



POWER DEVELOPMENT DEPARTMENT
TENDER SPECIFICATION NO: SEPD/NIT- 198/2011

PART - I (SECTION - 1 & II)

GENERAL TERMS AND CONDITIONS

AND

PART- II (SECTION- I & II)

TECHNICAL SPECIFICATIONS
OF

220KV, 132KV & 33KV, OUTDOOR TYPE ISOLATORS
WITH AND WITHOUT EARTHING BLADES.

FOR VARIOUS GRID STATIONS

OF
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
180006.

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

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

To

M/s _____

No. **SEPD/J/NIT-198/2011.**

Sub:- Procurement, of 220 KV, 132 KV & 33 KV D/B, O/D Type 1600 /2500A/1250/800A Isolators complete with all accessories required for various Grid Stations in Jammu & Kashmir State against Tender specification No:SEPD/NIT-198/2011.

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-198/2011 comprising of two parts as under:-

- a) General Terms & conditions, Part-I Section-I&II).
- b) Technical specification of 220 KV, 132 KV & 33 KV, D/B, O/D Type, 1600 A/2500A/1250 A/ 800A, Isolators 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 upto_____hrs. which shall be opened on the same day or any other convenient working day at_____hrs.

Yours sincerely,

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

Copy to :-

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

I N D E X

PART – I

SECTION – I

CLAUSE No.	DESCRIPTION	PAGE NO.
1.1	INVITATION	2
1.2	GENERAL CONDITIONS	2
1.3	PREPARATION OF TENDER	6
1.4	SCOPE	7
1.5	RAW MATERIAL	7
1.6	EARNEST MONEY	7
1.7	PLACE OF MANUFACTURE & INSPECTION	8
1.8	PRICES	8
1.9	VALIDITY	9
1.10	DELIVERY	10
1.11	DAMAGES FOR DELAY OR NEGLIGENCE IN EXECUTION OF ORDERS	10
1.12	TERMS OF PAYMENT	11
1.13	WARRANTY	12
1.14	INSURANCE	12
1.15	INTIMATION TO CHIEF ENGINEER, P&D, POWER DEVELOPMENT DEPARTMENT AND CONSIGNEE	13
1.16	CENTRAL SALES TAX/VALUE ADDED TAX/ENTRY TAX & EXCISE DUTY	14
1.17	CHARGES	16
1.18	PACKING	16
1.19	SPECIAL INSTRUCTIONS	17
1.20	INTERCHANGEABILITY	18
1.21	CANCELLATION	18
1.22	DESPATCH INSTRUCTIONS	18
1.23	ADDITIONAL QUANTITIES	19
1.24	CIVIL SUIT/LEGAL REMEDY	19
1.25	ARBITRATION	19
1.26	EXECUTION OF CONTRACT	19
1.27	VARIATIONS	19

PART – I SECTION – II

Clause No.	DESCRIPTION	PAGE NO.
2.1	SCOPE	22
2.2	LOCATION	22
2.3	COMMUNICATION AND TRANSPORT	22
2.4	DELIVERY AND THE COMPLETION PERIOD	23
2.5	QUANTITIES	23
2.6	COMPLETENESS OF THE TENDER	23
2.7	EXTRAS	23
2.8	SPARES	24
2.9	PRICES	24
2.10	STANDARDS	24
2.11	MAKER'S STANDARDS AND DEPARTURE FROM SPECIFICATIONS	25
2.12	INTERCHANGEABILITY	26
2.13	MATERIALS AND WORKMANSHIP	26
2.14	FAILURE TO MEET WITH GUARANTEE AND REQUIREMENTS OF THE SPECIFICATIONS	27
2.15	INSPECTION AND TESTING	27
2.16	INSTRUCTION BOOKS/ MANUALS AND SPARE PARTS	30
2.17	DRAWINGS	30
2.18	NOTICE TO CONTRACTOR	31
2.19	FINANCIAL RESOURCES AND EXPERIENCE	32
2.20	PATENT RIGHT	32
2.21	RESPONSIBILITY FOR OBTAINING INFORMATION AND TAKING ACTION IN TIME	33
2.22	PACKING AND MARKING	33
2.23	CONDITIONS OF CONTRACT	34
2.24	INSTRUCTIONS TO THE TENDERERS	35
2.25	CLIMATIC CONDITIONS	35

PART II**SECTION – III**

Clause No.	Description	Page No:
3.1	SCOPE	39
3.2	TECHNICAL REQUIREMENTS	39
3.3	STANDARDS	41
3.4	INSULATION	41
3.5	DESIGN OF ISOLATORS	43
3.6	OPERATING MECHANISM	44
3.7	BASE AND MOUNTING STEEL STRUCTURE	45
3.8	GALVANISING	46
3.9	CONTACTS	46
3.10	TERMINAL ADAPTERS AND EARTHING TERMINALS	47
3.11	INSULATORS	47
3.12	GROUNDING BLADES	47
3.13	INTERLOCKING	48
3.14	AUXILIARY SWITCHES	49
3.15	PAD LOCKS	50
3.16	TEST	50
3.17	DRAWING AND TECHNICAL LITERATURE	51
3.18	GUARANTEED TECHNICAL PARTICULARS	52
3.19	SPARE PARTS	52
3.20	TOOLS	52
3.21	MAINTENANCE SCHEDULE	52
3.22	TESTING	53
3.23	MARKING	53
3.24	COMPLETENESS OF EQUIPMENT	53

