## **TENDER DOCUMENT**

# FOR

## PROVIDING ELECTRICAL INSTALLATION, AIR CONDITIONERS AND VRF AIR CONDITIONING

### SYSTEM AT AUDITORIUM IN THE PREMISES

Of

# **EXTENSION CENTRE, SIPRD, AMONI, NAGAON, ASSAM**

: SIRD-247/13/Pt /4

TENDER PR <mark>OCESSIN</mark> G FEE(Non-refundable)	: Rs.1375/-						
(In the form <mark>of Demand</mark> Dra <mark>ft drawn in favour of "Director,</mark> State Institute of Panchayat & Rural Development, Assam")							
EMD AMOU <mark>NT (Ref</mark> undable)	: Rs.916 <mark>83/-</mark>						
(In the form of FDR/TDR drawn in favour of "Director, State Institute of	of Panchayat & Rural Development, Assam")						
DATE OF COMMENCEMENT OF THE BID DOCUMENT	: 10-11-2021						
DATE & TIME OF PRE -BID MEETING	: 24-11-2021 / 03.00 PM						
LAST DATE & TIME OF RECEIPT OF BID DOCUMENTS	:30-11-2021/ 02.00 PM						
DATE & TIME OF OPENING OF COVER-A (Technical Bid)	: 30-11-2021/ 03.00 PM						
DATE OF OPENING OF COVER-B (Price Bid)	: Will be notified later on						

### PLACE OF OPENING OF BID DOCUMENTS & RECEIPT OF BID DOCUMENTS

Office of the State Institute of Panchayat & Rural Development, Assam Khanapara, Guwahati-781022 Email: sirdassam@gmail.com

### **NOTICE INVITING TENDERS**

#### for

# Providing Electrical Installation, Air conditioners and VRF Air Conditioning System at Auditorium in the Premises Of Extension Centre, SIPRD, Amoni, Nagaon, Assam

1. State Institute of Panchayat & Rural Development, Assam invites tenders from prospective bidders having valid GST registration certificate & OEM certificate/OEM Authorization Certificate for the Supply, installation, testing and commissioning of air conditioners and its accessories for Extension Centre, SIPRD, Amoni, Nagaon, Assam.

### 2. ELIGIBILITY CRITERIA :

- i. The tenderer must reputed Original Equipment be а authorized Manufacturer/their distributors/ dealer/agency/Registered Contractor of APWD (B) or other department of the state/Central Govt Department, Govt. Institutions, Govt. Undertaking of appropriate class involved in the supply, installation, testing, commissioning and maintenance of Air conditioners (Attach Proof).
- ii. Authorised distributors/Dealers/Agencies are eligible to participate in the tender provided:
  - a. They have to submit OEM authorization and power of attorney to transact business on behalf of the manufacturer. The authorized distributor/dealer/ may raise bill, if specially authorised by the OEM.
  - b. The authorised distributor will submit all the documents in support of eligibility of the OEM as mentioned in along with the tender.
  - c. The bidder in case him/her being an Authorized Distributor/Dealer of Air-Conditioners, should be engaged in Supply, Installation, and Testing & Commissioning of Air Conditioners with similar or higher specification for at least last 3 years and shall submit a self-declaration on their letter-head, in this regard along with the tender. The tenderer must also submit an undertaking, indicating that

he/she is/are authorized to sell the product, along with the tender documents.

- iii. Valid OEM certificate.
- OEM should have a registered office in India and branch office in Assam with service Centre(s). The certificate to this effect should be submitted.
- v. Valid ISO 9001 certificate of OEM.
- vi. Product should have safety standards as per regulatory authority (necessary documents to be attached).
- vii. Up to date,
  - a. Registration of GST.
  - b. PAN Card.
  - c. Income tax: Audited Balance sheet for the last five years certified by the CA.
  - d. Trade License.
  - e. Labour License.
  - f. ESIC Certificate as required shall be furnished along with the bidding document.

viii.

ix. The tenderer must have successfully executed similar works in APWD (building) or other department of the state/Central Govt., Govt.Institutions/Govt.Undertaking during last 3 years ending last day of month previous to the one in which Bids are invited should be either of the following :

(i) Three similar completed works costing not less than the amount equal to 40% of the bid value.

(ii) Two similar completed works costing not less than the amount equal to 50% of the bid value. or

(iii) One similar completed work costing not less than the amount equal to 80% of the bid value. (Annexure -C)

- x. Certificate of Average Turnover (to be certified by a practicing Chartered Accountant) of the bidder of Rs..... or more(40% of the bid value) in last 3 (three) financial years.(Annexure -D)
- xi. Bidders who have been blacklisted either by the Tender inviting authority or by any state Govt. or Central Govt. organization is not eligible to participate in the tender for that item during the period of

blacklisting. Declaration must be given through Notary. A declaration stating the technical & financial sufficiency of the tenderer to complete the entire work of supply, installation, testing and commissioning of the entire ordered quantity

xii. All pages of tender documents must have signed by the tenderer with seal in an unconditional acceptance of all the terms and conditions as stated in the entire tender document. Any tender with any documents not so signed is liable to be rejected.

