

NAME OF WORK: ITC of split A/C units in TE Bldg. at Hirapur Chowk Raigarh.

01. Name of Contractor : _____
02. Date of application & receipt : _____
03. Tender Issued on : _____
04. Last date of receipt of Application : 14/12/2009
05. Last date of issue of tender : 14/12/2009
06. Date of opening of tender : 16/12/2009
07. Cost of Tender : Rs. 150+ 12.5% ST i.e. Rs. 169 .00
08. Estimated Cost : Rs. 17449.00
09. Earnest Money Deposit : Rs. 349.00
10. Time for Completion : One Month

Sub Divisional Engineer (E)
BSNL Electrical Sub Division,
Raigarh

UNDERTAKING

I/We hereby certify that I/We have gone through the clauses, specifications, Drawings of tender & Latest BSNL EW 6 & 8 of Bharat Sanchar Nigam Limited & agreed with the terms & conditions contained therein.

Signature with Stamp
Contractor

**BHARAT SANCHAR NIGAM LIMITED
(ELECTRICAL WING)
O/o THE SUB DIVISIONAL ENGINEER (E) BSNL ELECTRICAL SUB DIVISION
Telephone Exchange building Raigarh (C.G.)**

No: 19/SDE (E)/BSNL/ESD/RGH//09-10/ 333 Dated: 03.12.2009

NOTICE INVITING TENDER

The Sub Divisional Engineer (Elect.), BSNL Electrical Sub Division, Raigarh invites on behalf of the Bharat Sanchar Nigam Limited wax sealed item rate tenders from the eligible contractors for the following work :

S. No	NAME OF WORK	ESTD.COST	EMD	CURRENT Y OF CONTRACT FOR ISSUE OF L.O.I	TIME FOR COMPLETION
1	ITC of split A/C units in TE Bldg. at Hirapur Chowk Raigarh.	Rs.17449.00	Rs. 349 .00		One month
2	Providing 300 MM Exhaust Fan in Kitchen in Staff Qtrs at Attarmuda & Belladula Colony Raigarh .	Rs.46456.00	Rs. 929 .00		One months

Experience Criteria :-

Contractors who has been enlisted in BSNL in category whose financial limits is Rs. 1 Lakh (One Lakh) and above are eligible to apply.

The contractor shall submit and confirm:

- 1.Valid BSNL registration certificate with attested copies as applicable along with application on their printed letter head for purchase of tender.
2. Firm have to submit the declaration regarding filling of income tax return filling from Chartered accountsnts.
3. Certified copy of Permanent Account Number (PAN) card should be submitted alongwith tender application.
4. List of works completed of the requisite magnitude along with self attested copies of certificate, testimonials of their satisfactory completion from the departmental concerned obtained from an officer not below the rank of Executive Engineer.

5(a) The tenderer shall submit the tenders in two sealed covers marked as Cover 1st and 2nd.The 1stcover should contain the Earnest money deposited in the form of CDR/FDR/DD or bank guarantee in department's attached format and manner (Annexure-I) in favour of Accounts Officer BSNL Electrical Division, Raipur. The bank guarantee shall be valid for a period of 120 days from the date of opening. The 2nd cover should contain the tender documents. In case the 1st cover is not annexed or Earnest money is not in proper form then the second cover containing tender will not be opened at all.

5. (b) **For the tenderers intending to download the tender from the web-site**, they shall submit the sealed tenders in two sealed covers marked as Cover 1st and 2nd. The 1st cover should contain original/attested copy of the credentials in support of fulfilling the experience criteria & other documents as per NIT, the tender cost in form of demand draft in favour of Accounts Officer BSNL Electrical Division, Raipur and Earnest money in the form of CDR/FDR/DD or bank guarantee in department's attached

format and manner (Annexure-I) in favour of Accounts Officer BSNL Electrical Division, Raipur. In case the 1st cover is not annexed or Credentials submitted by the firm are not as per NIT or Tender cost is not accompanied or Earnest money is not in proper form then the second cover containing tender will not be opened at all.