**ANNEXURES
AND
SCHEDULES**

ANNEXURE/SCHEDULE	PARTICULARS	PAGE NO.
ANNEXURE-I	SPECIFICATIONS OF MATERIALS	55
ANNEXURE-II	SCHEDULE OF REQUIREMENTS	56
SCHEDULE-A	SCHEDULE OF GUARANTEED TECHNICAL PARTICULARS	60
SCHEDULE-B	SCHEDULE OF PRICES	68
SCHEDULE-C	SCHEDULE OF DEVIATIONS	71
SCHEDULE-D	SCHEDULE OF REQUIREMENT, PRICES AND DELIVERY PERIOD OF SPARES	72
SCHEDULE-E	SCHEDULE OF TESTS TO BE CONDUCTED	73
SCHEDULE-F	SCHEDULE OF TOOLS AND SPECIAL ERECTION TOOLS	74
SCHEDULE-G	SCHEDULE OF CHARGES ON ACCOUNT OF SUPERVISION OF ERECTION, TESTING AND COMMISSIONING	75
SCHEDULE-H	SCHEDULE OF TERMS AND CONDITIONS, FINANCIAL AND COMMERCIAL	77
SCHEDULE-I	SCHEDULE OF DRAWINGS AND TECHNICAL LITERATURE	87
SCHEDULE-J	SCHEDULE OF ORDERS EXECUTED/ROUTINE TYPE AND SPECIAL TESTS/ PERFORMANCE CERTIFICATES	89
SCHEDULE-K	SCHEULE OF DOCUMENTS IN RESPECT OF FINANCIAL RESOURCES/CAPABILITY OF THE TENDERER	91

Part – I

Section – I

GENERAL TERMS & CONDITIONS

OF

TENDER SPECIFICATION NO. SEPD/NIT – 198/2011

FOR

**220KV, 132KV & 33KV, OUTDOOR TYPE ISOLATORS
WITH AND WITHOUT EARTHING BLADES**

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 & 33 KV O/D Type Isolators with & without Earthing Blades** 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/- towards the cost of tender 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

3.

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 _____ Up to _____ hrs.

Both inner and outer covers should be sealed and superscribed as "**TENDER FOR 220 KV, 132 KV & 33KV O/D Type Isolators with & without Earthing Blades**"

AGAINST NIT NO : 198/ 2011 DUE ON _____ ."

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: 198/2011** 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.4,00,000/- 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 valid **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 valid 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 and if the test charges are not quoted by the firm the highest rates quoted by any of the qualifying bidders shall be loaded for purpose of comparison.

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: 198/2011 FOR 220 KV, 132 KV & 33 KV O/D type Isolators with & without Earthing Blades**".

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.

6.

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 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.

1.3 **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 & 33 KV O/D type Isolators with & without Earthing Blades** 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 if purchaser so desires, for which tenderer should quote charges separately.

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. 4.00 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.

8.

- 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 due date of opening of tenders.

9.

Clear cut IEEMA Formula for working out price 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.

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

10.

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.

11.

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.

12.

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, whichever 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 if the material has been duly insured for information of the department.

- 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.**

14.

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, Wharfage

+ 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 or their authorized agents who should send their offers, certificates issued to them by their principals appointing them as their authorized agents.
- 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

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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.

DM J.E Asstt. Ex. Engineer T.O Executive Engineer

Superintending Engineer

PART I

SECTION-II

SECTION – II**SUPPLEMENTARY CONDITIONS OF TENDERS
(TO BE READ ALONG WITH 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
J&K STATE**

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-H, 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.

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 organization, 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	300m to 2200 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	1500mts to 2500mts
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 and wind loads of 130kg/m² on the projected area (Non-simultaneous) without damage and spurious operation of the equipment due to heavy vibrations.

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

PART-II

SECTION –III

TECHNICAL SPECIFICATIONS

Part-II

Section-III

3.0 TECHNICAL SPECIFICATIONS FOR 220KV ,132 KV & 33 KV AIR BREAK ISOLATORS.**3.01 SCOPE:-**

This specification covers the design, manufacture, assembly, testing at manufacturer's works, supply and delivery of 220 KV, 132KV & 33KV Outdoor type isolators with and without earthing blades complete with all accessories, required for satisfactory operation at various 220/132/ 33 KV Grid Stations in Jammu & Kashmir State, as detailed in the Schedule of Requirements appended to these specifications. This enquiry is subject to section I & II comprising General and Supplementary conditions of contract.