### 3. GENERAL TERMS & CONDITIONS :

- i. The tender forms will be available on the institute's website "www.sird.assam.gov.in" until 14.00 Hours on 30<sup>th</sup>November2021.
- ii. In case of any bid amendment and clarification, responsibility lies with the bidders to collect the same from the website or the office notice board before last date of purchase of the tender document and the Director shall have no responsibility for any delay/ omission on part of the bidder.
- iii. No alteration or amendments shall be allowed after submission and opening of the tenders.
- iv. Any tender received after the due date & time will be rejected/ returned to the sender unopened.
- v. The bidder(s) are to submit their tender in separate sealed covered envelops for technical bid and price bid by super scribing Cover "A" (Technical Bid) as per Annexure A & Cover "B" (Price Bid) as per Annexure B and both the covers should be put into a third Cover, which should be super scribed as "Tender for Providing Electrical Installation, Air conditioners and VRF Air Conditioning System at Auditorium in the Premises Of Extension Centre, SIPRD, Amoni, Nagaon, Assam"The outer envelope should be addressed to the Director, State Institute of Panchayat & Rural Development, Assam, Khanapara, Guwahati-781022 and should be dropped in the tender box on or before 02:00 PM on 30<sup>th</sup> November 2021.
- vi. The Sealed tenders "Cover A" (Technical Bid) submitted by the tenderers will be opened in the Office of the Director, State Institute of Panchayat & Rural Development, Assam, Khanapara, Guwahati-781022 on 30<sup>th</sup> November 2021 at 03:00 PM. The tenderers or their

duly authorized representatives are allowed to be present during the opening of the tenders if they so like.

- vii. No tender documents can be accepted after the scheduled date and time for receipt of bids.
- viii. Rate should be clearly written in the columns specified (Annexure B). All erasures and Alterations made while filling the tender must be attested by initials of the tenderers. Over writing of figures is not permitted, failure to comply with either of these conditions will render the tender void. No advice of any change in rate or conditions after opening of the tender will be entertained.
- ix. The financial bids of technically qualified bidders will be opened later after shortlisting of tenders post evaluation of technical bids.
- x. Tender shall remain valid for acceptance by the Institute for a period of 90 days from the date of opening the financial bid which may be extended by mutual agreement and the tenderers shall not cancel or withdraw the tender during this period/extended period.
- xi. Selection of a firm for award of contract will not be made solely on the basis of lowest rates quoted by a vendor. Previous experience/performance, manpower, office location, service centre etc. will also be considered in this regard.
- xii. The Institute, as security deposit, shall retain a sum equal to 10% of the entire order value/final settlement value and the Institute shall return it without any interest after the completion of defects liability period of one year from taking over of all units.
- xiii. The price quoted for the above items should be inclusive of packing, transportation, insurance, installation, Trunkey, etc. and exclusive of GST and other tax(if any) only. The price should be quoted in price format (Annexure-B) indicating the basic price and other incidental & Trunkey charges separately. In case of discrepancies between figures and words, words shall be taken in to consideration. Applicable taxes must be mentioned separately. However, tax applicable at the time of settlement of invoice will be paid.
- xiv. The Institute reserves the right to accept/ reject/ select more than one Agency. In addition, to annul the bidding process of any or all bids at any time prior to award of contract without thereby incurring any liability to the affected bidders.

- xv. The Institute shall without prejudice to its other remedies under the contract, deduct from the Contract price, as Liquidated Damages a sum equivalent to 2.5% of the price of delayed supply of Goods or unperformed services for delay of each day until actual delivery or performance, up to a maximum deduction of 6% of the contract price. Once the maximum deduction is reached, the Institute may consider termination of the contract and can forfeit the Security Deposit amount.
- xvi. In case of any dispute arising about this tender or its interpretation, the decision of the Institute shall be final and binding upon the bidder.

### 4. DEFINITION :

- i. The term Institute shall mean State Institute of Panchayat & Rural Development (SIPRD), Assam.
- ii. The term Bidder shall mean the bidder selected by the Institute for Supply, Installation, testing and commissioning of air conditioners and its accessories.

### 5. <u>SCOPE OF WORK:</u>

- i. The scope of work shall include Supply, Installation, Testing&Commissioning. This will also include delivery & installing at site. The successful bidder will assume full responsibility of the complete system until final acceptance.Purchaser shall only ensure the place of installation, availability of external power supply.
- Design, Supply, Installation, Testing and Commissioning of air conditioners and its accessories as per specification given in the 'Annexure G' in the Buildings/Auditorium of the Extension Centre, SIPRD, Amoni, Nagaon, Assam, including installation of outdoor unit, indoor unit, stabilizer, copper tubing with insulation, copper cabling and drain pipe etc.
- iii. The outdoor units are to be installed outside the Buildings/Auditorium as per site requirements on suitable MS frame / stand for mounting etc.

- iv. The indoor units should be installed in the building rooms along with the stabilizer (with suitable mounting arrangement) including screws, GI spacers etc.
- v. The copper tubing (section and liquid line) will be insulated with expanded polyethene pipe section insulation with GI spacers screws etc.
- vi. The copper flexible cable of 3x2.5 sqmm , ISI mark to be laid in between outdoor unit to indoor unit.
- vii. The system should work for at least minimum period of ten years without any major breakdowns. A certificate from the Manufacturer has to be submitted in this regard. Any other document establishing this fact may also be accepted at the discretion of the Institute.
- viii. A quote for providing Comprehensive Annual Maintenance for a period of 4(Four) years after lapse of warranty period of 1 year should be enclosed in the **price bidseparately.** This is an optional field and the Institute may or may not award the order for the AMC immediately.
- ix. The Bidder should quote rate per meter for copper tubing (suction and liquid line), power cable and drain pipeline*separately*. However, the standard length of 3 meters per AC unit will be deducted from the total quantity copper tubing and cabling and standard length of3 meters per AC units will be deducted from the total quantity of drain piping.
- x. The Bidder has to arrange for showing all parameters/test results on the performance of the machines. If it fails to show the desired results, the Institute will not accept the machine.