If any difference / discrepancies found between down loaded Tender form , any hard copy issued from Circle Office the contents in draft NIT shall be final & binding .

The intending tenderers shall invariably sign the Undertaking provided with the tender documents. Any failure to do so shall result in rejection of the tenders.

Exemption from payment of Earnest Money and Security deposit granted by Chief Engineer, CPWD shall not hold good for Bharat Sanchar Nigam Limited.

Validity of tender shall be for 90 days from the date of opening of tender.

The tender document and all other relevant information / Conditions can be had on payment of Rs. 169 /- (Rs. One Hundred Sixty Nine only) i/c sale tax as applicable (Non- refundable) for each Work.

“ The tender received by post / Courier shall not be entertained and opened .

Last date of receipt of application	14/12/2009
Last Date of issue of tender	14/12/2009
Last Date of Submission of Tender	16/12/2009 (Up to 3.00 P.M.)
Date of opening of Tender	16/12/2009 (at 3.30 P.M.)

In case holiday is declared on opening date, tender will be opened at 15.30 Hrs. on next working day.

Sub Divisional Engineer (E)
BSNL Electrical Sub Division,
Raigarh
Phone no. (07762) 222533

Copy to: (N.O.O)

01. The Executive Engineer (E) BSNL Electrical Division Bilaspur , for favour of information please.
02. All Contractors .
03. The Sub Divisional Engineer (Civil) , Sub Division , Raigarh.
04. Notice Board. HPO , O/O TDM Raigarh.
05. File No. 19 .
06. State PWD Office .
- 07.

Sub Divisional Engineer (E)

Undertaking by Firm / Contractor

I/We have read and examined the Notice Inviting Tender, Schedule of Work, Conditions of Contract, Specifications, General Rules and Directions, Clauses of Contract, other contents etc. in the tender document for the work.

I/We hereby tender for the execution of the work specified for the BSNL within the time specified in schedule as applicable.

I/We agree to keep the tender open for (90) Ninety days from the date of submission thereof and not to make any modifications in its terms and conditions.

A sum of **Rs** _____ has been deposited in the form of DD/Pay Order/FDR/CDR / BG of scheduled bank guaranteed by Reserve Bank of India as earnest money. If I/We fail to furnish the prescribed performance guarantee within prescribed period, I/We agree that the said BSNL or his successors in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further if I/We fail to commence work as specified, I/We agree that BSNL or his successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards performance guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered, up to maximum of the percentage mentioned and those in excess of that limit at the rates to be determined in accordance with the provision contained in relevant Clause of the tender form.

I/We hereby declare that I/We shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate the same or use the information in any manner.

(Applicable if Tender Document is downloaded from internet): I/We hereby declare that the tender submitted is the original downloaded computer printout and not the photocopy. I/We agree that during the process of tender finalization if it is detected that the tender documents submitted has been changed / made additions or/ and deletions, the offer may be rejected and that I/We agree that BSNL or his successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money absolutely in addition to any other action as per prevalent rules.

I/We here by agree to sign the:-

- (a) The original documents consisting of schedule and specification, important note to contractor, special conditions of contract etc as per original tender documents (applicable under bid received on web).
- (b) Latest E.W. -6 and 8 form shall form part of the agreement.

(Seal of the contractor)
(Postal address)

(Signature of contractor)
Dated

“IMPORTANT NOTE FOR CONTRACTORS”

The firm shall read carefully the following conditions and shall quote accordingly confirming all the points in their offer.

1. TAXES AND DUTIES:

The firm shall quote rates for all items inclusive of all taxes, duties and other levies e.g. excise duty, Sales tax, work contract tax turn over tax, entry tax, Octroi etc. **except service tax.** No confessional form will be issued by the BSNL. **SERVICE TAX WILL BE REIMBUERSED ONLY ON SUBMISSION OF DOCUMENTARY PROOF OF REGISTRATION WITH EXCISE DEPARTMENT AND RECEIPT OF PAYMENT by Excise Dept. of Govt. Of India. However no penalty shall be reimbursed.**

2. WORKS CONTRACT TAX.

The rates offered by the firm shall be inclusive of the work contract tax as applicable in the state. The department shall deduct work contract tax from payments due to the firm as per rules of the state Government. Certificates for such deductions shall be issued to the firm by the Accounts officers of the division.