3.2 TECHNICAL REQUIREMENT:

220KV, 132KV & 33KV isolators shall be Gang operated type suitable for outdoor operations under the climatic conditions at site as specified in the clause 2.25 of general conditions of NIT.

- 3.2.1 The tender shall accompany with complete technical particulars, drawings and typical type test reports of isolators. The tenderer shall also supply the list of purchase within the country and outside, where such isolators are already working alongwith their performance reports.

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Annexure-I**The Isolators shall have the following ratings:-**

S.No.	Particulars	220KV	132KV	33KV
1.	Type	O/D	O/D	O/D
2.	No. of Poles	3	3	3
3.	Nominal System Voltage (KV)	220	132	33
4.	Highest system Voltage(KV)	245	145	36
5.	Frequency(Hz)	50	50	50
6.	Sytem of Earthing	Solidly Earthed	Solidly Earthed	Solidly Earthed
7.	Rated Current(Amp)	2500	1600	2500/ 1250 / 800
8.	Rated Capacity of Corresponding ckt. Breaker.	10000	10000	10000
9.	Rated Short Ckt. Current(KA)	40	40	31.5
10.	Rated duration of Short ckt. cur	3 Sec.	3 Sec.	3 Sec.
11.	Type of supporting Insulators	Solid core two stack unit	Solid core single unit	Solid core single unit
12.	Operating mechanism suitable for	Local manual/ Elect Operation(remote motor Operated)	Local manual/Elect operation (remote motor operated)	Local manual/motored operation
13.	Rated dynamic short withstand Current of Isolator & earth switch	100 KAp	100 KAp	80 KAp



3.3 STANDARDS:

Isolators without earthing blades & isolators with earthing blades shall conform in all respect to IS: 9921(part I-V) (as amended upto date) except where specified otherwise. Equipment meeting with any other authoritative-standards which ensured an equal or better quality than standards, the salient points of difference between the standard adopted & IS: 9921 (as amended upto date) with comments shall be clearly brought out in the tender.

3.4 INSULATION

- 3.4.1 The insulation to ground, the insulation between open contacts and the insulation between phases of the completely assembled isolator shall be capable of with standing satisfactory dielectric test voltage corresponding to basic insulation level.
- 3.4.2 The insulation levels for rated voltages up to and included 72.5 KV as per IS: 9921 (part II)- 1982.

TABLE - I

Nominal system voltage (line to line)	Highest system voltage (line to line)	Lightening impulse with stand voltage KV (Peak)		Rated one minute power frequency with stand voltage KV (rms)	
		To earth and between poles	Across the Isolating distance	To earth and between poles	Across the Isolating distance
33 KV (rms)	36 KV (rms)	170	195	70	80

3.4.3 The insulation level for rated voltages equal to and above 132 KV but below 420 KV.

TABLE – II

Nominal system voltage (line to line)	Highest system voltage (line to line)	Lightening impulse withstand voltage KV (peak)				Rated one minute power frequency withstand voltage KV(rms)			
		To earth and between poles		Across the Isolating distance		To earth and between poles		Across the Isolating distance	
		Full insul	Reduced insul	Full insul	Reduced insul	Full insul	Reduced insul	Full insul	Reduced insul
132	145	650	550	750	630	275	230	315	265
220	245	1050	950	1200	1050	460	395	530	460

3.5 DESIGN OF ISOLATORS AND ISOLATORS CUM EARTHING SWITCHES:

- 3.5.1 The isolator shall be of horizontal double break Gang operated type with blades rotating in a horizontal plane(turn and twist). The earthing switches shall be vertical break type. The design shall be such that if required, the isolator and isolator cum earthing switch may be adopted to upright mounting in the field and liable to be converted for right or left hand centre, without excessive labour and with minimum replacement of parts. The live parts shall be so designed that as far as possible, sharp point edges and other corona producing surfaces are eliminated. Live metal parts except for the insulator caps and bases shall be of non rusting and anti corrosive metal. Current carrying parts shall be non ferrous. Bolts, screws and pins shall be provided with thicker washers. Keys or equivalent locking facilities shall be of the best material. Mechanical strength of all the parts shall be able to withstand the operational stresses.
- 3.5.2 Necessary arrangements shall be provided for proper alignment of the contacts. Factory adjustments shall be so made of each pole that no changes in the field are required on the isolator and isolator cum earthing switch supplied. Gang operating links shall be so designed that all phases shall make or break simultaneously.
- 3.5.3 The design of isolators and isolator cum earthing switches shall be provided for positive control of plates in all positions with minimum mechanical stress on the insulator. The isolator and isolator cum earthing switch shall be so assembled that no part of the blade can move relative to the other. Fixed guides shall

be so provided that proper seating of contacts shall be obtained when a blade is out alignment even by 25 mm in either direction. All moveable parts which may be in current path shall be shunted by flexible copper conductor of ample cross-section strength.

- 3.5.4 The isolators supplied shall be complete in all respects and shall include all fittings and accessories which are essential for the completeness of the equipment whether such details are mentioned in the specifications or not.