# 6. <u>SPECIFICATIONS&QUANTITY :</u>

The quoted product should be recent one and as per the specification enclosed at 'Annexure G'. (Required catalogue on the product description should be attached with the tender). The quantity mentioned may increase /decrease depend on the requirement.

# 7. <u>TENDER PROCESSING FEE & EARNEST MONEY DEPOSIT :</u>

i. The Bidders have to download the Tender Documents directly from the website available at www.sird.assam.gov.inThe Tender processing fee of Rs.1375/- (Non-refundable) by Demand Draft drawn in favour of "Director, State Institute of Panchayat & Rural Development, Assam" payable at Guwahati, should be enclosed along-with the Bid.

ii. The tender should be accompanied with Earnest Money Deposit (EMD) amounting Rs.91683/- in shape of TDR/FDR from any Nationalized/ Scheduled Bank in favour of "Director, State Institute of Panchayat & Rural Development, Assam" payable at Guwahati falling which tender will be rejected. The EMD of the unsuccessful bidders will be returned after finalization of tender & in case of successful tenderer; the EMD will be returned after submission of performance security. EMD of successful bidder will be forfeited, if the bidder does not accept the purchase order.

### 8. PACKING AND SHIPMENT :

All the Air Conditioners along with all Accessories should be delivered to the Institute with proper packing to avoid any damages during transportation. Bidder should note that packing and shipment is under the scope of work and should be included in their offer.

### 9. WARRANTY & COMPREHENSIVE MAINTENANCE :

- i. The equipment offered shall conform to the specifications as given in tender /order and shall be guaranteed against defective design, defective quality material supplied, manufacturing defects etc. for a minimum period of 12 months from the date of supply of Air Conditioners.
- ii. The bidder may offer warranty more than 12 months from the date of handover of Air Conditioners and this aspect would certainly be taken into consideration.
- iii. The bidder shall make necessary arrangements for keeping the sufficient spares at site to minimize the down time.
- iv. The Compressor and Condenser of the Air Conditioner should carry a minimum warranty period of 5 years. The bidder has to submit an undertaking in non-judicial paper attested by Notary Public for comprehensive warranty on the entire system and 5 years Comprehensive warranty for the Compressors and Condensers.

## 10.<u>CLAIMS :</u>

- i. If the Institute discovers any anomaly between the specifications as mentioned in the tender and the specification as mentioned in the packaging of the Air Conditioners delivered, the Institute reserves the right to reject the entire consignment without entertaining any clarification from the bidder.
- ii. The bidder shall be responsible for removal of all rejected goods from the Institute premises at his own cost.
- iii. The bidder shall also compensate for losses, if any, sustained by the Institute due to defective packing and/or wrong marking of the goods.
- iv. All the costs regarding this contract shall be borne by the bidder, directly or indirectly. The Institute shall only be liable to pay the amount quoted by the firm as per the actual work done at site.

### 11.TIME FRAME :

The vendor should ensure the completion of the work within 60 days from the date of awarding of the contract.

Order will be placed on the successful Bidder at the discretion of the Tender Inviting Authority . Unless otherwise specified , order should be executed directly by the successful bidder and through any other agency. Delivery of the items including installation etc. as mentioned in the work should be completed within 60 days from the date of the order . For any delay beyond 60 (Sixty) of from the date of issue of work order penalty will be imposed as given bellow :

- a) For 1 to 30 days : 2% of the work value of balance quantity
- b) For 31 to 60 days : 4% of the work value of balance quantity
- c) For 61 to 90 days : 6% of the work value of balance quantity
- d) Beyond 90 days the work order will be cancelled and security deposit will be liable to be forfeited .

If either of the parties suffer delay in due execution of their contractual obligation due to the operation of one or more of the force majeure events such as but not limited to, natural disaster,

earthquake, strikes, Lockouts, fire, epidemics, War, riots, uncontrollable events, civil commotions etc. the agreed time for the completion of respective obligations shall be extended by a period of the time equal to the period of the delay occasioned by such events. On the occurrence and cessation of any such event, the party affected thereby shall give notice in writing to the other party. Such notices to be given within 15 days of occurrence/cessation of the event concerned. If the force majeure conditions continue beyond 30 days the parties shall mutually decide about the future course of action.

### 12.CONTRACT HAS FOLLOWING ACTIVITIES :

- i. Supply of equipment.
- ii. Installation, testing, commissioning, Integration and Site Acceptance Testing.

