POWER TRANSMISSION CORPORATION OF UTTARAKHAND LTD.

TENDER NOTICE

Sealed and separate tenders are invited by the undersigned from reputed and experienced Firms/Contractors of Electric 'A' class valid license holder from Uttarakhand Government or equivalent authority for the following works. Brief summary of work and details of tender are given below:

Specn.No.	Name of Work	Cost of Tender Documents (In Rs.)	Earnest Money (In Rs.)	Last date of Receipt of Tender Document	Date of Opening of tender Part-I	Date of Opening of tender Part-II
T-30/SE /12-13	**Procurement of 216KV and 39KV LA for 315MVA T/F at 400KV S/s Rishikesh.** **Pre-qualification of the Tender:** **Only those bidders will be treated as qualified who have executed the similar nature of work in any UPCL/PTCUL for the last 2 years & they are A-Class Electrical Contractor.**	300.00 + 13.5% VAT	5000.00	05.03.13	06.03.13	06.03.13

For eligibility criteria and full & further details kindly visit our web site. The tender shall only be down loaded from our web site i.e. www.ptcul.org / tender up to one day before date of opening and their cost have to e paid at the time of submission of the Tender. The undersigned reserves the right to reject one or all tenders without assigning any reason thereof.

Superintending Engineer
400 K.V. SUB STATION O&M DIVISION VIRBHADRA, RISHIKESH

"Save Electricity in the Interest of the Nation"

TECHNICAL SPECIFICATION PROCUREMENT OF 216KV AND 39KV LA FOR 315MVA T/F AT 400KV S/S RISHIKESH AGAINST TENDER SPECIFICATION NO. T-30/SE/2012-13:

TECHNICAL SPECIFICATION
SURGE ARRESTERS

The manufacturer whose Surge Arresters are offered should have designed, manufactured and tested as per IEC/IS or equivalent standard and supplied the surge Arrester for the specified energy capability with rated system voltage and which are in satisfactory operation for at least 2 (two) years as on the date of bid opening.

1. GENERAL

i) The Surge Arresters shall conform to IEC: 99-4 except to the extent modified in the specification and shall also be in accordance with requirements under chapter -GTR.

ii) Arresters shall be of hermetically sealed units, self supporting construction, suitable for mounting on tubular support structures to be supplied by the Contractor.

iii) The Surge Arrestors shall be designed for use in the geographic and meteorological conditions as given in the Chapter-GTR

2. DUTY REQUIREMENTS:

a) The Surge Arresters shall be of heavy duty station class and gapless type without any series or shunt gaps.

b) The Surge Arresters shall be capable of discharging over-voltages occurring during switching of unloaded transformers, reactors and long lines.

c) 420 KV class Surge Arresters shall be capable of discharging of severe re-energisation switching surges on a 400 KV, 450 km long line with Surge impedance of 300 ohms and capacitance of11986 nF/km and over voltage factor of 2.3 p.u.

d) 420 KV class arrester shall be capable of discharging energy equivalent to class 3 of IEC for a 420 KV system on two successive operation followed immediately by 50 Hz energisation with a sequential voltage profile as specified below:

705 kVp for 3 peaks
580 kVp for 0.1 Sec
565 kVp for 1 second
550 kVp for 10 seconds

e) 245/145 KV class arrester shall be capable for discharging energy equivalent to class 3 of IEC for 245/145 KV System on two successive operations.

f) The Surge arrester shall be suitable for withstanding forces as defined in chapter GTR.

g) The reference current of the arresters shall be high enough to eliminate the influence of grading and stray capacitance on the measured reference voltage.

h) The surge arresters are being provided to protect the following equipment whose insulation levels are indicated in the table given below:

Equipment to be protected	**Lightning Impulse (kVp) for 420 KV system**	**Switching surge (kVp) for 420 KV system**	**Switching surge (kVp) for 245 Kv system**	**Lightning Impulse (kVp) for 145 KV system**
Power Transformer	±1300	±1050	±950	±550
Instrument Transformer	±1425	±1050	±1050	±650
Reactor	±1300	±1050	–	–
CB/ Isolator Phase to ground	±1425	±1050	±1050	±650
Across open contacts	±1425 (-/+240)	±900 (-/+345)	±1200	±750

i) The duty cycle of CB installed in 420/245/145 KV system of the purchaser shall be O-0.3 sec-CO-3 min-CO. The Surge Arrester shall be suitable for such circuit breaker duties in the system.