3. Department reserve the right to accept the quantities in full or in parts.

4. Increase / Decrease of Tendered Quantity:

(a) BSNL will have the right to increase or decrease up to 25 % of the contract value depending upon the requirement of goods and services specified in the schedule of items without any change in the unit price or other terms and conditions at the time of award of contract.

(b) In exceptional situation where the requirement is of an emergent nature and it is necessary to ensure continued supplies from the existing tenders, the purchaser reserves the right to place repeat order up to 50% of the quantities of goods and services contained in the running tender /contract within a period of twelve months from date of award of work at the same rate or a rate negotiated (downwardly) with the existing tenders considering the reasonability of rates based on prevailing market conditions and the impact of reduction in duties and taxes etc.

6.(a) Tendered rates are inclusive of taxes and levies payable under the respective states. However, pursuant to the Constitution (Forty Sixth amendment) Act 1982, if any further tax or levy is imposed by statute after the date of receipt of tenders and the contractor(s) thereupon necessarily and properly pays taxes or levies the contractor(s) shall be reimbursed the amount so paid provided such payment if any is not in the opinion of S.E (whose decision shall be final and binding) attributable to delay in execution of work within the control of the contractor(s).

(b) The contractor(s) shall keep necessary books of accounts and other documents for the purpose of this condition as may be necessary and shall allow inspection of the same by a duly authorized representative of Government and shall furnish such other information's /documents as the Engineer-in-Charge may require.

(c) The contractor(s) shall within a period of 30 days of imposition of any further tax or levy pursuant to the Constitution (Forty Sixth amendment) Act 1982 give a written notice thereof to the Engineer-in-Charge that the same is given pursuant to this condition together with all necessary information relating thereto.

7. PERFORMANCE BANK GUARANTEE:-

(i) The contractor is required to furnish performance guarantee for an amount equal to 5% of the contract value in the form of bank guarantee (of a nationalized / scheduled bank's standard format) / CDR/FDR/DD within two weeks from the date of issue of the award letter. Conditional Bank Guarantee shall not be acceptable. The validity period of the performance security in the form of performance bank guarantee shall be one year from the date of actual completion of work.

(ii) Security Deposit :- In addition to performance guarantee stated above, a sum @ 10 % of the gross amount of the bill shall be deducted from each running bill of the contractor till the sum along with the sum already deposited as earnest money, will amount to security deposit of 5 % of the tendered value of the work.

8. EPF CONDITIONS:-

The Bill of Contractor shall accompany the following documents:

- a. The Contractor must submit the list showing the detail of Labours / Employees engaged.
- b. Duration of their engagement.
- c. The amount of wages paid to such Labours / Employees for the duration in question.
- d. Amount of EPF contribution on (Both Employers and Employees contribution) for the duration of engagement in question, paid to EPF authority.
- e. Copies of authenticated documents of payments of such contribution to EPF authority.
- f. A declaration from the contractors regarding compliance of conditions of EPF Act 1952.

9. SUFFICIENCY OF TENDER:

The contractor shall be deemed to have satisfied himself before entering into the contract as to the correctness and sufficiency of the offer the work and of the rates quoted in the schedule of works . The rates and the amount shall except as otherwise provided , cover all the obligation under the contract and all matters and things necessary for proper completion and maintenance and guarantee of the work.

10. PROGRAMME FOR EXECUTION: -

The firm shall supply detailed programme to Engineer-in- Charge for execution of contract with in fifteen days of award of work. The programme shall contain details about submission of drawing, supply of materials Tentative dates for installation, testing, commissioning shall also be submitted.

