands for the cables of the operating mechanism shall be provided.

3.14 **SPRING OPERATING MECHANISM :**

Each mechanism shall be so designed as to enable a continuous sequence of opening and closing operating possible as long as power is available to the motor. The operation of the breakers shall be independent of motor which shall be used only for the purpose of charging the closing spring. The rating of the motor shall be such that it does not require more than about 30 seconds for charging the closing spring. The closing action of the Circuit Breaker shall charge the opening springs ready for tripping.

3.15 **AUXILIARY SWITCHES :**

Auxiliary switches (contacts) with adequate number of 'normally open' and normally closed' types shall be provided on each Circuit Breaker for use in remote indication and control scheme of the Circuit Breaker and for providing safety Interlocking. There shall be provision to add more auxiliary switches at a later date, if required. It shall preferably be possible to convert "normally open" and "normally closed" to "normally closed" and "normally open" type contacts respectively with minor modification. The extra cost for supplying additional contacts of each type shall be indicated in the tender. Necessary auxiliary switches shall also be provided for remote indication of the spring being in charged position.

3.16 **BREAKING CAPACITY FOR KILOMETRIC FAULT:**

The interrupting capacity of the breakers for Kilometric-fault (short line faults) shall be stated in the tender. The details of tests conducted for providing the capacity of the breaker under Kilometric fault conditions shall also be given in the tender.

3.17 LINE CHARGING CURRENT INTERRUPTING CAPACITY:

The Circuit Breakers shall be designed so as to be capable for interrupting line charging current as per IEC 62271-100 without undue rise in the voltage on the supply side, without any re-strike and without showing sign of undue strains. The guaranteed over voltage which will not be exceeded while interrupting line charging currents as specified in clause shall be stated in the tender.

3.17.1 The results of the tests conducted alongwith copies of the oscillograms to provide ability of the circuit breakers to interrupt these and lower line charging current shall be furnished with the tenders.

3.18 CONTACTS:

The main contacts shall have ample area and contact pressure and shall be capable of varying the rates current and the short time rated breaking current of the circuit breakers so that there is not excessive temperature rise. The contacts shall be adjustable to allow for wear, be easily replaceable and shall have minimum of moveable parts and adjustment. The main contacts shall be first to open and last to close so that there is negligible contact burning and wear in case arcing contacts are provided.

Arcing contacts, if provided, shall be first to close and last to open to take case of the arcing. The arcing contacts shall be easily accessible for inspection and replacement. The arcing and main contacts shall be silver plated or have Tungsten alloy tips.

3.19 INTERLOCKING:

The breakers shall be suitable for being interlocked with their associated isolators with interlocks of the electrical type which shall enable interlocking to prevent the opening/closing of isolator when the breaker is closed or as may be required. The details of the interlocking scheme will be finalized later, in coordination with the isolator manufactures. No extra charge is payable for provision and supply of these interlocking devices.

3.20 TERMINAL CONNECTORS:

Each Circuit Breaker connected with incoming and outgoing feeders shall be provided with solder less clamp type terminal connectors of suitable size. Each terminal connectors shall be suitable for both vertical and horizontal take off and shall be plated with hot flowed electro tin so as to make them suitable for being connected to ACSR bunch conductor. Each Circuit Breaker pole and control cabinet shall provided with appropriate number of grounding terminal and clamps receiving ground connections. Exact specification of terminal clamps shall be intimated at the time of approval of drawings.

3.21 GALVANIZING :

All ferrous parts of the breakers and support structure and mounting including bolts, nuts etc. shall be hot dip galvanized as per IS : 2629- 1966 (as amended upto date).

3.22 TOOLS :

The tenderer shall separately list out in the tender the sets of tools required for initial erection and subsequently maintenance of the circuit breakers. Item wise unit price for tools be given in the tender as per schedule enclosed.

3.23 FITTING AND ACCESSORIES :

The tender shall provide all fittings and accessories applicable to the type of breakers offered and such other fittings as are necessary for the satisfactory operation, erection and maintenance of the Circuit Breakers.

3.24 MARKING :

The Circuit Breakers and its operating devices shall be provided with rating plate, which contains the information in accordance with IS:2516 (Part-I Sec. 3) of 1972/IEC-62271 as amended upto date. The rating plate shall be weather proof and corrosion proof shall be visible in position of normal service.

3.25 SPARE PARTS :

The tenderer shall furnish the item wise price list of special erection tools including leakage detector and spare parts recommended by him for 10 years operation.

3.26 COMPLETENESS OF EQUIPMENT :

Any item, accessory or apparatus which may not have been specifically mentioned in these specifications but which are necessary shall be supplied by the contractor without extra charge. All plant and equipment shall be complete in all details. Whether such details are mentioned in the specification or not.