3.6 OPERATING MECHANISM

- 3.6.1 All isolators and isolators cum earthing switches shall be suitable for local manual/ and electrical operation. Length of handle for manual operation shall not exceed one metre and force required to operate mechanism shall be less than 20 Kgs. The height of handles above the foundation shall be of the order of one metre.
- 3.6.2 The operating mechanism of 220 KV and 132 KV & 33 KV isolators and isolators cum earthing blades shall be suitable for operations from 400 Volts, 3-phase 50 Hz. supply.
- 3.6.3 The operating mechanism shall have smooth movement and shall be so designed that all the three blades are in the positive control throughout entire cycle of operation. The operating mechanism shall include a device or a circuit to restore in “ OPEN ” or “ CLOSE “ command until it is fully executed. After execution of

a command, concerned coils/circuits shall get de-energized positively to prevent burn-outs.

- 3.6.4 The rotating insulator-stacks shall be provided with double roller or double ball bearings. The roller or ball bearings shall be adjustable and shall be easily accessible for dismantling in the field. Bearing house shall be weather and dust proof.
- 3.6.5 The vertical operating shaft of requisite length shall be supported by roller-thrust-bearings shall be provided on the vertical shaft at the interval of not more than 3.3 meters.
- 3.6.6 Position indicators shall be provided at or near the operating mechanism for indication of the open and closed position of isolators.
- 3.6.7 Provision shall be made for pad locking the mechanism of isolators and earthing blades in both the closed and open position.

3.7 BASE AND MOUNTING STEEL STRUCTURE:

- 3.7.1 The isolators and isolator cum earthing switches shall be complete with rigid bases and shall be supplied with suitable clamps and bolts for mounting on RCC pedestal supports, cross beam or steel structures.
- 3.7.2 The mounting/support steel structures for the isolator is not included in the scope of supply.

3.8 GALVANISING:

All ferrous parts including mechanism housing shall be hot dip galvanized as per IS: 2629 as (amended upto date).

3.9 CONTACTS:

- 3.9.1 The isolators and isolators cum earthing switches shall be provided with high pressure contacts preferably of the type which apply pressure to the contacts faces after the blades are fully closed and release the pressure before they start to open. High pressure type contact surfaces while opening and closing. The pressure shall be so designed that wiping action shall not cause arcing or abrasion on the contact surfaces. The wiping action shall be sufficient to remove any film of "OXIDE" which may be formed during the operation of the blades.
- 3.9.2 The contacts and other current carrying parts shall be so designed that their temperature rise under different conditions of operation shall not exceed the value stipulated in IS:9921 (part I-V) (as amended upto date). The temporary rise of temperature due to the passage of rated short circuit current for a period of 3 seconds shall not cause any annealing or welding of contacts.
- 3.9.3 Arcing contacts, where provided shall close first and open last so that no damage due to arcing what so ever shall be caused to the main contacts. The tenderer shall give full details of such contacts alongwith necessary sketches/drawings.

3.10 TERMINAL ADOPTERS AND EARTHING TERMINALS:

- 3.10.1 The isolators and isolators cum earthing switches shall be provided with clamp type terminals of size suitable for taking line and bus bar connections. In case of aluminum tubular bus, the terminal shall be plated with hot flowed electro-tin. Terminal pad adopters shall be furnished, if required, so as to obtain proper vertical alignment between the isolators and bus bars.
- 3.10.2 Each isolators and isolators cum earthing switch and their control mechanism shall be provided with appropriate number of grounding terminal and clamps for receiving ground connections.

3.11 INSULATORS:

- 3.11.1 The post insulator used for the isolators and isolators cum earthing-switches shall be made of best quality porcelain and shall comply with requirement of IS: 2544 (as amended upto date). The insulator shall be fabricated by the wet process. The porcelain and galvanized metal parts shall be assembled together with such material and in such a manner that any thermal expansion of the metal and the porcelain parts throughout the range of operating temperature shall not loosen the parts or create undue stress adversely affecting the mechanical and electric strength.

3.12 GROUNDING – BLADES:

- 3.12.1 The capacity of earthing blades shall be corresponding to rated voltage of each class of isolators.

- 3.12.2 The isolators controlling the transmission lines shall be equipped with grounding blades. The grounding blades shall be motor/ manually Gang- operated. The grounding blades shall be counter balanced to ensure easy operations.
- 3.12.3 The grounding blades shall be of the same current carrying capacity as the main blades. Each grounding blade shall be provided with flexible copper connections of not less than 0.6 sq. meters area and of adequate length for connections between the operating shaft and the frame.
- 3.12.4 The entire grounding mechanism shall be galvanized and the design shall match in quality with that of the main isolating blades except that high pressure contacts are not required.

31.3 INTERLOCKING:

- 3.13.1 All isolators and isolators cum earthing blades shall be suitable for electrical interlocking. The grounding blades shall be mechanically interlocked with main line isolators. Mechanical interlocks shall be so designed that force may not be transmitted to point remote from the point at which hand force is applied. Failure of power supply or connection to any electrical interlock shall not produce or permit faulty operation.
- 3.13.2 Interlocks are required to be provided:
- i) To prevent opening of line isolators on load.
 - ii) To prevent closing of earthing blades when either the line isolators or by pass isolators is closed.