To ensure good progress of the work during the execution, the contractor is bound, in all cases, in which the time allowed for any work exceeds one month to complete 1/8th of the whole of the work before 1/8th of the time allowed under the contract has elapsed, 3/8th of the work before 1/2 of the time has elapsed and 3/4th of the work before 3/4th of such time has elapsed.

Flow chart of the procurement process / contract shall be supplied by the contractor and approved by Executive Engineer concerned.

11. STORES AND SAFETY:-

All the stores and materials required for the satisfactory completion of the work shall be arranged at work site by the contractor from his own sources. Lockable space for storing the material may be provided on request from the contractor. However, safe custody of the material stored at site will be responsibility of the contractor.

12. COORDINATION AT SITE :-

At the site of work more than one agency may be working. Full co-operation shall be extended to other agencies during progress of work. Further, work shall be carried out in such a way so that it may not cause abnormal noise and hindrance to the officers of the department engaged in creation as well to normal routine work.

13. In partial modification to clause 2 of PWD - 8, the compensation for delay shall be limited to 0.5% the work order value per week for the first ten weeks and 0.7% per week for next ten weeks and thereafter subject to a maximum of 12% of the work order value for the location where the work is delayed.

14. BY LAWS

The contractor shall indemnify the department against all claims in respect of patent rights, design, trade mark or name of other protection rights in respect of any components, equipments, work or material used for or in connection with the work and form against all claims damages proceedings, coats charges and expenses whatsoever in respect of or in relation thereto. The contractor shall defend all action arising from such claims and shall himself pay all etc.

15. SPECIAL CONDITION: - Compensation to be levied in cases of use of duplicate/spurious material.

“ Department reserves the right to get inspected the panels and any components thereof by the manufacturer / their authorized representative, whose report as regards to the genuineness of component shall be final and binding. In case any component upon such inspection is found to be duplicate/spurious, double the cost to such component based on price list (without any discount whatsoever) effective on date of aforesaid inspection shall be recoverable.

In case the contractor agrees to replace the components so found spurious/duplicate at his cost, within 15 days of the said report compensation of Rs. 1,000/- per component found spurious/ duplicate shall be levied against the contractor.

Besides the above the Department reserves the right to take disciplinary action against the contractor.

Decision of S.E. in such case shall be final and shall be out of purview clause – 25 of arbitration.

16. TENDERS SHOULD BE SUBMITTED IN WAX SEALED CONDITION AND THE TENDERER SHOULD SIGN ALL THE PAGES OF THE TENDER DOCUMENTS.

17. Participation of near relatives of the BSNL Employees in the Tender / Execution of works in BSNL units -

The near relatives of any BSNL Employee either directly recruited or on deputation are prohibited from participation in tenders and execution of works in the different units of BSNL

- i. The near relatives for this purpose are defined as.
 - a) Members of a Hindu undivided family.
 - b) They are husband and wife.
 - c) The one is related to the other in the manners as father, mother, son(s) & son's wife (daughter in law), Daughter(s) & daughter's husband (son in law), brother(s) & brother's wife, sister(s) & sister's husband (brother in law).
- ii. The company or firm or any other person is not permitted to tender for works in BSNL Unit in which his near relative(s) is/are posted. The Unit is defined as SSA/Circle/Chief Engineer/Chief Archt/Corporate Office for non-executive employees and all SSA in a Circle including Circle Office/Chief Eng./Chief Archt/Corporate office for executive employees (including those called as Gazetted Officers at present). The tenderer should give a certificate that none of his/her such near relative is working in the units as defined above where he is going to apply for tender/work. In case of proprietorship firm certificate will be given by the proprietor, for partnership firm certificate will be given by all the partners and in case of limited company by all the Directors of company. Any breach of these conditions by the company or firm or any other person, the tender/work will be cancelled and earnest money/Security deposit will be forfeited at any stage whenever it is so noticed. The department will not pay any damages to the company or firm or the concerned person. The company or firm or the person will also be debarred for further participation in the concerned unit.