### 13.<u>SPECIAL TERMS AND CONDITIONS :</u>

- i. Bidder may visit the site of and understand the nature & scope of the work and doubts of any nature and should be got clarified before quoting.
- ii. Rate should include charges for removal of debris out of premises, removing stains, cleaning the site thoroughly and restoring it to original condition where work is undertaken.
- iii. Quoted rate should be workable and should include all overheads and profits.
- iv. Rate should include all duties, octopi, levies, payment of wages as per Act etc. and should be firm for the entire contract period. No variation of rates will be allowed. Rates have to be mentioned as per format given in financial bid. Taxes must be indicated separately.
- v. All works related to installation of air-conditioners like making holes in the walls for passage of copper tubes and electrical cables, mounting of stands etc. shall be done by the bidder. All tools and tackles should be brought by the bidder for proper execution of works.
- vi. No advance payment will be made by the Institute in any case.
- vii. The bidder shall observe all the safety precautions for the safety of the labour and the employees of the Institute during execution of

works. The bidder would be responsible for the safety of persons, employed by him.

- viii. The bidder shall be responsible for injury to persons or things and for damages to the property of the Institute which may arise from omission or negligence of the bidder or their employees, whether such injury or damages arises from carelessness, accident or any other cause whatsoever, in any way connected with carrying out of the work.
- ix. All the conditions of the contract shall be binding on the bidder.
- x. The bidder shall comply with all the applicable Acts, Rules, Regulations, requirement of Law (s) for entering into contract and the Institute will not in any way be liable or responsible for any default/irregularities/penalties on the bidder's part.
- xi. The bidder shall comply with the provisions of Contract, Labour Regulation & Abolition Act, 1970, Minimum Wages Act and all other labour laws and other Statutory Regulations (both Central and States) that may be enforced from time to time by the appropriate authorities. The Institute shall not be held responsible for any penalty because of failure to adhere to the above labour regulations, etc. The bidder should be responsible to fulfil all the obligations in connection with the workers employed by the them for the purpose of the contract and all the Statutory and other liabilities if any including minimum wages, leave salary, uniform, ex-gratia, gratuity, ESI, Provident Fund, Workman Compensation, if any, etc. in connection therewith shall be on the bidder's account and payable by them.
- xii. The bidder should obtain necessary permission if required for the purpose of this contract from such authorities as may be prescribed by law from time to time.
- xiii. The bidder shall be fully responsible and shall compensate the Institute in the event of any damage to men or material, injury/damage or death as the case may be, caused directly or indirectly due to the negligence of the bidder or his agents and/ or his employees or workmen.
- xiv. Any act of indiscipline/ misconduct/ theft/ pilferage on the part of any employee engaged by the bidder resulting in any loss to the Institute in kind or cash will be viewed seriously and the Institute will

have the right to levy damages or fine and / or even terminate the contract forthwith.

- xv. The bidder should not at any time do, cause or permit any nuisance on the site/do anything which shall cause unnecessary disturbances or inconvenience to the occupants/ visitors at site or near the site of work.
- xvi. Packaging, forwarding, storage and safekeeping of all the supplied materials shall be the sole responsibility of the bidder irrespective of the location of the material. The Institute shall assume no responsibility in this regard under any circumstances.
- xvii. The bidder shall not directly or indirectly transfer, assign or sublet the contract or any part of it.



#### 14. PAYMENT TERMS & CONDITIONS:

All the payments for work would be made after satisfactory completion/commissioning of work, subject to work being executed inaccordance with this contract and scrutiny by the Institute and submission of bill along with installation, testing, commissioning & demonstration certificate(s), stock entry certificate(s) and original warranty certificates with an undertaking in non-judicial paper attested by Notary Public for comprehensive warranty on the entire system &compressors duly certified by the authorised officer of the Institute.Ten (10) Percent of the quoted amount/final invoice value will be kept as performance security by deducting it from the payment made to the bidder and will be returned to them at the end of one year on satisfactory completion of defect liability period. No interest on security depositwill be applicable. Payment shall be made through NEFT/RTGS after deduction of TDS as per applicable rules. The bidder should provide their Bank Details to receive payment.

- xviii. The Institute reserves the right to check the progress of the work and adherence to the technical Specifications etc. any time during the installation phase.
- xix. All disputes arising out of or in any way connected with this Agreement shall be confined to the jurisdiction of Guwahati, Assam.

Director

SIPRD, Assam Khanapara : Guwahati-22

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### Annexure A

# COVER – 'A' (TECHNICAL BID)

Note : The documents has to be arranged serially as per the order mentioned in the check list indicating whether the following documents are submitted or not with relevant supporting

documents

- 1. Bidder details with Address, Contact Number, email ID &Local contact addresson bidder's letter-head
- 2. Tender processingfee
- 3. Earnest Money Deposit
- 4. Availability of Branch office in Assamon bidder's letter-head
- 5. Availability of Service Centre(s) in Assamon bidder's letter-head
- 6. Declaration form Self signed by the Tenderer

7. Performance Statement as per 'Annexure C' (with order copies and completion certificates for Last 3 years)

8. Statement of Average Annual turnover for preceding 3 financial years as

per 'Annexure D'dulycertified by a practicing Chartered Accountant

9. Manufacturer Authorisation Certificate as per 'Annexure F' (OEM Certificate for Manufacturer)

10. Catalogues of the Products

- 11. Valid CIN number Copy
- 12. Copy of ISO-9001
- 13. Photocopy of PAN
- 14. Copy of GST Registration Certificate
- 15. Latest GSTR3B Certificate
- 16. Latest Tax payment Details
- 17. Trade License
- 18. Labour License
- 19. ESIC Certificate as required shall be furnished along with bid document
- 20. Original Tender Copy