- iii) To prevent closing of the line isolators or bypass isolators when isolators cum earthing switches is closed.
- iv) To prevent the circuit breakers from getting “LIVE” when the bypass isolator is closed.
- v) To prevent closing of all other isolators, when the concerned bypass isolator is closed.

3.13.3 Provision shall also be made for interlocking of isolators with circuit breakers so that these are closed before the circuit breaker is closed and opened after the circuit breaker is opened. This shall not however, cause hindrance in transfer of feeder from one bus to the other without interruption in power supply.

3.13.4 The details of interlocking system shall be furnished by the tenderer and shall be subject to purchaser's approval.

3.14 AUXILIARY SWITCHES:

3.14.1 Auxiliary switches shall be provided for automatic indication of the isolator and isolator cum earthing switch position, interlocking and other supervisory purposes. They shall be mechanically actuated by the operating mechanism of its associated isolator and isolator and isolator cum earthing blades.

Adequate number of normally open and normally closed contacts shall be provided. Design which permits to change a normally closed contact to a normally open-contact or vice-versa with minimum modification would be preferred.

- 3.14.2 In addition to the number of auxiliary switch contacts required for satisfactory operation of the proposed control scheme, each auxiliary switch shall be equipped with adequate number of spare auxiliary contacts. The number of such contacts shall be clearly stated in the tender.
- 3.14.3 The tenderer shall give details of arrangements provided for protecting the auxiliary switches against arcing from the main circuit.

3.15 PAD LOCKS:

- 3.15.1 Pad locks or other approved locking-arrangement shall be provided for locking the operating handle of each isolators and earthing switch in “ON” or “OFF” positions.
- 3.15.2 The locking arrangement shall be of approved designs and all locks provided with two ordinary keys each. In addition a master key shall also be provided.

3.16 TESTS:

- 3.16.1 The isolator and isolator cum earthing switches shall be subjected to the various type and routine tests as per IS:9921(part I-V) (as amended upto date).
- 3.16.2 Six certified copies of test reports of the type tests on the isolators and isolator cum earthing switches as per IS: 9921 (part I-V) (as amended upto date) shall be submitted by the tenderer.

- 3.16.3 Routine tests shall be conducted on each set of isolator & isolator cum earthing switches in presence of purchaser's representative, if so desired by the purchaser.
- 3.16.4 All tests on galvanized components shall be conducted according to IS: 2633 (as amended upto date).
- 3.16.5 All tests reports shall be submitted and got approved from the purchaser before dispatching the equipment.

3.17 DRAWING AND TECHNICAL LITERATURE :

- 3.17.1 The following drawings and technical literature shall be furnished with the tender:-
- i) Outline dimensional drawing showing clearance, net & shipping weights with complete markings on the name plates giving details as per IS:9921(part I-V) (as amended upto date).
 - ii) Detailed drawings of the operating mechanism, mechanism box, auxiliary devices and interlocking devices.
 - iii) Detailed drawings of the insulator stacks, accessories, contacts, main blades and grounding blades.
 - iv) Assembly drawings.
 - v) Details of mountings for isolators and isolators cum earthing switch.
 - vi) Details of interlocking scheme giving complete particulars of operating voltage, mechanism etc.

3.17.2 Six copies of manuals covering instructions for operation and maintenance of isolators and isolator cum earthing switches shall be supplied by the contractor.

3.18 GUARANTEED TECHNICAL PARTICULARS :

3.18.1 The tenderer shall furnish complete guaranteed technical particulars as called for in Annexure- III, contained in part II of this specification.

3.19 SPARE PARTS:

3.19.1 Tenderer shall furnish a list of spare parts for isolators and isolator cum earthing switches operating mechanism etc. for Ten years of normal operation. Item wise unit prices for spare parts shall be given in Schedule- B, contained in this specification.

3.20 TOOLS:

3.20.1 The tenderer shall separately list out in the tender, the sets of tools required for initial erection and subsequent maintenance of isolator and isolator cum earthing switches. Item wise unit price for tools shall be given in Schedule-B, contained in part-II of this specification.

3.21 MAINTENANCE SCHEDULE:

3.21.1 The manufacture shall furnish maintenance schedule which should specify the number of operations after which different parts of the isolators should be subjected to maintenance.

The manual should also indicate maintenance measures to be observed under normal service conditions.

- 3.21.2 The manufacturer should further give information regarding the complete overhauling of isolators and earthing switches due to operation in normal service and carrying short circuit currents. Information regarding replacement of parts which are subjected to deterioration (such as contacts) should also be furnished.

3.22 TESTING:

- 3.22.1 The equipment shall be tested at the works of the manufacturer in accordance with IS - 9921 (part I – V) (as amended upto date) free of cost. The testing may be witnessed by the representative of the department. After conducting the tests, the test certificate shall be furnished by the tenderer.

