

**No: 24(1)/BEDH-II/2020-21/145****Dt: 21.07.2020****CORRIGENDUM- POSTPONEMENT**

Name of work:-	<b>SITC &amp; AMC of (3+1) x 14TR Precision AC Plant for CDR III project at SDC, OU, Hyderabad. (1<sup>st</sup> Recall)</b>
Ref:-	<b>NIT NO: 15/BEDH-II/2020-21</b>

\*\*\*

Due to administrative reasons, the following changes have been made to the above tender document.

<b>IMPORTANT DATES</b>			
<b>S. No</b>	<b>Name of work/ items</b>	<b>Existing Entry</b>	<b>Postponed to</b>
<b>S.No</b>	<b>EVENT</b>	<b>TIME &amp; DATE</b>	<b>TIME &amp; DATE</b>
1	Start Date for download of Bid document from E-tender Portal	10.00Hrs of <u>28/06/2020</u>	Same as Existing Entry
2	End Date for download of Bid document from E-Tender Portal	15.00Hrs of <u>21/07/2020</u>	15.00Hrs of <u>31/07/2020</u>
3	Last Date & time for <b>Online submission</b> of <b>Technical Bid</b> and <b>Financial Bid</b> in E-Tender Portal	15.00Hrs of <u>21/07/2020</u>	15.00Hrs of <u>31/07/2020</u>
4	Last Date & time for <b>OFF line submissions</b> at O/o The Executive Engineer(Electrical), Hyderabad	15.00Hrs of <u>21/07/2020</u>	15.00Hrs of <u>31/07/2020</u>
5	Time & date of opening of Offline submissions at O/o The Executive Engineer(Electrical), Hyderabad	15.30Hrs of <u>21/07/2020</u>	15.30Hrs of <u>31/07/2020</u>



6	Time & date of Online opening of Technical Bid in E-tender Portal	16.00Hrs of 22/07/2020	16.00Hrs of 01/08/2020
7	Time & date of Online opening of Financial Bid in E-Tender Portal	Will be intimated by Email to bidders qualified in technical bid.	Will be intimated by Email to bidders qualified in technical bid.
<b>E-Tender Portal site address:</b> <a href="https://etenders.gov.in/e procure/app">https://etenders.gov.in/e procure/app</a>			

All other terms and conditions remain unchanged.

Sd/-  
Executive Engineer (E)

Copy to:-

- 1) The Chief Engineer (E), BSNL Telangana Zone, Hyderabad.
- 2) The Superintending Engineer (E), BSNL Electrical Zone, Hyderabad/Vijayawada.
- 3) The Executive Engineer (E), BSNL, Electrical Div. No.I, Hyd / Vijayawada/ VSP/ TPT/ WGL/ ATP.
- 4) SDE (E) Electrical Sub Division I, II, III & V, Hyderabad.
- 5) All Eligible Contractors.
- 6) SR SS/SDE (EP)/AO/Cashier/Auditor/Notice Board.

Sd/-  
Executive Engineer (E)  
BSNL Electrical Div-II,  
Hyderabad.

**No: 24(1)/ BEDH-II/2020-21/139****Dt: 15.07.2020****CORRIGENDUM- POSTPONEMENT**

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Ref:-	<b>NIT NO: 15/BEDH-II/2020-21</b>

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1	Start Date for download of Bid document from E-tender Portal	10.00Hrs of 28/06/2020	Same as Existing Entry
2	End Date for download of Bid document from E-Tender Portal	15.00Hrs of 14/07/2020	15.00Hrs of 21/07/2020
3	Last Date & time for <b>Online submission</b> of <b>Technical Bid</b> and <b>Financial Bid</b> in E-Tender Portal	15.00Hrs of 14/07/2020	15.00Hrs of 21/07/2020
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<b>E-Tender Portal site address:</b> <a href="https://etenders.gov.in/eprocure/app">https://etenders.gov.in/eprocure/app</a>			

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- 6) SR SS/SDE (EP)/AO/Cashier/Auditor/Notice Board.

Sd/-  
Executive Engineer (E)  
BSNL Electrical Div-II,  
Hyderabad.



# **BHARAT SANCHAR NIGAM LIMITED**

*(A Government of India Enterprise)*

## **E-Tender Bid Document**

NIT No.15/BEDH-II/ 2020-21      Dt.: 27 /06/2020

Estimated Cost: Rs. 57, 03, 660/-

**Name of Work:-SITC & AMC of (3+1) x 14TR Precision AC Plant for CDR-III project at SDC, OU, Hyderabad (1<sup>st</sup> Recall)**

This Bid document contains 109 Pages (One Hundred and Nine Pages) as technical Bid document and two Pages as Price Bid document.

**O/o The Executive Engineer (E)**

**BSNL Electrical Division-II**

#602, 6<sup>th</sup> Floor, BSNL Bhavan

Adarshnagar, Hyderabad-500063

Email: eediv2bsnl@gmail.com

Phone: 040-23224152

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**DETAILED NOTICE INVITING E-TENDER (DNIT)**  
**BHARAT SANCHAR NIGAM LIMITED**  
**(A Government of India Enterprise)**

Digitally Sealed item rate, single stage bidding two electronic envelope system, e-Tenders are invited by the Executive Engineer (E), BSNL Electrical Division - II, Hyderabad on behalf of CMD, BSNL from the eligible bidders for undertaking the following work.

S. No.	Name of the Work	Estimated Quantity (Nos.)	Bid Security/Earnest Money Deposit Amount for the tender
1	<b>SITC &amp; AMC of (3+1) x 14TR Precision AC Plant for CDR-III project at SDC, OU, Hyderabad. (1<sup>st</sup> Recall)</b>	1 Job	<b>Rs.1,14,073/-</b>

Note 1: The quantity stated above are estimated and BSNL reserves the right to vary the quantity to the extent of -25 % to +25 % of specified quantity at the time of award of the contract i.e. APO without any change in unit price or other terms & conditions.

2.1 Purchase of Tender Document: Tender document can be obtained by downloading it from the website <https://etenders.gov.in/eprocure/app> and selecting Bharat Sanchar Nigam Limited (Govt. of India Enterprise) under Tender by Organization. Also the Bid document is available at [http://www.telangana.bsnl.co.in/tenders\\_active.php](http://www.telangana.bsnl.co.in/tenders_active.php) for view and download purpose.

2.2 There is no tender fee. However the bidder has to pay e portal charges as applicable.

2.3 Availability of Tender Document: The tender document shall be available for downloading from 28/06/2020 (write date in dd/mm/yyyy) onwards up to 14/07/2020 (write date in dd/mm/yyyy).

3.1 *In case of tenders invited through e-tendering process, physical copy of the tender document would not be available for sale.*

Note 2: The Tender document shall not be available for download on its submission/closing date.

#### 4. Eligibility Criteria: -

##### a) The bidder should have

###### (i) Financial norms:

Turnover: Average annual turnover during the last 3 years, ending 31st March of the previous financial year, should be at least 30% of the estimated cost put to tender.

AND

###### (ii) Physical norms

Firms satisfying the following conditions:

Original Equipment Manufacturer (OEM) of Precision Package AC units.

OR

The dealers who are authorized by the OEM of Precision Package AC Manufacturers. The letter of Authorization in Original from the manufacturer will have to be produced by the dealers.

OR

Experience of having successfully completed similar works in Central Government/State Government /Central Autonomous Body/Central Public sector Undertaking during last 7 years ending last day of month previous to the one in which applications are invited should be either of the following :-

Three similar successfully completed works each costing not less than the amount equal to 40% of the estimated cost put to tender.

OR

Two similar successfully completed works each costing not less than the amount equal to 60% of the estimated cost put to tender

OR

One similar successfully completed work each costing not less than the amount equal to 80% of the estimated cost put to tender

*“Similar works stands for Supply, installation, testing and commissioning of High Precision Package AC units of 14 TR (sensible cooling capacity) and above”*

Note3: The contractor shall produce authorization certificate in original from the manufacturer for participation in tender and supply of spare parts, technical support etc. during the currency of the contract.

b) Valid PAN card

c) Valid GST Registration No or exemption No.

4.1 The bidders shall submit necessary documentary proof showing that they meet the eligibility criteria along with their tender bid. All documents submitted will also be self-attested by the bidder.



5. **Bid Security/EMD : Rs.1,14,073/-**

5.1 The bidder shall furnish the bid EMD in one of the following ways:-

- (a) Demand Draft/ Banker's cheque drawn in favour of **“Accounts officer(Cash), Main, BSNL, Hyderabad”** and payable **at Hyderabad.**
- b) Bank Guarantee from a scheduled bank drawn in favour of **“Accounts officer(Cash), Main, BSNL, Hyderabad”**, which should be valid for **120 days** (i.e. one month above the offer validity period subject to maximum of 210 days) from the tender opening date.

5.2 The MSE units shall be exempted from submission of Bid Security deposit on production of requisite proof in respect of valid certification from MSME for the tendered item.

6. Date & Time of Submission of Tender bids: on or **before 15.00 Hrs.& 14/07/2020**(state time & date of receipt of tender) e.g. “hh: mm of dd/mm/20yy”.

Note 4: In case the date of submission (opening) of bid is declared to be a holiday, the date of submission (opening) of bid will get shifted automatically to the next working day at the same scheduled time. Any change in bid opening date due to any other unavoidable reason will be intimated to all the bidders separately.

7. **Opening of Tender Bids: Next day of tender closing time i.e., @16.00Hrs on 15/07/2020**

8. **Place of opening of Tender bids:**

8.1 In case of tenders invited through e-tendering process, the tenders shall be opened through ‘Public Online Tender Opening Event (POTOE)’. BSNL’s Tender Opening Officers as well as authorized representatives of bidders can attend the Public Online Tender Opening Event (TOE) from the comfort of their offices. Kindly refer clause 8 of Section-4 Part C of Tender document for further instructions.

8.2 In addition & in case of tenders invited through manual bidding process, authorized representatives of bidders (i.e. vendor organization) can attend the TOE at **the Chambers of The Executive Engineer (Electrical), Electrical Division-II, Hyderabad, #602, Sixth Floor, BSNL Bhavan, Adarshnagar, Hyderabad, Telangana-500063** where BSNL’s Tender Opening Officers would be conducting Public Online or manual Tender Opening Event (TOE).

9. Tender bids received after due time & date will not be accepted.

10. Incomplete, ambiguous, Conditional, unsealed (in case of manual tender) tender bids are liable to be rejected.

11. The **Chief Engineer (Electrical)**, reserves the right to accept or reject any or all tender bids without assigning any reason. He is not bound to accept the lowest tender.

12. The bidder shall furnish a declaration in his tender bid that no addition / deletion / corrections have been made in the downloaded tender document being submitted and it is identical to the tender document appearing on the website.

12.1 In case of any correction/ addition/ alteration/ omission in the tender document, the tender bid shall be treated as non-responsive and shall be rejected summarily.

Note 5: All documents submitted in the bid offer should be preferably in English. In case the certificate viz. experience, registration etc. is issued in any other language other than English, the bidder shall attach an English translation of the same duly attested by the bidder & the translator to be true copy in addition to the relevant certificate.

Note 6: All computer generated documents should be duly signed/ attested by the bidder/ vendor organization.

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**Executive Engineer (E)  
Electrical Division - II  
Hyderabad**

**Lr.No. 24(1)/BEDH-II/2020-21/114**

**Dt: 27-06-2020**

- 1) The Chief Engineer (E), BSNL Electrical Zone, Hyderabad.
- 2) The Superintending Engineer (E), BSNL Electrical Circle, Hyderabad/Vijayawada.
- 3) The Executive Engineer (E), BSNL, Electrical Div. No.I, Hyd./Vijayawada, VSP/TPT/WGL/ATP.
- 4) SDE (E) Electrical Sub Division I, II, III & V, Hyderabad.
- 5) All Eligible Contractors.
- 6) SR SS/SDE (EP)/AO/Cashier/Auditor/Notice Board.

Executive Engineer (E)

## SECTION- 2

### Tender Information

1. Type of tender:-

a) No. of Bid Submission Stages for tender: Single Stage.

(Please See Note-2).

b) No. of Envelopes for submission of Bids: **Two Nos.** (Opening stages) (Please See Note-3).

~~Note 2: Two stage submissions of bids is desirable only in cases where there is doubt on the scope of Work/Specifications and requirements. In such tender, first stage will be used to invite bids to have details/ clarifications on scope of Work/ Specifications and requirements to firm up the same following which techno-commercial bid along with financial bid shall be invited in 2<sup>nd</sup> stage.~~

Note 3:- In case of 1(b) above, the bidder shall submit Techno-commercial & Financial bid simultaneously

Note 4:- The bids will be evaluated techno-commercially first and thereafter financial bids of techno-commercially compliant bidders only shall be opened.

~~Note 5: For e-reverse auction bidding event, elimination of H-1 bidder (bidder who has been evaluated as highest quoting bidder in sealed financial bidding stage) shall be followed, subject to following conditions:~~

~~i) If the total quantity of the tendered item is to be awarded amongst 'N' bidders (to be decided in tender), then elimination of H-1 shall not be applicable if there are N+1 or less techno-commercial responsive bidders (whose financial bids are opened).~~

~~In other words, H-1 bidder shall be eliminated from e-reverse auction bidding event only if there are N+2 or more techno-commercial responsive bidders (whose financial bids are opened)~~

~~For example, if the total quantity of tendered item is to be distributed amongst 3 bidders (N=3), then elimination of H-1 bidder will be adopted only if number of techno-commercial responsive bidders (whose financial bids are opened) is 5 or more (greater than or equal to N+2).~~

~~(ii) However, in any case no bidder (including MSE bidders) shall be eliminated from e-reverse auction bidding event, if there are three (3) or less techno-commercial responsive bidders (whose financial bids are opened).~~

~~(iii) In case of MSE bidder(s), if the MSE bidder(s) happens to be the H-1 bidder but falls within price band of L-1+15%, during evaluation of sealed financial bids, then MSE bidder shall not be eliminated from e-reverse auction bidding event.~~

2. **Bid Validity Period/Validity of bid Offer: 90 days from the tender opening date.**

3. In case of tenders invited under two envelopes system, **the first envelope will be named as techno-commercial** & will contain documents of bidder's satisfying the eligibility / Technical & commercial conditions and **2<sup>nd</sup> envelope will be named as financial envelope containing financial quote**. These envelopes shall contain one set of the following documents:-

a) **Techno-commercial envelope shall contain:-**

- i) EMD
- ii) Certificate(s) showing fulfillment of the eligibility criteria(s) stated in Clause 4 of the DNIT
- iii) Power of Attorney & authorization for executing the power of Attorney in accordance with clause 14.3 of Section 4 Part A
- iv) Integrity Pact (if applicable)
- v) Clause by clause compliance as per clause 11.2 of Section- 4 Part-A
- vi) Bidder's Profile & Questionnaire duly filled & signed.
- vii) Non-Relation Certificate duly filled & signed.
- viii) Undertaking & declaration duly filled & signed
- ix) Documents stated in clause 10 of Section-4 Part A.
- x) Tender documents duly signed at the end of each section for having read it & accepted it (only in case of Manual bidding Process).
- xi) Tender/ Bid form- Section 9 Part A
- xii) Electronic Form- Technical (in case of tenders invited through e-tendering process)
- xiii) Self-declaration by the firm for not blacklisted by GST authorities and mentioning of multiple GST numbers, if available.

**b) Financial envelope shall contain:**

- i) Electronic Form- financial along with Price Schedule (Section 9 Part-B (I) with all relevant bid annexure (in case of tenders invited through e-tendering process).
- ii)

**Note 5:- In case of e-tendering, the following documents are required to be submitted offline(i.e. offline submissions) to The Executive Engineer (Electrical), Electrical Division-II, Hyderabad, #602, Sixth Floor, BSNL Bhavan, Adarshnagar, Hyderabad, Telangana-500063** on or before the date & time of submission of bids in a sealed envelope.

The envelope shall bear the tender number, name of work and the phrase: "Do Not Open Before (due date & time of opening of tender)".

- i) EMD – Bid security (original copy)
- ii) Power of Attorney in accordance with clause 14.4 of section 4 Part A and authorization for executing the power of Attorney.
- iii) Integrity Pact (if applicable)

~~4. In case of tenders invited under Single Envelope system, the envelope will contain both techno-commercial & financial bid i.e. documents 3 (a) (i) to (xi) & 3 (b) (i) to (ii).~~

**5. (a) Payment terms for Procurement items:**

**Part A (sectionI)**

**For Supply items i.e., for Precision Package AC Units:**

**Payment to the contractors during progress of work is regulated as below:**

- i) **90% of the approved price shall be paid on the receipt of equipment at site by the consignee and after satisfactory physical inspection.**
- ii) **The balance 10% payment shall be made after Successful Installation, Commissioning and Final acceptance testing of equipment.**
- iii) **In cases where shortages / damages are intimated to the supplier in writing, the balance payment shall be released only after the cases are settled in accordance with the provision of the agreement.**

No payment will be made for goods rejected at the site on testing. Payment, if made for such items shall be recovered from subsequent bills or other bills.

**(b) PART A (Section-II)**

**Payment terms for ITC items and Cold Aisle containment System:-**

- i) 100% payment on completion of installation, testing, commissioning including satisfactory completion of Acceptance Testing of equipment.
- ii) For Cold Aisle Containment system, 100 % Payment against supply, installation, testing and commissioning of the system and demonstration of the system for effective containment of cold Air.

**(c) PART B:**

**Payment terms for AMC item:-**

Payments shall be made on quarterly basis on Pro rata basis, on satisfactory discharge of maintenance of equipment as per the maintenance schedule and submission of certificate to that effect along with bill by the bidder duly countersigned by the SDE (E).

**6. a) Time Period allowed for completion of work :**

- i) PART A (section I &II) : 4 Months
- ii) PART B (AMC) : 3 years

**b) Milestones for main work i.e., PART A**

STAGE	ACTIVITY	Duration( reckoned from Award of work)
1	Submission of working Drawing as per Site requirement.	Within 10 days.
2	Supply of Precision Package AC units and associated items for installation	within 45 days
3	Installation of All units	within 65 days
4	Testing and Commissioning of All units	within 85 days
5	Trial Run/Acceptance testing	within 120 days

**7. Consignee/Engineer In charge**

- i) **Engineer in Charge:** The Executive Engineer (Electrical),  
Electrical Division-II, Hyderabad,  
#602, Sixth Floor, BSNL Bhavan,  
Adarshnagar, Hyderabad, Telangana-500063
- ii) **Consignee:** The Sub Divisional Engineer (Electrical)  
**Delivery Address:** BSNL Electrical Sub Division-II,  
SDC, CDR –III, Osmania University  
Hyderabad

**SECTION- 3 Part A**  
**SCOPE OF WORK**

A. General:

It is planned to install new CDR III servers in the existing SAN storage Area of CDR Data center at TE Building, OU campus. In order to meet the additional Heat load, it is planned to augment the existing Precision Package plant by adding, additional Precision package units of 4 \* 14 TR Sensible cooling capacity. Further to improve plant performance as well as to achieve the required Energy Efficiency, it is planned to install a cold aisle containment system also to segregate cold Air and Hot air in the conditioned Area.

B. Scope of Work: It comprises two parts.

PART A:

- i) Supply of 4 \* 14 TR Precision Package AC units
- ii) ITC of Package AC units includes Supply and Laying of cables for AC Plant and Cold Aisle Containment system.

PART B: AMC of 4 \* 14 TR Precision Package AC units.

- I) Supply of factory assembled, factory tested 4 \* 14 TR sensible cooling capacity Microprocessor based Precision Package AC units as per schedule and detailed specifications indicated at section 3 part B.

Test Certificates:

The firm shall submit following test certificates along with supply of the material at site.

Manufacturer test certificates for Package AC, Controller, condenser etc.

Routine test certificates for individual items. Department may test each unit at the factory without any extra payment.

Testing:

Department reserves the right to depute representatives for inspection of material/equipment and witness the test at contractor's/supplier's works and the firm shall be required to perform routine/type tests for package units in the presence of Departments' representatives. At least one week's notice shall be given by the contractor to the department for fixing up inspection and factory tests

- II) Installation, Testing and Commissioning of Precision Package AC units: The bidder shall install Precision package AC units as per the best practices / standards. Also the bidder shall execute the work as per the approved drawing.

Stores at Site:

All the stores and materials required for the satisfactory completion of the work shall be arranged at the work site by the contractor from his own sources and safe custody of the material stored at site will be the responsibility of the contractor.

Coordination at Site:

At the site of work more than one agency may be working. Full cooperation 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.

**Testing:**

Following tests shall be conducted after completion of the plant. The contractor shall operate, test and adjust all air conditioning system units, fans. Motors, all air handling appliances provided in connection with this installation and shall take all necessary adjustments of all regulating dampers for the purpose of equalization of the flow of air to each and every outlet and inlet. A carefully recorded detailed record of the results of these adjustments shall be furnished by the contractor for approval of the Engineer-in-charge.

**Trial Run:**

After installation is completed physically, the plant shall be subjected to trial run. The trial run is to be conducted for a period of 7 days subject to a minimum running of 120 hours in the presence of representatives of the department. During this test performance of all equipment and control systems shall be checked. Inside conditions shall also be recorded in this trial run. A record of this test shall be submitted to the Engineer-in-charge who shall arrange Initial Acceptance Testing thereafter.

**Initial Acceptance Test:**

After completion of trial run the plant shall be subjected to initial Acceptance Testing as per the standards of the department. This testing shall be conducted jointly by the representative of the Engineer-in-charge, T&D Circle and user. A list of all defects and discrepancies shall be prepared during the test.

**Final Performance cum Seasonal Tests:**

After removal of all discrepancies & defects mentioned in Initial Acceptance Test, this test shall be conducted jointly by the representative of the Engineer-in-charge, T&D Circle and user as per the standards of the department. The test shall be conducted between 1st April and 30th September.

**Note:**

In case of, the department requires the operation of Precision Package AC units even before clearance of A/T , the bidder shall render the operation of these units either partially / fully to meet the exigencies of the department . For such operational support the bidder is not entitled to claim any extra payment.

All equipments, consumables required for Trial run / Initial A/T and Final A/T shall be arranged by bidder without any extra cost to the department

Bidder shall operate the plant till completion of the Final Acceptance Testing and the department shall not pay anything extra.

**Completion Drawings:**

The firm shall supply three sets of drawings / documents immediately on completion of the work as detailed below.

- i) Plan layout of AC Plant / Switch room indicating various equipment.
- ii) Installation details of condensers.
- iii) Schematic diagram of Control wiring.
- iv) Operation and maintenance Manuals.

III) AMC of  $(3 + 1) * 14$  TR Precision Package AC units for 3 years after warranty period as per the detailed specifications. During, AMC shall arrange all materials/components required for attending to the preventive and Breakdown maintenance of AC units

Note: Department places POs separately for PART A and Part B of the Schedule. PO for PART B shall be placed after the warranty period.