CERTIFICATE

I _____ S/o Sh. _____ Resident of _____ hereby certify that none of my relative(s) as defined in the tender document is/are employed in BSNL units as per details given in tender document. In case at any stage, it is found that the information given by me is false/incorrect, BSNL shall have to absolute right to take any action as deemed fit/without any prior intimation to me.

Dated :

Signature(s)

Type of Company

Company Name & Seal

SCHEDULE OF QUANTITY

Name of Work : ITC of split A/C units in TE Bldg. at Hirapur Chowk Raigarh.

Sl.No.	DESCRIPTION OF ITEM	QTY.	RATE	UNIT	AMOUNT
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1	Installation, Testing and Commissioning of 2 TR/1.5 TR capacity split A/C units complete with indoor units out door units laying & fixing of copper refrigerent pipe l/c soldering the joints (upto 6 mtr. Length) pressure testing, vacuum testing detecting of leaks and its rectification providing insulation over refrigerant pipe i/c charging refrigerating gas in the unit etc. as required	2		each	
2	Supplying and fixing M S frame on wall fabricated M S angle iron M S flat i/c Cutting, welding, grouting in wall, painting etc as required.	120		kg	
3	Supplying & Fixing of R-22 refrigerent gas in the units as required. l/c cartage of gas cylinder etc. complete as required	1		kg	
4	Providing & Fixing extra copper refrigerent pipe (the item includes both suction & discharge pipe length) l/c providing insulation soldering etc. completes as required.	5		mtr	
5	Supplying and Fixing of Hard PVC drain pipe l/c clamps etc. complete as required	5		mtr	
6	Supplying & Fixing of 3 core 4 sq mm. Flexible copper conductor PVC insulated PVC sheathed etc. as required.	7		mtr	
7	Supplying and fixing 20 Amp. DP MCB 'C' series in Sheet Steel Enclosure on surface/recessed and complete with connection testing and commissioning etc as required.	2		each	
8	Wiring for light/power plug with following size of F R PVC INSU copper conductor single core cable in steel conduit on surface/recess complete with 1no/2no 4sqmm FR PVC insulated copper conductor single core cable for loop earthing as required . [a] 2x4 sqmm . [for power plugs & A/C point]	10		mtr	
	[b]4x4 sqmm. [for power plugs & A/C point]	8		mtr	
9	Transportation charges of 1.5 TR Split unit from Raigarh to site including loading, unloading and cartage etc. as required.	2		each	

Total

*SUB DIVISIONAL ENGINEER[E]
BSNL ELECTRICAL SUB DIVISION
RAIGARH*

Departmental Supply

The following materials will be issued to the contractor free of cost from the store at Raipur/Raigarh and the contractor will have to arrange for its cartage to the site of work at his own risk & cost

Sl.No.	DESCRIPTION OF ITEMS	QTY.	RATE	UNIT	AMOUNT
1	1.5 TR Split A/C	2		each	

Total of departmental Supply

*SUB DIVISIONAL ENGINEER[E]
BSNL ELECTRICAL SUB DIVISION
RAIGARH*

SPECIFICATIONS FOR E.I. & FANS.

- The work shall be done as per current C.P.W.D. specifications –1994 for electrical works and Indian Electricity Rules as amended from time to time.