3.27 TESTS :

Each Circuit Breaker shall be completely assembled and subject to manufactures standard routine tests in accordance with IS : 2516/IEC-62271(as amended upto date) in the presence of the purchaser's representative, if so desired by the purchaser.

Type test certificates for proof of having tested the breaker fully according to IS : 2561/IEC-62271(as amended upto date) shall be supplied with the tender. Oscillograms and other relevant particulars shall also be furnished alongwith tenders.

All test reports should be submitted and got approved by the purchaser before dispatch of the equipment.

3.28 DRAWINGS AND INSTRUCTIONS MANUALS :

Soon after award of the contract the manufacture shall supply the drawings which will describe the equipment and details for approval.

The following drawings for each item are to be supplied as part of the contract :-

- A. Outline dimensional drawings, showing transport weight.
- B. Outline drawings of bushings.
- C. Assembly and sub-assembly drawings with numbered parts.

- D. Sectional view showing the general constructional features of operating mechanism and are extinguishing chambers.
- E. Dimensions and assembly of important auxiliaries.
- F. Detailed drawings of operating mechanism.
- G. Details of electrical interlocks provided with Circuit Breakers.
- H. Drawing showing the foundation details.
- I. Sectional view of the Circuit Breakers poles.
- J. Schematic and connection diagrams.
- K. Test certificate and oscillograms.

Seven copies of instruction manuals covering instruction for installation, operation and maintenance shall be supplied by the tenderer.

3.29 TESTING AND COMMISSIONING :

The tenderer shall test after erection and commissioning of the equipment to be supplied by him, if required by the purchaser irrespective of whether the equipment is erected by him or not. Tenderer shall quote separately in schedule-G, contained in part of this specifications, charges for testing and commissioning of the equipment to be supplied by him.

3.30 GUARANTEED TECHNICAL PARTICULARS :

The tenderer shall furnish all guaranteed technical as per Annexure I & II of this specification.

JE Assistant Ex. Engineer

Executive Engineer

Superintending Engineer

SCHEDULES

AND

ANNEXURES

Annexure-I

SCHEDULE OF EQUIPMENT AND DESIRED DELIVERY
(READ ALONG WITH SECTION III)

S. No.	Particulars	Quantity Required in Grid Stations	
		Jammu	Kashmir
1	220KV, 3 Phase 50 Hz 3150A, SF6 Circuit Breaker with 40 KA motor operated spring charged mechanism conforming to IEC -56/IS- 2516/ IEC 62271-100 (amended up to date) and suitable for 220 Volts DC .	11	-
2	132KV, 3150A SF6 Circuit Breaker with 40 KA motor operated spring charged mechanism as per IS 2516/IEC 62271-100/ IEC -56 (amended upto date) and suitable for 110 Volts DC .	-	27

J.E.**A.E.E.****XEN-II****Superintending Engineer**

ANNEXURE – II

**SCHEDULE OF GUARANTEED AND
TECHNICAL PARTICULARS**

(To be filled in and signed by the tenderer)

	220 & 132 KV SF6 CIRCUIT BREAKERS	
1.	Name of the manufacturer.	
2.	Manufacturer's type and Designation	
3.	Governing standards.	
4.	Rated Voltage (KV)	
5.	Maximum continuous rated service Voltage (KV)	
6.	Frequency (Hz)	
7.	Class (Indoor or outdoor)	
8.	Normal current rating (Amps.) a) Under standards conditions. b) Under site conditions. c) Duration factor, in any, for site conditions.	
9.	Short time current rating (KA) a) For 1 second b) For 3 second	
10.	Maximum temperature rise over Ambient (0 C) due to rated Current of main contacts, Measured after breaking test.	

11.	Rated symmetrical short circuit Breaking capacity.	
12.	Rated duration of short circuit	
13.	Rated short circuit current: a) AC component (KA rms) b) Percentage DC component c) Asymmetrical breaking current (including DC component), KA rms	
14.	Making capacity (KA peak)	
15.	Total break time (milli seconds): a) For interrupting of 10% of the rated capacity b) For interrupting of 30% of the rated capacity c) For interrupting of 60% of the rated capacity d) For interrupting of the full rated capacity	
16.	Arcing time (milli seconds)	
17.	Making time (milli seconds)	
18.	Minimum re-closing time at rated interrupting capacity from the instant of the trip coil energisation (milli seconds)	
19.	Minimum dead time a) 3 phase re-closing (milli sec.) b) Limits of adjustment of dead time for 3 phase re-closing.	
20.	Rated duty cycle.	