**DATE OF COMPLETION:** For PART A of the work, Date of Successful completion of Final AT shall be taken as completion date of the work .



**SECTION- 3 Part B**  
**TECHNICAL SPECIFICATIONS**

**FOR 14TR CAPACITY PRECISION AIR CONDITIONERS (PACs)**

**1.1 SCOPE :**

**1.2** These specifications describe the specific requirements of microprocessor based Precision Air conditioners (PACs). The PAC unit shall consist of indoor and outdoor units.

**1.3** The indoor unit shall be floor mounted type comprising of hermetic sealed scroll compressor(s), filter section, controller, electrical power system , multi-rows deep copper cooling coil with aluminium fins, dehumidification cycle, modular panel cabinet construction, cabinet insulation, statically & dynamically balanced blower section, humidifier, refrigeration controls etc. The unit shall be suitable for **Bottom** discharge.

**1.4** The outdoor unit shall comprise an air-cooled condenser with fans.

**1.5** These specifications set out the basis of design of self-contained PACs to meet the environmental needs of telecom equipment.

**2.0 DESIGN :**

The unit shall be designed to meet the following conditions:

1	Rated capacity	14 TR (sensible cooling capacity)
2	Flow direction	Downward flow
3	Return Air inlet Temp.	25 °C (DB) & 50% RH.
4	Saturated Suction Temp.	Between 9 °C and 10 °C
5	Minimum Superheat	2 °C
6	Saturated Discharge Temperature	Maximum 53 °C (at 43 °C ambient)
7	Ambient air design temperature (Entering condenser)	43 °C. However, the unit shall be able to work for ambient up to 50 °C)
8	Air Quantity	Not less than 550 CFM/TR
9	Filters	Having 95% efficiency down to 5 microns.
10	Face velocity across the cooling coil.	Not exceeding 2.5m/sec
11	Type of load	The load shall be High sensible type having Sensible Heat factor not less than 0.90
12	EER of the unit	Not less than 2.90 Watt/watt

### **3.0 CABINET:**

- 3.1 The Cabinet shall be constructed from best quality GI sheet steel of thickness not less than 1.6mm for top, bottom and side panels & 0.9mm for front and back panels suitably treated for weather protection, corrosion and shall be powder coated.
- 3.2 Coil and blower sections shall be insulated internally for both acoustics and thermal purposes. The insulation material shall be polyurethane foam of thickness not less than 15 mm complying to the class-B according to DIN 4102 with self-extinguishing and sound absorbing properties.

### **4.0 COMPRESSOR :**

- 4.1 The compressor(s) shall be of scroll hermetic sealed type of **COPELAND (ZR108KCE-TFD)/DANFOSS /Similar superior** make having independent refrigerant circuit.
- 4.2 Compressor(s) shall be suitable for **R407C/R410A Refrigerants**.
- 4.3 Compressor(s) shall be suitable for operation on 3-phase, 415± 10% volts, 50 Hz, AC supply.
- 4.4 The compressors shall be located in such a way that removal of one compressor shall not affect the operation of the other compressor.
- 4.5 Compressors shall be mounted on vibration isolation pads or any other mounting approved by the manufacturer.
- 4.6 The compressor(s) shall be provided with built in overload protection.
- 4.7 The Compressor(s) shall be fitted with electrically operated oil heaters. The heaters shall be “ON” when the compressor is in “OFF” position and vice-versa. It shall be possible to disconnect power supply to the heater during extended periods of shut down.

### **5.0 EVAPORATOR SECTION :**

- 5.1 The Evaporator Coil shall be provided separately for each refrigerant circuit.
- 5.2 Evaporator coils shall be constructed out of copper tubes not less than **0.28 mm thickness** with expanded aluminium fins to give a good mechanical bond for maximum heat transfer. The number of fins shall not be less **than 12 fins per inch**. Fins thickness shall not be less **than 0.1 mm** and provided with hydrophilic treatment.
- 5.3 Face area of coil shall be selected corresponding to air velocity not exceeding 2.5 m/sec.
- 5.4 The condensate drain tray shall be of stainless steel of thickness not less than 1.2mm shall be provided to cover the full projected area of cooling coil to collect all the condensed water. The PVC threaded water pipe shall be provided to drain the condensed water.
- 5.5 The Blower fans shall be statically and dynamically balanced.

- 5.6 Backward curved fan directly driven by an electronically Commutated (EC) motor with integrated electronics suitable for operation on 3-phase AC supply. The fan speed shall be controlled by sensing return air temperature/pressure/controller logic for energy saving.
- 5.7 Energy efficient motors of EBMPAPST/ROSSENBERG/ZEIHLABEGG make shall be used.
- 5.8 Infrared /Immersed electrode humidifier shall be provided.

## **6.0 REFRIGERANT PIPING :**

- a. Separate piping shall be provided for each refrigerant circuit.
- b. Each refrigerant circuit shall be suitable for operation on **R-407C/R 410A** and shall consist of the following items :-
  - i. Electronic Expansion Valve (EEV) controlled by the microprocessor with special software to enable the adjustment of flow of refrigerant fluid through the evaporator. At the same time, it should not allow liquid flood back into the compressor.
  - ii. Removable liquid line filter drier with hand shut off valves.
  - iii. Liquid Line sight Glass with Moisture indicator.
  - iv. Charging valves.
  - v. Liquid receiver with safety plug.
- c. Serviceable/removable components for easy removal & assembling.
- d. The piping shall be carried with refrigerant quality copper tubes of thickness not less than 18 SWG (1.2mm). The proper bending tool shall be used for bending of the pipes. Heavy gauge radius fittings shall be provided wherever, bending of pipes is not feasible.

## **7.0 ELECTRICAL SYSTEM :**

The electrical system shall conform to relevant I.S. standard. The panel shall be accessible from front. The main incoming MCCB of suitable rating and having a rupturing capacity of not less than 25 kA shall be provided along with Single Phasing Preventer (SPP), Electronic overload protection, phase loss and reverse phase sequence and sensing negative sequence current to meet the total power requirements.

- 7.1 The load shall be distributed equally on 3-phase, 4-wire supply.
- 7.2 All control wires shall be provided with not less than 1.5 sq. mm. Multi-strand copper conductor. The control wiring shall be properly colour coded and shall be numbered/ ferruled at their point of termination to facilitate servicing/identification.
- 7.3 The power and control wiring shall be provided in separate casing capping/conduit.
- 7.4 Heaters shall be provided with insulators, with safety thermostats, humidistats and contractors of suitable ratings.

7.5 Isolators of suitable rating having rupturing capacity of not less than 25 kA shall be provided for each equipment/ motor/ heater etc. However, the isolation arrangement for the condenser fan motor shall be achieved through a suitable rating MCB mounted on the condenser unit.

7.6 Contactor of suitable rating shall be provided with overload protection for motors and compressors.

7.7 The laminated power and control wiring diagram shall be provided on the HPAC unit.

## 8.0 AIR COOLED CONDENSER :

8.1 Separate condenser units shall be provided for each refrigerant circuit.

8.2 A heat rejecting coil block shall be constructed out of copper tubes not less than 0.28 mm thick with expanded aluminium fins to give a good mechanical bond for maximum heat transfer. The number of fins shall not be less than 12 fins per inch.

8.3 Fins thickness shall not be less than 0.1 mm and shall be provided with epoxy /suitable weather proof coating.

8.4 A minimum of two numbers axial flow fans directly driven by variable speed drive shall be provided for each condenser unit.

8.5 The condenser unit shall suitably design for noise level  $\leq 75$  dB at a distance of 1 meter away from the outdoor unit.

8.6 The Condenser unit shall be suitable for round-the-clock operation.

8.7 The body of the condenser unit shall be made out of 16 SWG (1.6 mm) corrosion resistant G.I. Sheet. The entire assembly shall be supported by an epoxy coated frame.

## 9.0 CONTROLS :

9.1 High pressure trip – Manual reset (for each compressor)

9.2 Low pressure trip – Auto reset (for each compressor)

The unit shall trip in the event of three consecutive LP trips.

## 10.0 SAFETY INTERLOCKS :

10.1 The compressor shall start with a condenser fan in "ON" condition only. However, the compressor should run with a condenser fan in operation.

10.2 Provision shall also be made to operate the evaporator fan without operation of condenser and compressor.

## 11.0 CONTROLLER :

### 11.1 SCOPE :

Each unit shall have individual controller as per the manufacturer's design to maintain the desired temperature and humidity. The controller shall be intelligent type with microprocessor capable of communicating with other units in the same room and control the desired condition with group

action. The controller shall operate the units in Master-Slave configuration, however, each controller shall act as Master, if required, in emergency situations.

The controller shall be provided with a backlit LCD/LED screen and control keys for user inputs mounted in an ergonomic, aesthetically pleasing housing. The controls shall be menu driven. The display & housing shall be viewable while the unit panels are open or closed.

The controller shall fully compliant with EEC directives for electromagnetic compatibility possessing following broad features:

- i) Operates and monitors so that the temperature and humidity in the conditioned area are kept at  $23 \pm 3$  °C &  $40 \pm 20\%$  RH respectively. However, the parameters shall be site settable.
- ii) The controller shall be password protected for preventing unauthorized access.
- iii) The display shall be organized into following three main sections:

User Menu	Service Menu	Advanced Menu
Active alarms, event log, numeric/graphic data, unit view/ status overview (including the monitoring of room conditions, operational status in % of each function, date and time) , total run hours, various sensors etc.	Set points, standby settings (lead/lag), timers/ sleep mode, alarm setup, sensor calibration, maintenance/ wellness settings, and repair /service mode etc.	Factory Settings, Configuration settings shall be factory-set based on the pre-defined component operation etc.

### 11.2 USER MENU :

The user menu shall be defined as follows:

- i) **Active Alarms :**  
Unit memory shall hold the 100 most recent alarms with time and date stamp for each alarm.
- ii) **Event Log :**  
Unit memory shall hold a minimum of 100 most recent events with id number, time and date stamp for each event. The conditioned area temperature, humidity etc. are saved at regular intervals.
- iii) **Numeric/Graphic Data View :**  
The numeric/ graphic records shall be available for supply air temperature, return air temperature, return air humidity and outdoor ambient temperature.
- iv) **Unit View - Status Overview :**  
Numeric or Graphical unit view summary displays shall include temperature, humidity, active functions and any alarms of the units.
- v) **Total Run Hours :**  
Menu shall display accumulative component operating hours for Unit and compressors.

### 11.3 SERVICE MENU :

The service menu shall be defined as follows: -

**i) Set Points :**

The controller shall allow programming of the following conditions:

- |    |                                   |   |             |
|----|-----------------------------------|---|-------------|
| a) | Temperature Set Point             | - | 18-29°C     |
| b) | Adjustable Temperature Hysteresis | - | 0.5-5°C     |
| c) | Humidity Set Point                | - | 20-80% RH   |
| d) | Adjustable Humidity Hysteresis    | - | 1-10% RH    |
| e) | Low/High Temperature Alarm        | - | 2-32°C      |
| f) | Low/High Humidity Alarm           | - | 15-85% RH   |
| g) | High Pressure Alarm               | - | 320-340 psi |

The controller may be set within these ranges, however, the unit may not be able to control extreme combinations of temperature and humidity.

The controller shall include the following settable features:

- a) Unit identification number.
- b) Startup delay, cold start delay and Fan run on timers
- c) Remote shutdown & general alarm management
- d) Compressor sequencing.
- e) Return temperature control.

**ii) Repair/Service Mode :**

Control input and output values and status shall be displayed to aid in unit diagnostics and troubleshooting. Control inputs shall indicate on or off at the front display and shall be able to turn on or off from the front display without using jumpers or a service terminal. Each control output shall be indicated by an LED on a circuit board.

**11.4 ADVANCED MENU :**

**Factory Settings:**

Configuration settings shall be factory-set based on the pre-defined component operation.

**11.5** The Controller shall also have following features :

- i) Allow adjustment of temperature, humidity set points, range of control, alarm set points etc.
- ii) Arrow/control buttons for navigation and value adjustment.
- iii) Status indicators like Power, Cool, humidity etc.
- iv) The controller shall be provided with a power backup unit to operate during mains power failure.
- v) Programming of unit shall be based on :
  - (a) Equal run hours per 24 hours in a day and
  - (b) Turn on the next unit in case the designated unit is unhealthy.

**11.6 GROUP OPERATION :**

The optimum number of units shall be made operational in order to maintain the necessary temperature and humidity in the conditioned area. All units can work as a single system and shall communicate with each other to maintain desired values in the conditioned area.

**11.7 CASCADING EFFECTS:**

If the value exceeds beyond the set points, the standby units will operate to maintain the desired condition and after maintaining the set points, the unit will return back to standby mode. In case, the standby unit(s) are not in a position to maintain the set values, all the units shall operate collectively to maintain the desired condition.

The Controller shall have the feature of grouping/ zoning of units, if required.

**11.8 SYSTEM AUTO RESTART :**

The controller shall have an auto restart facility to start the unit sequentially after restoration of power supply with suitable programmable time delay to minimize total inrush current.

**11.9 PREDICTIVE HUMIDITY CONTROL :**

The controller shall calculate the moisture content in the room and prevents unnecessary humidification and dehumidification cycles by responding to changes in dew point temperature.

**11.10 ALARM MANAGEMENT :**

**(i) Display Status Indication :**

The unit shall display the following:

- a) Temperature and humidity.
- b) Blower fan-working status.
- c) Compressor working status.
- d) Electric heaters working status.
- e) Temperature set point.
- f) Humidity set point.
- g) Working hours of main component i.e. Compressor, fan, heater, humidifier.
- h) Unit working hours.
- i) Real time and date.
- j) Type of alarm.

**ii) Audio-Visual alarms:**

- a. High Temperature
- b. Low Temperature
- c. High Humidity
- d. Low Humidity
- e. Compressor Overload
- f. Evaporator Fan Overload.
- g. Humidifier Faulty.
- h. High Pressure
- i. Low Pressure
- j. Clogged Filter
- k. Condenser Fan overload
- l. Unit OFF

- 11.11** The controller shall be suitable to be integrated with the fire system and should switch off the unit in event of receiving signal from the fire panel.
- 11.12** The Controller shall be equipped with Modbus/BACnet/LonWorks/open protocols connectivity facility for enabling data transfer to a IBMS system, wherever IBMS is available.
- 11.13** The log data shall be downloadable printable in sequence of date & time. The necessary provision shall be available to connect the laptop /flash drive through TCP/IP protocols, wherever IBMS is not available.
- 11.14** The firm shall provide one software free of cost.

**12.0** **MICRO INVENTORY** :

Sl. No.	Description of Items	14 TR PAC
<b>1.0</b>	<b>COMPRESSOR:</b>	
1.1	Make	COPELAND(ZR108KCE-TFD)/DANFOSS /Similar superior
1.2	Type	Hermetic scroll
1.3	No of Compressor	2
1.4	Power supply V / Ph / Hz	415±10%/3/50
1.5	Oil Heater	Yes
<b>2</b>	<b>EVAPORATOR COIL:</b>	
2.1	Tube	not less than 0.28 mm Cu
2.2	Fins	not less than 0.1 mm Al.
2.3	Fins per Inch nos.	not less than 12
2.4	Coating	Hydrophilic
<b>3.0</b>	<b>EVAPORATOR FAN:</b>	
3.1	Make	EBMPAPST/ROSSENBERG/ZEIHLABEGG
3.2	Type of Fan	Electronically Commutated with backward Curved
3.3	Type of Drive	Direct driven
3.4	Speed control	Variable
3.5	No of Fan	2
3.6	Power supply V / Ph / Hz	415±10%/3/50
<b>4.0</b>	<b>EXPANSION VALVE:</b>	
4.1	Type	Electronic
4.2	Number	2
<b>5.0</b>	<b>FILTERS:</b>	
5.1	efficiency	95% down to 5 microns
<b>6.0</b>	<b>HUMIDIFIER:</b>	



6.1	Type	Immersed electrode/ Infra Red
6.2	Power supply V / Ph / Hz	415±10%/3/50
<b>7.0</b>	<b>ELECTRICAL HEATER:</b>	
7.1	Type	steel fin tubular
7.2	ON/OFF/ Safety arrangement	Contactora, Thermostat
7.3	KW	9 KW
7.4	Power supply V / Ph / Hz	415±10%/3/50
<b>8.0</b>	<b>CONDENSER:</b>	
8.1	Type	Air cooled
8.2	Number of Units	2
8.3	Tube	not less than 0.28 mm Cu
8.4	Fins	not less than 0.1 mm Al.
8.5	Fins per Inch nos.	not less than 12
8.6	Number of fans	not less than 2
<b>9.0</b>	<b>CONDENSER FAN:</b>	
9.1	Type of Fan	Axial Flow
9.2	Type of Drive	Direct driven
9.3	Power supply V / Ph / Hz	230±10%/1/50
9.4	Speed control	Variable
<b>10.0</b>	<b>NUMBER OF CIRCUITS</b>	2
<b>11.0</b>	<b>ELECTRICAL SYSTEM:</b>	
11.1	MAIN INCOMER:	1
i)	Type	4-pole MCCB
ii)	Rating	80A
iii)	Breaking Capacity	not less than 25 kA
iv)	SPP	1 No.
<b>11.2</b>	<b>ISOLATOR</b>	8 Nos.
<b>11.3</b>	<b>MCB</b>	2 No.
<b>11.3</b>	<b>CONTROL WIRING</b>	1.5 Sq. mm. multi strand Cu. Wire

## **ELECTRICAL WORK**

### **1. Scope**

This section sets out the basic requirement for switchboards, electrical power wiring to individual motors and other equipment, control circuit wiring and earthing etc.

### **2. General**

1. Unless otherwise specified particularly, the entire equipment shall be suitable for operation on 415 volts/240 volts, 50Hz earthed neutral, 3/single-phase alternating current system as may be required.

2. All components, accessories, raw materials and finished parts used in manufacture and assembly of switch boards, power and control circuit wiring and earthing system shall comply with the relevant Indian Standards amended up to date. Where Indian Standards do not exist British Standards shall apply.

3. The entire work shall comply with Indian Electricity rules and C.P.W.D general specifications for electrical work. Particular care shall be taken to ensure compliance to I. E. rules 41, 45, 51 and 61.

4. When cables pass through pipes, wooden bushes shall be provided at both the ends. When cables are required to pass through floors or walls, pipe inserts shall be provided and openings sealed in an approved manner.

### **3. Control Wiring**

1. Control circuit wiring shall be carried out with 250 volts grade PVC insulated armored multi core copper conductor cables.

2. Control cables shall be of adequate cross sections to restrict the voltage drop but each conductor shall be not less than 1.5 sq. mm.

3. Runs of control wires within the switchboard shall be neatly bunched and suitably supported / clamped. Means shall be provided for easy identification of the control wires by means of labeled ferrules.

4. The control wiring shall correspond to the circuit / sequence of operations and inter locks as required for satisfactory performance of the plant.

### **4. Earthing**

1. In accordance with Rule 61 of IE Rules, metallic frames of all medium voltage equipment / supporting frames, shall in all cases be connected to 2 separate and distinct earths. The size of such earth wires shall be not less than 4-mm dia GI wire.

## 5. DRAWINGS TO BE SUBMITTED FOR APPROVAL

The contractor shall get the following drawings approved before the start of the work:

- a) A dimensional drawing giving complete details of the erection of the equipment in the plant room (including condensers, refrigerant piping and details of foundations). While deciding layout future expansion, if any, has to be taken into consideration.
- b) Electric wiring diagrams for all Electrical equipment including controls showing cable sizes and equipment capacities.

### LIST OF SAFETY STANDARDS

I.S.618 - Code of practice for safety and health requirements in Electrical and Gas welding and cutting operations.

I.S. 659 - Safety code for Air Conditioning.

I.S. 660 - Safety code for Mechanical Refrigeration.

I.S.3016 - Code of practice for fire precautions in welding and cutting operations.

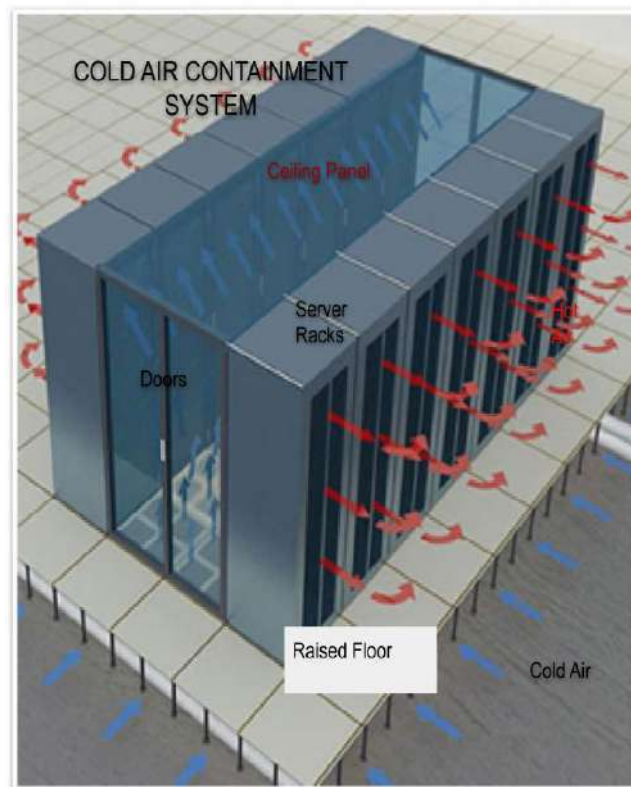
I.S. 3210 - Code for safety procedures and practices in Electrical works.

I.S. 3696 - Safety for Scaffolds and Ladders.

- INDIAN ELECTRICITY RULES 1956.

## Concept Document for Cold Aisle Containment System

In the cold Aisle containment system, cold Air is prevented from mixing with warm air. This arrangement is made with ceiling panels above the cold aisle between adjoining racks and providing doors at the end of the Aisle. This allows the cold air from the raised floor to enter the aisle through the Supply Air grills to be contained and delivered to the Server equipment inlets. This helps in focused cooling at the racks and minimizes the cold and hot air mixing , so that the return air temperature to the cooling units is higher.