3.23 MARKING:

- 3.23.1 Isolators, earthing switches and their operating devices shall be provided with a name plate, which contains the information accordance with IS – 9921 (part I- V) (as amended upto date).

3.24 COMPLETENESS OF EQUIPMENT:

- 3.24.1 Any fittings, accessories or apparatus which may not have been specifically mentioned in this specification, but which

are usual or necessary for the equipment, shall be deemed to be included in the contract and shall be supplied by the tenderer without extra charges.

All plant and equipment must be complete in all details.

DM JE AEE TO EXECUTIVE ENGINEER

SUPERINTENDING ENGINEER

55.
Annexure-I

The Isolators shall have the following ratings:-

S.No.	Particulars	220KV	132KV	33KV
1.	Type	O/D	O/D	O/D
2.	No. of Poles	3	3	3
3.	Nominal System Voltage (KV)	220	132	33
4.	Highest system Voltage(KV)	245	145	36
5.	Frequency(Hz)	50	50	50
6.	Sytem of Earthing	Solidly Earthed	Solidly Earthed	Solidly Earthed
7.	Rated Current(Amp)	2500	1600	2500/ 1250 / 800
8.	Rated Capacity of Corresponding ckt. Breaker.	10000	10000	10000
9.	Rated Short Ckt. Current(KA)	40	40	31.5
10.	Rated duration of Short ckt. cur	3 Sec.	3 Sec.	3 Sec.
11.	Type of supporting Insulators	Solid core two stack unit	Solid core single unit	Solid core single unit
12.	Operating mechanism suitable for	Local manual/ Elect Operation(remote motor Operated)	Local manual/Elect operation (remote motor operated)	Local manual/motored operation
13.	Rated dynamic short withstand Current of Isolator & earth switch	100 KAp	100 KAp	80 KAp

DM J.E

A.E.E

T.O

Executive Engineer

Superintending Engineer

ANNEXURE-II**SCHEDULE OF EQUIPMENT AND DESIRED DELIVERY**

(Read along with Section-III)

Annexure-II

S.No	Particulars	Jammu Region	Kashmir Region	Total (Nos.)
1.	220KV, 2500Amps.[Triple pole, Double Break, Central post rotating with solid core insulators of 4KN Bending strength, gang operated outdoor type and air break Isolators conforming to IS – 9921(part I – V of 1982-1985) (Amended upto date) suitable for remote electrical operation, complete with all accessories and connectors for Twin Zebra conductor but without supporting structure]. (Ref. Annexure-II-A)			
	a) Without Earthing Blade	7	-	7
	b) With Earthing Blade	3	-	3
2.	132KV, 1600Amps.[Triple pole, Double Break, Central post rotating with solid core insulators of 4KN Bending strength, gang operated outdoor type and air break Isolators conforming to IS – 9921(part I – V of 1982-1985) (Amended upto date) suitable for remote electrical operation, complete with all accessories and connectors for Twin Zebra conductor but without supporting structure].(Ref. Annexure-II-B)			
	a) Without Earthing Blade	-	61	61
	b) With Earthing Blade	-	16	16

3.	33KV, 2500 Amps. Triple pole, Double Break, Central post rotating with solid core insulators of 4KN Bending strength, gang operated outdoor type and air break Isolators conforming to IS – 9921(part I – V of 1982-1985) (Amended upto date) suitable for remote electrical operation, complete with all accessories and connectors for Twin Zebra conductor but without supporting structure].(Ref. Annexure-II-B)			
	a) Without Earthing Blade		116	116
	b) With Earthing Blade		24	24
	A. 1250 Amps.			
	a) Without Earthing Blade	28	-	28
	b) With Earthing Blade	10	-	10
B. 800 Amps.				
With Earthing Blade	4	-	4	

DM

J.E

A.E.E

T.O

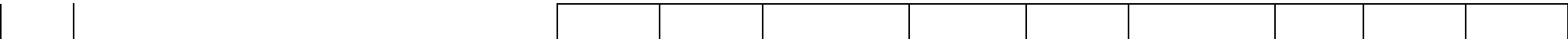
Executive Engineer

Superintending Engineer
Elect. Planning and Design Circle,
Jammu.

SCHEDULE OF EQUIPMENT AND DESIRED DELIVERY

(Read along with Section III)

Quantity required in Grid Stations of Kashmir region										
S.no	Particulars (Horizontal type)	Chadura	Khrew	Dangiwacha	Pampore	Wanpoh	Wanganpora	Tether	Kangan	Total (Nos.)
1.	132KV, 1600Amps.[Triple pole, Double Break, Central post rotating with solid core insulators of 4KN Bending strength, gang operated outdoor type and air break Isolators conforming to IS – 9921(part I – V of 1982-1985) (Amended upto date) suitable for remote electrical operation, complete with all accessories and connectors for Twin Zebra conductor but without supporting structure].									
	a) Without Earthing Blade	12	16	12	9	4	4	-	4	61
	b) With Earthing Blade	2	2	2	6	4	-	-		16
	33KV, 2500 Amps. Triple pole, Double Break, Central post rotating with solid core insulators of 4KN Bending strength, gang operated outdoor type and air break Isolators conforming to IS – 9921(part I – V of 1982-1985) (Amended upto date) suitable for remote electrical operation, complete with all accessories and connectors for Twin Zebra conductor but without supporting structure].									
	a) Without Earthing Blade	22	22	19	15	27	4	3	4	116
	b) With Earthing Blade	4	4	3	5	7		1		24