2. The work shall be supervised by a qualified Engineer as provided in C.P.W.D. Manual.
3. The layout of the work will be given by the Engineer-in-charge or his duly authorized representative at site of work.
4. The following wiring shall be done on separate circuits.
 - i. Power plug wiring.
 - ii. Light & fan point wiring.
 - iii. Emergency light point wiring to be fed from battery.
 - iv. Fire detectors.
5. The earthing sets shall be provided in the presence of the Engineer-in-charge or his authorized representatives.
6. The tenderer should submit the sealed samples of materials to be used on work along with the tender. The samples of the successful tenderer will be retained by the Engineer-in-charge while the samples of other will be returned after the tender is decided. Unapproved materials, if used on the work shall have to be removed immediately at the cost and risk of the contractor.
7. The contractor will have to submit the following tests at his cost and intimate test results before final bills are paid. Nothing extra will be paid to him on this account.
 - i. Earth test.
 - ii. Polarity test.
 - iii. Insulation test.
 - iv. Earth continuity test of the conduit pipes.
8. Any damage done to the building by the contractor during the execution of work shall have to be made good at his own cost and risk. If he does not do it himself within a reasonable time determined by the Executive Engineer (E) then the same will be done at his risk by the department after giving notice to him.
9. At the time of laying conduit pipe in the slab/wall in recess the contractor will keep fish wire of 14 SWG wire throughout conduit pipe and will have to take special care so that the conduit is not passed through air-conditioning ducts, grills, columns, beams etc. If any such necessity of foreseen special written permission of Executive Engineer (E) will be obtained before such work is carried out. In case of failure the contractor will not be paid on this account. The successful tenderer should recess the conduit in the walls before they are plastered and in collaboration with the building progress of the work. Any damage done will have to be made good at the cost of the contractor. The conduit pipe should be mechanically and electrically continuous.
10. All M.S. boxes for switches plugs and regulators etc. should be provided with 3mm. thick synthetic phenolic bounded laminated sheet columns.
11. The various circuits wiring at various places shall be kept minimum by taking the runs on walls where crossing of columns is not necessary. This has to be decided before the casting of slab so that unnecessary length of conduits are not laid therein.
12. All the main distribution boards panel, sub-main board and sub-distribution boards and their complete fittings shall be sign written clearly indicating the number of distribution board the type of load it is serving the number of circuits contained in the type of load it is serving and the number of circuits contained. In the distribution box. Details of the recess fed from the particular distribution box shall be pasted in a tabular form on the resource of the cover of distribution box.
13. Underground cables of 11KV grade should be subjected to pressure ,insulation tests before and after laying the same cost of all repairs and replacements and all extra work of removal and relaying will have to be made good by the contractor at his own cost & risk.

14. The contractor shall have to use metal clad switches and metal clad distribution of specified categories as given below unless otherwise specified.
15. Termination of all connections on main board and sub-main distribution board will be done by crimping and nothing extra will be paid on this account.
16. Inter connections on the main board and sub-main boards will be done by solid copper conductor with PVC sheathing/copper conductor cable.
17. All instruments shall be arranged by the contractor , Departmental instruments may also be issued if available at @ Rs.100 per day per instrument.
18. Unless otherwise specified bakelite sheet shall be plain white colour without any pattern .Also "Anchor" or similar superior make piano switches shall be used. Both sheet as well as piano switches shall be approved by the Engineer-in-charge before execution.
19. (i) All cable having more than one strand should invariably crimped with dowells lugs/ferrules of appropriate size crimping tool is to be arranged by the contractor at no extra cost .In case contractor fails to bring crimping tools department may supply crimping tool subject to availability at an extra cost of Rs. 100/- per day per instrument. Responsibility on account of delay shall rest entirely with the contractor.
(ii) If any conduit is already laid/M.S. box is fixed in the slab/wall of the bldg. its recovery will be governed by the formula as per DSR 94 + contract abatement on the related sub-Head.
20. The piano switches for fans and light plugs shall be I.S.I. marked type/approved switches only.
21. When a boards are connected to a voltage ,higher than 250 volt all the terminals of leads of the apparatus mounted on shall be marked and the following colours to indicate the different poles or phases to which the apparatus for different terminals may have been connected.

A . C .
Three phases -
Red, Blue, Yellow
Neutral :- Black

D . C .
Three wire systems –
1 outer wires : Red & Blue.
Neutral :- Black

22. "BSNL reserves the right to get material inspected any components thereof by the manufacturer/ their authorized representative, whose report as regards to the genuineness of component shall be final and binding. In case any component upon such inspection is found to be duplicate/spurious, double the cost of such component based on price list (without any discount whatsoever) effective on date of aforesaid inspection shall be recoverable.

In case the contractor agrees to replace the components so found spurious/duplicate at his cost, within 15 days of the said report compensation of Rs.1,000/- per component found spurious/duplicate shall be levied against the contractor.