**LIST OF APPROVED MAKES- BSNL ELECTRICAL WING**

<b>S. No.</b>	<b>Item</b>	<b>Makes</b>
1	Engine	Ashok Leyland /Cummins/ Cater pillar / KOEL/ Volvo Penta / Mahindra & Mahindra (up to 40 KVA) /Escorts (up to 30 KVA)/ Eicher (up to 20 KVA)
2	Alternator(Brushless)	Crompton Greaves (AL. series) / KEC / Leroy Somer / Stamford/Jyoti Ltd
3	Battery (Lead Acid / Mntc. Free)	Amara Raja / AMCO / Farukawa / Hitachi / Exide/ Prestolite / Standard
4	HV Switchgear (Vacuum Circuit Breaker/SF6 )	Biecco Lawrie / Crompton / Kirloskar / MEI / Jyoti Ltd
5	Transformer (Oil filled / Dry type)	ABB / Schneider Electric /Andrew Yule / Bharat Bijlee / Crompton / EMCO / Kirloskar / Siemens
	a) Above 400 KVA	
	b) Up to 400 KVA	In addition to above makes, Uttam/Automatic Electric Gear(AEG)/Patson/Rajasthan Transformer and Switchgear
6	Air Circuit Breaker	L&T/ Schneider Electric / Siemens
7	MCCB(Ics=Icu)	L&T/ Schneider Electric / Siemens
8	SDF units	L&T/ Schneider Electric / Siemens/ HPL/Havells
9	Power Contactors	L&T/ Schneider Electric / Siemens/ Lakshmi(LECS)
10	Change Over Switch	HPL / Havells / H-H Elcon
11	Intelligent APFC Relay	L&T/EPCOS(Siemens)/ Schneider Electric / Neptune Ducati/Syntron/ABB
12	BusbarTrunking/ Sandwiched Bus Duct	Moeller/L&T/Schneider Electric/ABB/Legrand/Zeta
13	Power Capacitors (MPP/APP)	L&T/EPCOS(Siemens)/ABB/Crompton/ Schneider Electric/Neptune Ducati
14	Digital/ KWHr meter	Schneider Electric/ AE/ Digitron / IMP/ Meco / Rishabh / Universal/HPL/L&T/ABB
15	Cold shrink HT/LT Cable Joint	Denson / 3M(M-Seal )/ Raychem
16	Rubber Matting	ISI mark

17	MCB/ Isolator /ELCB/RCCB/ Distribution Board	Crompton / Havells / Indokopp / MDS Legrand/ L&T / Schneider Electric/ Siemens / Standard/ C&S/ABB/HPL
18	MS/ PVC Conduit	ISI mark
19	Cable Tray	MEM/Bharti/Ratan/Slotco/Profab
20	HT/LT Cables	ISI mark
21	PVC insulated copper conductor wire	ISI mark
22	Centrifugal Pump	Amrut / BE / Beacon / Batliboi / Crompton / Jyoti / Kirloskar / KSB / Mather &platt / WASP/Grundfos
23	Submersible Pump	Crompton/Amrut / BE / Calama / Kirloskar / KSB
24	Motors	ABB/ Bharat Bijlee / Crompton Greaves / Schneider Electric / HBB / KEC / Siemens/Jyoti Ltd
25	Fresh Air Fans	GE / Khaitan/Almonard/Crompton
26	Starter	ABB / BCH / Schneider Electric / L&T / Siemens /
27	Single Phase Preventer	L&T / Minilec / Siemens / Zerotrip
28	GI/MS Pipe	ATC / ATL / BST / GSI / ITC / ITS / IIA / JST / Jindal /TTA / Tata/Zenith
29	Foot Valve	ISI mark
30	Gate Valve	Advance/Audco/Johnson Controls/Zoloto/Annapurna / Fountain / Kirloskar / Leader / Sant / Trishul
31	Compressors	Carrier/Emerson copeland/York/Danfoss (for chillers only)
32	Resin Bonded Glass wool	Fibre Glass / Pilkington / UP Twiga
33	Expanded Polystyrene	BASF(India) Ltd.
34	Gauge	Feibig / H.Guru / Pricol
35	Controls	FLICA / Honeywell / Indfoss / Penn-Danfoss / Ranco / Ranutrol / Sporland
36	Fine Filters	Anfiltra Effluent / ARW / Athlete/ Airtake/ Dyna / Kirsloskar/ Puromatic/ Purafill/ Purolator / Tenacity
37	GI Sheet	HSU Jindal / National / Nippon Denro / Sail / Tata

38	Heat Detector	Appollo / Chemtron/ Edward / Fenwal/ Hochiki / Nitton /System Sensor/ Wormald/Honeywell Essar/Notifier
39	Ionization Detector	Appollo / Cerebrus / Edward/ /Fenwal / Hochiki / Nitton / System Sensor / Wormald
40	Photoelectric Smoke Detector	Appollo / Cerebrus / Edward / Fenwal/ Hochiki / Nitton / Wormald
41	Fire Panel (Microprocessor based)	Agni Instruments / Agni Devices/ Aruna Agencies/ Carmel Sensor / Ravel Elect./Honeywell Essar/Notifier/Navin Systems
42	Sprinkler/ Hose Reel & Hose Pipe	ISI mark
43	Fire Extinguisher	ISI mark
44	Lift	OTIS, Kone, Mitsubishi , Schindler,Johnson

NOTE:

1. In case of External / PMC works, the list of approved makes may be modified as per client's requirement.
2. The accessories such as CT/PT/measuring instrument/relays provided by approved make in respect of Transformer/HT Panel/DG /AC Package Units as supplied by approved manufacturers along with the equipment are also acceptable in addition.

## **Specifications for AMC of 4 \* 14 TR Precision Package AC units**

### **1. Scope of Maintenance**

i. The maintenance of 14 TR Microprocessor controlled Precision Package AC Units as included in the schedule of work is to be carried out on a comprehensive basis. No material/spares will be supplied by BSNL. The firm has to adhere to the maintenance schedule attached with this document.

ii. The firm has to repair/replace defective parts/spares at no extra cost.

iii. The compressor will be repaired/ replaced from original manufacturers and documentary proof for the same will be furnished.

iv. The consumable like refrigerant gas, oil, belts etc., shall also be provided at no extra cost whenever required.

v. The contractor shall depute his service representative within 24 hours of notification of breakdown calls by the dept.

vi. In case the contractor fails to depute his representative within 24 hours of notification of the defect or fails to cause remedial measures within reasonable time as decided during joint inspection, the department may proceed to do so at the contractor's risk and expenses and without prejudice to any other right.

vii. After the completion of maintenance contract, the Agency shall hand over the installation in a healthy and free from defects condition.

### **2. Methodology**

(i) Before starting the work the agency has to supply the details as per Annexure Mtce- I. A complaint book as per Annexure Mtce- II shall be kept at sub-division office by the firm and the firm shall update the same by submission of service reports. Necessary complaints will be registered by JTO (E)/SDE(E) concerned and entries will be made by him according to the service reports with due verification.

(ii) At the commencement of AMC, the firm in consultation with SDE (E) concerned shall prepare a tentative program for preventive maintenance to be carried out during the period. The firm shall depute only those persons who are trained in refrigeration and air-conditioning with experience in AC maintenance and repair. The service staff should be conversant in maintenance of microprocessor based AC controllers.



1. Maintenance schedule to be followed.

#### MONTHLY

1. Checking of all electrical components for loose connections and tightening if necessary.
2. Cleaning up of unit, Air Filter, cooling coil & condenser coil (If required with water)
3. Checking of drive belt & replace if necessary (wherever Applicable)
4. Checking of Humidifier bottle, electrodes, water supply strainer and drain inside the machine.(If required to be replaced)
5. Lubrication of bearings if necessary.
6. Checking up of operation of Unit, Controller & Condenser.
7. Checking of fins of condenser & Evaporator coil if necessary
8. Measurement of current of each individual equipment
9. Checking of all the overload relay settings
10. Checking of refrigeration piping for any gas leakages.
11. Checking of the refrigeration system and pressure readings.
12. Checking of pulleys, Motor mounts, Condenser fan mounts etc
13. Checking of temperature readings
14. Checking of microprocessor controllers for operation

#### QUARTERLY:

- i) Check compressor mounts for any undue vibrations or cracks, replace mounts, if necessary.
- ii) Examine condition of starter contactors. Replace, if required.
- iii) Checking of electrical and mechanical interlocking.
- iv) Check functioning of controls & protections for each A. C. unit.
- v) Check operation of H.P/ L.P cutouts & Thermostats and review their set values. Take corrective action, wherever required.
- vi) Check operating pressures of compressors. Take corrective action for deviations (if any).
- vii) Open fan section cover. Check belts for wear & tear. Replace, if necessary. Check bearings & alignment of belt drive and take corrective action.
- viii) Cleaning of evaporator coil in the A. C. package units.
- ix) Clean the finned surface of condensers and do chemical Cleaning, if required.
- x) Check for any rust spots on steel panels, bottom & intermediate trays. Dry the spot, Clean with Emery, patch up with red oxide & paint.
- xi) Clean condenser fan blades and evaporator fan blades / blower drums and check for damages (if any).

#### HALF YEARLY

- i) Earth Testing (February & September).
- ii) Lubrication & Greasing of bearing of motor and fans as per the recommendations of equipment manufacturers.
- iii) Ensure that all equipment is properly earthed i.e., there are no loose joints.
- iv) Checking of MCCB/ ACB/ tripping mechanism.

## YEARLY

- i) Carry out a leak test for the refrigeration circuit and plug the leaks, if any.
- ii) Complete servicing of AC Plant including topping of gas (in the month of January /February).
- iii) Conduct 24 hours Performance test (in March / April) which will include checking of air flow quantity, capacity test, interlocking and checking of other safety devices. The capacity test has to be conducted in the presence of the concerned SDE (E) and the process to be finalized in consultation with the Engineer – In – Charge.

## 2. Materials:

The contract being comprehensive in nature all material required for attending the faults and breakdown including refrigerant lost during operation, oil, fan belts, filters and all other consumables and material replacement of parts for restoration of service, including compressor, switchgears, cables/ wiring, etc., will be firm's responsibility.

Air filters for all units are to be replaced once in a year

3. Special conditions relevant to particular job/ particular site.
  - a. All breakdown calls / complaints are to be attended by the firm with utmost promptness.
  - b. Burnt out motors shall not be repaired but replaced with higher efficiency motors of reputed make.

**Annexure Mtce - I**

**Details to be supplied before starting the work**

	<b>Name of the Agency (with Office address)</b>		
	<b>Name of Proprietor / partners</b>		
	<b>Telephone No.(s) of the firm</b>		
	<b>Name &amp; address of the Supervisor</b>		
	<b>24 Hours contact No.</b>		

**Annexure Mtce-II**

**COMPLAINT REGISTER / LOG BOOK**

<b>Sl. No.</b>	<b>Date &amp; time of complaint</b>	<b>Nature of complaint</b>	<b>Location</b>	<b>Date &amp; time of attending complaint</b>	<b>Cause of fault</b>	<b>Material used</b>	<b>Remarks / Signature of SDE/ JTO</b>

Section 3 –Part C Schedule of Requirements

<b><u>SCHEDULE OF WORK</u></b>						
<b>Name of work: SITC &amp;AMC of (3+1) x 14TR Precision AC Plant for CDR-III project at SDC, OU, Hyderabad.</b>						
Sl no	DESCRIPTION OF ITEM	QTY		Rate	Unit	Amount
	<b>Part A - SITC items</b>					
	<b>i) Supply of 4 * 14 TR Precision Package AC units</b>					
1	Supply of factory assembled, factory tested Microprocessor controlled 14 TR Sensible Cooling capacity, Air cooled Precision package AC units suitable to work on 415V, 3Ph ,50Hz AC Supply having downward flow/ discharge with electronically commutated motor for evaporator blower, with scroll compressor, working on R 407C/R 410A/eco-friendly gas in <b>Double refrigerant circuit</b> , comprising of indoor and outdoor units with all components i/c supply of controls, interlocking, electrical accessories (SPP for all the three phase motors), voltage and current indications and sequential controls and communication port with suitable protocol to suit BMS compatibility, Air cooled condenser with fans each directly driven by motors having a matching heat rejection duty with heat rejection coils constructed from copper tubes with expanded aluminium fins, MCBs, safety valves, pressure releasing valve, data communication cable between units. Water leak detection sensor shall also be provided with each unit. Also precision package units shall operate in load sharing / sequential mode when connected in a group etc., complete as per the detailed specification enclosed including packing, transportation to site, freight and insurance etc.	4	Jobs		Job	
	<b>ii) ITC of Package AC units includes Supply and Laying of cables for AC Plant and Cold Aisle Containment system.</b>					
	ITC of Package AC units					

1	Installation, testing and commissioning of indoor and outdoor units including positioning on the existing frames, supplying and fixing of copper refrigerant pipe line i.e., hot gas line (7/8") and Liquid line (5/8") between indoor and outdoor units (for both the circuits) on the existing tray up to the length of 12mtrs including cutting, bending, jointing, brazing and insulating the refrigerant lines inside AC area with suitable fire retardant polythene foam etc., nitrogen pressure testing, supply and charging the required quantity of refrigerant, cutting of raised floor tiles (with handheld cutting machine), making good the openings (to make leak proof), conducting Acceptance testing of PAC Units as per the BSNL A/T wing norms etc complete as required as per the detailed specifications attached.	4	Jobs		Job	
	Note: The refrigerant circuit between 10 to 12 mtr length will be considered as 12Mtrs for measurement purpose. Similarly refrigerant circuit between 12 mtr to 14 mtr shall be treated as 12 mtrs for measurement purpose and nothing extra /recovery shall be effected for such cases. However, if actual length of Refrigerant circuit is less than 10 Mtrs or more than 14 Mtrs, prorata recovery / extra payment (on linear length) shall be made as per the awarded rates.					
2	Supplying and fixing on existing MS cable tray of copper refrigerant pipes of following size with all accessories including cutting, bending, jointing, brazing etc., for hot gas and liquid lines of a refrigerant circuit including insulating the refrigerant lines inside AC area with suitable fire retardant polythene foam etc complete as required as per specifications attached. <b>(For extra length beyond 12mtrs only)</b>					
	a) Hot Gas Line, 7/8" Dia	30	Mtrs		Mtr	
	b) Liquid Line, 5/8" Dia	30	Mtrs		Mtr	
3	Supplying and laying of approved make PVC insulated PVC sheathed armoured Copper conductor cable of following sizes in existing cable tray including termination of cables etc as required					
	a) 3 x 2.5q.mm Copper cable(for condensers)	160	Mtrs		Mtr	

4	Supplying and fixing of 19mm thick nitrile rubber on the floor of equipment room after applying suitable adhesive, the joints shall be sealed with 50mm wide x3mm thick self-adhesive nitrile rubber tape insulation complete as per specification as required.	159	Sq Mtrs		Sq. Mtr
5	Providing and fixing of MS/GI/Aluminium supply air grills/ return air grills for the Precision AC plant etc., as required.				
	a) Supplying and fixing of 600x600mm MS supply air floor grills with 1.5mm thick aluminium louvers 30 degree slant and properly powder coated in matching with the colour of false floor and having strength for 500kg weight along with volume control dampers flush mounted on the false floor. The outer frame should be minimum 3mm thick MS plate construction and free of rough edges and louvers must not project out of MS frame, the complete assembly is to fit seamlessly in the existing tile etc as required. Minimum 60% of the area should be supply air area. The air leakages through closed air dampers should not exceed 5% of the fully opened air quantity. The settings should not get disturbed by the flow of air through it. The grills must have two removable and reversible quadrants so as to facilitate air flow direction on both sides without disturbing the tiles.	16	Nos		Each
	b) Return air grills of size 600mm x 600mm made of MS powder coated sheet of not less than 1.5 mm thick with minimum 60% perforation, the grill is to fit seamlessly in the existing false ceiling tile etc., making good as required.	24	Nos		Each
6	Design, fabrication, Supplying and Fixing of MS powder coated cowl made out of 18SWG MS sheet on top of the precision AC units for receiving the return air including cutting, welding, painting etc., It should have one open able size with a hinge with a neat closing arrangement. It is to be fixed on top of the precision package AC unit with a 6mm thick rubber gasket on all sides and has to be installed in such a fashion, <i>so as to be very stable. Drawing</i>	20	Sqmtr		Sqmtr

	<i>to be submitted and got approved from the Engineer-In-Charge.</i>					
7	Indoor/Outdoor stands:					
	a) Providing suitable MS stand for outdoor /Indoor units for raised platform of above Precision AC units with suitable C-channel/ Angle / Flat, MS base plate etc. along with CC coping, including, cutting, welding and painting etc., as required.	900	Kgs		Kg	
8	Supplying and laying of 6 SWG GI wire on surface or in recess for loop earthing as required.	100	Mtrs		Mtr	
9	Supplying and Fixing of following size pipes for drain/humidifier water outlet/inlet etc as required.					
	a) 40mm dia CPVC Pipe for Drain (Main Unit Outlet)	50	Mtrs		Mtr	
	b) 25mm dia CPVC Pipe for Drain (Humidifier inlet) i/c providing shut-off valve	50	Mtrs		Mtr	
10	Supplying and fixing of MS cable tray of following width, made of 35 x 35 x 5 mm MS angle & 20 x 3 mm MS flat fixed on wall/floor/ceiling including all accessories complete as required.					
	a) 200mm width	100	Mtrs		Mtr	
	b) 300mm width	30	Mtrs		Mtr	
	c) 400mm width	30	Mtrs		Mtr	
11	Providing & fixing of 100 A TPN FSU with 100A HRC fuse links suitable for operation on 415V, 50 Hz, 3 Phase AC Supply in the existing AC panel i/c minor modifications, testing etc., as required	1	Job		Job	

	<b>S/L of AUG Cables for AC Plant</b>					
12	Supply of following size approved make <b>copper conductor</b> XLPE insulated PVC sheathed armoured cables 1.1 kV grade etc., as required.					
	a) 4 x 16 sq mm	120	Mtrs		Mtr	
13	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required.					
	a) Up to 35 sq. mm	40	Mtrs		Mtr	
14	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required.					
	a) Up to 35 sq. mm	80	Mtrs		Mtr	
15	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable et as required.					
	a) 4x16 sqmm	8	set		set	
16	Providing and Fixing 25x5mm dia GI strip on surface or recess for connections etc as required.	120	Mtrs		Mtr	
17	Providing and Fixing 4mm dia copper wire on surface or recess for connections etc as required.	50	Mtrs		Mtr	



	<b>Cold Aisle Containment system</b>					
	Top Containment					
18	<p>Supplying and fixing of polycarbonate Plastic ceiling panel (Plexiglass / SS Make) of 4 mm thick transparent sheet or equivalent, with aluminum frame with Black powder coated of aluminum sections of 1.2 mm thick and the frame should be made up of rectangular box section of 48mmx25mm and L sections of size 25mmx25 mm for fixing of panels, i/c providing leak proof gaskets for fixing on the frame etc., complete with all accessories as required.</p> <p><u>NOTE:</u> The 4 mm thick polycarbonate sheet shall be of suitable fire retardant characteristic in line with the requirements of DATACENTRE server rooms.</p>	400	Sq Ft		Sq Ft	
	<b>Double Leaf Sliding Doors with Door Closer</b>					
19	<p>Supplying and fixing of double sliding door with 10mm thick polycarbonate sheet with auto closer kit in 27mmx 60mm (Jindal make / SS Make) 16 SWG section with all accessories and fittings. The frame work for door will be aluminium section of 63.5mm x 38mm of 16 SWG thickness.</p> <p><u>Note :</u> (1) The height of the server rack is 2 mtrs and aisle width is 1.2 mtr (approx.). The actual size may vary as per site conditions. The work shall be executed as per the approved drawing of Engineer in charge.</p> <p><u>NOTE:</u> (2) The 10mm thick polycarbonate sheet shall be of suitable fire retardant characteristic in line with the requirements of DATACENTRE server rooms.</p>	6	Nos		Each	
	Dummy Panels:					
20	<p>Supplying and Fixing of Customized Fire Retardant Rigid panel at location where rack is absent / for future use. Polycarbonate Plastic 4 mm sheet cut in accordance to the rack for the said cold aisle enclosure with support taken from the Top Panel and false floor. Aluminium Frame of size 40mm x 18 mm handle with Powder coating along the perimeter with each of size 600mm width by length as per site rack height but not more than 94".</p>	4	Nos		Each	

	<b>PART –B ( AMC)</b>					
1	Providing Annual comprehensive maintenance of microprocessor controlled 14 TR Sensible Cooling capacity High precision package AC units for 3 years, to be operational in succession of post warranty period. The work includes monthly servicing, preventive maintenance of all components, replacing of faulty components, topping up of gas etc. as per the detailed specifications.					
a)	1 st Year	4	Jobs		Job	
b)	2nd Year	4	Jobs		Job	
c)	3 rd Year	4	Jobs		Job	

**Note:** Bidder shall furnish the detailed Bill of Material (BOM) for each SOR item mentioned above. The detailed Bill of Material should clearly mention all the components including quantities, constituting the SOR item. The priced Bill of Material should be submitted in the envelope containing the price bid and the un-priced Bill of Material should be submitted in the envelope containing the techno-commercial part. There should not be any difference in the items and quantities in the priced and the un priced BOMs.

**SECTION-4 Part A**  
**GENERAL INSTRUCTIONS TO BIDDERS (GIB)**

1.1 DEFINITIONS

- (a) "The Purchaser" means the Bharat Sanchar Nigam Ltd.(BSNL), New Delhi
- (b) "The Bidder" means the individual or firm who participates in this tender and submits its bid.
- (c) "The Supplier" or "The Vendor" means the individual or firm supplying the goods under the contract.
- (d) "The Goods" means all the equipment, machinery, and/or other materials which the Supplier is required to supply to the Purchaser under the contract.
- (e) "The Advance Purchase Order" or "Letter of Intent" means the intention of the Purchaser to place the Purchase Order on the bidder.
- (f) "The Purchase Order" means the order placed by the Purchaser on the Supplier signed by the Purchaser including all attachments and appendices thereto and all documents incorporated by reference therein. The purchase order shall be deemed as "Contract" appearing in the document.
- (g) "The Contract Price" means the price payable to the Supplier under the purchase order for the full and proper performance of its contractual obligations.
- (h) "Successful Bidder(s)" means the bidder(s) to whom work in this tender is awarded.

2.1 ELIGIBILITY CONDITIONS:

2.2 Kindly refer to clause 4 of Section – 1 i.e., Detailed NIT.

3.1 COST OF BIDDING

3.2 The bidder shall bear all costs associated with the preparation and submission of the bid. The Purchaser will, in no case, be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

4.1 DOCUMENTS REQUIRED

4.2 The goods required to be supplied; bidding procedures and contract terms and conditions are prescribed in the Bid Documents. *The contents of the Bid documents are specified in the covering letter.*

4.3 The Bidder is expected to examine all instructions, forms, terms and specifications in the Bid Documents and clarifications/ amendments/ addenda, if any. Failure to furnish all information required as per the Bid Documents or submission of the bids not substantially responsive to the Bid

Documents in every respect will be at the bidder's risk and may result in rejection of the bid.