21.	Opening time and break time.	
22.	Closing time.	
23.	Data on re-striking voltage for 100%, 50% and 30% rated capacity. a) Amplitude factor. b) Phase factor. c) Natural frequency (Hz). d) Rate of rise of re-striking voltage (micro seconds).	
24.	Rated transient recovery voltage.	
25.	Maximum interrupting capacity under phase opposition conditions (MVA)	
26.	Maximum line charging current breaking capacity without over voltage exceeding 2.5 times the rated phase to neutral voltage (Amp).	
27.	Maximum line charging current breaking capacity and corresponding over voltage recorded in tests: a) On supply side. b) On line side.	
28.	Maximum cable sharing breaking capacity and corresponding over voltage recorded in tests: a) On supply side. b) On line side.	
29.	Rated small breaking currents.	
30.	Maximum breaking capacity on Kilometric faults (MVA).	
31.	Maximum over voltage on switching	

	transformers on no load and charging current.	
32.	<p>Dry 1 minute power frequency test withstand voltage for complete circuit breaker:</p> <p>a) Between line terminals and grounded parts (KV rms).</p> <p>b) Between terminals with breaker contacts open (KV rms).</p>	
33.	<p>Wet 1 minute power frequency test withstand voltage for complete circuit breaker:</p> <p>a) Between line terminals and Grounded parts (KV rms).</p> <p>b) Between terminals with breaker contacts open (KV rms).</p>	
34.	<p>1.2 50 micro seconds wave impulse withstand test voltage for complete circuit breaker:</p> <p>a) Between line terminals and grounded parts (KV peak).</p> <p>b) Between terminals with circuit breaker contacts open (KV peak)</p>	
	SUPPORTING INSULATORS:	
35.	Make and type.	
36.	Weight.	
37.	Transport dimensions.	
38.	Visible corona discharge voltage.	
39.	<p>Dry 1 minute power frequency:</p> <p>a) Flash over voltage.</p> <p>b) Withstand test voltage.</p>	
40.	Wet 1 minute power frequency flash over	

	voltage.	
41.	Microsecond impulse flash over Voltage.	
42.	Creep age distance to ground (mm): a) Total b) Protected.	
43.	Minimum clearance in air: a) Between phase (mm). b) Live parts & earth (mm). c) Live parts to ground level (mm). d) Puncture value of bushing under oil (KV).	
	CONSTRUCTIONAL FEATURES:	
44.	No. of poles per Circuit Breaker.	
45.	No. of breakers per pole.	
46.	Total length of breaks per phase (mm).	
47.	Type of main contacts.	
48.	Material of main contacts.	
49.	Whether main contacts silver plated?	
50.	Thickness of silver coating on main contacts (mm).	
51.	Contact pressure main contacts Kg/sq. cm.	
52.	Type of Arcing contacts.	
53.	Contact pressure on arcing contacts	

	Kg/sq. cm.	
54.	Type of auxiliary switch contacts.	
55.	Material of switch contacts.	
56.	Whether contacts silver plated.	
57.	Thickness of silver coating (mm)	
58.	No. of auxiliary switch contacts including spare contacts operating with individual pole of breaker: a) Which are closed when breaker is closed. b) Which are open when breaker is closed.	
59.	No. of spare auxiliary switch contacts operating with individual pole of breaker: a) Which are closed when breaker is closed. b) Which are open when breaker is closed.	
60.	No. of operations possible without maintenance: a) At full rated interrupting capacity. b) At 50% of rated interruption Capacity c) At 10% of rated current. d) At 50% of rated details.	
61.	Mounting flange details.	
62.	Type of operating mechanism:	

	<p>a) Operating.</p> <p>b) Closing.</p>	
63.	Tripping and closing circuit voltage (V).	
64.	Whether the Circuit Breaker is fixed trip or trip free.	
65.	<p>No. of spare auxiliary switch contacts operating with all 3 pole of breaker:</p> <p>a) Which are closed when breaker is closed.</p> <p>b) Which are open when breaker is closed.</p>	
66.	Power required for closing coil at 110 VDC (watts).	
67.	Power required for closing coil at 110 VDC (watts).	
68.	Rated supply voltage	
69.	Rated voltage of shunt trip coil.	
70.	Contingencies for which alarm provided.	
71.	Design data for supporting structure.	
72.	Weight of supporting steel structure per Breaker	
73.	Descriptive leaf lets enclosed.	
	CONTROL CABINETS:	

74.	Details of running Hour meters.	
75.	Details of start counters.	
76.	Details of various selector switches.	
77.	Details of push button switches.	
78.	Dimension of the control cabinets.	
79.	Weight of control cabinet.	
	WEIGHT AND SPACE REQUIREMENTS:	
80.	Weight of 3-phase breaker complete with operating mechanism insulating apparatus framework etc. excluding supporting structures.	
81.	Impact loading for foundation design to include dead load plus impact value on opening at maximum interrupting ratings in terms of equivalent static load.	
82.	a) Weight of the SF6 Circuit Breaker. b) Supporting structure.	
	SPACE REQUIREMENT i.e. LENGTH, WIDTH AND HEIGHT.	
83.	Overall dimensions of Circuit Breaker.	
84.	Foundation details.	