3. CONSTRUCTIONAL FEATURES.

The features and constructional details of surge arresters shall be in accordance with requirement stipulated hereunder:

a) The non-linear blocks shall be of sintered metal oxide material. These shall be provided in such a way as to obtain robust construction, with excellent mechanical and electrical properties even after repeated operations.

b) The Surge arresters shall be fitted with pressure relief devices suitable for preventing shattering of porcelain housing and providing path for flow of rated fault currents in the event of arresters failure. Details shall be furnished in the bids alongwith quality checks.

c) The arresters shall not fail due to arrester porcelain contamination.

d) Seals shall be provided in such a way that these are always effectively maintained even when discharging rated lightning current.

e) Outer insulator shall be porcelain conforming to requirements stipulated in Chapter-GTR. Terminal connectors shall conform to requirements stipulated under Chapter-GTR

Porcelain housing shall be so coordinated that external flashover will not occur due to application of any impulse or switching surge voltage upto the maximum design value for arrester.

f) The end fittings shall be made of corrosion proof material and preferably be nonmagnetic.

g) The name plate shall conform to the requirements of IEC incorporating the year of manufacture. .

h) The heat treatment cycle details alongwith necessary quality checks used for individual blocks alongwith insulation layer formed across each block are to be furnished. Metalizing coating thickness for reduced resistance between adjacent discs is to be furnished with additional information schedule of bid proposal sheets alongwith procedure for checking the same. Details of internal stability test for uniform distribution of current on individual disc is to be furnished.

i) The manufacturer will submit Data for rejection rate of ZnO blocks during manufacturing/operation for the past three years.

4. FITTINGS AND ACCESSORIES.

a) 390/216/120 KV Arresters shall be complete with insulating base having provision for bolting to flat surface of structure.

b) Self contained discharge counters, suitably enclosed for outdoor use and requiring no auxiliary or battery supply for operation shall be provided for each single pole unit alongwith necessary connection. Suitable leakage current meters should also be supplied within the same enclosure. The reading of millimetre and counters shall be visible through an inspection glass panel. The terminals shall be robust and of adequate size and shall be so located that incoming and outgoing connections are made with minimum possible bends. The design of the surge monitor shall be such that it is possible to tilt the surge monitor downwards by an angle of up to 45 degrees from Horizontal plane.

c) Micro Processor based instruments for monitoring resistive current or wattles of the arrester shall have to be supplied, if required

d) Surge monitor consisting of discharge counters and millimetres should be suitable to be mounted on support structure of the arrester and should be tested for IP55 degree of protection. The standard supporting structure for surge arrester should be provided with a mounting pad, for fixing the surge monitor. The surge monitor should be suitable for mounting on this standard mounting pad. Also all nuts, bolds, washers etc. required for fixing the surge monitor shall have to be supplied by the Contractor.

e) Grading/corona rings shall be provided on each complete arrester unit as required. Suitable terminal connectors shall be supplied by the contractor.

5. TESTS:

5.1 In accordance with the requirements stipulated under chapter-GTR, the surge arresters should have been type tested as per IEC/IS and shall be subjected to routine and acceptance tests in accordance with IEC document. IN the switching surge operating duty test, the samples shall be pre-heated to 70 deg. C, (instead of 60 deg. C. as given in IEC) prior to application of long duration surges for contamination test procedures outlined in ANSI: 062-11-1987 may be followed until IEC brings out alternate test procedure for the same.

The test reports of the year tests and the following additional type tests shall also be submitted for the purchaser's review.

I) Radio interference voltage test as per Annexure-A of Chapter-GTR
II) Seismic withstand test as per Annexure-B of Chapter-GTR
III) Contamination test.
IV) Temporary over voltage withstand test procedure to be mutually agreed)

Each metal oxide block of surge arresters shall be tested for the guaranteed specific energy capability in addition to the routine/acceptance test as per IEC-99.

5.2 (a) ACCEPTANCE TESTS:

I) Measurement of power frequency reference voltage of the arrester units.
II) Lightning Impulse Residual voltage on arrester units (IEC clause 6.3.2)
III) Internal Ionisation or partial Discharge test.

(b) SPECIAL ACCEPTANCE TEST:

I) Thermal stability test on three sections (IEC clause 7.2.2.)
II) Aging & Energy Capability test on blocks (procedure to be mutually agreed).
III) Wattloss test.