## 5.0 CLARIFICATION OF BID DOCUMENTS

- 5.1. A prospective bidder, requiring any clarification on the Bid Documents shall notify the Purchaser in writing by FAX or by E-mail of the Purchaser as indicated in the invitation of Bid. The Purchaser shall respond in writing to any request for the clarification of the Bid Documents, which it receives 10 days prior to the date of opening of the Tenders. Copies of the query (without identifying the source) and clarifications by the Purchaser shall be sent to all the prospective bidders who have received the bid documents uploaded on the CPP Portal and website.

Note: Depending upon the emergency/urgency, the CE(E) may take a decision on the no of days for clarification.

- 5.2 Any clarification issued by BSNL in response to a query raised by prospective bidders shall form an integral part of bid documents and shall amount to an amendment of the relevant clauses of the bid documents.

## 6.0 AMENDMENT OF BID DOCUMENTS

- 6.1 The Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, may modify bid documents by amendments prior to the date of submission of Bids with due notification to prospective bidders on CPP Portal
- 6.2 The amendments shall be notified in writing by FAX or Email or by Addendum through e-tendering portal ( for tenders invited through e- tendering process) to all prospective bidders on the address intimated at the time of purchase of the bid document from the purchaser and these amendments will be binding on them.
- 6.3 In order to afford prospective bidders a reasonable time to take the amendment into account in preparing their bids, the purchaser may, at its discretion, extend the deadline for the submission of bids suitably.

## 7.0 DOCUMENTS COMPRISING THE BID

The bid prepared by the bidder shall ensure availability of the following components:

- (a) Documentary evidence establishing that the bidder is eligible to bid and is qualified to perform the contract if its bid is accepted in accordance with the clause 2 &10.
- (b) Bid Security furnished in accordance with clause12.
- (c) A Clause by Clause compliance as per clause 11.2(c)
- (d) A Bid form and price schedule completed in accordance with clause 8 & 9.

- 8.0 **BIDFORM**
- 8.1 The bidder shall complete the bid form and appropriate Price Schedule furnished in the Bid Documents, indicating the goods to be supplied, brief description of the goods, quantity and prices as per section-9.
- 9.0 **BID PRICES**
- 9.1 The bidder shall give the total composite price inclusive of all Levies & Taxes i.e. GST and other applicable taxes, packing, forwarding, freight and insurance etc. but excluding Octroi / Entry Tax which will be paid extra at actual, wherever applicable. The basic unit price and all other components of the price need to be individually indicated up to two decimal points only against the goods it proposes to supply under the contract as per the price schedule given in Section 9 Part B (I&II). Prices of incidental services should also be quoted. The offer shall be firm in Indian Rupees. No Foreign exchange will be made available by the purchaser.
- 9.2 Prices indicated in the Price Schedule shall be entered in the following manner:
- (a) The Basic Unit price (Ex-Factory Price) of the goods, GST and other applicable taxes, Freight, Forwarding, Packing, Insurance and any other Levies/ Charges already paid or payable by the supplier shall be quoted separately item wise.
- (b) The supplier shall quote as per price schedule given in Section 9 part B for all the items given in schedule of requirement at Section 3 part C.
- 9.3 **A bid submitted with an adjustable price quotation will be treated as non- responsive and rejected.**
- 9.4 The prices quoted by the bidder shall be in sufficient detail to enable the Purchaser to arrive at the price of equipment/ system offered.
- 9.5 **"DISCOUNT if any, offered by the bidders shall not be considered unless specifically indicated in the price schedule. Bidders desiring to offer discount shall therefore modify their offers suitably while quoting and shall quote clearly net price taking all such factors like Discount, free supply, etc. into account".**
- 9.6 The price approved by BSNL for procurement will be inclusive of levies and taxes, packing, forwarding, freight and insurance as mentioned in clause9.1 subject to other terms and condition as stipulated in clause 22.2 of Section 4PartA.andclause11of Sec-5PartA of Bid-document. **Unloading charges at the consignee end shall be borne by the supplier and no separate charges shall be paid for transportation to individual sites for installation.**
- 9.7 The freight by sea for transportation of equipment/Stores from the nearest port in the mainland to Andaman & Nicobar Islands will be reimbursed to the supplier at the concessional rates levied by the Ministry of Water and Surface Transport on production of proof.
- 10.0 **DOCUMENTS ESTABLISHING BIDDER'S ELIGIBILITY AND QUALIFICATION**
- 10.1. The bidder shall furnish, as part of the bid documents establishing the bidder's eligibility, the following documents or whichever is required as per terms and conditions of Bid Documents (i.e. only those documents to prove eligibility and qualification of specific bidder)

- a) Valid MSE Certificate, if applicable. In case the ownership of such MSE Entrepreneurs happens to be from SC/ST category, proof in this regard also need to be submitted.
  - b) Additional documents to establish the eligibility and qualification of bidder as specified in Section-I and Section-4 Part B.
  - c) Power of Attorney as per clause 14.3 (a) and (d) and authorization for executing the power of Attorney as per clause 14.3(b) or (c).
  - d) Documentary proof of applicable rate of GST.
  - e) If applicable, undertaking duly signed by front bidder and its technology/ consortium partner stating that both of them shall be liable for due performance of the contract jointly and severally.
  - f) In case of Private or Public Limited Company, authorized signatory shall specify that none of the near relatives of Directors are working in BSNL in accordance with clause 34.
  - g) Certificate of incorporation.
  - h) Article or Memorandum of Association or partnership deed or proprietorship deed as the case maybe.
  - i) List of all Directors including their name(s), Director Identification Number(s) (DIN) and address (es) along with contact telephone numbers of office and residence.
  - j) If applicable, Registration certificate from State Director of Industries or from Secretariat for Industrial Assistance (SIA), Ministry of Industries, Government of India.
- 10.2 **Documentary evidence for financial and technical capability**
- a) The bidder shall furnish audited Annual Report and /or a certificate from its bankers to assess its solvency/financial capability.
  - b) The bidder shall furnish documentary evidence about technical and production capability necessary to perform the contract.
- 10.3 **In order to enable the Purchaser to assess the proven-ness of the system offered, the bidder shall provide documentary evidence regarding the system being offered by him.**
- 10.4 Deleted
- 10.5 Deleted
- 11.0 DOCUMENTS ESTABLISHING GOODS' CONFORMITY TO BID DOCUMENTS
- 11.1 Pursuant to clause7, the bidder shall furnish, as part of its bid, documents establishing the conformity of its bid to the Bid Documents of all goods and services which he proposes to supply under the contract.
- 11.2 The documentary evidences of the "goods and services" conformity to the Bid Documents may be, in the form of literature, drawings, data etc. and the bidder shall furnish:
- (a) a detailed description of goods with essential technical and performance characteristics;

- (b) a list, giving full particulars including available sources and current prices of all spare parts, special tools, etc., necessary for the proper and continuous functioning of the goods for a period of three years following commencement of use of the goods by the purchaser and
  - (c) a clause-by-clause compliance on the purchaser's Technical Specifications and Commercial Conditions demonstrating substantial responsiveness to the Technical Specifications and Commercial Conditions. A bid without clause-by-clause compliance of the Scope of Work, Technical Specifications, SOR (Section-3 Part A, B & C), General (Commercial) Conditions & Special (Commercial) Conditions, General Conditions of AMC (Section- 5 Part A, B & C) shall not be considered.
- 11.3 For the purpose of compliance to be furnished pursuant to the clause 11.2(c) above, the bidder shall note that the standards for the workmanship, material and equipment and reference to the brand names or catalogue number, designated by the Purchaser in its Technical specifications are intended to be descriptive only and not restrictive.
- 12.0 BID SECURITY /EMD
- 12.1 The bidder shall furnish, as part of its bid, a bid security as mentioned in Section-1 (DNIT).
- 12.2 The MSE bidders are exempted from payment of bid security:
- a) A proof regarding valid registration with body specified by Ministry of Micro, Small & Medium Enterprise for the tendered items will have to be attached along with the bid.
  - b) The enlistment certificate issued by MSME should be valid on the date of opening of tender.
  - c) MSE unit is required to submit its monthly delivery schedule.
  - d) If a vendor registered with body specified by Ministry of Micro, Small & Medium Enterprise claiming concessional benefits is awarded work by BSNL and subsequently fails to obey any of the contractual obligations, He will be debarred from any further work/ contract by BSNL for one year from the date of issue of such order.
- 12.3 The bid security is required to protect the purchaser against the risk of bidder's conduct, which would warrant the forfeiture of bid security pursuant to Para 12.7.
- 12.4. A bid not secured in accordance with Para 12.1 & 12.2 shall be rejected by the Purchaser being non-responsive at the bid opening stage and archived unopened on e-tender portal for e-tenders and returned to the bidder unopened (for manual bidding process)
- 12.5 The bid security of the unsuccessful bidder will be discharged /returned as promptly as possible and within 30 days of finalization of the tender or expiry of the period of the bid validity period prescribed by the purchaser pursuant to clause 13.
- 12.6 The successful bidder's bid security will be discharged upon the bidder's acceptance of the advance purchase order satisfactorily in accordance with clause 27 and furnishing the performance security, except in case of L-1 bidder, whose EMBG/EMD shall be released only after the finalization of ordering of complete tendered quantity in pursuance to clause no. 24.4 & 27.3 of this section.

12.7 The bid security may be forfeited:

- a) If the bidder withdraws or amends its bid or impairs or derogates from the bid in any respect during the period of bid validity specified by the bidder in the bid form or extended subsequently ;or
- b) If the bidder does not accept the APO/ AWO and/ or does not submit PBG & sign the contract/ agreement in accordance with clause28.

Note:-The bidder shall mean individual company/ firm or the front bidder and its technology/ consortium partner, as applicable.

### 13.0 PERIOD OF VALIDITY OF BIDS

13 .1 Bid shall remain valid for period specified in clause 2 of Tender Information. A bid valid for a shorter period shall be rejected by the purchaser being non- responsive.

13.2 In exceptional circumstances, the purchaser may request the consent of the bidder for an extension to the period of bid validity. The request and the response thereto shall be made in writing. The bid security provided under clause 12 shall also be suitably extended. The bidder may refuse the request without forfeiting its bid security. A bidder accepting the request and granting extension will not be permitted to modify its bid.

### 14.0 FORMAT AND SIGNING OF BID

14.1. The bidder shall submit his bid, online (in case of e-tendering) & through sealed envelopes physically (in case of tenders with manual bidding process), complying all eligibility conditions, other terms and conditions of tender document to be read along with the clarifications and amendments issued in this respect. All the documents must be authenticated, using Digital Signature (in case of e-tendering) & by hand signatures (for manual bidding process),by the authorized person. The letter of authorization shall be indicated by written power-of-attorney accompanying the bid.

Note:-The Purchaser may ask the bidder(s) to supply, besides original bid, additional copy of bids as required by him.

14.2. The bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the bidder in which case such corrections shall be signed by the person or persons signing the bid. All pages of the original bid, except for un-amended printed literatures, shall be digitally signed by the person or persons signing the bid.

### 14.3 Power of Attorney

- (a) The power of Attorney should be submitted and executed on the non- judicial stamp paper of appropriate value as prevailing in the concerned states(s) and the same be attested by a Notary public or registered before Sub-registrar of the state(s)concerned.
- (b) The power of Attorney be executed by a person who has been authorized by the Board of Directors of the bidder in this regard, on behalf of the Company/ institution/ Body corporate.



- (c) In case of the bidder being a firm, the said Power of Attorney should be executed by all the partner(s) in favour of the said Attorney.
- (d) Attestation of the specimen signatures of authorized signatory by the Company's/ firm's bankers shall be furnished. Name, designation, Phone number, mobile number, email address and postal address of the authorized signatory shall be provided.

## 15.0 SEALING AND MARKING OF BIDS

The bid should be submitted as per Clause 3 of tender information.

~~15.1.1 The bids may be called under Single stage bidding & Single envelope system. The details of sealing & marking of bids in each case is given below:~~

~~15.1.2 In Single stage bidding & single envelope system, a single envelope containing documents of bidder's satisfying the eligibility and techno-commercial conditions as per clause 2 and clause 10 with bid security as per clause 12.~~

- 15.2 a) The envelope shall be addressed to the purchaser inviting the tender.
  - i) In case of tenders invited by MMT section of BSNL CO, the Purchaser Address shall be:
    - DGM (MMT),
    - Bharat Sanchar Nigam Limited (Corporate Office),
    - 2nd Floor, Bharat Sanchar Bhawan, Janpath, New Delhi 110001.
  - ii) In case of tenders invited from other section of BSNL CO./ Circles/SSA of BSNL, the Purchaser Address shall be specified by the purchaser inviting the tender of concerned Circle/ SSA.
- b) The envelope shall bear the name of the tender, the tender number and the words 'DO NOT OPEN BEFORE' (due date & time).
- c) The envelope shall indicate the name and complete postal address of the bidder to enable the purchaser to return the bid unopened in case it is declared to be received 'late'.
- d) Tender should be deposited in the tender box provided by tendering authority or sent by registered post or delivered in person on above mentioned address (address is given in Clause 15.2 (a) above). The responsibility for ensuring that the tenders are delivered in time would vest with the bidder.
- e) Bids delivered in person on the day of tender opening shall be delivered upto specified time & date as stated in NIT to **The Executive Engineer (Electrical), Electrical Division-II, Hyderabad, #602, Sixth Floor, BSNL Bhavan, Adarshnagar, Hyderabad, Telangana-500063** at the venue (address is given in clause 15.2 (a) above). The purchaser shall not be responsible if the bids are delivered elsewhere.

### **f) Venue of Tender Opening:**

- (i) Tenders will be opened in the chambers of **The Executive Engineer (Electrical), Electrical Division-II, Hyderabad, #602, Sixth Floor, BSNL Bhavan, Adarshnagar, Hyderabad, Telangana-500063** at specified time & date as stated in NIT.

If due to administrative reasons, the venue of Bid opening is changed, it will be displayed prominently on at **O/oThe Executive Engineer (Electrical), Electrical Division-II, Hyderabad, #602, Sixth Floor, BSNL Bhavan, Adarshnagar, Hyderabad, Telangana-500063**

- g) **In single stage bidding & two envelopes system, the bidder shall submit his bid in two envelopes:** (Not applicable in case of e-tendering. However as per requirement of clause 163 of GFR 2017, for purchasing high value plant, machinery etc. of complex and technical nature, the clause 15.1.3 may be retained).

The First envelope will be named as Techno-commercial bid. This envelope will contain documents of bidder's satisfying the eligibility/Technical & commercial conditions as per clause 2&10 with bid security as per clause

12. Second envelope will be named as a Financial bid containing Price Schedules as per Section 9 Part B(I&II).

The cover of first envelope shall contain the 'Original Copy' of the Techno-commercial bid, subject to clause 14.2, duly marked 'TECHNO-COMMERCIAL BID'. The cover of second envelope shall contain the 'Original Copy' of the financial bid, subject to clause 14.2, duly marked 'FINANCIAL BID'

**Both the envelopes should be sealed separately and further kept in a single main envelope under the personal seal of the bidder**

- 15.3 **If the envelopes are not sealed and marked as required at para 15.1 and 15.2, the bid shall be rejected.**

## 16. SUBMISSION OF BIDS

- 16.1. Bids must be submitted by the bidders on or before the specified date & time indicated in Clause 6 of Section-I i.e. DNIT.

- 16.2 The Purchaser may, at its discretion, extend this deadline for the submission of bids by amending the Bid Documents in accordance with clause 6 in which case all rights and obligations of the purchaser and bidders previously subject to the deadline will thereafter be subjected to the extended deadline.

- 16.3 The bidder shall submit its bid offer against a set of bid documents purchased by him for all or some of the systems/ equipment as per requirement of the Bid Documents. He may include an alternate offer, if permissible as per the bid. However, not more than one independent and complete offer shall be permitted from the bidder.

## 17.0 LATE BIDS

- 17.1 No bid shall be accepted either online by E-Tender Portal or physically in case of manual bidding process after the specified deadline for submission of bids prescribed by the purchaser.

## 18. MODIFICATION AND WITHDRAWAL OF BIDS

- 18.1 **The bidder may modify, revise or withdraw his bid after submission prior to the deadline prescribed for submission of bid.**

- 18.2 **The bidder's modification, revision or withdrawal shall have to be online and digitally authenticated (in case of e-tendering) & physically (in case of manual bidding process) as per clause 15.**

18.3 Subject to clause 20, no bid shall be modified subsequent to the deadline for submission of bids.

#### 19.0 OPENING OF BIDS BY PURCHASER

19.1 The purchaser shall open bids online (in case of e-Tenders) or physically (in case of manual bidding process) in the presence of the authorized representatives of bidders online (in case of e-Tenders) or physically present (in case of e-Tenders as well as manual bidding process) who chose to attend, at time & date specified in Clause 7 of DNIT (Section-1) on due date. The bidder's representatives, who are present, shall sign in an attendance register. Authority letter to this effect shall be submitted by the authorized representatives of bidders before they are allowed to participate in bid opening (A Format is given enclosed in Section-7C).

19.2 A maximum of two representatives of any bidder shall be authorized and permitted to attend the bid opening.

19.3 Name of envelopes to be opened & information to be read out by Bid Opening Committee

(i) ~~In Single stage bidding & single envelope system; techno-commercial bid & financial Bid will be opened on the date of tender opening given in NIT.~~

(ii) In Single stage bidding & Two Envelope System: Techno Commercial bid shall be opened on the date of tender opening as given in the NIT. Thereafter the competent authority/CET will evaluate Techno-commercial bids & the report of CET will be approved by competent authority. The financial bids of those bidders who are approved to be techno-commercially compliant by the competent authority, will be opened by competent authority/TOC in front of techno commercially eligible bidders/authorized representatives by sending them a suitable notice.

(iii) The following information should be read out at the time of Techno- commercial bid opening:-

- a) Name of the Bidder
- b) Name of the item
- c) EMD amount & validity and acceptability
- d) Information in respect of eligibility of the bidder.
- e) Details of bid modification/ withdrawal, if applicable.

(iv) The following information should be read out at the time of Financial bid opening:-

- a) Name of the Bidder
- b) Name of the item
- c) Quantities/prices quoted in the bid
- d) Discount, if offered
- e) Taxes & levies

19.4 The date fixed for opening of bids, if subsequently declared as holiday by the BSNL, the revised date of schedule will be notified. However, in absence of such notification, the bids will be opened on the next working day, time and venue remaining unaltered.

## 20.0 CLARIFICATION OF BIDS

- 20.1 To assist in the examination, evaluation and comparison of bids, the purchaser may, at its discretion ask the bidder for the clarification of its bid. The request for the clarification and the response shall be in writing. However, no post bid clarification at the initiative of the bidder shall be entertained.
- 20.2 If any of the documents required to be submitted along with the technical bid is found wanting, the offer is liable to be rejected at that stage. However the purchaser at its discretion may call for any clarification regarding the bid document within a stipulated time period. In case of non-compliance to such queries, the bid will be outrightly rejected without entertaining further correspondence in this regard.

## 21.0 PRELIMINARY EVALUATION

- 21.1 Purchaser shall evaluate the bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed and whether the bids are generally in order.
- 21.2 Arithmetical errors shall be rectified on the following basis. Based on the quoted percentage of duties and taxes, Freight etc. the amounts quoted thereof shall be worked out and rounded off to 2 decimal points. In case the unit price quoted in column 13 (Indigenous Equipment), Column 20 (Imported category without High Sea), Column 19 (Imported category with High Sea) does not tally with its breakup quoted in col. 4,6,(8+10),or 12,Col.11,13,(15+17) or 19,Col.4c,6,8,10,12,(14+16) or 18 respectively, the same shall be corrected by summing up the breakups. If there is a discrepancy between the unit price and total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected by the purchaser.
- 21.3 If there is a discrepancy between words and figures, the amount in words shall prevail. If the supplier does not accept the correction of the errors, its bid shall be rejected.
- 21.4 Prior to the detailed evaluation pursuant to clause 22, the Purchaser will determine the substantial responsiveness of each bid to the Bid Document. For purposes of these clauses, a substantially responsive bid is one which confirms to all the terms and conditions of the Bid Documents without material deviations. The purchaser's determination of bid's responsiveness shall be based on the contents of the bid itself without recourse to extrinsic evidence.
- 21.5 A bid, determined as substantially non-responsive will be rejected by the purchaser and shall not be subsequent to the bid opening be made responsive by the bidder by correction of the non-conformity.
- 21.6 The Purchaser may waive any minor infirmity or non-conformity or irregularity in a bid which doesn't constitute a material deviation, provided such waiver doesn't prejudice or affect the relative ranking of any bidder.
- 22 EVALUATION AND COMPARISON OF SUBSTANTIALLY RESPONSIVE BIDS

- 22.1 The Purchaser shall evaluate in detail and compare the bids previously determined to be substantially responsive pursuant to clause 21.
- 22.2 The evaluation and comparison of responsive bids shall be done on the basis of Net cost to BSNL on the prices of the goods offered along with all applicable taxes, packing, Forwarding, Freight & Insurance charges etc. as arrived in col.16 of Price schedule in Section 9 Part-B Part-I(Indigenous items) and 23/Col 22 of price schedule in section 9 Part-B Part-II (Imported items) of the Bid-document after arithmetical correction in the manner laid down in clause 21.2 above but excluding taxes which are creditable to BSNL. Further, the bidder is also required to mention the taxes (if any) applicable on the movement of Goods.
- (a) Duties, Taxes & Cesses for which the firm has to furnish GST Challans/Tax Invoices will be indicated separately in the PO/APO.
  - (b) Vendors should furnish the correct HSN/SAC classification/Customs tariff Head in the price Schedule. If the credit for the Duties, Taxes and Cesses under provision/rules under GST law is found to be not admissible at any stage subsequently owing to wrong furnishing of Tariff Head, then the suppliers will be liable to refund such non admissible amount, if already paid, along with penalty and interest if charged by the concerned authority.
  - (c) In case the Duties & Taxes which are non-eligible for Input tax credit as per the quotes indicated in the price schedule by the suppliers and subsequently at any stage it is found that Credit for such duties, Taxes and Cesses is admissible as per provision of GST law, then the suppliers will be liable to refund the amount equivalent to such Duties, Taxes and Cesses if already paid to them provided the credit can be claimed within the time prescribed under the applicable legislation and BSNL has all documents to claim such credit. The refund is also subject to the bidder performing necessary act for enabling BSNL to claim the credit viz. upload the information on GSTN. However the purchaser may allow the supplier to submit necessary documents in this regard which may enable the purchaser to avail the input tax credit provided such credit is still available for the amount so paid as per provision of GST law.
  - (d) The purchaser reserves the right to ask the bidders to submit documentary proof confirming the correct HSN or SAC classification/Customs Tariff Head from the CGST/SGST/IGST officer or Customs authority where the HSN or SAC classification/Custom Tariff Head furnished against the particular tendered item by different bidders differs from each other or the same is found apparently not furnished in accordance with GST Act/ Customs Tariff notifications.
  - (e) If the supplier fails to furnish necessary supporting documents i.e. Tax invoices / Customs invoices etc. in respect of the Duties, taxes and Cesses which are eligible for input tax credit, the amount pertaining to such Duties, Taxes and Cesses will be deducted from the payment due to the firm.