Dated: Signature

Place: Name & Status

Whether authorized attorney of the tendering company.

Name of the tendering company.

ANNEXURE – III**SCHEDULE OF TECHNICAL PARTICULARS OF COMPONENTS**

(To be furnished by the Tenderer)

The tenderer is required to furnish technical particulars herein, in respect of all the components/parts/instruments of those are part and parcel of the equipment as per bill of material.

- I. Makes.
- II. Type/Model.
- III. Ratings.
- IV. Governing Standards.
- V. Other Particulars.

Any component/instrument left out above but is an essential part of the equivalent as a whole, should also be covered. The complete technical particulars shall be furnished as per above details or as relevant parameters characteristics of the component/instrument.

SCHEDULE – A**SCHEDULE OF PRICES OF EQUIPMENT**

(SPECIFICATIONS GIVEN IN ANNEXURE – III)

READ WITH SECTION – III)
(TO be filled in and signed by the Tenderer)

S.No	Items of Equipment as Per Annexure-I.	Unit Ex-work Cost.	Rebate or Discount on unit Ex-works price, If any
1.	2.	3.	4.
Unit ex-works Prices with Rebate/discount	Packing & Forwarding Charges.	Unit ex-works price with packing and forwarding (5+6).	Excise duty on Basic price on column 7.
5.	6.	7.	8.
Unit ex-works price with excise duty.	CST on unit ex-works price on column 9.	Unit ex-works Prices including Ed & CST (9+10)	Freight upto Jammu/Srinagar
9.	10.	11.	12.

Unit for Jammu/ Srinagar prices With ED, CST & Freight (11+12).	Insurance upto Jammu/Srinagar On column 13.	Unit for Jammu/ Srinagar price With ED, GST & freight & Insurance (13+14)	Quantity
13.	14.	15.	16.
Total for Jammu/ Srinagar prices (15+16)	Cost of account type tests.	Cost of spare & Tools.	Supervision Charges.
17.	18.	19.	20.
Interest A/C advance payment (If advance payment).		Any other Charges.	Total load F.O.R. Jammu/Srinagar Prices (17+18+19+20+ 21+22+23)
21.	22.	23.	24.

Date: Signature

Place: Name & Status

Whether authorized attorney of the tendering Company.

Name of the tendering company.

NOTE :

1. The tenderer shall quote the equipment complete in all respects
Strictly in accordance with the stipulated specifications and as per

Format given in schedule 'A'. Any left out component/part of the equipment shall be loaded at the highest quoted prices.

2. The tenderer shall quote specifically the applicable rates of ED/ CST / F&I etc. providing documentary evidence chargeable on the quoted prices. In case of silence in this regard, the prices shall be loaded at the highest quoted rates of ED / CST / F&I etc. for evaluation of the bid but the same shall not be actually admissible to the tenderer in the event of an order being placed on them.
3. In case of interest free advance payment, the prices shall be loaded with simple interest on the amount advanced @ 20% per annum for the full delivery period for evaluation purposes.
4. Columns 10-24 shall be worked out by the purchaser as per norms adopted by the department.

SCHEDULE-B**SCHEDULE OF PRICES**

(TO BE FILLED IN/FURNISHED AND SIGNED BY THE TENDERER)

The tenderer shall refer to relevant clauses in Part-I and Part-II before filling)

The tenderer is requested to furnish prices for equipment / spares / services etc. strictly as per following format to make the process of evaluation simpler without any confusion or to avoid likely slips in evaluation process if relevant information is provided in the tender in bits / vague terms / printed material.