(c) ROUTINE TESTS:

I) Measurement of reference voltage.
II) Residual Voltage test of arrester unit.
III) Internal Ionisation test or partial discharge test.
IV) Sealing test.
V) Verticality check on completely assembled surge arresters as a sample test on each lot.

(d) Test on Surge Monitors:

The Surge monitors shall also be connected in series with the test specimens during residual voltage and current impulse withstand tests to verify efficacy of the same. Additional routine/functional tests with one 100A and 10kA current impulse, (8/20 micro sec.) shall also be performed on the Surge monitor.

(e) Test on Insulators:

All routine tests shall be conducted on the hollow column insulators as per IEC- 233. The following additional tests shall be carried out on 420 kV, 245 kV and 145 kV Insulators:

I) Ultrasonic test as a routine test.
II) Pressure test as a routine test.
III) Bending load test in 4 directions at 50% specified bending load as a routine test.
IV) Bending load test in 4 directions at 100% specified bending load as a sample test on each lot.
V) Burst pressure test as a sample test on each lot.

6. SPARE PARTS AND MAINTENANCE EQUIPMENT:

Bidder shall include in his proposal spare parts and maintenance equipment as mentioned in Section-Project.

7. TECHNICAL PARAMETERS:

A. 420 KV CLASS SURGE ARRESTER

(a)	Rated arrester Voltage	390 KV
(b)	i) Nominal discharge current	10 kA of 8/20 microsecond wave.
	ii) Discharge current at which insulation coordination will be done	20 kA of 8/20 microsecond wave.
©	Minimum discharge capability	8kJ/kV or corresponding to clause-2.0(d) Referred to rated arrester voltage and at minimum discharge characteristics whichever is higher.
(d)	Continuous operating Voltage at 50 deg.C	303 kV (rms)
(e)	i) Min. switching surge residual Voltage (1kA)	730 kVp
	ii) Max. Switching surge residual Voltage (1kA)	780 kVp
(f)	Max. Residual Voltage at	
	i) 10 kA nominal discharge current	900 kVp
	ii) 20 kA nominal discharge current	975 kvp
	iii) Steep fronted wave residual voltage at 10 kA	
(g)	Long duration discharge class	as per clause 2.0 (d)
(h)	High current short duration test Value (4/10 micro second wave)	100 kAp
(i)	Current for pressure relief test	40 kA rms
(j)	Low current long duration test Value (2000 micro sec)	As per IEC.
(k)	Prospective symmetrical fault current	40 kA (rms) for 0.2 Sec.
(l)	Pressure relief class	A

B. 245 KV CLASS SURGE ARRESTER

(a)	Rated arrester Voltage	216 KV
(b)	Nominal discharge current.	10 kA of 8/20 microsecond wave.
©	Minimum discharge capability	5kJ/kV (referred to rated arrester voltage Corresponding to minimum discharge Characteristics.
(d)	Continuous operating voltage At 50 deg. C	168 kV rms
(e)	Max. switching surge residual voltage (1kA)	500 kVp
(f)	max. residual voltage at	
	i) 5 kA	560 kVp
	ii) 10 kA nominal discharge current	600 kVp
(g)	Max. Steep current impulse residual Voltage at 10 kA	650 kVp
(h)	Long duration discharge class	3
(i)	High current short duration test Value (4/10 micro second wave)	100 kAp
(j)	Current for pressure relief test	40 kA rms
(k)	Low current long duration test Value (2000 micro sec).	As per IEC.
(l)	Pressure relief class	A

Superintending Engineer
400 K.V. SUB STATION O&M DIVISION VIRBHADRA, RISHIKESH

. **NOT FOR SALE/FOR WEB BASED TENDERING ONLY**

POWER TRANSMNISSION CORPORATION OF UTTARAKHAND LIMITED.

GENERAL CONDITIONS & INSTRUCTION TO TENDERERS, WHICH SHOULD BE READ CAREFULLY PRIOR TO SUBMISSION OF TENDER AGAINST TENDER SPECIFICATION NO. T-30/SE/2012-13:

1. Submission:

Sealed and separate tenders are invited in two parts bid system **Part-I (Techno-commercial bid, & Tender Form), and Part-II (Only Price Bid)** from reputed and experienced firms/contractors of Electric 'A' class valid license holder from Uttarakhand Government or equivalent authority for the following works. The tender documents shall be down loaded from our internet Website of www.ptcul.org.