- (f) If the supplier fails to perform necessary compliances which would any manner restrict BSNL to claim input tax credit, then the amount pertaining to such Duties, Taxes and Cesses will be deducted from the payment due to the supplier.
- (g) If the supplier does not disclose the correct details on the invoice or on the GSTN viz. GSTIN, place of supply etc. which restricts BSNL to claim input tax credit then the amount pertaining to such Duties, Taxes and Cesses will be deducted from the payment due to the supplier.

#### 23.0 CONTACTING THE PURCHASER

- 23.1 Subject to Clause 20, no bidder shall try to influence the Purchaser on any matter relating to its bid, from the time of the bid opening till the time the contract is awarded.
- 23.2 Any effort by a bidder to modify its bid or influence the purchaser in the purchaser's bid evaluation, bid comparison or contract award decision shall result in the rejection of the bid.

#### 24. PLACEMENT OF ORDER

- 24.1. The Purchaser shall consider placement of orders for commercial supplies only on those eligible bidders whose offers have been found technically, commercially and financially acceptable and whose goods have been type approved/ validated by the purchaser. The Purchaser reserves the right to counter offer price(s) against price(s) quoted by any bidder.
- 24.2 The ordering price of any bidder shall not exceed the lowest evaluated package price. However, at a later stage if there is any increase in Govt. duties/taxes within scheduled delivery date (SDD), the unit prices with applicable revised duties/taxes will be paid to suppliers irrespective of their ranking viz.L1/ L2/ L3 .....etc., keeping other levies & charges unchanged.
- 24.3. The purchaser reserves the right for the placement of order of the entire tendered quantity on the bidder with the lowest evaluated price.
- 24.4 ~~In the event of L2 and so on bidders refusing to accept its package de-rated to the price of L1 bidder, BSNL reserves the right to place the order for entire quantity to the L1 bidder. It is mandatory for the L1 bidder to accept such an offer (second APO) at evaluated L 1 price and shall perform the whole contract as envisaged in the tender document. The additional quantity, due to non-acceptance of respective quantity by L2 and/or L3 and so on bidders, as envisaged in clause3(Distribution of Quantity) in section 4 Part B, shall be supplied by the L 1 bidder as part of whole contract.~~

#### 25. PURCHASER'S RIGHT TO VARY QUANTITIES

- (a) BSNL reserves the right to increase or decrease up to 25% of the quantity of goods and services specified in the schedule of requirements without any change in the unit price or other terms and conditions at the time of award of contract.
- (b) BSNL also reserves the right for placement of additional order or up to 50% of the additional quantities of goods and services contained in the running tender/ contract within a period of twelve months from the date of acceptance of

first APO in the tender at the same rate or a rate negotiated (downwardly) with the existing vendors considering the reasonability of rates based on prevailing market conditions and the impact of reduction in duties and taxes etc and supplies to be obtained within delivery period scheduled afresh.

- c) In exceptional situation where the requirement is of an emergent nature and it is necessary to ensure continued supplies from the existing vendors, the purchaser reserves the right to place repeat order up to 100% of the quantities of goods and services contained in the running tender/contract within a period of twelve months from the date of acceptance of first APO in the tender at the same rate or a rate negotiated (downwardly) with the existing vendors considering the reasonability of rates based on prevailing market conditions and the impact of reduction in duties and taxes etc. Exceptional situation and emergent nature should be spelt out clearly detailing the justification as well as benefits accrued out of it and loss incurred in case this provision is not invoked and approved by the authority competent to accord administrative and financial approval for the procurement calculated on the basis of total procurement i.e., initial and proposed add-on quantity.

## 26. PURCHASER'S RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS

The Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids, at any time prior to award of contract without assigning any reason whatsoever and without thereby incurring any liability to the affected bidder or bidders on the grounds of purchaser's action.

## 27. ISSUE OF ADVANCE PURCHASE ORDER

27.1. The issue of an Advance Purchase Order shall constitute the intention of the Purchaser to enter into contract with the bidder.

27.2 The bidder shall within 14 days of issue of the advance purchase order, give its acceptance along with performance security in conformity with the proforma provided with the bid document at Section-7B.

~~27.3 L-1 bidder may be issued Advance Purchase Order (APO) in two stages. The first APO shall be issued for L-1 quantity as defined in clause above. The second APO may be issued to L-1 bidder only when the Purchaser exercises the right for placement of order on \_\_\_\_\_ balance \_\_\_\_\_ tendered \_\_\_\_\_ quantity \_\_\_\_\_ on the bidder with the lowest evaluated price in conformity to Clause 24.3 & 24.4 of Section 4 Part A.~~

## 28. SIGNING OF CONTRACT

28.1 The issue of Purchase order shall constitute the award of contract on the bidder.

28.2 Upon the successful bidder furnishing performance security pursuant to clause 27, the Purchaser shall discharge the bid security in pursuant to clause 12, except in case of L-

- 1 bidder, whose EMBG/EMD shall be released only after finalization of ordering of complete tendered quantity in pursuance to clause no. 24.4 & ~~27.3~~ of this section..
29. ANNULMENT OF AWARD
- Failure of the successful bidder to comply with the requirement of clause 27 & 28 shall constitute sufficient ground for the annulment of the award and the forfeiture of the bid security in which event the Purchaser may make the award to any other bidder at the discretion of the purchaser or call for new bids.
30. QUALITY ASSURANCE REQUIREMENTS
- NIT approving authority may require the supplier to have Quality Management System supported and evidenced by any combination of the following measures or any other measures:
- a) A Quality Policy.
  - b) A management representative with authority and responsibility for fulfilling QA requirements and for interfacing with purchaser in the matters of Quality.
  - c) Procedure for controlling design/ production engineering, materials, choice of components/vendors, manufacturing and packaging process for supplying quality products.
  - d) System of Inward Good Inspection.
  - e) System to calibrate and maintain required measuring and test equipment.
  - f) System for tracing the cause for non-conformance (traceability) and segregating product which don't conform to specifications.
  - g) Configuration management and change-control mechanism.
  - h) A quality plan for the product.
  - i) Periodical internal quality audits.
  - j) A 'Quality Manual' detailing the above shall be furnished.
31. REJECTION OF BIDS
- 31.1 While all the conditions specified in the Bid documents are critical and are to be complied, special attention of the bidder is invited to the following clauses of the bid documents. Non-compliance of any one of these shall result in outright rejection of the bid.
- a) Clauses 12.1, 12.2 & 13.1 of Section- 4 Part A: The bids will be rejected at opening stage if Bid security is not submitted as per Clauses 12.1 & 12.2 and bid validity is less than the period prescribed in Clause 13.1 mentioned above.
  - b) Clause 2 & 10 of Section-4Part A: If the eligibility condition as per clause 2 of Section 4 Part A is not met and/ or documents prescribed to establish the eligibility as per Clause 10 of section 4 Part A are not enclosed, the bids will be rejected without further evaluation.
  - c) Clause 11.2 (c) of Section-4 Part A: If clause-by-clause compliance as well as deviation statements as prescribed are not given, the bid will be rejected at the stage of primary evaluation.



- d) While giving compliance to Section-5 Part A, General Commercial conditions, Section-4 Part B, Special Instructions to Bidders, Section- 5B Special (Commercial) Conditions of Contract and Section-3 Technical Specifications ambiguous words like "Noted", "Understood", "Noted & Understood" shall not be accepted as complied. Mere "Complied" will also be not sufficient, reference to the enclosed documents showing compliances must be given.
  - e) Section-9 Price Schedule: Prices are not filled in as prescribed in price schedule.
  - f) Section-4 Part A clause 9.5 on discount which is reproduced below:- "Discount, if any, offered by the bidder shall not be considered unless specifically indicated in the price schedule. Bidders desiring to offer discount shall therefore modify their offer suitably while quoting and shall quote clearly net price taking all such factors like Discount, free supply etc. into account".
- 31.2 Before outright rejection of the Bid by Bid-opening team/ tender opening authority for non-compliance of any of the provisions mentioned in clause 31.1(a), 31.1(b) of Section-4PartA, the bidder company is given opportunity to explain their position, however if the person representing the company is not satisfied with the decision of the Bid opening team / tender opening authority, he/they can submit the representation to the Bid opening team immediately but in no case after closing of the tender process with full justification quoting specifically the violation of tender condition if any.
- 31.3 Bid opening team will not return the bids submitted by the bidders on the date of tender opening even if it is liable for rejection and will preserve the bids in sealed cover as submitted by taking the signatures of some of the desirous representatives of the participating bidder/companies present on the occasion.
- 31.4 The in-charge of Bid opening team will mention the number of bids with the name of the company found unsuitable for further processing on the date of tender opening and number of representations received in Bid opening Minutes and if Bid opening team is satisfied with the argument of the bidder/company mentioned in their representation and feel that there is prima-facie fact for consideration, the in-chargeofthebidopenteamwillsubmitthecaseforreviewtoOfficercompetent to approve the tender as early as possible preferably on next working day and decisiontothiseffectshouldbecommunicatedtothebiddercompanywithinaweek positively. Bids found liable for rejection and kept preserved on the date of tender opening will be returned to the bidders after issue of P.O. against the instant tender.
- 31.5 If the reviewing officer finds it fit to open the bid of the petitioner, this should be done by giving three (working) days notice to all the participating bidders to give opportunity to participants desirous to be present on the occasion.
32. ACTION BY PURCHASER AGAINST BIDDER(S)/VENDOR(S) IN CASE OF DEFAULT  
In case of default by Bidder(s)/ Vendor(s) such as
- a) Does not supply the equipment in time;
  - b) Equipment does not perform satisfactory in the field in accordance with the specifications;
  - c) Or any other default whose complete list is enclosed in Appendix-1.
- Purchaser will take action as specified in Appendix-1 of this section.
33. Deleted

### 34 NEAR-RELATIONSHIP CERTIFICATE

- 34.1. The bidder should give a certificate that none of his/ her near relative, as defined below, is working in the units where he is going to apply for the tender. 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 the company excluding Government of India/ Financial institution nominees and independent non-Official part time Directors appointed by Govt. of India or the Governor of the state and full time Directors of PSUs both state and central. Due to any breach of these conditions by the company or firm or any other person the tender will be cancelled and Bid Security will be forfeited at any stage whenever it is noticed and BSNL will not pay any damage to the company or firm or the concerned person.
- 34.2. The Company or firm or the person will also be debarred for further participation in the concerned unit.
- 34.3 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 them anneras father, mother, son(s)&Son's wife (daughter in law), Daughter(s) and daughter's husband (son in law), brother(s) and brother's wife, sister(s) and sister's husband (brother in law).
- 34.4. The format of the certificate is given in Section 6 (B).

### 35. VERIFICATION OF DOCUMENTS AND CERTIFICATES

The bidder will ensure that all the documents and certificates, including experience/performance and self-certificates submitted by him are correct and genuine before enclosing them in the bid. The onus of proving genuineness of the submitted documents would rest with the bidder.

If any document/ paper/ certificate submitted by the participant bidder is found / discovered to be false / fabricated / tempered / manipulated either during bid evaluation or during award of contract or thereafter, then the Purchaser will take action as per Clause-1of Appendix-1 of this section.

Note for Tender opening Committee: At the time of tender opening, the TOC will check/verify that the documents conforming to eligibility part are submitted by the participant bidder duly authenticated by the authorized signatory to obviate any possibility of doubt and dispute and maintain veracity of the documents / papers/certificates.

The documents/ papers to be submitted in respective bid part have been explicitly stated in clause- 7 of Section-4 Part A.Signedby theauthorized representative of the bidder company during bid submission will be signed by the tender opening committee on hard copy and preserve it along with the bids received online in case of e-tendering.

These papers will be treated as authentic one, in case of any dispute.Verification of eligibility documents vide letterno.CA/MMT/10-9/2014/ Pt.I dated 08.06.2018

36. Security Clause as per latest guidelines and requirement

Mandatory Licensing requirements with regards to security related concerns issued by the Government of India from time-to-time shall be strictly followed and appropriate clauses shall be added in all bid documents. Necessary guidelines in this regard shall be issued separately.

37. ~~Reservation/ Procurement from MSE units: The guidelines / instructions / laws issued vide No CA/MMT/3-2/2018-06.03.2019 and further updates if any issued from Ministry of Micro, Small & Medium Enterprise (MSME) with respect to provisions for Micro & Small Enterprises (MSEs) shall be followed.~~

Note – This clause shall be deleted if not applicable for the tender.

## SECTION-4 Part B

### SPECIAL INSTRUCTIONS TO BIDDERS

The Special Instructions to Bidders shall supplement the 'Instructions to Bidders' and in case of any conflict with those in Section-4 Part A i.e. GENERAL INSTRUCTIONS TO BIDDERS (GIB), the provisions herein shall prevail.

#### 1. Eligibility Criteria:

As per clause 4 of the Detailed Notice inviting tender forming part of this document

#### 2. Bid Security

The bank guarantee/DD for bid security or Micro & Small Enterprise (MSE) registration certificate for claiming exemption from submission of bid security, as prescribed in clauses 12.1 & 12.2 of Section-4 A of the bid document should be submitted by the bidder in a separate cover. The bank guarantee/DD so submitted shall be as per the format given in Section-7 E on prescribed judicial paper with stamps of proper value and should contain full address of the issuing branch of the bank with its telephone number and FAX number.

#### 3. Distribution of Quantity

- (i) The Purchaser intends to limit the number of technically and commercially responsive...one... bidders from the list of such bidders arranged in increasing order of their evaluated prices starting from the lowest for the purpose of ordering against this tender.
- (ii) The distribution of the quantity shall be as given in Table 1 below.

Table 1(A)(Without provisions for MSE Units)

No. of Bidders to be approved (Col. 1)	Quantity allotted to the respective bidder (Col. 2)				
	L1	L2	L3	L4	L5 and so on
One bidder	100%	Nil	Nil	Nil	Nil
Two Bidders	60%	40%	Nil	Nil	Nil
Three Bidders	50%	30%	20%	Nil	Nil
Four Bidders	40%	30%	20%	10%	Nil
More than four bidders	40%	In the inverse ratio of their evaluated quoted prices			

Table 1(B) (With provisions for MSE Units)

No. of Bidders to be approved (Col.1)	Quantity allotted to the respective bidder (Col. 2)					Qty earmarked for MS E bidder(s) (Col.3)
	L1	L2	L3	L4	L5 and so on	
One bidder	75%	Nil	Nil	Nil	Nil	25%
Two Bidders	45%	30%	Nil	Nil	Nil	25%
Three Bidders	37.5%	22.5%	15%	Nil	Nil	25%
Four Bidders	30%	22.5%	15%	7.5%	Nil	25%
More than four bidders	32%	In the inverse ratio of their evaluated quoted prices				25%

Note 1(a): ~~Table 1(B) shall be followed if the tender has provision for reservations for MSE units.~~

Note 1(b): ~~In case of tenders like for Turnkey projects etc. where it is not feasible to award the work to more than one bidder, the provisions for MSEs shall not be made.~~

Note 2: ~~If no eligible MSE bidders are available then aforesaid earmarked 25% quantity shall be de-reserved & the allotted quantity for other general bidders will be restored to 100% and distribution shall be as per Table 1(A) above.~~

Note 3: ~~If L 1, L 2, L 3, etc happens to be MSE bidders then they will be given allotted quantity as per the applicable sub-column of column 2 of above table. In case, there are MSE bidders whose quoted price is within 15% of L 1 price then 25% reserved quantity shall be distributed amongst such MSE bidders.~~

(iii) ~~In the event of any of the eligible bidder(s) not agreeing to supply the equipment or not being considered by BSNL for ordering the equipment, inter se ranking of the bidders below the aforesaid bidder(s) will be recast to fill up the vacated slot(s). This will be done to ensure that the number of bidders on which order for supply of equipment to be placed remains same as specified in the tender.~~

Note: ~~Directions given in chapter 9 is a repeat of above directions and is proposed to be deleted.~~

Note: ~~Additional clauses may be added related to evaluation criteria, additional documents required to be furnished, single stage or two stage bidding, etc. for which Chapter 3 may kindly be referred.~~

Note: ~~De-rating factor shall be calculated for determination of ordering price in r/o L 2 & others based on L 1 price.~~

## Section- 4 Part C

### E-tendering Instructions to Bidders

#### **General**

These Special Instructions (for e-Tendering) supplement 'Instruction to Bidders', as enclosed in Sec 4 Part A of the Tender Documents. Submission of Bids only through an online process is mandatory for this Tender.

For conducting electronic tendering, BSNL Electrical Zone, Telangana is using the portal (<https://etenders.gov.in/eprocure/app>) as per the Govt of India guidelines

#### 1. Tender Bidding Methodology:

Sealed Bid System – '(number of) Stages – Using Single stage - Two Envelopes',

In case of two envelope system, Financial & Techno-commercial bids shall be submitted by the bidder at the same time.

#### 2. Broad outline of activities from Bidders prospective:

1. Procure a Digital Signing Certificate(DSC)
2. Register on Electronic Tendering System<sup>®</sup>(ETS)
3. Create Users and assign roles on ETS
4. View Notice Inviting Tender (NIT) on ETS
5. Download Official Copy of Tender Documents from ETS
6. Clarification to Tender Documents on ETS
  - Query to BSNL(Optional)
  - View response to queries posted by BSNL, as addenda.
7. Bid-Submission on ETS
8. Attend Public Online Tender Opening Event (TOE) on ETS Opening of Techno-commercial Part
9. View Post-TOE Clarification posted by BSNL on ETS (Optional)Respond to BSNL's Post-TOE queries
10. Attend Public Online Tender Opening Event (TOE) on ETS Opening of Financial-Part (Only for Technical Responsive Bidders)

#### 3. Digital Certificates

For integrity of data and its authenticity/ non-repudiation of electronic records, and be compliant with IT Act 2000, it is necessary for each user to have a Digital Certificate (DC). also referred to as Digital Signature Certificate (DSC), of Class 2 or above, issued by a Certifying Authority (CA) licensed by Controller of Certifying Authorities (CCA) [refer<http://www.cca.gov.in>].

#### 4. Registration

To use the Electronic Tender® portal (<https://etenders.gov.in/eprocure/app>), vendor needs to register on the portal. Registration of each organization is to be done by one of its senior persons who will be the main person coordinating for the e-tendering activities. In ETS terminology, this person will be referred to as the Super User (SU) of that organization. For further details, please visit the website/portal, and click on the ‘Supplier Organization’ link under ‘Registration’ (on the Home Page), and follow further instructions as given on the site.

Pay Annual Registration Fee as applicable.

Note: After successful submission of Registration details and Annual Registration Fee (as applicable). Please contact NIC Helpdesk (as given below), to get your registration accepted/activated.

NIC Helpdesk	
Telephone	+91 0120-4200462, +91 0120-4001002, +91 0120-4001005
E-mail ID	Technical: support-eproc@nic.in

BSNL Contact-1	
BSNL’s Contact Person	<b>Shri.SLV Sivaram, Executive Engineer(E)</b>
Telephone/ Mobile	(040) 23224152 , 9490183700 [between 10:00 hrs to 17:30 hrs on working days]
E-mail ID	<a href="mailto:eeediv2bsnl@gmail.com">eeediv2bsnl@gmail.com</a>

BSNL Contact-2	
BSNL’s Contact Person	Shri.K.Babunaik, SDE(EP)
Telephone/ Mobile	940138238, 040-23264230 [between 10:00 hrs to 17:30 hrs on working days]
E-mail ID	<a href="mailto:bsnlesd5hyd@gmail.com">bsnlesd5hyd@gmail.com</a>

5. **Bid related Information for this Tender (Sealed Bid)**

The entire bid-submission would be online on ETS.

Broad outline of submissions are as follows:

- Submission of Bid Security/ Earnest Money Deposit(EMD)
- Submission of digitally signed copy of Tender Documents/ Addendum/addenda
- Two Envelopes
  - Techno-commercial-Part
  - Financial-Part

6. **Offline Submissions:**

The bidder is requested to submit the following documents offline to (designation and address of tender receiving authority) on or before the date & time of submission of bids specified in the covering letter of this tender document, in a Sealed Envelope. The envelope shall bear (name of the work), the tender number and the words 'DO NOT OPEN BEFORE' (due date & time).

1. EMD-Bid Security in Original.
2. Power of attorney in accordance with clause 14.4 of Section-4 Part A.
3. Integrity Pact.( If applicable)

7. **Special Note on Security of Bids**

Security related functionality has been rigorously implemented in ETS in a multi-dimensional manner. Starting with 'Acceptance of Registration by the Service Provider', provision for security has been made at various stages in Electronic Tender's software. Security related aspects as regard Bid Submission are outlined below:

As part of the Electronic Encrypter™ functionality, the contents of both the 'Electronic Forms' and the 'Main-Bid' are securely encrypted using a Pass-Phrase created by the Bidder himself. Unlike a 'password', a Pass-Phrase can be a multi-word sentence with spaces between words (e.g. I love this World). A Pass-Phrase is easier to remember, and more difficult to break. It is recommended that a separate Pass-Phrase be created for each Bid-Part. This method of bid-encryption does not have the security and data-integrity related vulnerabilities which are inherent in e-tendering systems which use Public-Key of the specified officer of a Buyer organization for bid-encryption. Bid-encryption in ETS is such that the Bids cannot be decrypted before the Public Online Tender Opening Event (TOE), even if there is connivance between the concerned tender-opening officers of the Buyer organization and the personnel of e-tendering service provider.

Typically, 'Pass-Phrase' of the Bid-Part to be opened during a particular Public Online Tender Opening Event (TOE) is furnished online by each bidder during the TOE itself, when demanded by the concerned Tender Opening Officers who will open the bid. Else Tender Opening Officer may authorize the bidder to open his bid himself.

There is an additional protection with SSL Encryption during transit from the client-end computer of a Supplier organization to the e-tendering server/ portal.



## **8. Public Online Tender Opening Event(TOE)**

ETS offers a unique facility for 'Public Online Tender Opening Event (TOE)'. Tender Opening Officers as well as authorized representatives of bidders can attend the Public Online Tender Opening Event(TOE) from the comfort of their offices. For this purpose, representatives of bidders (i.e. Supplier organization) duly authorized are requested to carry a Laptop and Wireless Connectivity to the Internet.

Every legal requirement for a transparent and secure 'Public Online Tender Opening Event (TOE)' has been implemented on ETS. As soon as a Bid is decrypted with the corresponding 'Pass-Phrase' as submitted online by the bidder himself (during the TOE itself), salient points of the Bids are simultaneously made available for downloading by all participating bidders. The work of taking notes during a manual 'Tender Opening Event' is therefore replaced with this superior and convenient form of 'Public Online Tender Opening Event (TOE)'.