DETAILS OF PRICES OFFERED IN RESPECT OF EQUIPMENT / SPARES / TESTS /

SUPERVISION JOB:

A: FOR JAMMU / SRINAGAR PRICES

S.NO.	PARTICULARS OF ITEM	NAME OF EQUIPMENT	COST OF SET OF SPARES AS PER SCHEDULE 'D'	COST OF TESTS ON EQUIPMENT AS PER SCHEDULE 'E'	SUPERVISION CHARGES ON ACCOUNT OF ERECTION, TESTING & COMMISSIONING, OF TRANS. AT SITE AS PER SCHEDULE 'G'
1.	2.	3.	4.	5.	6.
1.	Unit Ex-works Price (EWP)				

1.	2.	3.	4.	5.	6.
2.	Rebate on EWP, if any,				
3.	Duties / Taxes, (Refer clause 1.16 before quoting)				
i)	Excise duty (State percentage ED rate alongwith cost from Superintendent of concerned range)				
ii)	S.T. (CST or state S.T) (State percentage S.T. rate also).				
iii)	Any other levy Chargeable/ Entry Tax/ Toll Tax.				
4.	Unit freight charges & Insurance upto Jammu rail head Consignee's stores at Jammu/Srinagar (For insurance, item 4a of Clause 1.14 be referred to)				
5.	Unit price F.O.R i. Jammu ii. Srinagar				

6.	TOTAL				

B. COMPUTED F.O.R. JAMMU/SRINAGAR COST

S.NO.	PARTICULARS OF ITEMS	AMOUNT
1	2	3

7. Unit F.O.R. cost component on account of
(as per row 5/6 above)
- i) Equipment / Insulation. Oil (as per column 3 / 4)
 - ii) Spares / T&P etc. (as per column 5)
 - iii) Testing (as per column 6)
 - iv) Supervision of Erection / testing / commissioning
of equipment.
 - v) Capitalization of losses.
 - vi) Any other item such as interest etc. if any.
8. Computed unit F.O.R. Jammu / Srinagar Cost.
9. Quantity.
10. Computed F.O.R. Jammu / Srinagar Cost.

Dated:

Signature:

Place:

Name and status:

Whether authorized attorney of the tendering company.

Name of the tendering company.

SCHEDULE-C

(TO BE FILLED IN AND SIGNED BY THE TENDERER)

SCHEDULE OF DEVIATIONS FOR SUPPLY AND DELIVERY OF EQUIPMENT

AGAINST NIT NO: 201/2011.

(Refer Clause 1.2.6, 2.11.3 & 2.11.4)

We/I have carefully gone through the Technical Specifications and General Conditions of contract and We/I have satisfied ourselves-myself and hereby conform that our-my offer strictly conforms to the requirements of the technical specifications of the NIT except for the Technical Deviations which are given below.

<u>S.No.</u>	<u>Description</u>	<u>Stipulation on Specification on</u>	<u>Deviation</u>	<u>Remarks</u>
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Date.

Signature.

Place.

Name.

Status.

Whether authorized attorney of the tendering company.

Name of the Tendering Company.

SCHEDULE-D

**SCHEDULE OF REQUIREMENT, PRICE AND DELIVERY PERIOD
OF SPARE PARTS**

(TO BE FILLED IN/FURNISHED AND SIGNED BY THE TENDERER.
The tenderer shall refer clauses 2.8, 2.16 and 3.25 before filling)

The tenderer is requested to fill in here such spare parts as per following list / he recommends for five years operation. The purchaser reserves the right to purchase such of the quantity/ies as he finally decides upon at the unit prices filled in below:

S.No.	DESCRIPTION	QUANTITY	EX-WORKS PRICES	AMOUNT
1	2	3	4	5

- 1.
- 2.
- 3.
- 4.

TOTAL EX-WORKS COST OF THE SPARES

The rebate/ED/Taxes/F&I etc. applicable on the ex-work prices / other terms & conditions in reference to supply of spares be given in schedule-B, for Terms & Conditions/Prices.

Dated:

Signature.

Place:

Name and Status.

Whether authorized attorney of the tendering company.

Name of the tendering company.

SCHEDULE-E

**THE SCHEDULE OF TESTS TO BE CONDUCTED ON EQUIPMENT
(TO BE FILLED IN/FURNISHED AND SIGNED BY THE TENDERER)**

(Refer Clauses 2.14, 2.15 and 3.76)

The tenderer is requested to give (fill in the following format) all the Type Tests as are necessary to be conducted on this equipment as per relevant IS/IEC standards/specifications. This is required in case the Department wishes to get the equipment type tested again in addition to the Type Tests already got conducted by the supplier.

S.No.	Description of tests	Charges if any	Remarks
1.	2.	3.	4.

1.

2.

3.

4.

5.

-

-

Total charges on account of tests:

The rebate / ED / Taxes / F&I etc. applicable on test charges.

The applicable terms and conditions in regard to tests / duties etc. shall be

Given in Schedule-B for terms and conditions.

Dated:

Place:

Signature.

Name and Status.

Whether authorized attorney of the tendering company.

Name of the tendering company.