All above documents must be duly sealed & signed by the bidder

# <u>Annexure B</u>

# COVER – 'B' (PRICE BID)

SI No.	Name of the Items	Make	Model	Rate per Unit Including transportation ,packing , forwarding , onsite warranty , Trunkey jobs ( Installation , cabling, electrical fitting, civil work, etc) with all duties, and other levies	GST AND OTHER TAX (IF ANY)
		AIII	1773		
			1		
			0	3	
		- 5	2		

Annexure C

# **PROFORMA FOR PERFORMANCE STATEMENT**

Tender Reference No.:

Name of Tenderer

Name of Manufacturer:

:

SI. No.	Orderplacedby (Addressof purchaser) (attach documentary proof)*	Order no. &Date	Item Name	Manufacturer	Qty	ValueofContract (Rs.)
1		100	1117			
2			1179	10 N		
2				10		
		N. 1		12		
			200	1		

Signature and seal of the Tenderer

\* Thedocumentaryproofwillbecopiesofthepurchaseorder along with completion certificates.

### Annexure D

### ANNUAL TURN OVER STATEMENT

The A	nnual	Turnover			of
	wh	o is	а	Original	Equipment
Manufacturer/their a	uthorized dist	ributors	/ de	aler/agency	runit for the
last three years are gi	ven below an	d certifi	ed th	at theState	ment is true
and correct.					

Sl.No.	Year	Turnover inLakhs/Crores(Rs)
1.	2018 - 2019 -	82
2.	2019 - 2020 -	
3.	2020 - 2021 -	
	(Unaudited provisional isaccepted)	
Date:	Signature	eofAuditor/
Place:		Chartered Accountant
	(Name in Capital)	
		Registration No.

Seal

NB: This certificate should be supported by figures in balance sheet/PI account of Income Tax Return.

### Annexure E

## **DECLARATION FORM**

I/Wehaving my/our
office at
do declare that I / We have carefully read all the terms& conditions of tender document for the Supply, installation, testing and commissioning of air conditioners and its accessories for Extension Centre, SIPRD, Amoni, Nagaon, Assam. The approved rate will remain valid for a period of oneyear from the date of approval. I will abide with all the terms & conditions set forth in the tender paper Reference
no
I/We do hereby declare I/We have not been de-recognised / black listed by any State Govt. / Union Territory / Govt. of India / Govt. organisation / Govt. Institutions for supply of Not of Standard Quality(NSQ) items / part- supply / non-supply.
I/We agree that the Tender Inviting Authority can forfeit the Earnest Money Deposit and or Security Deposit and blacklist me/us for a period of 5 years if, any information furnished by us proved to be false at the time of inspection / verification and not complying with the Tender terms & conditions.
I / We further declare that I / We possess valid manufacturing license/ authorised distributor bearing Novalid upto 

equipment in Assam.

Signature of thebidder : Date: Name & Address of the Firm:

\* Affidavit before Executive Magistrate / Notary Public.

### Annexure F

### MANUFACTURER'S AUTHORISATION FORMAT

То

The Director,

Panchayat & Rural Development, Assam

Khanapara, Guwahati-781022

Ref: Tender No	Dated	For

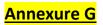
Dear Sir,

We......who are established and reputed OEM's of .....(name and description of items offered) having factories at......(Address of Factory) dohereby authorize M/s......(Name and address of Distributor/ dealer / Agent) to submit a bid and sign the contract with you against the above referred tender. We also extend our full guarantee for the items quoted by M/s ...... as per the terms and conditions in your tenderunder reference above.

Yours faithfully,

Name of the Manufacturer (Signaturewith seal)

Note: This letter of authority should be on the Original letter head of them manufacturer and should be signed be person competent and having the power of attorney to bind them manufacturer. It should be included in the bid submitted by the tender erigination of the manufacturer.



# SPECIFICATIONS & BILL OF QUANTITIES



# Annexure G

# SPECIFICATIONS & BILL OF QUANTITIES

Sl.no	ITEM OF WORK	UNIT	QTY	RATE	GST	AMOUNT
1	2	3	4	5	6	7
1	Wiring for light/fan/ call bell point with 2x1.5 sq. mm. P.V.C. insulated single core unsheathed industrial (Multistrand) cable FR conforming to IS-694: 1990 with flexible bright annealed electrolytic copper conductor for voltage grade up to 1100 volts (Finolex /RR Kabel /Nicco / Anchor or Equivalent Make as approved by the Deptt.) in surface flat 19 mm ISI marked casing 'n' capping (AKG / Precision/ Presto Plast/Polycab/ MW or equivalent make as approved by the Deptt.) system, complete.					
	Medium point up to 6.00 metre. Length.	Each	2			
	Long point up to 10.00 metre. Length.	Each	4			
2	Wiring for drawing sub-main line with 2x1.5 sq mm P.V.C. insulated single core unsheathed industrial (Multistrand) cable FR conforming to IS-694: 1990 with flexible bright annealed electrolytic copper conductor for voltage grade up to 1100 volts (Finolex /RR Kabel /Nicco / Anchor or Equivalent Make as approved by the Deptt.) in surface flat 19 mm ISI marked casing 'n' capping (AKG / Precision/ Presto Plast/Polycab/ MW or equivalent make as approved by the Deptt.) system, including connection as required complete as directed and specified by the Deptt.	2				
	With 2 x 1.5 sq. mm. cable in flat 19 mm ISI marked casing 'n' capping system,	Rm	135	A	1	
3	Wiring for drawing sub-main line with P.V.C. insulated single core unsheathed industrial (Multistrand) cable FR conforming to IS-694: 1990 with flexible bright annealed electrolytic copper conductor for voltage grade up to 1100 volts (Finolex /RR Kabel /Nicco / Anchor or Equivalent Make as approved by the Deptt.) in surface flat ISI marked casing 'n' capping (AKG / Precision/ Presto Plast/Polycab/ MW or equivalent make as approved by the Deptt.) system including earth continuity.					
	With 4 x 10 sq. mm. + earth continuity with 2x6 sq. mm. cable in flat 32 mm ISI marked casing 'n' capping system.	Rm	85			
	With 4 x 16 sq. mm. + earth continuity with 2x10 sq. mm. cable in flat 32 mm ISI marked casing 'n' capping system.	Rm	92			