SCHEDULE OF EQUIPMENT AND DESIRED DELIVERY

(Read along with Section III)

Quantity required in grid stations of Jammu region			
S.No.	Particulars (Horizontal Type)	Kathua	Total (Nos)
1.	66KV, 1250Amps.[Triple pole, Double Break, Central post rotating with solid core insulators of 4KN Bending strength, gang operated outdoor type and air break Isolators conforming to IS – 9921(part I – V of 1982-1985) (Amended upto date) suitable for remote electrical operation, complete with all accessories and connectors for Twin Zebra conductor but without supporting structure].		
	a) Without Earthing Blade	9	9
	b) With Earthing Blade	3	3

SCHEDULE OF EQUIPMENT AND DESIRED DELIVERY

(Read along with Section III)

Annexure-II-A

Quantity required in Grid Station of Jammu region										
S.No.	Particulars (Horizontal type)	Janipur	Canal	Jhajjer kotli	Gladni	Bari Brahmna	Miran saheb	H. Ngr.	Barn	Total (Nos.)
1	220KV, 2500Amps.[Triple pole, Double Break, Central post rotating with solid core insulators of 4KN Bending strength, gang operated outdoor type and air break Isolators conforming to IS – 9921(part I – V of 1982-1985) (Amended upto date) suitable for remote electrical operation, complete with all accessories and connectors for Twin Zebra conductor but without supporting structure].									
	a) Without Earthing Blade				1			3	3	7
	b) With Earthing Blade				1			1	1	3
2.	33KV, Triple pole, Double Break, Central post rotating with solid core insulators of 4KN Bending strength, gang operated outdoor type and air break Isolators conforming to IS – 9921(part I – V of 1982-1985) (Amended upto date) suitable for remote electrical operation, complete with all accessories and connectors for Twin Zebra conductor but without supporting structure].									
	A. 1250 Amps.									
	a) Without Earthing Blade	8	-	3	3	8	3	3	-	28
	b) With Earthing Blade	2	3	2	1	-	1	1	-	10
	B. 800 Amps.									
	With Earthing Blade	-	-	2	1	-	1	-	-	4

SCHEDULE-A

**SCHEDULE FOR GUARANTEED TECHNICAL PARTICULARS FOR 220, 132,
33, KV ISOLATORS WITH EARTHING BLADES AND WITHOUT EARTHING
BLADES BUT WITHOUT SUPPORTING STRUCTURES**

S.No.	Particular
1.	Name of manufacturer
2.	Manufacturer's type and designation
3.	Governing standards
4.	Class (indoor or outdoor)
5.	Rated voltage (KV)
6.	Frequency (Hz)
7.	Rate current of Isolators (Amps.)
8.	No. of poles
9.	Maximum capacity for interrupting Magnetizing –current of transformer or Charging current of line when equipped With arcing contact (Amps.)
10.	a) Maximum capacity for interrupting Magnetizing current of transformers or Charging current of line when not equipped With arcing contact (Amps)
	b) No of operations possible without deterioration of contacts.

- c) Impulse withstand voltage to earth
(KV)
- 11. Rate short time current (KA rms)
 - i) for 1 second
 - ii) for 3 seconds
- 12. Rated peak short circuit current
(KA peak)
- 13. Rated current which can be made by earthing blades (Amps.)
- 14. Type of mounting
- 15. Phase centres (mm)
- 16. Clearance between the fixed contacts of the same phase (mm)
- 17. Minimum phase to earth clearance (mm)
- 18. No. of solid core insulation per phase
- 19. Creeping distance (mm)
 - i) Total
 - ii) Protected

20. Main contact (fixed or moving):
 - i) Type
 - ii) Material
 - iii) Whether materials silver plated
 - iv) Thickness of silver coating (mm)
 - v) Contact pressure (Kg)
 - vi) Current carrying capacity (Amps.)

21. Arcing contacts:
 - i) Type
 - ii) Material
 - iii) Whether contacts silver plated
 - iv) Thickness of silver coating (mm)
 - v) Contact pressure (Kg)
 - vi) Current carrying capacity

22. Type of bearings

23. Locations of bearings

24. Type of lubricant for bearings

25. Size/weight of Isolators base per pole (mm)/(Kg)

26. Weight of one complete pole (Kg)

27. Operational mechanism

- a) Manual operation

Whether separate operating mechanism

Provided for operation of main blades

& earthing blades

Yes/No

- b) Height of operating handle above
-
- foundation (m)

- c) Force required for 3-phase operation(Kg)

- d) Length of operating handle (m)

- e) Torque on operating rod to operate
-
- three pole gang operated earthing
-
- switch (Kg.m)

28. ELECTRICAL OPERATIONS:

Motor (AC) :

HP/Watts.