ETS has a unique facility of 'Online Comparison Chart' which is dynamically updated as each online bid is opened. The format of the chart is based on inputs provided by the Buyer for each Tender. The information in the Comparison Chart is based on the data submitted by the Bidders in electronic forms. A detailed Technical and/ or Financial Comparison Chart enhances Transparency. Detailed instructions are given on relevant screens. ETS has a unique facility of a detailed report titled 'Minutes of Online Tender Opening Event (TOE)' covering all important activities of 'Online Tender Opening Event (TOE)'. This is available to all participating bidders for 'Viewing/ Downloading'. There are many more facilities and features on ETS. For a particular tender, the screens viewed by a Supplier will depend upon the options selected by the concerned Buyer.

NOTE: In case of internet related problem at a bidder's end, especially during 'critical events' such as – a short period before bid-submission deadline, during online public tender opening event, during e-auction, it is the bidder's responsibility to have backup internet connections. In case there is a problem at the e-procurement/ e-auction service-provider's end (in the server, leased line, etc) due to which all the bidders face a problem during critical events, and this is brought to the notice of BSNL by the bidders in time, then BSNL will promptly re-schedule the affected event(s).

## **9. Other Instructions**

For further instructions, the vendor should visit the home-page of the portal (<https://etenders.gov.in/eprocure/app>), and go to the User-Guidance Center

The help information provided through 'ETS User-Guidance Center' is available in three categories – Users intending to Register / First-Time Users, Logged-in users of Buyer organizations, and Logged-in users of Supplier Organizations. Various links are provided under each of the three categories.

Note: It is strongly recommended that all authorized users of Supplier organizations should thoroughly peruse the information provided under the relevant links, and take

appropriate action. This will prevent hiccups, and minimize teething problems during the use of ETS.

**10. The following ‘FOUR KEY INSTRUCTIONS for BIDDERS’ must be assiduously adhered to:**

1. Obtain individual Digital Signing Certificate (DSC or DC) well in advance of your first tender submission deadline on ETS.
2. Register your organization on ETS well in advance of your first tender submission deadline on ETS
3. Get your organization’s concerned executives trained on ETS well in advance of your first tender submission deadline on ETS
4. Submit your bids well in advance of tender submission deadline on ETS as there could be last minute problems due to internet timeout, breakdown, etc.

While the first three instructions mentioned above are especially relevant to first-time users of ETS, the fourth instruction is relevant at all times.

**11. Minimum Requirements at Bidders end**

- Computer System with good configuration (Min P IV, 1 GB RAM, Windows XP)
- Broadband connectivity.
- Microsoft Internet Explorer 6.0 or above
- Digital Certificate(s) for users.

## SECTION-5 Part A

### GENERAL (COMMERCIAL) CONDITIONS OF CONTRACT

#### 1. APPLICATION

The general condition shall apply in contracts made by the purchaser for the procurement of goods/**(For Part A of the Schedule:SITC & AMC of (3+1) x 14TR Precision AC Plant for CDR-III project at SDC, OU, Hyderabad.)**

#### 2. STANDARDS

The goods supplied under this contract shall conform to the standards prescribed in the Technical Specifications mentioned in section -3.

#### 3. PATENT RIGHTS

The supplier shall indemnify the purchaser against all third-party claims of infringement of patent, trademark or industrial design rights arising from use of the goods or any part thereof in Indian Telecom Network.

#### 4. PERFORMANCE SECURITY

##### 4.1 **For Part A of Schedule ( SITC of (3 +1) \* 14 TR Precision Package AC units work) :-**

All suppliers (including MSEs who are registered with the designated MSME bodies, like National Small Scale Industries Corporation etc. shall furnish performance security to the purchaser for an amount equal to 5% of the value of Advance purchase order within 14 days from the date of issue of Advance Purchase Order by the Purchaser.

4.2 The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the supplier's failure to complete its obligations under the contract.

4.3 The performance security Bond shall be in the form of Bank Guarantee issued by a scheduled Bank and in the proforma provided in 'Section-7B of this Bid Document.

4.4 The performance security Bond will be discharged by the Purchaser after completion of the supplier's performance obligations including any warranty obligations under the contract.

#### 5. INSPECTION AND TESTS

5.1 The Purchaser or its representative shall have the right to inspect and test the goods as per prescribed test schedules for their conformity to the specifications. Where the Purchaser decides to conduct such tests on the premises of the supplier or its subcontractor(s), all reasonable facilities and assistance like Testing instruments and other test gadgets including access to drawings and production data shall be furnished to the inspectors at no charge to the purchaser.

5.2 Should any inspected or tested goods fail to conform to the specifications the purchaser may reject them and the supplier shall either replace the rejected goods or make all alterations necessary to meet Specification / requirements free of cost to the purchaser.

5.3 Notwithstanding the pre-supply tests and inspections prescribed in clause 5.1 & 5.2 above, the equipment and accessories on receipt in the Purchaser's premises will

- also be tested during and after installation before "take over" and if any equipment or part thereof is found defective, the same shall be replaced free of all cost to the purchaser as laid down in clause 5.4 below.
- 5.4 If any equipment or any part thereof, before it is taken over under clause 5.5, is found defective or fails to fulfill the requirements of the contract, the inspector shall give the Supplier notice setting forth details of such defects or failure and the supplier shall make the defective equipment good, or alter the same to make it comply with the requirements of the contract forthwith and in any case within a period not exceeding three months of the initial report. These replacements shall be made by the supplier free of all charges at site. Should it fail to do so within this time, the purchaser reserves the discretion to reject and replace at the cost of the supplier the whole or any portion of equipment as the case may be, which is defective or fails to fulfill the requirements of the contract. The cost of any such replacement made by the purchaser shall be deducted from the amount payable to the supplier.
- 5.5 When the performance tests called for have been successfully carried out, the inspector / ultimate consignee will forthwith issue a Taking Over Certificate. The inspector/ultimate consignee shall not delay the issue of any "taking Over Certificate" contemplated by this clause on account of minor defects in the equipment which do not materially affect the commercial use thereof provided that the supplier shall undertake to make good the same in a time period not exceeding six months. The Taking Over Certificate shall be issued by the ultimate consignee within six weeks of successful completion of tests. In this case, BCPC(Bills Copy Payable Challan) shall be equivalent to "Taking Over Certificate", issuance of which shall certify receipt of goods in safe and sound condition. However, they shall not discharge the supplier of their warranty obligation. BCPC in respect of last consignment against the purchase order will be equivalent to "Taking Over Certificate". This clause shall be applicable only when the material is supplied in Stores.
- 5.6 Nothing in clause 5 shall in any way release the Supplier from any warranty or other obligations under this contract.
6. DELIVERY AND DOCUMENTS
- 6.1 Delivery of the goods and documents shall be made by the supplier in accordance with the terms specified by the purchaser in its schedule of requirements and special conditions of contracts, and the goods shall remain at the risk of the supplier until delivery has been completed. The delivery of the equipment shall be to the ultimate consignee as given in the purchase order.
- 6.2 The delivery of the goods and documents shall be completed within time frame stated in note 7 of Clause 6 of Section-2 (Tender information).
- 6.3 All Technical assistance for installation, commissioning and monitoring of the equipment shall be provided by the Supplier at no extra cost during laboratory evaluation, validation/ type approval and field trial, if any.

6.4 The extension of delivery period against the purchase order, if any, should be granted subject to the condition that BSNL shall have the absolute right to revise the price(s) and also to levy penalty for the delayed supplies.

7. TRAINING (Suitable clause regarding training of manpower may be inserted if required as per following guidelines)

7.1 The bidder shall provide training for installation and maintenance staff of the purchaser free of cost where required.

7.2 The bidder shall specify in its bid the number of trainees, quantum of proposed training, pre-training qualifications required of the trainees and duration of the proposed training.

7.3 The bidder shall provide all training material and documents.

7.4 Conduct of training of the purchaser's personnel shall be at the suppliers' plant and/or on-site in assembly start-up operation, maintenance and/or repair of the supplied goods.

#### 8. INCIDENTALSERVICES

The supplier may be required to provide any or all of the following services:

(a) Performance or supervision of on-site assembly and/or start-up of the supplied Goods;

(b) Furnishing of tools required for assembly and/or maintenance of supplied Goods;

(c) Performance of supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties provided that this service shall not relieve the supplier of any warranty obligations under this contract.

#### 9. SPARES

9.1 The supplier shall be required to provide a list of the following material and notifications pertaining to spare parts manufactured or distributed by the supplier of spares including cost and quantity considered for arriving at the price of spares in Sec-4 Part A clause9.

(a) Such spare parts as the purchaser may elect to purchase from the supplier provided that such purchase shall not relieve the supplier of any warranty obligation under the contract.

(b) In the event of termination of production of the spare parts, the supplier shall:

(i) give advance notification to the purchaser pending termination (not less than 2 years), in sufficient time to enable the purchaser to procure life time spare; and

(ii) following such advance intimation of termination, furnish at no cost to the purchaser, the blue prints, drawings and specifications of spare parts, if and when requested.

9.2. Over a period of three years starting from the date of final acceptance, the supplier shall supply, at its own cost, all necessary spares which have not been included in the offer as part of the requirement. These spares should be supplied within a maximum period of 30days from the notification by the purchaser of its need.

10. WARRANTY ( *For Part A Schedule of work i.e SITC of (3+1)\* 14 TR Precision AC Units*)

- 10.1 The supplier shall warrant that the stores to be supplied shall be new and free from all defects and faults in materials used, workmanship and manufacture and shall be of the highest grade and consistent with the established and generally accepted standards for materials of the type ordered and shall perform in full conformity with the specifications and drawings. The supplier shall be responsible for any defect that may develop under the conditions provided by the contract and under proper use, arising from faulty material, design or workmanship such as corrosion of the equipment, inadequate quantity of material to meet equipment requirements, inadequate contact protection, deficiencies in circuit design and/ or otherwise and shall remedy such defects at its own cost when called upon to do so by the Purchaser who shall state in writing in what respect the stores are faulty. This warranty shall survive inspection or payment for/ and acceptance of goods, but shall expire (except in respect of complaints notified prior to such date) **twelve months after the stores have been taken over under clause 5.5above.**
- 10.2 If it becomes necessary for the Supplier to replace or renew any defective portion(s) of the equipment under this clause, the provisions of the clause 10.1 shall apply to the portion(s) of the equipment so replaced or renewed or until the end of the above mentioned period of twelve months, whichever may be later. If any defect is not remedied by the supplier within the time, the Purchaser may proceed to get the defects remedied from other supplier etc., at the suppliers risk and expenses, but without prejudice to any other rights which the purchaser may have against the supplier in respect of such defects.
- 10.3 Replacement under warranty clause shall be made by the supplier free of all charges at site including freight, insurance and other incidental charges.

11. PAYMENT TERMS

- 11.1 Payment of specified percentage of the price as stated in clause 5 of Section -2 (Tender Information) shall be made on receipt of goods by consignee. For claiming this payment the following documents are to be submitted to the paying authority.
- (a) Invoice clearly indicating break up details of composite price i.e. Basic, GST, any other Duties and Taxes, Freight /Packing Charges etc.
  - (b) Acknowledged Delivery Challan in original.
  - (c) The sea freight receipt as per the rates approved by the Ministry of Water and Surface Transport, if applicable.
  - (d) Proof of payment of Octroi/ entry tax etc., if applicable.

Note :-

- 1) If the supplier fails to furnish necessary supporting documents i.e. GST invoice/Customs invoices etc. and also fails to upload the information on GSTN in respect of the Duties/taxes for which input tax credit is available, the amount pertaining to such Duties/Taxes will be deducted from the payment due to the supplier.

- 2) Tax amount will be paid to the supplier only after the supplier declares the details of the invoices in its return in GSTR 1 and GSTR -3 uploaded by the supplier and the same is reflected in GSTR-2A of BSNL on GSTN portal.
- 3) TDS/TCS shall be deducted at the prescribed rate, if any(as the case maybe)
- 4) BSNL can adjust/forfeit Bank Guarantee obtained from the supplier against any loss of input tax credit to BSNL on account of supplier's default.
- 5) In case BSNL has to pay GST on reverse charge basis, the supplier would not charge GST on its invoices. Further, the supplier undertakes to comply with the provisions of GST law as may be applicable.

11.2 The balance payment shall be released within 6 months from the date of supply of the equipment in case there are no damage/shortages. In those cases where such shortages/damages are intimated to the supplier in writing, the balance payment shall be released only after the cases are settled in accordance with the provision of the P.O.

11.2.1 100% Payment (in place of Payment % specified in clause 11.1 above) may be made on delivery, provided that an additional Bank Guarantee for an amount equal to Balance Payment % of the value of supplies [specified in clause 11.2 above] valid for a minimum period of seven months is furnished by the supplier along with an undertaking that the equipment/stores supplied shall be free from damages/shortages. In case purchaser intimates shortages/ damages in received stores to the supplier in writing, the Bank Guarantee shall be extended without fail by the supplier for a suitable period as requested by the purchaser in writing. Failure to do so shall result in forfeiture of Bank Guarantee. The Bank Guarantee shall be accepted at Circle Head Quarter and shall be released only after the cases are settled in accordance with the provisions available in the Purchase Order/ Tender document.

Note: The actual payment conditions for new products or procurements having installation and AMC services may be decided on a case to case basis and incorporated in special conditions of the contract."

11.3. A certificate stating that the tendered item (stores) are meant for the use of BSNL shall be provided by the purchaser on the request of the bidder as and when asked for.

- 11.4. No payment will be made for goods rejected at the site on testing.
- 11.5. The bidder has to give the mandate for receiving payment costing Rs.5 lakhs and above electronically and the charges, if any, levied by bank has to be borne by the bidder/contractor/supplier. The bidder company is required to give the following information for this purpose:-
- (a) Beneficiary Bank Name:
  - (b) Beneficiary branch Name:
  - (c) IFSC code of beneficiary Branch
  - (d) Beneficiary account No.:
  - (e) Branch Serial No. (MICRNo.):

## 12. PRICES

- 12.1 Prices charged by the supplier for goods delivered and services performed under the contract shall not be higher than the prices quoted by the Supplier in its Bid except for variation caused by change in taxes/ duties as specified in Clause-12.2 mentioned below.
- 12.2 For changes in taxes/ duties during the scheduled delivery period, the unit price shall be regulated asunder:
- (a) Prices will be fixed at the time of issue of purchase order as per taxes and statutory duties applicable at that time
  - (b) In case of reduction of taxes and other statutory duties during the scheduled delivery period, purchaser shall take the benefit of decrease in these taxes/ duties for the supplies made from the date of enactment of revised duties/taxes.
  - (c) In case of increase in duties/taxes during the scheduled delivery period, the purchaser shall revise the prices as per new duties/ taxes for the supplies, to be made during the remaining delivery period as per terms and conditions of the purchase order.
- 12.3 Any increase in taxes and other statutory duties/ levies, after the expiry of the delivery date shall be to the supplier's account. However, the benefit of any decrease in these taxes/duties shall be passed on to the Purchaser by the supplier. The total price is to be adjusted (by reducing the basic price) with increased duties and taxes as per price mentioned in PO.

## 13. CHANGES IN PURCHASE ORDERS

- 13.1 The purchaser may, at any time, by a written order given to a supplier, make changes within the general scope of the contract in any one or more of the following:
- (a) drawings, designs or specifications, where Goods to be supplied under the contract are to be specifically manufactured for the Purchaser;
  - (b) the method of transportation or packing;
  - (c) the place of delivery; or



- (d) the services to be provided by the supplier.
- 13.2 If any such change causes an increase or decrease in the cost of, or the time required for the execution of the contract an equitable adjustment shall be made in the contract price or delivery schedule, or both, and the contract shall accordingly be amended. Any proposal by the supplier for adjustment under this clause must be made within thirty days from the date of the receipt of the change in order.
- 14. **SUBCONTRACTS**

The Supplier shall notify the Purchaser in writing of all subcontracts awarded under this contract if not already specified in its bid. Such notification, in its original bid or later shall not relieve the supplier from any liability or obligation under the Contract.
- 15. **DELAYS IN THE SUPPLIER'S PERFORMANCE**
  - 15.1 Delivery of the Goods and performance of the services shall be made by the Supplier in accordance with the time schedule specified by the purchaser in its purchase order. In case the supply is not completed in the stipulated delivery period, as indicated in the Purchase Order, purchaser reserves the right to short-close/ cancel this purchase order and/ or recover liquidated damage charges. The cancellation/ short-closing of the order shall be at the risk and responsibility of the supplier and purchaser reserves the right to purchase balance unsupplied item at the risk and cost of the defaulting vendors.
  - 15.2 Delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to any or all of the following sanctions:
    - (a) forfeiture of its performance security,
    - (b) imposition of liquidated damages, and/or
    - (c) Short closure of the contract in part or full and/ or termination of the contract for default.
  - 15.3 If at any time during the performance of the contract, the supplier encounters condition impending timely delivery of the goods and performance of service, the supplier shall:
    - (a) Promptly notify to the Purchaser in writing the fact of the delay, its likely duration and its cause(s).As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at its discretion extend the period for performance of the contract (by not more than 20 weeks or as per provisions of clause 16.2 Section-5A as per provision given below:
    - (b) The vendor has to submit their request for extension along with the undertaking as per clause 24 Section-5A (Fall Clause) at least two weeks before the expiry of delivery period. The vendor shall also submit un conditional acceptance of the conditions for delivery period

extension i.e. applicability of liquidated damages, prices to be provisional and to be regulated as per clauses 12.3 and 24 of section- 5A and submission of additional BG, wherever applicable. The decision regarding extension shall be communicated within two weeks of the receipt of request and after receipt of the unconditional acceptance and the undertaking mentioned above.

- (c) In case extension is being granted beyond 20 weeks then the vendor shall submit additional BG while seeking extension. For piecemeal items the amount of additional BG shall be 5% of the value of balance quantity of items to be supplied for which extension in delivery period has been sought. In case of infrastructure/turnkey projects other than as stated above, 1% of the total project value shall be the value for additional BG. The additional BG shall be valid for six months beyond extension of delivery period sought and shall be discharged after the full ordered quantity has been supplied to the ultimate consignee within the last extended delivery period on submission of inspection certificate from QA and consignee receipt without prejudice to the other remedies available to the purchaser.
  - (d) If the vendor fails to deliver the full ordered quantity even during extended delivery period then the PO shall be short-closed and the Performance Bank Guarantee as well as additional BG shall be forfeited.
  - (e) Format of (i) letters conveying conditions of DP extension and (ii) DP extension letter are at Section 7 Part A & Part B.
- 15.4 If the supplies are not completed in the extended delivery period, the purchase order shall be short-closed and both the Performance securities shall be forfeited.
16. LIQUIDATED DAMAGES
- 16.1 The date of delivery of the stores stipulated in the acceptance of the tender should be deemed to be the essence of the contract and delivery must be completed not later than the dates specified therein. Extension will not be given except in exceptional circumstances. Should, however, deliveries be made after expiry of the contracted delivery period, without prior concurrence of the purchaser and be accepted by the consignee, such delivery will not deprive the purchaser of its right to recover liquidated damage under clause 16.2 below
- 16.2 While granting extension of delivery period as per clause 15.3, the liquidated damages shall be levied as follows:
- (a) Should the supplier fails to deliver the store or any consignment thereof within the period prescribed and agreed for delivery, the purchaser, without prejudice to other remedies available to the purchaser shall be entitled to recover ,as agreed liquidated damages for breach of contract, a sum equivalent to 0.5% of the value of the delayed supply and/ or undelivered material/ supply for each week of delay or part thereof for a period up to 10 (TEN) weeks, and thereafter at the rate of 0.7% of the value of the delayed supply and/ or undelivered material/ supply for each week of delay or part thereof for another TEN weeks of delay.

- (b) DP extension beyond 20 weeks would not be generally allowed. The extension beyond 20 weeks may be decided in most exceptional circumstances on a case to case basis, by the tender approving authority, stating reasons and justifications for grant of extension of delivery period beyond 20weeks.
- (c) In the case of package supply/ turnkey projects when the delayed portion of the supply materially hampers installation and commissioning of the systems, LD charges shall be levied as above on the total value of the concerned package of the Purchase Order.
- (d) Quantum of liquidated damages assessed and levied by the purchaser and decision of the purchaser thereon shall be final and binding on the supplier, further the same shall not be challenged by the supplier either before Arbitration tribunal or before the court. The same shall stand specifically excluded from the purview of the arbitration clause, as such shall not be referable to arbitration. The total value of the liquidated damages as per above sub-clauses shall be limited to a maximum of 12% (Twelve percent) i.e., LD shall be levied upto 20weeks only as per provision at Para(a).

16.3 In cases where the scheduled delivery period is distributed month-wise or is in installments, the liquidated damages shall be imposed for delay in each scheduled month/ installment. Liquidated damages shall be calculated separately for quantities to be supplied in every month/ installment and the corresponding delay. If the supplier supplies full quantity before the expiry of the scheduled delivery period of the last month/ installment but there is delay in month-wise/ installment-wise supply, then also liquidated damages shall be levied on the supplies against the earlier months/ installments that have been delayed. Twenty (20) weeks for the purpose of additional BG and grant of DP extension shall be counted from the last month/installment.

16.4 Deleted

## 17. FORCEMAJEURE

17.1 If, at any time, during the continuance of this contract, the performance in whole or in part by either party of any obligation under this contract is prevented or delayed by reasons of any war or hostility, acts of the public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes, lockouts or act of God (hereinafter referred to as events) provided notice of happenings of any such eventuality is given by either party to the other within 21days from the date of occurrence thereof, neither party shall by reason of such event be entitled to terminate this contract nor shall either party have any claim for damages against other in respect of such non-performance or delay in performance, and deliveries under the contract shall be resumed as soon as practicable after such an event come to an end or cease to exist, and the decision of the Purchaser as to whether the deliveries have been so

resumed or not shall be final and conclusive. Further that if the performance in whole or part of any obligation under this contract is prevented or delayed by reasons of any such event for a period exceeding 60 days, either party may, at its option, terminate the contract.

17.2 Provided, also that if the contract is terminated under this clause, the Purchaser shall be at liberty to take over from the Supplier at a price to be fixed by the purchaser, which shall be final, all unused, undamaged and acceptable materials, bought out components and stores in course of manufacture which may be in possession of the Supplier at the time of such termination or such portion thereof as the purchaser may deem fit, except such materials, bought out components and stores as the Supplier may with the concurrence of the purchaser elect to retain.