4	Supplying with fitting and fixing MCCB income and MCB outgoing sheet steel, phosphatised, powder painted double door IP-43 surface mounting vertical TPN MCB DB incorporated with bas-bar up to 250A, Neutral link, Earth bar and din rail etc fitted on wall with grouting nuts & bolts as reqd. complete with making necessary connection as approved, specified and directed by the deptt.					
	ABB, Schneider MG, legrand, Hager make)   8way TPN (4+18) double door	Each	1			
	Supplying with fitting and fixing single Pole 10 KA 240/415V 50Hz MCB of the following capacity complete with making necessary connection as approved, specified and directed by the deptt.	Laci	1			
5	C Series (Schneider MG, legrand, Hager make)					
	6 to 32A	Each	8			
6	Supplying with fitting and fixing TP 10 KA 240/415V 50Hz MCB of the following capacity complete with making necessary connection as approved, specified and directed by the deptt.	1				
Ū	C Series (ABB, Schneider MG, legrand, Hager make)	-	2	21		
	63A	Each	1			
7	Supplying with fitting and fixing 4P 10 KA 240/415V 50Hz MCB of the following capacity complete with making necessary connection as approved, specified and directed by the deptt.		1444			
	C Series (ABB, Schneider MG, legrand, Hager make)			1	3	
	63A	Each	2	1	1	
8	Supplying with fitting and fixing panel mounting open execution 25KA 415V 50Hz 4P MCCB (Ics=Icu, adjustable Ir setting 0.7) without enclosure) of the following capacity complete with making necessary connection as approved, specified and directed by the deptt.	AY				
	25 KA 415V 50 Hz 4P MCCB (Schneider, legrand, Siemens, Indo Asian make)					
	100A	Each	1			
9	Supplying including installation of socket outlet 6 Amps 3 pin universal combine shuttered complete, MODEL RANGE LEGRAND (MYRIUS), ANCHOR (VIOLA), MK (WRAPAROUND/ PLUS), ABB (CHEIRON), KOLORS (KREST), SCHNEIDER (VIVACE), CRABTREE including making necessary connection as per direction of department.	Each	6			

10	Supplying with fitting fixing of 6 amp one way modular clip in switch, MODEL RANGE LEGRAND (MYRIUS), ANCHOR (VIOLA), MK (WRAPAROUND/ PLUS), ABB (CHEIRON), KOLORS (KREST), SCHNEIDER (VIVACE), CRABTREE including making necessary connection as per direction of department.	Each	40			
11	Supplying with fitting fixing of blank plate single in modular switch system MODEL RANGE LEGRAND (MYRIUS), ANCHOR (VIOLA), MK (WRAPAROUND/ PLUS), ABB (CHEIRON), KOLORS (KREST), SCHNEIDER (VIVACE), CRABTREE complete as per direction of department.	Each	8			
12	Supplying including and fixing of following Moulded PVC boxes for MODEL RANGE LEGRAND (MYRIUS), ANCHOR (VIOLA), MK (WRAPAROUND/ PLUS), ABB (CHEIRON), KOLORS (KREST), SCHNEIDER (VIVACE), CRABTREE in surface system complete as per direction of department.					
	1-3 module Surface Moulded PVC boxes	Each	4			
	8 module surface Moulded PVC boxes	Each	8			
	Supplying including fitting fixing of following front plate of suitable colour MODEL RANGE LEGRAND (MYRIUS), ANCHOR (VIOLA), MK (WRAPAROUND/ PLUS), ABB (CHEIRON), KOLORS (KREST), SCHNEIDER (VIVACE), CRABTREE as per direction of department.	2	NVV			
13	1 module	Each	2			
	2 module	Each	5	5		
	5 module	Each	1	11		
	8 module	Each	2			
	16 module	Each	2	1	1	
14	Supply, installation & testing of Copper Plate earth station with 600 mmx600 mmx3 mm copper earth plate with necessary 40 mm dia. G.I. medium duty watering pipe with G.I. Fittings such as Socket, Tee, elbow, nipple and 50 mmx40 mm G.I. reducing socket for funnel including locking arrangement with 300 mmx300 mmx6 mm C.I.	Each	1			
	hinged cover plate complete with digging of earth pit, construction of brick chamber and plastering of both inner & outer surface of wall as specified and directed by the deptt.					
15	Extra for using salt (5 K and Charcoal (96 K in G.I./Copper plate Earth Station pit to provide low impedance ground in location of high soil resistivity as and when required and specified by the deptt .	Each	1			
16	Supplying & laying of following size Copper strips drawn on surface from earth electrode to Electrical switch gears, machineries etc complete with supply of Brass nuts & bolts, screws etc including riveting, soldering & making necessary connection as approved, specified and directed by the deptt.	R m	20			