SCHEDULE-F**SCHEDULE OF TOOLS AND SPECIAL ERECTION TOOLS****(TO BE FILLED IN/FURNISHED AND SIGNED BY THE TENDERER)**

The tenderer shall refer clauses 3.22 before filling)

The tenderer is requested to fill in here such maintenance tools and special tools as he recommends for the erection and maintenance of the SF6 Breaker. The quantities and tools as be finally decided upon at the unit prices filled in below:

S.No.	Description	Quantity recommended	Unit Ex-Works Prices	Amount
1.	2.	3.	4.	5

1.

2.

3.

4.

5.

-

TOTAL COST OF TOOLS:

The rebate / ED / Taxes / F&I etc. applicable on quoted Ex-works prices.
Terms and conditions in this regard, shall be given in schedule-B for terms and conditions.

Dated:

Place:

Signature.

Name and Status.

Whether authorized attorney of the tendering company.

Name of the tendering company.

SCHEDULE - G**SCHEDULE OF CHARGES ON ACCOUNT OF SUPERVISION OF ERECTION,
TESTING AND COMMISSIONING OF EQUIPMENT**

**(TO BE FILLED IN/FURNISHED AND SIGNED BY THE TENDERER
The tenderer shall refer clause 3.29 before filling)**

S. No.	Item of work	*No. of days estimated for supervision job for erection, testing & commissioning for one unit	**Details of supervisory staff		To & Fro charges	Boarding & lodging charges per day	*** estimated charges on account of supervision on job per unit
			Category	Charges per day per category			
1	2	3	4	5	6	7	8

- i) Erection / Commissioning Engineer
ii) Any Other Category (such as technician etc. if required)

The number of days, required for supervision job of erection, testing and commissioning of one unit to be executed departmentally under the supervision of erection / commissioning engineers of the firm, to be assumed at this end.

* The tenderer shall furnish the category and rate per day for each category of supervisory staff required daily for supervising the job of erection, testing and commissioning of the equipment at site.

*** The erection charges on account of supervision job for comparison purposes to be worked out as per column 3 and column 4 to 7 ($Co\ 1.8 = Co1.3 \times Co1.5 + Co1.6 + Co1.3 \times Co1.7$)

The applicable Terms and Conditions, if any, (such as to and fro expenses etc.) shall be appended alongwith this schedule / given hereunder.

Dated: _____ Signature.
Place: _____ Name and Status.
Whether authorized attorney of the tendering company.
Name of the tendering company.

SCHEDULE – H**SCHEDULE OF TERMS AND CONDITIONS
FINANCIAL AND COMMERCIAL**

(TO BE FILLED IN/FURNISHED AND SIGNED BY THE TENDERER)

The tenderer shall refer to relevant clauses in Part-I before filling)

The tenderer is requested to furnish Terms and Conditions for equipment / spares / service etc. strictly as per following format to make the process of evaluation simpler without any confusion or to avoid lightly slips in evaluation process if relevant information is provided in the tender in bits /vague terms / printed material.

DETAILS OF TERMS AND CONDITIONS

A. FINANCIAL TERMS AND CONDITIONS

TERMS AND CONDITIONS OFFERED FOR

S.No.	PARTICULARS OF ITEMS	NAME OF EQUIPMENT	SPARES	TESTING OF EQUIPMENT	DEPUTATION OF SUPERVISORY STAFF FOR SUPERVISING ERECTION TESTING & COMMISSIONING OF EQUIPMENT AT SITE
	2	3	4	5	6
	<p>The tenderer must specify Each item of the term & conditions given in column 2,. Hereunder, at respective space under each column 3 to 7 for equipment / T oil/spares/testing/supervision etc.</p>				
1	<p>PRICES: (the tenderer MUST refer to clause 1.8 & 2.9 before</p>				

i.	quoting) Quoted prices shall be F.O.R destination i.e Jammu/Srinagar (Ex-work prices must also be specified for computing ED/CST components etc.) ii. The prices quoted shall be variable				
ii)	MODVAT Benefits				
2.	Rebate on Ex-works Prices (EWP) State under each column Rebate offered on EWP if any				
3.	Duties/taxes/levies (The tenderer MUST refer to clause 1.16 before quoting) i. State under each column, if a) EDextra/not Applicable/included in EWP				
b)	If extra or included in EWP Give percentage rate				

	Chargeable or at which ED included in EWP				
ii)	Sale tax (Central or State, ST) State under each column, if				
a)	STextra/not applicable/included in EWP				
b)	If extra or included in EWP, give percentage Rate chargeable or at which ST included in EWP				
iii)	Any other levy chargeable VIZ: Entry Tax & Toll Tax				
4.	Freight:				
a)	Give freight chargeable upto JammuRail Head/Consignee's stores at Jammu/ Srinagar				
b)	Insurance (Refer to clause 1.14 before quoting)				

	It is the responsibility of the Supplier to deliver goods at consignee's stores in good condition				
5.	Mode of Transport				

B. GENERAL TERMS & CONDITIONS:-

S. No.	Particulars of Item	Terms & Conditions Offered
1	2	3

The tenderers shall give details of below given general terms conditions in specific terms without reference to phrases such as 'clause-agreed to' or As per clauses ' etc.