Tender (Both Envelopes – Part-I & Part-II) should be kept in one Envelope which shall be received through Registered Post (with due acknowledgement) addressed to Superintending Engineer, 400 KV O&M Division, Virbhadra (Rishikesh) in the office **upto 3.00 PM on 05.03.2013**. The department shall not own any responsibility regarding the postal delay in the receipt of the tender. In case the due date of opening of the tenders happens to be a public holiday, the tenders shall be received and opened on the next working day at scheduled time without any further notice. The undersigned reserve the right to reject any or all tenders without assigning any reasons what so ever.

The Part-II of the tenders, belonging to only those tenders who qualify for the work on the basis of the documents supplied by them in Part-I, shall be opened publicly on due date. All other terms and conditions shall be as per tender documents.

2. Earnest Money:

The tenderers are requested to furnish Tender Fee worth Rs.300.00 + 13.5% (VAT), Income Tax/Pan No. Certificate, Past Experience details, and the Earnest Money of Rs.5000.00 in the shape of FDR/CDR/TDR duly pledged in favour of Executive Engineer, 400 KV Sub Station – O&M Div., Virbhadra (Rishikesh). No firm shall be exempted from depositing of earnest money in any case. Part-II of the Tender shall not be opened, if the Tenderer fails to furnish the requisite amount of Earnest Money in the required shape and techno commercial papers, establishing his qualification in the part-I of tender. However opening of Part-II shall not insofacto mean that tenderer is qualified. Techno commercial papers will be examined in detail during evaluation of price bids. Award of supply/works will be considered to that tenderer who is lowest in rates as well as responsible to perform.

Part-I & II shall contain the following:

(A): Part-I :	Part-I of the tender shall contain the following which will be opened on **16.00 Hrs. of 06.03.2013.**
i): Cost of tender document:	Rs. 300.00 + 13.5% (VAT)In the form of Bank Draft in favour of Executive Engineer, 400 KV O&M Division., Virbhadra Rishikesh payable at Rishikesh
ii): Earnest Money:	Rs. 5,000.00 In the form of FDR/CDR/TDR duly pledged in favour of Executive Engineer, 400 KV O&M Div., Virbhadra (Rishikesh) Payable at Rishikesh. No Firm shall be exempted from depositing of earnest money in any case.
iii): Experience Certificate:	Issued by an Officer not below the rank of **Executive Engineer** mentioning agreement No. amount of work done, scheduled time of completion versus actual time of completion, quality of work and performance etc.

iv): Pre-Qualification of Tenderer: Only those bidders will be treated as qualified who have executed the similar nature of **work in any UPCL/PTCUL for the last 2 years or they are A-Class Electrical Contractor.** Bidders are requested to please give their past experience details in enclosed tender form Bidders who do not qualify under this class, their tender shall be rejected without assigning any reason.

iv): EPF Registration: If available;

(B): Part-II: Only those Tenders, which are found qualified on the opening of Part-I, will be opened on the due date i.e. **06.03.13 at 16.00 Hrs**.

3. In case, due date of opening of the tenders happens to be a Holiday, the tenders shall be received and opened on the next working day at the time stipulated above in Para-2.
4. The Tender Performa, attached, should be filled in clearly. The tenders received without this Proforma shall be liable to be rejected.
5. The rate will be valid for 3/6 months from the date of opening of the tenders. The tenderers must furnish the agreement of validity on non/judicial stamp paper worth Rs.10.00 duly affixed Rs.1.00 revenue stamp. Tenders without agreement of validity shall be rejected.
6. The Tenderers are required to fill up their rates in words as well as in figures. If there is any difference in quoted rates in words and figures. The rates mentioned in words shall be dictated and considered.
7. The tenderers are requested to furnish the registration number of UPST & CST and latest Income Tax Clearance Certificate in case of tenders execution of work/supply. In absence of above, the tenders shall be liable to be rejected.
8. The tenderers should invariable, submit the details of supply/work order for similar items/work executed by them in UPPCL/UPCL/PTCUL and other Government Department.
9. Conditional tenders shall not be entertained and will be rejected summarily.
10. The successful tender shall be required to furnish the performance guarantee @ 10% value of the order in the form of Bank Guarantee/CDR/FDR for faithful execution of the work/supply order.
11 Telegraphic offers shall not be entertained.
12. The undersigned reserves the right to divide the quantity of supply/work, between two or among more tenderers.
13. The tenders should be submitted in the Proforma prescribed and bids received without purchasing the tender documents shall not be considered.
14. Over-writing is not permissible. Any cutting in tender should be duly signed and stamped.
15. If the tenderer withdraw their offer within the validity period, the earnest money deposited by them shall be forfeited to PTCUL similarly if the tenderer made any alteration/modification in tender after its opening, the tenders will be rejected and the earnest money deposited shall be forfeited.