17	Supply and laying of following size PVC/XLPE insulated and PVC sheathed 1.1 KV G Solid Aluminium conductor up to 10 sq mm balance stranded conductor, XLPE Insulated, cores laid up, PVC tape inner sheathed, Armour (Aluminium for single core up to 70 sq mm balance Aluminium strip, Galvanised for cables up to 2x10 sq mm.3x10 sq mm,4x6 sq mm balance all galvanised steel strip), extruded PVC Type ST2 sheathed, 650/1100V grade as per IS 7908(Part 1) 1988 armoured U.G. cable U.G. cable laid in ground/partially in air (as required for termination over ground including excavation of cable trench up to depth of 75cm, refilling, protective brick covering, Sand cushioning etc complete handling of surplus spoil, debris et to proper place as specified and directed by the deptt. (Nicco/ Havells/ RPG/CCI/Polycab/Gloster/ Finolex make).					
	4 Core A2XWY A2XFY					
	35.00 Sq. mm.4 Core armoured U.G. cable	R m	120			
18	Supplying including fitting fixing of following A.C. Wall fan in the wall of following sweeps with making necessary connection as approved by the Deptt.)as required complete and as directed by the Department.	N)				
	Tornado Wall with metal blade 450 mm sweep	Each	6			
19	Supplying with fitting and fixing Voltage stabilizer of the following specification complete including making necessary connection as approved, specified and directed by the deptt. (SKYLAND / Vee-Dee / V GUARD / VERTEX/ INDO/ VENUS make)	2	VAL A			
	4.0 KVA Automatic Input 90-280 V Out put 200-240 V	Each	2	7.1		
20	Installation charge of Split type AC machine of 1.00 Ton to 2.00 Ton capacity	Each	25	1	1	
21	Supplying with fitting and fixing of Single Phase Modular Motor Starter switch of the following specification complete including making necessary connection as specified and directed by the deptt.	2	2	24		
	Overload Relay Range 16 - 25 Amps in 3 Module	Each	25			
22	Supplying with fitting and fixing of Angle iron framing made 50 MMx50 MMx5 MM size angle iron for accommodation of 1.00 Ton to 2.00 Ton Window/split type A.C. Machine	Each	25			
23	3 Pin Top for 16 Amp	Each	2			
24	Copper pipe including cable fitting (1/4, 1/2, 5/8)	Rm	20			

25 (NS/01)	Supplying,installation,testing and commision of LED 2*2 indoor luminaire suitable for recess mount application.Pressure die cast aluminium alloy housing with corrosion resistance powder coating using Nano Technology,UV stabilised diffuser for optimum light transmission.High lumen package version omplete with all accessories such as driver etc and necessary connection with 1.5 sqmm P.V.C insulated three copper conductor as required and as directed by the department.LIGHTING TECHNOLOGIES Model No.X0630R000.(LUMINOX)	Each	16		
26 (NS/02)	Supplying,installation,testing and commision of cane Standard LED indoor luminaire suitable for surface mount application.Extruded Aluminium housing with corrosion resistance powder coating using Nano Technology,UV stabilised diffuser for optimum light transmission including connection with 1.5 sqmm 3 core P.V.C insulated round copper conductor as required and as directed by the department.LIGHTING TECHNOLOGIES Model No.C03630SS00.	Each	16		
27 (NS/03)	Supplying of Top/Side Discharge Variable Refigerant Flow(VRF) air conditioning system for suitable for Heating & Cooling both with highly efficient DC inverter driven scroll/rotary compressors complete with indoor and outdoor units with individual controllers and with fitting etc,as per quantity given below.The compressors have a intelligent soft start technology to achieve the set temperature quickly.The VRF units have wide operational range from - 20 DEG to 50 DEG C to ensure stable operation.The units are precharged with R-410A refrigerant gas,complete with duly powder coated etc as required.The outdoor unit heat exchangers have innovatively designed inner grooved type copper piping to enhance heat exchange and increase the sub cooling of refrigerant to reduce system resistance and improve reliability.The heat exchangers are specially designed for corrosion resistance with blue fin treatment.The units are modbus compatiable and have special night time silent operational feature.(HIGHER SIDE)(Voltas/Carrier/Blue star make)	Job			

29	SIDE)(Voltas/Carrier/Blue star make) Item no.29:Supplying with Installation, testing and comissioing of CARRIER/VOLTAS/BLUE STAR make 18k5 Star Inverter split air Conditioner with cordless remote complete with copper pipe and electrical connection cable as specified and directed by the department. Total	Each	2		
28 (NS/04)	Installation, Testing and commisioninig of Top/Side Discharge Variable Refigerant Flow(VRF) air conditioning system for suitable for Heating & Cooling both with highly efficient DC inverter driven scroll/rotary compressors complete with indoor and outdoor units with individual controllers and with fitting etc,as per quantity given below.The compressors have a intelligent soft start technology to achieve the set temperature quickly.The VRF units have wide operational range from -20 DEG to 50 DEG C to ensure stable operation.The units are precharged with R-410A refrigerant gas,complete with duly powder coated etc as required.The outdoor unit heat exchangers have innovatively designed inner grooved type copper piping to enhance heat exchange and increase the sub cooling of refrigerant to reduce system resistance and improve reliability.The heat exchangers are specially designed for corrosion resistance with blue fin treatment.The units are modbus compatiable and have special night time silent operational feature.(LOWER	Job	1		