#### 18. ACTION BY PURCHASER AGAINST BIDDER(S)/VENDOR(S) IN CASE OF DEFAULT.

18.1 In case of default by Bidder(s)/ Vendor(s) such as

- (a) Failure to deliver and/ or commission any or all of the goods within the time period(s) specified in the contract, or any extension thereof granted by the purchaser pursuant to clause 15 of this section;
- (b) Failure to perform any other obligation(s) under the Contract; and
- (c) Equipment does not perform satisfactory in the field in accordance with the specifications;
- (d) Or any other default whose complete list is enclosed in Appendix-1 of Section-4, Part-A;

Purchaser will take action as specified in Appendix-1 of Section-4, Part-A.

19. Clause deleted.

20. ARBITRATION (Applicable in case of supply orders/Contracts with firms, other than Public Sector Enterprise) (Not applicable in cases valuing less than Rs. 5lakhs)

Except as otherwise provided elsewhere in the contract, if any dispute, difference, question or disagreement arises between the parties hereto or their respective representatives or assignees, in connection with construction, meaning, operation, effect, interpretation of the contract or breach thereof which parties unable to settle mutually, the same shall be referred to Arbitration as provided hereunder:

- (1) A party wishing to commence arbitration proceeding shall invoke Arbitration Clause by giving 60 days' notice to the designated officer of the other party. The notice invoking arbitration shall specify all the points of disputes with details of the amount claimed to be referred to arbitration at the time of invocation of arbitration and not thereafter. If the claim is in foreign currency, the claimant shall indicate its value in Indian Rupee for the purpose of constitution of the arbitral tribunal.

(2) The number of the arbitrators and the appointing authority will be as under:

<b>Claim amount (excluding claim for counter claim, if any)</b>	<b>Number of arbitrator</b>	<b>Appointing Authority</b>
Above Rs. 5 lakhs to Rs. 5 crores	Sole Arbitrator to be appointed from a panel of arbitrators of BSNL.	BSNL  (Note: BSNL will forward a list containing names of three empanelled arbitrators to the other party for selecting one from the list who will be appointed as sole arbitrator by BSNL)
Above Rs. 5 crores	3 Arbitrators	One arbitrator by each party and the 3 <sup>rd</sup> arbitrator, who shall be the presiding arbitrator, by the two arbitrators. BSNL will appoint its arbitrator from its panel.

(3) Neither party shall appoint its serving employee as arbitrator.

4. If any of the Arbitrators so appointed dies, resigns, becomes incapacitated or withdraws for any reason from the proceedings, it shall be lawful for the concerned party/arbitrators to appoint another person in his place in the same manner as aforesaid. Such person shall proceed with the reference from the stage where his predecessor had left it both parties consent for the same; otherwise, he shall proceed denovo.

5. Parties agree that neither party shall be entitled for any pre-reference or pendente-lite interest on its claims. Parties agree that any claim for such interest made by any party shall be void.

6. Unless otherwise decided by the parties, Fast Track procedure as prescribed in Section 29 B of the Arbitration Conciliation Act, 1996 for resolution of all disputes shall be followed, where the claim amount is upto Rs. 5 crores.

[29B. Fast track procedure – (1) Notwithstanding anything contained in this Act, the parties to an arbitration agreement, may, at any stage either before or at the time of appointment of the arbitral tribunal, agree in writing to have their dispute resolved by fast track procedure specified in sub-section(3).

(2) The parties to the arbitration agreement, while agreeing for resolution of dispute by fast track procedure, may agree that the arbitral tribunal shall consist of a sole arbitrator who shall be chosen by the parties.

(3) The arbitral tribunal shall follow the following procedure while conducting arbitration proceedings under sub-section(1):-

- (a) The arbitral tribunal shall decide the dispute on the basis of written pleadings, documents and submissions filed by the parties without oral hearing;
- (b) The arbitral tribunal shall have power to call for any further information or clarification from the parties in addition to the pleadings and documents filed by them;
- (c) An oral hearing may be held only, if, all the parties make a request or if the arbitral tribunal considers it necessary to have oral hearing for clarifying certain issues;
- (d) The arbitral tribunal may dispense with any technical formalities, if an oral hearing is held, and adopt such procedure as deemed appropriate for expeditious disposal of the case.

(4) The award under this section shall be made within a period of six months from the date the arbitral tribunal enters upon the reference.

(5) If the award is not made within the period specified in sub-section (4), the provisions of sub-sections (3) to (9) of Section 29 A shall apply to the proceedings.

(6) The fees payable to the arbitrator and the manner of payment of the fees shall be such as may be agreed between the arbitrator and the parties.]

7. The arbitral tribunal shall make and publish the award within time stipulated as under:

Amount of Claims and Counter Claims	Period for making and publishing of the award (counted from the date the arbitral tribunal enters upon the reference)
Up to Rs. 5 crores	Within 6 months (Fast Track procedure)
Above Rs. 5 crores	Within 12 months

However, the above time limit can be extended by the Arbitrator for reasons to be recorded in writing with the consent of parties and in terms of provisions of the Act.

8. In case of an arbitral tribunal of 3 arbitrators, each party shall be responsible to make arrangements for the travel and stay, etc. of the arbitrator appointed by it. Claimant shall also be responsible for making arrangements for travel/stay arrangements for the Presiding Arbitrator and the expenses incurred shall be shared equally by the parties.

In case of sole arbitrator, BSNL shall make all necessary arrangements for his travel/stay and the expenses incurred shall be shared equally by the parties.

9. The Arbitration proceeding shall be held at New Delhi or Circle or SSA Headquarter (as the case maybe).

10. Subject to the aforesaid conditions, provisions of the Arbitration and Conciliation Act, 1996 and any statutory modifications or re-enactment thereof shall apply to the arbitration proceedings under this clause.

II. Following Arbitration Clause may be incorporated in Contracts POs, APOs, Tenders, EOIs, etc. between BSNL and Central/State Government (s) as the case may be in terms of DPE guidelines for settlement of commercial disputes between Public Sector Enterprises inter-se and Public Sector Enterprise(s) and Government Department(s) through Permanent Machinery of Arbitrators (PMA) in the Department of Public Enterprises.

In the event of any dispute or difference relating to the interpretation and application of the provisions of the contracts, such dispute or difference shall be referred by either party for Arbitration to the sole Arbitrator in the Department of Public Enterprises to be nominated by the Secretary to the Government of India in-charge of the Department of Public Enterprises. The Arbitration and Conciliation Act, 1996 shall not be applicable to arbitration under this clause. The award of the Arbitrator shall be binding upon the parties to the dispute, provided, however, any party aggrieved by such award may make a further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law & Justice, Government of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary/Additional Secretary, when so authorized by the Law Secretary, whose decision shall bind the Parties finally and conclusively. The Parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator.

Further, with regard to already signed/existing contracts, existing Arbitration clauses for sole arbitrator can be invoked in case the parties waive, subsequent to disputes having arisen between them, the applicability of sub-section (5) of section 12 by an express agreement in writing.

### III. APPLICABLE LAW AND JURISDICTION

(a) The supply order for Goods 'or' Services, including all matters connected with this supply order shall be governed by the Indian law both substantive and procedural, for the time being in force and shall be subject to the exclusive jurisdiction of Indian Courts at the place from where the Purchase Order has been placed.

(b) Foreign companies, operating in India or entering into Joint Ventures in India, shall have to obey the law of land and there shall be no compromise or excuse for the ignorance of the Indian legal system in anyway.

© The venue of arbitration shall be BSNL CO New Delhi and/or Circle/SSA HQ or the office of the Arbitrator situated at New Delhi or at the respective Territorial Circle/SSA HQ as the case may be.

21. SETOFF

Any sum of money due and payable to the supplier (including security deposit refundable to him) under this contract may be appropriated by the purchaser or the BSNL or any other person(s) contracting through the BSNL and setoff the same against any claim of the Purchaser or BSNL or such other person or person(s) for payment of a sum of money arising out of this contract or under any other contract made by the supplier with the Purchaser or BSNL or such other person(s) contracting through the BSNL.

22. INTIMATION OF SUPPLY STATUS

The bidders, who are given Purchase Orders, must give the details of the supplies made against all the Purchase Orders every month on the first working day of the following month to MM and the concerned User Branches of BSNL.

23. DETAILS OF THE PRODUCT

The bidder should furnish the name of its collaborator (if applicable), brand name, model number and type of the products offered in this tender. The technical literatures of the products should also be submitted. No change in either technology or product shall be permitted after opening of bids.

24. FALLCLAUSE

24.1 The prices once fixed will remain valid during the scheduled delivery period except for the provisions in clause 12.1 of Section-5A. Further, if at any time during the contract

(a) It comes to the notice of purchaser regarding reduction of price for the same or similar equipment/service;

And / or

(b) The prices received in a new tender for the same or similar equipment/service are less than the prices chargeable under the contract.

24.2 The purchaser, for the purpose of delivery period extension, if any, will determine and intimate the new price, taking into account various related aspects such as quantity, geographical location etc., and the date of its effect for the balance quantity/ service to the vendor. In case the vendor does not accept the new price to be made applicable during the extended delivery period and the date of its effect, the purchaser shall have the right to terminate the contract without accepting any further supplies. This termination of the contract shall be at the risk and responsibility of the supplier and the purchaser reserves the right to purchase the balance unsupplied quantity/ service at the risk and cost of the defaulting vendor besides considering the forfeiture of its performance security.

24.3 The vendor while applying for extension of time for delivery of equipment/services, if any, shall have to provide an undertaking as "We have not reduced the sale price, and/ or offered to sell the same or similar equipment/ service to any person/ organization



- including Department of central/state Government or any central/ state PSU at a price lower than the price chargeable under the contract for scheduled delivery period."
- 24.4 In case under taking as in Clause 24.3 is not applicable, the vendor will give the details of prices, the name(s) of purchaser, quantity etc. to the purchaser, while applying extension of delivery period.

## 25. COURT JURISDICTION

- 25.1 Any dispute arising out of the tender/ bid document/ evaluation of bids/ issue of APO shall be subject to the jurisdiction of the competent court at the place from where the NIT/ tender has been issued.
- 25.2 Where a contractor has not agreed to arbitration, the dispute/ claims arising out of the Contract/ PO entered with him shall be subject to the jurisdiction of the competent Court at the place from where Contract/ PO has been issued. Accordingly, a stipulation shall be made in the contract asunder.
- “This Contract/ PO is subject to jurisdiction of the Court at Hyderabad only”.

## 26. General Guidelines:-

“The General guidelines as contained in Chapter 5, 6 and 8 of General Financial Rules as amended from time to time on works, procurement of goods and services and contract management respectively may also be referred to as guiding principles”.

\*\*\*\*\*

## SECTION –5 Part B

### SPECIAL (COMMERCIAL) CONDITIONS OF CONTRACT (SCC)

The Special (Commercial) Conditions of Contract (SCC) shall supplement General (Commercial) Conditions of Contract (GCC) as contained in Section 5 Part A and wherever there is a conflict, the provisions herein shall prevail over those in Section 5 Part A i.e. General (Commercial) Conditions of Contract (GCC)

~~Note: The clauses mentioned below are for reference only. Exact clauses should be framed as per requirement on case-to-case basis.~~

1. Quality Assurance and Testing:

- a) The supply will be accepted only after quality assurance tests are carried out by the Electrical Wing Officers of BSNL/ Any other authority as per prescribed schedule/ nos /percentage and material passing the test successfully. If the prototype and quality tests are not required then the factory test certificate should be mandatory.

2. Loading:

- (a) In case any item is not quoted by a Bidder mentioned in the SOR of the tender document or the price of any item is not available in its own bid, then the bid shall be loaded by the highest price quoted by any of the bidders for that item. The loaded item shall be supplied at lowest cost quoted by any of the bidder.
- (b) Offer to the L1 bidder(s) after correcting the arithmetical errors and effecting change in unit prices due to loading shall not tantamount to counter offer. If not accepted by the bidder, then he/ she shall be liable to be barred from participating in future tenders/ EOIs/ RFPs of BSNL for a period of two years.

## Section 5 Part C

### General Conditions of AMC

1. Period of Warranty & AMC shall be prescribed: warranty is for one year from the date of completion of work. AMC is for 3 years after the warranty period.
2. Annual Maintenance Contract(AMC):
  - a) AMC shall come into effect after completion of warranty period and shall remain valid for 3 years. Warranty of equipment/ Units/ terminals shall start from the date of acceptance by the consignee of the last batch of equipment/Units/terminals in the Circle.
  - b) Terms and conditions of AMC shall be applicable during Warranty period including imposition of penalties except that no charges for services provided under Warranty/ extended warranty shall be payable. Amount for penalties will be deducted from the pending payments against supplies or if that amount is insufficient then by invoking the PBG available against supply or AMC or from the charges due for AMC.
  - c) It shall be mandatory for the bidders to undertake the Annual maintenance contract for years to be signed at the time of acceptance of APO for the entire quantity proposed to be ordered. The selected bidder has to submit a signed copy of the AMC agreement along with the A.P.O.
  - d) For this purpose the bidder shall quote all-inclusive Comprehensive AMC charges for each year. However GST shall be paid extra as applicable. AMC charges shall be included in evaluation of price bid.
  - e) The bidder shall submit a performance bank guarantee towards fulfillment of obligations under AMC, equivalent to 2% of the average AMC charges per year derived based on the approved AMC charges for 3 years period. The PBG shall be submitted at least two months in advance of the date of start of AMC. The PBG shall be valid for a period of 4 years to cover one year or as specified over and above the 3 years AMC period. The PBG shall be extendable for a further period as required if there is any delay in start of AMC for any reason. For the additional equipment, the amount of PBG shall be increased at the same rate as indicated above, within a time period of one month of the date of such equipment getting covered under AMC.
  - f) In case the supplier fails to repair the faulty equipments/terminal/units and deliver the repaired one in the concerned BSNL office within stipulated turnaround time of 2 days, it shall be liable to pay penalty at the rate as defined in the bid document Rs 1000/-per Precision Package Ac unit per day or part thereof for the entire period counted from the date of making over the faulty equipment/ Units by BSNL to suppliers. Capping on penalty will be 25% of the AMC value for the corresponding period or as decided on case-to-case basis of the AMC value for that period.

### 3. Special Conditions applicable to AMC:

- a) The workers engaged by the firm should maintain proper discipline and good behavior with occupants. The firm shall not depute such workers at the site, whose behavior is found improper. Executive Engineer's decision shall be final.
- b) The agency will provide the workers with necessary Tools & Plant, Testing and safety equipments.
- c) Agency has to observe all the labour rules and regulations in force and indemnify BSNL against any claims whatsoever, either from this clause or any other clause in the contract.
- d) Firm shall issue ID card to their workforce whenever they enter premises for bonafide work. Nobody shall be allowed entry without work and nobody will be allowed overnight stay without work. The workers should wear proper uniform with detachable badge indicating the name of the person & firm.
- e) Dismantled materials shall be returned to the BSNL except those items for which the replacement is supplied by the agency.
- f) The contractor has to keep all the units, neat and clean to avoid any accident and / or fire hazards.
- g) Firm should have round the clock contact telephone number. In case of Emergency, contractor and authorized supervisor shall be available at site at short notice from engineer-in-charge and make all efforts to make the situation normal at the earliest.
- h) Firm is responsible to keep workable spares and consumables for due performance of the contract. For critical spare parts, firm shall have arrangement with dealers for prompt supply.
- i) Any material used/replaced by the Firm for the work shall have the same specification. Alternate Make shall be allowed, only after prior approval of the Engineer in charge
- j) **All breakdown calls / complaints have to be attended by the firm with utmost promptness. If the agency fails to rectify any fault within reasonable time, the department reserves the right to carry out the work at the risk and cost of the agency.**

SECTION-6 UNDERTAKING & DECLARATION

6(A) - For understanding the terms & condition of Tender & Spec. of work

a) Certified that:

1. I/ We ..... have read, understood and agree with all the terms and conditions, specifications included in the tender documents & offer to execute the work at the rates quoted by us in the tender form.
2. If I/ We fail to enter into the agreement & commence the work in time, the EMD/SD deposited by us will stand forfeited to the BSNL.

b) The tenderer hereby covenants and declares that:

1. All the information, Documents, Photo copies of the Documents/ Certificates enclosed along with the Tender offer are correct.
2. If anything is found false and/or incorrect and/or reveals any suppression of fact at any time, BSNL reserves the right to debar our tender offer/ cancel the LOA/ Purchase/ work order if issued and forfeit the EMD/ SD/ Bill amount pending with BSNL. In addition, BSNL may debar the contractor from participation in its future tenders.

Date: ..... Signature of Tenderer

Place:.....

Name of Tenderer.....  
Along with date & Seal

**6 (B) – NEAR-RELATIONSHIP CERTIFICATE:**

(Format of the Certificate to be given as per the clause 34.4 of Section-4 Part-A by the bidder in respect of status of employment of his/ her near relation in BSNL)

The format of the certificate to be given is "I-----s/o-----  
-----r/o.-----  
-----hereby certify that none of my relative(s)as defined in the tender document is/are employed in BSNL unit 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 the absolute right to take any action as deemed fit/without any prior intimation tome."

Signature of the tenderer  
With date and seal

SECTION- 7

PROFORMAS

**7(A) For the BID SECURITY/EMD Guarantee**

**(To be typed on Rs.100/- non-judicial stamp paper)**

Sub: Bid Security/EMD guarantee.

Whereas M/s.....  
R/o.....(Here after referred to as Bidder) has approached us for giving Bank Guarantee of Rs...../- (hereafter known as the "B. G. Amount") valid up to ...../...../ 20..... (hereafter known as the "Validity date") in favour of AO Cash, O/o CGMTD,BSNL A.P.Telecom Circle for participation in the tender of work of .....  
.....  
.....  
.....  
.....  
Vide tender no.....

Now at the request of the Bidder, We .....  
Bank.....Branch having .....  
.....  
(Address) and Regd. Office address as .....  
(Hereinafter called 'the Bank") agrees to give this guarantee as hereinafter contained:

2. We the Bank do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the BSNL stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the BSNL by reason of breach by the said bidder(s) of any of terms or conditions contained in the said Agreement or by reason of the bidder (s) failure to perform the said Agreement. Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee where the decision of the BSNL in these counts shall be final and binding on the bank. However, our liability under this guarantee shall be restricted to an amount not exceeding the "B. G. Amount".
3. We undertake to pay to the BSNL any money so demanded notwithstanding any dispute or disputes raised by the bidder(s) in any suit or proceeding before any court or tribunal relating thereto our liability under this present being absolute and unequivocal. The Payment so made by us under this bond shall be valid discharge of our liability for payment there under and the bidder(s) shall have no claim against us for making such payment.

4. We the Bank further agree that the guarantee here in contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the BSNL under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till BSNL Certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said bidder(s) and accordingly discharge this guarantee. Unless a demand or claim under this guarantee is made on us in writing or before the expiry of Validity date from the date hereof, we shall be discharged from all liability under this guarantee thereafter.
  
5. We the Bank further agree with the BSNL that the BSNL shall have the fullest liberty without our consent and without affecting in any manner our obligations here under to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said bidder(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the BSNL against the said bidder(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Bidder(s) or for any forbearance, act or omission on the part of the BSNL or any indulgence by the BSNL to the said bidder(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.
  
6. Notwithstanding anything herein contained;
  - (a) The liability of the Bank under this guarantee is restricted to the “B. G. Amount” and it will remain in force up to its Validity date specified above.
  - (b) The guarantee shall stand completely discharged and all rights of the BSNL under this Guarantee shall be extinguished if no claim or demand is made on us in writing on or before its validity date.
  
7. In case BSNL demands for any money under this bank guarantee, the same shall be paid through banker’s Cheque in favour of **Accounts officer(Cash), Main, BSNL, Hyderabad.**
  
8. The Bank guarantees that the below mentioned officer who have signed it on behalf of the Bank have authority to give this guarantee under its delegated power.

Place: .....

Date: .....

(Signature of the Bank Officer)

Rubber stamp of the bank: .....

Authorized Power of Attorney Number: .....

Name of the Bank officer: .....

Designation: .....

Complete Postal address of Bank:.....

Telephone Numbers .....

Fax numbers.....



**7(B) For the Performance Guarantee**  
**(To be typed on Rs.100/- Non-judicial stamp paper)**

Dated:.....

Sub: Performance guarantee.

Whereas Executive Engineer (Elect.) R/o .....(here after referred to as has issued an APO no. ....Dated:...../...../20...awarding the work of .....

.....  
.....  
.....

to M/s.....R/o.....(here after referred to as “Bidder”) and has asked him to submit a performance guarantee in favour of **Accounts officer(Cash), Main, BSNL, Hyderabad** of Rs. ..../- (hereafter referred to as “P.G. Amount”) valid up to ...../...../20.....(hereafter referred to as “Validity Date”)

Now at the request of the Bidder,We..... Bank Branch having ..... (Address) and Regd. Office address as ..... (Hereinafter called ‘the Bank’) agreed to give this guarantee as hereinafter contained:

2. We, “the Bank” do hereby undertake and assure to the BSNL that if in the opinion of the BSNL, the Bidder has in any way failed to observe or perform the terms and conditions of the said agreement or has committed any breach of its obligations thereunder, the Bank shall on demand and without any objection or demur pay to the BSNL the said sum limited to P.G. Amount or such lesser amount as BSNL may demand without requiring BSNL to have recourse to any legal remedy that may be available to it to compel the Bank to pay the same.
3. Any such demand from the BSNL shall be conclusive as regards the liability of Bidder to pay to BSNL or as regards the amount payable by the Bank under this guarantee. The Bank shall not be entitled to withhold payment on the ground that the Bidder had disputed its liability to pay or has disputed the quantum of the amount or that any arbitration proceeding or legal proceeding is pending between Bidder and BSNL regarding the claim.
4. We, the Bank further agree that the guarantee shall come into force from the date of its issue and shall remain in full force and effect up to its Validity date.

5. The Bank further agrees that the BSNL shall have the fullest liberty without the consent of the Bank and without affecting in any way the obligations hereunder to vary any of the terms and conditions of the said agreement or to extend the time for performance of the said agreement from any of the powers exercisable by BSNL against the Bidder and to forebear to enforce any of the terms and conditions relating to the said agreement and the Bank shall not be relieved from its liability by reason of such failure or extension being granted to Bidder or through any forbearance, act or omission on the part of BSNL or any indulgence by BSNL to Bidder or any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of relieving or discharging the guarantor.
6. Notwithstanding anything herein contained;
  - (a) The liability of the Bank under this guarantee is restricted to the P.G. Amount and it will remain in force up to its Validity date.
  - (b) The guarantee shall stand completely discharged and all rights of the BSNL under this Guarantee shall be extinguished if no claim or demand is made on us in writing on or before its validity date.
7. In case demands for any money under this bank guarantee, the same shall be paid through banker's Cheque in favour of **Accounts officer(Cash), Main, BSNL, Hyderabad" payable at Hyderabad**
8. The Bank guarantees that the below mentioned officer who have signed it on behalf of the Bank have authority to give this guarantee under its delegated power.