16. PERIOD OF CONTRACT:

The work will be required to be completed within One Months duration of the date of Award of Work.

17. VARIATION CLAUSE:

Variation +_ 10% and payment shall be made as per actual measurement as per rate given in Price Schedule.

18. PAYMENT TERMS :90% payment shall be released after one calendar month after received material successfully checked submission of bill which will be raised by the contractor. The balance 10% will be released after six month of colander. In case, the contractor is interested to have 100% payment in this regard, he will have to submit 10% performance Guarantee in shape of BG/ FDR/CDR/TDR in favour of Executive Engineer(O&M), 400KV S/s Division Rishikesh which shall be released after the completion of the said duration.

19. OTHER TERMS:

All other terms & conditions will be applicable against Power Transmission Corporation of Uttarakhand Limited Form 'A/B':

20. PENALTY CLAUSE :

Penalty @ ½ % per week subject to maximum 10% .

21. RESPONSIBILITY OF THE CONTRACTOR ;

The contractor shall be responsible for the safety of his man and material, and also for the Corporation, Material at the time of working at site. Any damage caused to the Corporation's property during the course of work shall be recovered from Contractor's bill.

22. CONTRACTOR EMPLOYEES AT SITE :

The representative and workers of the contractor shall abide by all general rules and regulations of safety enforced at site from time to time and any special conditions affecting the local administrative. All the employees working on the corporation's land shall be deemed to be aware of dangers and risks, incidental to activities of the Corporation and contractor for any event of accident. The Contractor shall be entirely responsible and no compensation act and labour laws as far as they may affect the work.

23. FACILITY PROVIDED BY DEPARTMENT : NA

24. JURISDICTION:

All legal proceeding shall restrict upto jurisdiction of Hon'ble High Court of Nainital.

25. ADMINISTRATIVE CONTROL:

This work shall be supervised by the Assistant Engineer-(M) of this Division under the administrative control of the Executive Engineer / SE(O&M) 400KV S/S (O&M) Div., Rishikesh (Engineer of the Contract).

26. However, the undersigned reserves the right to reject any or all the tenders without assigning any reason.

Superintending Engineer
400 KVS/S O&M DIVISION
VIRBHADRA

TENDER FORM

TENDER SPECIFICATION NO. T- 30/SE / 2012 - 2013

From:-

M/S……

……..

……..

To,

Superintending Engineer
400 KV Sub Station O&M Division,
Power Transmission Corporation of Uttaranchal Ltd.,
P.O. Virbhadra-249202
Rishikesh (Dehradun) (INDIA).

Sir,

With reference to your invitation to the tender for the above, I/We here by offer to the Power Transmission Corporation of Uttarakhand Ltd.. the items in the schedule annexed or such portion there of as you may determine in strict accordance with the annexed terms and conditions of Contract, specifications and schedules to the entire satisfaction of Superintending Engineer, 400 KV Substation (O&M) Division Rishikesh and in default there of you have the right to pay to the Power Transmission Corporation of Uttaranchal Ltd. the sum of money mentioned in the said conditions.

A sum of Rs……..in the form of CDR/ FDR/TDR bearing Sl No. ……dated……..of the Bank…… as Earnest money has been forwarded to the Executive Engineer, 400 KV Substation (O&M) Division Rishikesh duly pledged in his favour, the full value of which shall be retained by the Power Transmission Corporation of Uttaranchal Ltd. against the Security Deposit as earnest money specified of the said conditions of Contract.

I /We agree to abide by this tender for the period of three months from the date fixed for opening the same.

I /We hereby undertake and agree to execute the contract in the form annexed hereto in accordance with the conditions of the contract.

Yours faithfully,

Dated…….
Witness……
Address……

(SIGNATURE OF THE TENDERER
IN FULL WITH FULL ADDRESS
AND SEAL, IF ANY)

TENDER PROFORMA

(The tender shall not be considered, if you fail to submit this Proforma duly filled up. Replies should be " REFER COVERING LETTER" etc. shall not be acceptable. However extra sheets may be attached if the space is not sufficient.)