6. Earnest money

Give particulars of Bank Guarantee/CDR

(Refer clause 1.6)

Rs. Seven lacs only pledged to Chief Engineer, Elect. Planning & Design, Jammu

7. Validity:

(The tenderer MUST refer to clause 1.9 before quoting)

The tender shall be unconditionally Valid for a period of 365 days from the Due date of opening of tenders.

8. Terms of payment:

Specify payment terms

(Refer to clause 1.12 before quoting)

- a. Payment terms acceptable are 90% against RR through bank & balance 10% after verification of material in Consignee's stores or 100% payment against receipt & verification of material in stores.
- b. Advance payment /payment against LOC are normally not acceptable because of procedural complications etc. involved. However, evaluation of bid in such cases is affected.

S. No.	Particulars of Item	Terms & Conditions Offered
1	2	3

- 9.i) Delivery period/ completion period
(Refer to clause 1.10 before quoting)

Specify delivery period

- ii. The tenderer shall furnish following terms conditions in brief using

phrases such as 'clause—Agreed to' or 'As per clause---'. In case of deviation state briefly the point of difference over Relevant clause of the specification.

- iii. The tenderer shall quote minimum possible delivery period.
- 10. Damages or penalty for delay/negligence in Execution of order (clause-1.11)

- 11.
 - i) Warranty (clause 1.13) / Guarantee (3.32)
 - ii) Failure to meet GTP and specifications (clause 2.14)

S. No.	Particulars of Item	Terms & Conditions Offered
1	2	3

- 12. Cancellation (clause 1.21)
 - Additional quantities/ extras(clause 1.23 and 2.5/2.7)
- 13. Civil suit/legal remedy (clause: 1.24)
- 14. Arbitration (clause 1.25)

15. Inspection and testing (clause 2.15)

Besides comments to accept inspection & testing clause, state facilities/ capability to conduct tests as per Is.

16. Patent rights (clause 2.20)

17. Conditions of contract (clause: 2.23)

18. Deviations:

specify deviations in Specifications/ General terms conditions in the format as per Schedule-I

i.a) Deviations in specification as Stipulated in NIT.

b) Variation (clause: 1.27)

ii. Deviation in general term and conditions

19. Training of staff

S. No.	Particulars of Item	Terms & Conditions Offered
1	2	3

20. Observance of regulating safety Requirements

The tenderer shall state if regulatory/statutory restrictions and safety requirements in respect of earthing arrangements, danger and other label, air clearances, provisions of anti-earthquake arrangements, pressure relief devices, defence and Highway Railway norms for transportation of equipment etc, have been taken care of in design offered for the desired

- equipment.
21. Capability of firm to manufacture Equipment of similar or higher ratings
- While furnishing information documents in this regard, the emphasis is laid on rating capacity of equipment required.
- i. In this regard, state facilities to manufacture desired equipment/standing of the firm as designer and manufacturer of the equipment covered by specifications.
 - ii. List of orders executed.
 - iii. Copies of type/ routine /special test certificate from recognized test houses in the country/outside.
 - iv. Performance certificate from SEBs/ NTPC/NHPC/Govt. Departments etc. in respect of equipment of same rating/capacity.

S. No.	Particulars of Item	Terms & Conditions Offered
1	2	3

2. Financial resource and experience (clause: 2.19) Enclose following reports:
 - i. Banker's report.
 - ii. I.T.C.C (Income Tax Clearance certificate)
 - iii. Sale Tax Clearance Certificate.

- iv. Annual balance sheet/report for the preceding financial year.
- v. Certificate from the Superintendent Exise Duty Range concerned in support of ED rate.
- 23. Additional General terms and conditions for :
 - i. Spares
 - ii. Testing
 - iii. Supervision/Services.
- 24. Any other term conditions not covered above:

Dated: Signature:

Place: Name and Status:

Whether authorized attorney of the tendering company
Name of the tendering company.