Place: .....

Date:.....

(Signature of the Bank Officer)

Rubber stamp of the bank

Authorized Power of Attorney Number: .....

Name of the Bank officer: .....

Designation: .....

Complete Postal address of Bank:.....

.....

Telephone Numbers .....

Fax numbers.....

**7 (C) For Letter of Authorization for attending Bid Opening Event.**

**(To be typed preferably on letter head of the company)**

**Subject: Authorization for attending Bid opening**

I/ We Mr. /Ms. .... have submitted our bid for the tender no. .... in respect of .....  
.....  
.....  
(Item of work) which is due to open on ..... (Date) in the Meeting Room, O/o.....

We hereby authorize Mr./Ms. ....& Mr./Ms.....  
(Alternative) whose signatures are attested below, to attend the bid opening for the tender mentioned above on our behalf.

.....  
Signature of the Representative on behalf of the Bidder                      Signature of Bidder/ Officer authorized to sign

.....  
Name of the Representative

.....  
Signature of the alternative Representative

.....  
Name of the alternative Representative

Above Signatures Attested

- .....  
Note 1: Only one representative will be permitted to attend the Bid opening  
2. Permission for entry to the hall where bids are opened may be refused in case authorization as prescribed above is not received.

**7(D) Model Amendment Letter Intimating Conditions for Extension of Delivery Period  
(Refer to Appendix (i) to clause 15.3 of Section-5 PartA)**

**Registered Ack Due**

**To**

**M/s** .....  
.....

**Address of the purchaser**

-----  
-----

**Sub: This office contract no..... dated ..... placed on you for supply of.....**

Ref :Your letter no..... dated .....

We are in receipt of your letter, wherein you have asked for extension/ further extension of time for delivery/ execution/ installation/commissioning.

In view of the circumstances stated in your above referred letter, the time of delivery can be extended from \_\_\_\_\_(original/ last delivery period) to \_\_\_\_\_(presently agreed delivery period) subject to your unconditional acceptance of the following terms and conditions:

1. That, liquidated damages shall be levied in accordance with agreed clause 16.2 & 16.3 Section-5 Part A of terms and conditions of the tender/ PO.
2. That, notwithstanding any stipulation in the contract for increase in price on any ground, no such increase, whatsoever, which takes place after current last date of Delivery shall be admissible on such of the said goods as are delivered afterthesaiddatesperclause12Section-5PartA.
3. That, the prices during this extended delivery period shall be provisional and shall be governed as per agreed clauses 12 and 24 of Section 5 Part A and shall be finalized in accordance with the current PO price or the current PO price with latest budget/ duty impact or the prices in the new tender (T.E. no.....) from the date of its opening, on whichever is lower basis.
4. An additional BG of Rs.\_ in accordance with clause 15.3, Section- 5PartA of the contract with validity upto\_\_\_\_\_.

5. An undertaking as required vide clause 24.3, Section-5A. Otherwise furnish the details as requisite in clause 24.4 section 5 Part A”

Please intimate your acceptance of this letter along with the additional BG within ten days of the issue of this letter failing which the contract will be cancelled at your risk and expense without any further reference to you. This letter shall form part and parcel of the agreement/ contract/ APO/ PO and all other terms & conditions of the contract remain unaltered.

Yours faithfully,

(.....)

for and on behalf of.....

Note: The entries which are not applicable for the case under consideration are to be deleted.

**7(E)- Model Amendment Letter for Extension of Delivery Period**

Appendix (ii) to clause 15.3 of Section-5 Part A

To Registered Acknowledgement Due

M/s .....

.....

Address of the purchaser

-----

-----

Sub: This office contract no..... dated ..... placed on you for supply of.....

Ref: 1. Your letter no..... dated..... requesting DP extension

2. This office letter no. .... dated ..... intimating conditions for DP extension

3. Your letter no..... dated ..... accepting the conditions for DP extension

In your above letter under reference (1), you have asked for extension/ further extension of time for delivery/ execution/ installation/ commissioning. The terms and conditions for extension of delivery period were conveyed to you vide this office letter under reference (2).

In view of the circumstances stated in your above referred letter, and upon your unconditional acceptance of the terms and conditions of this extension vide your letter under reference (3), the time of delivery is hereby extended from \_\_\_\_\_(last delivery period) to \_\_\_\_\_(presently agreed delivery period) on the terms and conditions in letter under reference (2) above and agreed by you vide letter under reference (3)i.e.:

- (a) Liquidated damages shall be levied in accordance with agreed clause 16.2 & 16.3 Section-5 PartA of terms and conditions of the tender/PO.
- (b) Notwithstanding any stipulation in the contract for increase in price on any ground, no such increase, whatsoever, which takes place after current last date of Delivery/ completion of work shall be admissible on such of the said goods as are delivered after the said date as per clause12 Section-5Part A.
- (c) The prices during this extended delivery period shall be governed as per clauses 12 and 24 of Section-5 Part A and shall be finalized in accordance with current PO price or the current PO price with latest budget/duty impact or the prices in the new tender (T.E.no.....) from the date of it's opening, on whichever is lower basis.

The letters under reference above and this letter shall form part and parcel of agreement/ contract/ APO/ PO and all other terms & conditions of the contract remain un altered.

Yours faithfully,

for and on behalf of.....

(.....)

Copy to:

.....

.....

..... (All concerned)

Note:- The entries which are not applicable for the case under consideration are to be deleted.

**SECTION- 8**  
**Bidder's profile & Questionnaire.**

Tenderer / Bidder's Profile & Questionnaire (To be filled in and submitted by the bidder)

**A) Tenderer's Profile**

1. Name of the Individual/Firm: .....

2. Present Correspondence Address  
 .....  
 .....

Telephone No. .... Mobile No.....  
 FAX No. ....

3. Address of place of Works/Manufacture :  
 .....  
 .....

Telephone No. .... Mobile No. ....

4. State the Type of Firm: Sole proprietorship/partnership firm/ Private limited company/  
 (Tick the correct choice): .

5. Name of the sole proprietor/ partners/ Director(s) of Pvt. Ltd Co.:

S. No.	Name	Father's Name	Designation
1.			
2.			
3.			
4.			
5.			

6. Name of the person authorized to enter into and execute contract/ agreement and the capacity in which he is authorized (in case of partnership/ private Ltd company):

.....  
 .....

7. Permanent Account No.: .....



8. Details of the Bidder's Bank for effecting e-payments:

- (a) Beneficiary Bank Name:.....
- (b) Beneficiary branch Name:.....
- (c) IFSC code of beneficiary Branch.....
- (d) Beneficiary accountNo.:.....
- (e) Branch Serial No.(MICR No.):.....

9. Whether the firm has Office/ works (i.e. manufacture of the tendered item) in Delhi? If so state its Address

.....  
.....

B) Questionnaire

1. Do you think any other detail/ material is required to complete the work specified in the specification? Yes/No.

1.1 If Yes, Give details

.....  
.....

2. Do you think any other item of work need be included in tender form to complete the work specified in the specification? Yes/No.

2.1 If Yes, Give details

.....  
.....

3. Kindly indicate the maximum Quantity of tendered material which you are capable of supplying within the scheduled delivery period.

Name of the tendered Item	Qty that can be supplied by the firm within scheduled delivery period.

4. Suggestion for improvement of the tender document.

.....  
.....

Place.....

.....

Signature of contractor

Date.....

Name of contractor.....

SECTION-9 Part-A

BID FORM

To

The Executive Engineer (Electrical)  
BSNL Electrical Division - II,  
#602, 6th Floor, BSNL Exchange  
Adarshnagar, Hyderabad  
Telangana -500063

From,

<complete address of the Bidder>

Bidder's Reference No:.....Dated.....

Ref: Your Tender Enquiry No. ....dated .....

1. Having examined the above mentioned tender enquiry document including amendment/ clarification/ addenda Nos. .... dated .....the receipt of which is hereby duly acknowledged, we, the undersigned, offer to supply and deliver ..... in conformity with the said drawings, conditions of contract and specifications for the sum shown in the schedule of prices attached herewith and made part of the financial Bid.
2. Bid submitted by us is properly sealed and prepared so as to prevent any subsequent alteration and replacement.
3. We agree to abide by this Bid for a period of.....days from the date fixed for Bid opening or for subsequently extended period, if any, agreed to by us. This bid shall remain binding upon us up to the aforesaid period.
4. We understand that you are not bound to accept the lowest or any bid, you may receive.
5. If our Bid is accepted, we will provide you with a performance guarantee from a Scheduled Bank for a sum @ 5% of the contract value for the due performance of the contract.
6. If our Bid is accepted, we undertake to complete delivery of all the items and perform all the services specified in the contract in accordance with the delivery schedule specified in the Section-2 (Tender Information).
7. Until a formal Purchase Order of Contract is prepared and executed, this Bid together with your written acceptance thereof in your notification of award shall constitute a binding contract between us.

Signature .....

Signature.....

Witness Name .....

In the capacity of.....

Name.....

Duly authorized to sign the  
bid for and on behalf

Address.....

Dated: .....day of 20...

SECTION-9  
PART-B  
Unpriced Schedule

**ABSTRACT OF COST**

**SECTION 9, PART B**

**Name of work: SITC & AMC of (3+1) x 14TR Precision AC Plant for CDR-III project at SDC, OU, Hyderabad.**

Sl no	DESCRIPTION OF ITEM	QTY	Basic unit price exclusive of all taxes & Charges	Unit	FF packing	Taxes and cess under GST applicable on unit price						All-inclusive Unit Cost	Total price inclusive of all charges	Amount of Input tax Credit (ITC) to be availed by BSNL	Total Amount of Input tax Credit (ITC) to be availed by BSNL	Unit price excluding ITC amount (net unit cost to BSNL)	Total price inclusive of all levies and charges but excluding ITC (net total cost)	HSN for goods and SAC for services		
1	2	3	4	4a	5	6	7	8	9	10	11	12	13	13A	14	14A	15	16	17	
	Part A - SITC items	Rs.					CGST	SGST	IGST	(4+6)+[(8+10) or 12]	(3x13)	(8+10) or 12	(3x14)	(13-14)	(13x15)					

	<b>i) Supply of 4 * 14 TR Precision Package AC units</b>				%	A m t	% Ra te	R s	% Ra te	R s	% ra te	Rs.	Rs.		Rs.		Rs.	Rs.	Rs .	
1	Supply of factory assembled, factory tested Microprocessor controlled 14 TR Sensible Cooling capacity, Air cooled Precision package AC units suitable to work on 415V, 3Ph ,50Hz AC Supply having downward flow/ discharge with electronically commutated motor for evaporator blower, with scroll compressor, working on R 407C/R 410A/eco-friendly gas in <b>Double refrigerant circuit</b> , comprising of indoor and outdoor units with all components i/c supply of controls, interlocking, electrical accessories (SPP for all the three phase motors), voltage and current indications and sequential controls and communication port with suitable protocol to suit BMS compatibility, Air cooled condenser with fans each directly driven by motors having a matching heat rejection duty with heat rejection coils constructed from copper tubes with expanded aluminium fins, MCBs, safety valves, pressure releasing valve, data communication cable between units . Water leak detection sensor shall also be provided with each unit. Also precision package units shall operate in load sharing / sequential mode when connected in a group etc., complete as per the detailed specification enclosed including packing, transportation to site, freight and insurance etc.	4		Jobs																
	<b>ii) ITC of Package AC units includes Supply and Laying of cables for AC Plant and Cold Aisle Containment system.</b>																			
	ITC of Package AC units																			

1	<p>Installation, testing and commissioning of indoor and outdoor units including positioning on the existing frames, supplying and fixing of copper refrigerant pipe line i.e hot gas line (7/8") and Liquid line (5/8") between indoor and outdoor units (for both the circuits) on the existing tray up to the length of 12mtrs including cutting, bending, jointing, brazing and insulating the refrigerant lines inside AC area with suitable fire retardant polythene foam etc., nitrogen pressure testing, supply and charging the required quantity of refrigerant, cutting of raised floor tiles (with handheld cutting machine), making good the openings (to make leak proof), conducting Acceptance testing of PAC Units as per the BSNL A/T wing norms etc., complete as required as per the detailed specifications attached.</p>	4		Jobs																	
	<p>Note: The refrigerant circuit between 10 to 12 mtrlength will be considered as 12Mtrs for measurement purpose. Similarly refrigerant circuit between 12 mtr to 14 mtr shall be treated as 12 mtrs for measurement purpose and nothing extra /recovery shall be effected for such cases. However, if actual length of Refrigerant circuit is less than 10 Mtrs or more than 14 Mtrs, prorata recovery / extra payment (on linear length) shall be made as per the awarded rates.</p>																				
2	<p>Supplying and fixing on existing MS cable tray of copper refrigerant pipes of following size with all accessories including cutting, bending, jointing, brazing etc., for hot gas and liquid lines of a refrigerant circuit including insulating the refrigerant lines inside AC area with suitable fire retardant polythene foam etc., complete as required as per</p>																				

	specifications attached. <b>(For extra length beyond 12mtrs only)</b>																	
	a) Hot Gas Line, 7/8" Dia	30	Mtrs															
	b) Liquid Line, 5/8" Dia	30	Mtrs															
3	Supplying and laying of approved make PVC insulated PVC sheathed armoured Copper conductor cable of following sizes in existing cable tray including termination of cables etc as required																	
	a) 3 x 2.5q.mm Copper cable(for condensers)	160	Mtrs															
4	Supplying and fixing of 19mm thick nitrile rubber on the floor of equipment room after applying suitable adhesive, the joints shall be sealed with 50mm wide x3mm thick self-adhesive nitrile rubber tape insulation complete as per specification as required.	159	qmtr															
5	Providing and fixing of MS/GI/Aluminium supply air grills/ return air grills for the Precision AC plant etc., as required.																	



	a) Supplying and fixing of 600x600mm MS supply air floor grills with 1.5mm thick aluminium louvers 30 degree slant and properly powder coated in matching with the colour of false floor and having strength for 500kg weight along with volume control dampers flush mounted on the false floor. The outer frame should be minimum 3mm thick MS plate construction and free of rough edges and louvers must not project out of MS frame, the complete assembly is to fit seamlessly in the existing tile etc., as required. Minimum 60% of the area should be supply air area. The air leakages through closed air dampers should not exceed 5% of the fully opened air quantity. The settings should not get disturbed by the flow of air through it. The grills must have two removable and reversible quadrants so as to facilitate air flow direction on both sides without disturbing the tiles.	16	Nos															
	b) Return air grills of size 600mm x 600mm made of MS powder coated sheet of not less than 1.5 mm thick with minimum 60% perforation, the grill is to fit seamlessly in the existing false ceiling tile etc., making good as required.	24	Nos															
6	Design, fabrication, Supplying and Fixing of MS powder coated cowl made out of 18SWG MS sheet on top of the precision AC units for receiving the return air including cutting, welding, painting etc., It should have one open able size with a hinge with a neat closing arrangement. It is to be fixed on top of the precision package AC unit with a 6mm thick rubber gasket on all sides and has to be installed in such a fashion, so as to be very stable. Drawing to be submitted and got approved from the Engineer-In-Charge.	20	Sq.mtr															
7	Indoor/Outdoor stands:																	

	a) Providing suitable MS stand for outdoor /Indoor units for raised platform of above Precision AC units with suitable C-channel/ Angle / Flat, MS base plate etc. along with CC coping, including, cutting, welding and painting etc., as required.	900		Kgs														
8	Supplying and laying of 6 SWG GI wire on surface or in recess for loop earthing as required.	100		Mtrs														
9	Supplying and Fixing of following size pipes for drain/humidifier water outlet/inlet etc as required.																	
	a) 40mm dia CPVC Pipe for Drain (Main Unit Outlet)	50		Mtrs														
	b) 25mm dia CPVC Pipe for Drain (Humidifier inlet) i/c providing shut-off valve	50		Mtrs														
10	Supplying and fixing of MS cable tray of following width, made of 35 x 35 x 5 mm MS angle & 20 x 3 mm MS flat fixed on wall/ floor/ceiling including all accessories complete as required.																	
	a) 200mm width	100		Mtrs														
	b) 300mm width	30		Mtrs														
	c) 400mm width	30		Mtrs														
11	Providing & fixing of 100 A TPN FSU with 100A HRC fuse links suitable for operation on 415V, 50 Hz, 3 Phase AC Supply in the existing AC panel i/c minor modifications, testing etc., as required	1		Job														

<b>S/L of AUG Cables for AC Plant</b>																			
12	Supply of following size approved make <b>copper conductor</b> XLPE insulated PVC sheathed armoured cables 1.1 kV grade etc., as required.																		
	a) 4 x 16 sq mm	120		Mtrs															
13	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required.																		
	a) Up to 35 sq. mm	40		Mtrs															
14	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required.																		
	a) Up to 35 sq. mm	80		Mtrs															
15	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable et as required.																		
	a) 4x16 sq.mm	8		sets															
16	Providing and Fixing 25x5mm dia GI strip on surface or recess for connections etc., as required.	120		Mtrs															
17	Providing and Fixing 4mm dia copper wire on surface or recess for connections etc., as required.	50		Mtrs															

	<b>Cold Aisle Containment system</b>																		
	Top Containment																		
18	<p>Supplying and fixing of polycarbonate Plastic ceiling panel (Plexiglass / SS Make) of 4 mm thick transparent sheet or equivalent, with aluminum frame with Black powder coated of aluminum sections of 1.2 mm thick and the frame should be made up of rectangular box section of 48mmx25mm and L sections of size 25mmx25 mm for fixing of panels, i/c providing leak proof gaskets for fixing on the frame etc., complete with all accessories as required.</p> <p>NOTE: The 4 mm thick polycarbonate sheet shall be of suitable fire retardant characteristic in line with the requirements of DATACENTRE server rooms.</p>	400		Sq Ft															
	<b>Double Leaf Sliding Doors with Door Closer</b>																		
19	<p>Supplying and fixing of double sliding door with 10mm thick polycarbonate sheet with auto closer kit in 27mmx 60mm (Jindal make / SS Make) 16 SWG section with all accessories and fittings. The frame work for door will be alumimium section of 63.5mm x 38mm of 16 SWG thickness.</p> <p><u>Note:</u>(1) The height of the server rack is 2 mtrs and aisle width is 1.2 mtr (approx.). The actual size may vary as per site conditions. The work shall be executed as per the approved drawing of Engineer in charge.</p>	6		Nos															

	<u>NOTE:</u> (2) The 10mm thick polycarbonate sheet shall be of suitable fire retardant characteristic in line with the requirements of DATACENTRE server rooms.																	
	Dummy Panels:																	
20	Supplying and Fixing of Customized Fire Retardant Rigid panel at location where rack is absent / for future use. Polycarbonate Plastic 4 mm sheet cut in accordance to the rack for the said cold aisle enclosure with support taken from the Top Panel and false floor. Aluminium Frame of size 40mm x 18 mm handle with Powder coating along the perimeter with each of size 600mm width by length as per site rack height but not more than 94".	4	Nos															

Notes for bidder

1. Bidder must mandatorily quote for all GST components (CGST, SGST, IGST) as required.
2. If annual maintenance contract charges are required to be quoted as per SOR, basic charges should be shown in column 4 & the Goods and Service Tax (GST) in col. 7 to 12.
3. The bidder who submits the offer with concessional Goods and Service Tax (GST) shall submit the proof of applicable concessional GST. In case the concessional GST is not creditable to BSNL it should be included in the price of the goods/services

4. In case, dealer is registered under compounding scheme or any rule/notification where the BSNL is not eligible for input tax credit then the bidder should not disclose any amount in column 7 to 12 & 14.

5. % age Rate of FF & Packing should be shown of basic unit price excluding all taxes & charges (i.e. as %age of col.4)

6. The FF & packing amount quoted shall not be subject to change after bid evaluation /ordering on account of change of copper, Lead base price, change in duties & taxes of item etc.

7. Bidder must mandatorily mention HSN & SAC numbers.

**Declaration by Bidder**

1. We hereby declare that in quoting the above prices, we have taken into account the entire credit on inputs available under the GST Act introduced w.e.f. 1 July 2017 and further extended on more items till date

2. we hereby certify that HSN/SAC shown in column 17 are correct & credit of GST for the amount shown in column 14 above are admissible as per GST Laws.

Name of bidder

**ABSTRACT OF COST**

**Name of work: SITC & AMC of (3+1) x 14TR Precision AC Plant for CDR-III project at SDC, OU, Hyderabad.**

Sl no	DESCRIPTION OF ITEM	QTY	Basic unit price exclusive of all taxes & Charges			Taxes and cess under GST applicable on unit price						Unit price inclusive of all levies & Taxes (4 +7+9 ) or (4+11)	Total price inclusive of all charges (3 x 12)	Input tax credit that can be availed by BSNL on unit Price (12 - (11 OR (7+9))	Total Amount of Input tax Credit (ITC) to be availed by BSNL (3 x 14)	Unit price excluding Input tax credit (12-14)	Total Net Cost (3*16)	HSN for goods and SAC for service's
			4	5	Unit	6	7	8	9	10	11							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
					CGST	SGST	IGST											
					%	Amt	%	Amt	%	Amt	(4+7+9) or (4+11)	3 * 12	12-(11or(7+9))	3 * 14	12-14	3*16		
<b>PART –B ( AMC)</b>																		
1	Providing Annual comprehensive maintenance of microprocessor controlled 14 TR Sensible Cooling capacity High precision package AC units for 3 years, to be																	

operational in succession of post warranty period. The work includes monthly servicing, preventive maintenance of all components, replacing of faulty components, topping up of gas etc. as per the detailed specifications.																									
a) 1 st Year	4	Jobs																							
b) 2nd Year	4	Jobs																							
c) 3 rd Year	4	Jobs																							

Total for part A: - Rs. \_\_\_\_\_

Total for part B : - Rs. \_\_\_\_\_

Total for part A&B : - Rs. \_\_\_\_\_

Notes for bidder

1. Bidder must mandatorily quote for all GST components (CGST, SGST, IGST) as required.

2. The bidder who submits the offer with concessional Goods and Service Tax (GST) shall submit the proof of applicable concessional GST. In case the concessional GST is not creditable to BSNL it should be included in the price of the goods/services



3. In case, dealer is registered under compounding scheme or any rule/notification where the BSNL is not eligible for input tax credit then the bidder should not disclose any amount in column 6 to 11 & 15.

4. Bidder must mandatorily mention HSN & SAC numbers.

**Declaration by Bidder**

1. We hereby declare that in quoting the above prices, we have taken into account the entire credit on inputs available under the GST Act introduced w.e.f. 1<sup>st</sup> July 2017 and further extended on more items till date

2. we hereby certify that HSN/SAC shown in column 18 are correct & credit of GST for the amount shown in column 15 above are admissible as per GST Laws.

Name of bidder