Besides the above the BSNL reserves the right to take disciplinary action against the contractor.

CATEGORISATION OF ELECTRICAL ITEMS.

1. Metal clad switches fuse unit rewirable fuses
SPN(240/250v) /TPN (415/500v)

	Category – A	Standard.
	Category – B	Aeco,Crompton,Excel,Ilavells, Kenbar RCCI, Kenbar.
	Category – C	Abrol,GECO,Kumar,Mex,RAP, Sentinel,Sputnik,Zeta.
2.	Metal clad switch fuse unit with ISI marked IIRC fuses (415/500v)	
	Category – A	E.E . . L & T.
	Category – B	Crompton,Havells,HH Eclon, Standard,Sentinel.
	Category – C	GECO,Kenbar.
3.	Metal clad combination fuse switch unit with ISI marked IIRC fuses (415/500v)	
	Category – A	E.E . . L & T ,Siemens.
	Category – B	Ilavells,Kenbar,Standard.
	Category – C	AECO,Crompton,GECO,Zeta.
4.	Miniature circuit breakers (MCB'S) (240/415v) with valid ISI marking.	
	Category – B	1. Bentex Linger 6 40Amp. SP.
		2. Clariton 6-40 Amp. SP. DP & TP.
		3. Crgon 6-40 Amp. SP.
		4. Havell's 6-40 Amps.
		5. Indo Kopp. 6-40 Amps. SP & SPN.
		6. 6-32 Amps. TP & TPN.
	Category – C (without ISI marking)	1. Havell's Above 40 Amps.
		2. Loadstar Above 30 Amps. But upto 60 Amps.
		3. Montel Above 40Amps.
NOTE : The MCB DB's shall be of same like as the MCB'S unless otherwise specified, 'L' series MCB's shall be used for circuits, 'C' series MCB's shall be used for motor loads, halogen lamps fitting , sodium/mercury discharge lamp and all power circuits.		
5.	Switches and sockets outlets. Only ISI marked switches and sockets outlets shall be used.	
6.	Celling Rose	ANTEX . EMPEROR .
7.	Brass batten lamp holder	ARISTO,EMPEROR , KINJAL ,ANTEX.
8.	Brass bracket lamp holder	EMPEROR, J.B. , KINJAL ,ANTEX.

- | | | |
|-----|---------------------------------|--|
| 9. | Brass pendant lamp holder | EMPEROR, ESSESS, KAY,
KINJAL, ANTEX. |
| 10. | Panel mounting fuse switch unit | 1. ENGLISH ELECTRIC
Complete
2. SIEMENS Complete range.
3. L & T complete range.
4. VERSATRIP Upto 100
Amps. only
5. HAVELL'S Upto 300/320
Amps. Only
6. H.H. ELCON Upto 630
Amps. Only
7. STANDARDS Upto 630
Amps. Only. |

NOTE : The above brands are approved on ad-hoc basis and categorization for the above makes of switches has been done far.

Size of wire cable used for interconnection should not be less than as follows :-

S.No.	Switches.	Alu. Condr. Size Sq.mm.	Copper cond. Size Sq.mm.	Remarks.
1.	5	1.5	1.5	
2.	10	4	4	
3.	16	10	6	
4.	20	16	10	
5.	32	23	16	
6.	63	70	25	
7.	100	185	70	
8.	200	300	120	
9.	320	300	240	

The make specified in the item only should be supplied. However, if the same make is not available the other equivalent make will be accepted subject to corresponding deduction as per current list price. The decision of Engineer-in-charge shall be final about the equivalent make as well as the cost. However, no additional rate shall be paid, if the list price of the equivalent make is more than specified make.