- a) Rate voltage of motor (Volts)

- b) Power required:

- i) For closing operation (Watts)

- ii) For opening operation (Watts)

29. Running time of motor:

- a) For closing operation (seconds)

- b) For opening operation (seconds)

- 30.** Insulation level for:
- a) Isolators
 - b) Isolators cum earthing switches:
 - i) 1.2/50 micro second dry impulse withstand voltage (positive and negative polarity) (KV peak)
 - ii) Across the isolating distance.
 - iii) To earth and between poles.
- 31.** One minute dry PF withstand voltage (KVrms)
- a) Across the isolating distance
 - b) To earth and between poles
- 32.** One minute dry PF withstand voltage (KVrms)
- 33.** Minimum visible corona discharge voltage (KVrms)
- 34.** Insulation strength of auxiliary gear (KVrms)
- 35.** Maximum temperature rise of main
Circuit at rated current corresponding
to 50° ambient temperature air in shade: ° C

- 36.** Maximum temperature rise of main
Current at rate short time current: °C
- i) For 1 second
 - ii) For 3 seconds
- 37.** Rated mechanical terminal load
(excl. wind loads) (Kgs)

DETAILS OF SUPPORT

INSULATOR:

- 38.** Maker's type and size
- 39.** Governing standard
- 40.** No. of units per stack
- 41.** Height of stack
- 42.** One minute dry and wet PF withstand
voltage(KVrms)
- 43.** One minute dry and wet PF flashover
Voltage (KVrms)
- 44.** Standard dry flashover voltage
(KV peak)
- 45.** Standard dry impulse withstand voltage
(KVpeak)

46. Minimum visible corona discharge voltage (KVrms)
47. Puncture voltage (KVrms)
48. Tensile strength (Kgs)
49. Compressive strength (Kg-m)
50. Torsional strength (Kg-m)
51. Cantilever strength (Kg-m)
52. Galvanization
 - i) Governing standard
 - ii) Method of galvanization
 - iii) Weight of zinc coating gr/cm.sq.
53. Loading details for design of foundation:
 - i) For isolator
 - ii) For isolator cum earthing blade

54. Weight:

Weight of 3-phase isolators cum earthing switches with operating mechanism insulating supports, frameworks etc. without supporting structures.

55. Weight of the heaviest package (Kgs)

56. Space requirement i.e (length, width and height) for:

- a) Isolator
- b) Isolator cum earthing switch

Certified that the above offered values are within the permissible limits of relevant IEC/IS Specifications.

SEAL

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) Excise duty (State percentage ED rate alongwith cost from Superintendent of concerned range)				
i)					
ii)	S.T. (CST or state S.T) State %age S.T rate also. Without form C/D				
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 COSTS

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: 198/2011****(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>
--------------	--------------------	--	------------------	----------------

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:
Place:

Signature.
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 3.27)

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 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 ($Co1..8 = Co1.3 \times Co1.5 + Co1.6 + Co1.3 \times Co1.7$)

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 & COMMISSIONING OF EQUIPMENT AT SITE
	2	3	4	5	6
	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.				
1	<p>PRICES: (the tenderer MUST refer to clause 1.8 & 2.9 before quoting)</p> <p>i. Quoted prices shall be F.O.R destination i.e nearest Rail Head Jammu / consignee's stores at Jammu/Srinagar (Ex-work prices must also be specified for computing ED/CST components etc.)</p> <p>ii. The prices quoted shall be variable</p>				
ii)	MODVAT Benefits				
2.	<p>Rebate on Ex-works Prices (EWP)</p> <p>State under each column Rebate offered on EWP if any</p>				

3.	Duties/taxes/levies (The tenderer MUST refer to clause 1.16 before quoting) State under each column, if				
i.	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)				
a)	State under each column, if ST extra/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 Jammu Rail 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
(Refer clause 1.6)
- Give particulars of Bank
Guarantee/CDR for Rs.4.0 lacs.
Pledged to Chief
Engineer,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 One Year from the due date of
opening of tenders.
8. Terms of payment:
(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.
- Specify payment terms

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

9.

i) Delivery period/ completion period Specify delivery period
(Refer to clause 1.10 before quoting)

ii. The tenderer shall quote minimum possible delivery period.

iii. 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.

10. Damages or penalty for delay/negligence in Execution of order (clause-1.11)

11. i) Warranty (clause 1.13) / Guarantee (3.32)

i) 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

22. 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 Excise 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 etc.
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 etc.

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

***1. LIST OF ORDERS EXECUTED**

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

S. No. No.	Description of Equipment	Name of Elec. Board/Purchaser	Purchase Order & Date
1.	2.	3.	4.

Status of Supply	Commissioning date	Performance Remarks
5.	6.	7.

***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, Excise 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.