NOTE: The tenderers are requested to take note of the following instructions while making offers in respect of terms conditions of the equipment/ spares/services:

1. As emphasized above, the terms and conditions shall be quoted in above format/ sequence to make the process of evaluation more uniform, simpler, concise, specific and confusion free, in unambiguous terms & consolidated simplified format given above.
2. No printed general terms and conditions enclosed with the tender shall be accepted.
3. The tenderer shall give categorical and complete information in each column (3 to 7), such as:
 - i) Ex-works prices.
 - ii) ED/CST/ any other levy applicable etc. each for equipment, spares tests etc.
 - iii) Freight and insurance etc. as asked for there in against each item of the particulars.
 - iv) Local Taxes VIZ: Entry Tax & Toll Tax.
4. The prices shall be variable which shall be the basis of evaluation/comparison of bids.

Any ambiguity in this regard (Such as, vague or no mention or contradiction etc) shall be interpreted as per departmental practice to suit departmental interest so far as evaluation of bid/placement of order is concerned.

SCHEDULE-I**SCHEDULE OF DRAWINGS AND TECHNICAL LITERATURE.**

(TO BE FILLED IN/FURNISHED AND SIGNED BY THE TENDERER

The tenderer shall refer clauses 2.17 and 3.28 before filling)

A. TENDER DRAWINGS:

- I. General outline drawing showing dimensions and shipping weights.
- ii. Sectional views showing the general construction features.
- iii. General arrangement of foundation and structure mounting/drilling plan.
- iv. Type test certificates and osoillograms.
- v. Crane requirements for assembling and dismantling of equipment, if any.
- vi. Dimension of the largest parts to be shipped and the position in which these are to be transported
- vii. Bushing drawing.

B. COMPLETION OF DRAWINGS:

All drawing listed above and corrected in accordance with the works as actually executed at site.

C. CONTRACT DRAWINGS

- i) General outline drawing front side elevations and plan of the equipment with detailed dimensions.
- ii) Foundation drawings.
Drawing of each type of bushing giving dimensions/clearance etc.

D. TECHNICAL LITERATURE:

- i) Nine copies of the instructions books/operation and maintenance manuals and spare parts bulletins.
- ii) Description literature and data on equipment construction, winding, bushing.

Dated:

Signature:

Place:

Name and Status:

Whether authorized attorney of the tendering company

Name of the tendering company.

SCHEDULE-J

**SCHEDULE OF ORDERS EXECUTED/ROUTINE,TYPE AND SPECIAL
TESTS/PERFORMANCE CERTIFICATES IN RESPECT OF EQUIPEMNT OF
SAME OR HIGHER RATING**

(TO BE FILLED IN/FURNISHED AND SIGNED BY THE TENDERER

The tenderer shall refer clause 1.19 & other relevant clauses before filling)

The tenderer shall furnish the following information/certificates/documents to establish his capability to manufacture the equipment.

S.No. CERTIFICATES

LIST OF ORDERS EXECUTED

The tenderer shall furnish the list of orders executed in the following format.

S. No.	Description <u>Equipment</u>	Name of Elecy. <u>Board/Purchaser</u>	Purchase Order No. <u>& Date</u>
	<u>1</u>	<u>2</u>	<u>3</u>
	<u>Status of Supply</u>	<u>Commissioning date</u>	<u>Performance Remarks</u>
	<u>4</u>	<u>5</u>	<u>6</u>

2. ROUTINE TEST CERTIFICATES

3. TYPE/SPECIAL TEST CERTIFICATES.

(Give list of test certificates from recognized test houses of National or International repute for equipment similar or higher rating. In this connection relevant clause 3.27 pertaining to TESTS in Section-III may please be referred to)

4. PERFORMANCE CERTIFICATE/DOCUMENTS

(Give list of performance certificate from State Electricity Boards for equipment with similar or higher rating of equipment, or any other certificate/ document which must establish performance of such equipment beyond doubts. Otherwise the offer of the firm shall be rejected.

While furnishing the above certificates/documents, the emphasis shall be laid on rating and capacity of the equipment required.

Dated:

Signature:

Place:

Name and Status:

Whether authorized attorney of the tendering company

Name of the tendering company.

SCHEDULE-K**SCHEDULE OF DOCUMENTS IN RESPECT OF FINANCIAL RESOURCES/CAPABILITY
OF THE TENDERER**

(TO BE FILLED IN/FURNISHED AND SIGNED BY THE TENDERER

The tenderer shall refer relevant clauses before filling)

The tenderer shall attach alongwith this schedule the following documents to establish his financial resources:-

1. Banker's Report
2. I.T.C.C. (Income Tax Clearance Certificate)
3. Sales Tax Clearance Certificate.
4. Annual Balance Sheet/ Report.
5. Certificate from the Superintendent, Exise Duty Range concerned, in support of ED rate quoted as applicable.

Dated:

Signature:

Place:

Name and Status:

Whether authorized attorney of the tendering company

Name of the tendering company.