**SEAL AND SIGNATURE
OF THE CONTRACTOR**

**EXECUTIVE ENGINEER (E)
BSNL ELECTRICAL DIVISION,
BILASPUR**

- **List of Approved makes for EI and fans, Pump sets and Compound Light Works**

1	ACB	L&T/ SIEMENS/ CONTROL & SWITCHGEAR
---	-----	------------------------------------

		SCHNEIDER/ GE POWER CONTROLS
2	MCCB	L&T/ SIEMENS/ CONTROL & SWITCHGEAR
		SCHNEIDER/ GE POWER CONTROLS
3	TPN SWITCH AND HRC FUSES	L&T/ SIEMENS/ HAVELLS/ HH ELCON/
		SCHNEIDER/ STANDARD (UPTO 400A)
		GE POWER CONTROLS
4	CT	AE/ IMP/ MARSHAL/ PACTIL/ KAPPA/ L&T/
		ASHMOR/ INDOCOIL/ WACO/ MECO/
5	AMMETER / VOLTMETER	AE/ IMP/ UNIVERSAL/ RISHABH/ KAYCEE/ MECO
		ENERCON
6	SELECTOR SWITCH	L&T/ KAYCEE/ AE / IMP/ THAKOOR/ RECO/
		VAISHNO/ SALZOR/ RASS CONTROL
7	INDICATING LAMPS	VAISHNO/ SIEMENS/ L&T/ AE/ IMP/ RASS
		CONTROL/ TEKNIC/ SCHNEIDER/ KAYCEE
8	CAPACITORS (APP TYPE)	KHATAU JUNKER/ SCHNEIDER/ L&T/ IMP
		UNIVERSAL ELECTRIC/ USHA/ ASIAN/ AE
9	CABLES	
	A. UPTO 1.1 KV GRADE	ISI MARK
	B. ABOVE 1.1 KV GRADE	ISI MARK
10	PVC INSULATED COPPER CONDUCTOR	ISI MARK
	WIRE	
11	FIRE EXTINGUISHER	ISI MARK
12	RUBBER MATTING	ISI MARK
13	CABLE JOINTS	RACHEM/ M-SEAL/ DENSONE
14	SINGLE PHASING PREVENTOR	L&T/ MINILEC/ ZERO TRIP/ SIEMENS
15	TIMER	L&T/ SIEMENS/ MINILEC/ TELEMECHANIQUE/ AE

16	MCB, ISOLATOR AND DISTRIBUTION BOARD	BENTEX/ CLARITON/ HAVELLS/ INDO-KOPP/ STANDARD/ SCHNEIDER/ MDS/SIEMENS
17	CHANGEOVER SWITCH	STANDARD/ HAVELLS/ CONTROL & SWITCHGEAR HH ELCON
18	PIANO SWITCH	ISI MARK
19	MONOBLOCK PUMP SET	KSB/ BEACON/ KIRLOSKAR/ BATLIBOI/ JYOTI/ BE/ CROMPTON/ PEC/ MATHER&PLATT/ WASP
20	STARTER	L&T/ SIEMENS/ BCH/ ABB/ MEI/ GE POWER CONTROLS
21	GI / MS PIPE	BST/ TATA/ ATL/ ITC/ ATC/ IIA/ JUST/ ITS/ JINDAL/ ZENITH/ GSI/ TTA
22	FOOT VALVE	ISI MARK
23	GATE VALVE	FOUNTAIN/ TRISHUL/ SANT/ ANNPURNA LEADER
24	MS CONDUIT	ISI MARK
25	SUBMERSIBLE PUMP	KSB/ KALAMA/ AMRUT/ KIRLOSKAR/ PEC / BE
26	ELCB	STANDARD/ MDS/ HAVELLS/ DATAR/ SIEMENS/ GE POWER CONTROLS
27	CONTACTOR	SIEMENS/ L&T/ SCHNEIDER/ MEI/ LAXMI GE POWER CONTROLS

NOTE:- THE FIGURES IN BRACKET, WHEREEVER MENTIONED, INDICATE THE DATE UP TO WHICH THE PRODUCT IS APPROVED. THESE MAKES MAY BE INCLUDED IN NIT AFTER THE DATES MENTIONED AGAINST THEM ONLY AFTER CONFIRMATION BY THIS OFFICE OR IF THE SAME IS EXTENDED BY O/o Sr. DDG (E).