1. Specification No. against which you have tendered:	***T-30/SE/2012-13***
2. Name & address of the tenderer.	
3. Bank Draft No.& date against which cost of tender specification was deposited.	
4. Amount and form in which Earnest Money has been deposited with Executive Engineer 400 KV O&M Division, Rishikesh. (FDR/TDR/CDR)	
5. Are you registered with the PTCUL/UPCL? If so, state the reference of letter of the Corporation vide which you were registered.	
6. Do you agree to all the conditions of the tender specification and if not, the tender specification's modifications, if any, which you would desire in these terms and conditions may be mentioned clearly (It may please be noted that it shall be entirely at the discretion of the Superintending Engineer, 400 KV O&M Division, Rishikesh to accept or reject the modifications proposed).	
7. Please state clearly (Answer in Yes/No) whether you would agree to execute the work in case the modifications suggested under Sl. No.5 are not accepted to the Corporation without imposing any further conditions from your side.	
8. Give two references who can certify your financial status and capability to undertake such work. One of the reference should be scheduled Bank of India.	
9. Have you confirmed that there is no typographically error/omission in your tender and all other documents forming part of the tender? (Answer Yes/No.).	
10. What is the validity period of your offer? State Clearly up to and in days/months.	

11. Have you submitted the list of work executed/supply details in the recent past?	
12. Please state clearly whether you are registered with sale tax, Income tax give their number.	
13. Do you confirm that the prices are firm in all respect? (Answer Yes/No)	
14. Have carried out similar work anywhere else in any power corporation or not. If yes give reference & performance report.	
15. Please confirm that your rates are Inclusive/Exclusive of excise duty.	
16. Please confirm that your rates are Inclusive/Exclusive of sales tax.	
17. Please confirm if you will claim any other Taxes will be charge extra or not. If yes the nature of taxes and rates mention clearly.	
18. Please Confirm whether your any relative is working in PTCUL/UPCL, etc. if Yes give Name, Designation & place of posting with your relationship.	

SIGNATURE OF TENDERER WITH FULL ADDRESS & SEAL, IF ANY.

M/S……..

DETAILS OF EXPERIENCE

(Details of order secured and executed by the Tenderer with particulars of work, order No. and name of office by whom the order were placed , should be given along with the amount of order and quantity on the following Proforma:-)

Sl. No.	Name and address of authority where worked/working.	Contract No. & date.	Particulars of work carried-out.	Remarks.
1	2	3	4	5

SIGNATURE OF TENDERER

(ON NON-JUDICIAL STAMP PAPER OF Rs. 10/- + Rs. 1/- revenue stamp).

Tender invited by : Superintending Engineer
400 KV Sub Station O&M Division,
Power Transmission Corporation of Uttaranchal Ltd.,
P.O. Virbhadra-249202
Rishikesh (Dehradun) (INDIA).

Tender for **Procurement of 216KV and 39KV LA for 315MVA T/F at 400KV S/s Rishikesh.**

Tender Notice No. : T-30/SE/2012-13

Name of tenderer : ……

IN CONSIDERATION OF THE "POWER TRANSMISSION CORPORATION OF UTTARAKHAND LTD." having treated the tenderer to be an eligible person whose tender may be considered, the tenderer (specify the full details)…….....

Hereby agree to the conditions that the offer in response to the above invitation shall not be with drawn up to THREE MONTHS from the date of opening of the tender up to ……....and also to the conditions that if the tenderer with draw his proposal within the said period, the earnest money deposited by him may be forfeited to the "POWER TRANSMISSION CORPORATION OF UTTARAKHAND LTD." at the discretion of the later.

Signed this on ……..day of ……2013

Witness:

Signed by

1…….. Tenderer

2……

BILL OF QUANTITY AND PRICE SCHEDULE OF TENDER SPECIFICATION NO. T-30/SE/12-13

Name of Work: Procurement of 216KV and 39KV LA for 315MVA T/F at 400KV S/s Rishikesh.

Sl.	Description of Work	Qty.	Unit Rate	Amount(Rs.)
1.	216KV lighting surge arrester of 10KA of 8/20 Micro Sec. discharge current with surge monitor/counter and clamp suitable for moose conductor.	3 Nos.		
2.	39KV lighting surge arrester of 10KA of 8/20 Micro Sec Discharge current with surge monitor/ counter and clamp suitable for 2" Aluminium pipe Bus Bar.	3 Nos.		
	Total Amount			

(Superintending Engineer)
400 K.V. O&M DIVISION
VIRBHADRA (RISHIKESH)