#### Analysis for itemNo. NS/01

Supplying, installation, testing and Commission of LED 2\*2 indoor luminaire suitable for recess mount application, pressure die cast aluminum alloy housing with corrosion resistance powder coating using Nano Technology, UV stabilized diffuser for optimum light transmission. High lumen package version complete with all accessories such as driver etc. and necessary connection with 1.5 sq. mm. P.V.C. insulated three copper conductor as required and as directed by the department LIGHTING TECHNOLOGIES Model No. X03630R000. (LUMINOX)

SI	Description	Units	Qty.
Α	MATERIALS		
1	Lighting Technologies LUMINOX MODEL NO.	Each	1
	X03630R000		
2	1.5 sq mm Three Core PVC insulated copper	Mtr.	2
	conductor		



#### Analysis for item No. NS/02

Supplying, installation, testing and Commissioning of Cane Standard LED indoor luminaire suitable for surface mount application. Extruded Aluminum Housing housing with corrosion resistance powder coating using Nano Technology, UV stabilized diffuser for optimum light transmission including connection with 1.5 Sq. mm. 3 core PVC insulated round copper conductor as required and as directed by the department LIGHTING TECHNOLOGIES Model No. C03630SS00.

SI	Description	Units	Qty.
Α	MATERIALS		
1	Lighting Technologies Cane Standard Surface	Each	1
	MODEL NO. C03630SS00		
2	1.5 sq mm Three Core PVC insulated copper	Mtr.	2
	conductor		



#### Analysis for item No. NS/03

Supply of Top/Side Discharge Variable Refigerant Flow (VRF) air-conditioning system suitable for Heating & Cooling both with higly efficient DC inverter driven scroll/rotary compressors complete with indoor and outdoor units with individual controllers and with fittings etc, as per quantity given below. The compressors have intelligent soft start technology to achieve the set temperature quickly. The VRF units have wide operational range from 20 DEG C to 50 DEG C to ensure stable operation. The units are precharged with R-410A refrigerant gas, complete with duly powder coated etc as required. The outdoor unit heat exchangers have innovatively designed inner grooved type copper piping to enhance heat exchange and increase the sub cooling of refrigerant to reduce system resistance and improve reliability. The heat exchangers are specially designed for corrosion resistance with blue fin treatment. The units are Modbus Compatiable and have special night time silent operational feature (HIGHER SIDE) (Voltas make)

SI	Description	Units	Qty.
Α	MATERIALS		
1	Outdoor unit 24 HP Capacity	Each	2
2	Slim VRF Medium Static Ductable 4 Way Cassette unit 4.0	Each	12
	TR.		
3	Individual Y Joints/refnet joints for connecting IDU with	Each	8
	refrigerant piping		



#### Analysis for item No. NS/04

Installation, testing and commissioning of Top/Side Discharge VariableRefrigerant Flow (VRF) airconditioning system suitable for Heating & Cooling both with highly efficient DC inverter driven scroll/rotary compressors complete with indoor and outdoor units with individual controllers and with fittings etc, as per quantity given below. The compressors have a intelligent soft start technology to achieve the set temperature quickly. The VRF units have wide operational range from 20 DEG C to 50 DEG C to ensure stable operation. The units are precharged with R-410A refrigerant gas, complete with duly powder coated etc as required. The outdoor unit heat exchangers have innovatively designed inner grooved type copper piping to enhance heat exchange and increase the subcooling of refrigerant to reduce system resistance and improve reliability. The heat exchangers are specially designed for corrosion resistance with blue fin treatment. The units are Modbus Compatiable and have special night time silent operational feature. (LOWER SIDE) (Voltas make)

SI	Description	Units	Qty.
Α	MATERIALS		
1	Outdoor unit 24 HP Capacity	Each	2
2	Slim VRF Medium Static Ductable 4 Way Cassette unit 4.0	Each	12
	TR.		
3	Individual Y Joints/refnet joints for connecting IDU with	Each	8
	refrigerant piping		
4	SITC of Refrigerant piping	A	
4.1	Dia 9.5 mm pipe with 13mm thick insulation	Rmt.	110
4.2	Dia 12.7 mm pipe with 13mm thick insulation	Rmt.	35
4.3	Dia 15.9 mm pipe with 19mm thick insulation	Rmt.	80
4.4	Dia 22.2 mm pipe with 19mm thick insulation	Rmt.	45
4.5	Dia 19. <mark>1 mm pip</mark> e wi <mark>th 19mm thick insulation</mark>	Rmt.	40
4.6	Dia 28.6 mm pipe with 19mm thick insulation	Rmt.	45
4.7	Dia 31.8 mm pipe with 19mm thick insulation	Rmt.	35
4.8	Dia 34.93 mm pipe with 19mm thick insulation	Rmt.	26
4.9	Dia 38.1 mm pipe with 19mm thick insulation	Rmt.	34
4.10	Dia 41.3 mm pipe with 19mm thick insulation	Rmt.	34
5	Supply, Installation, Testing and Commissioning of PVC	NY F	
	drain piping complete	1	/
5.1	40 mm dia	Rmt.	49
5.2	32 mm dia	Rmt.	46
5.3	25 mm dia	Rmt.	102
6	Supply, Installation, Testing and Commissioning of Control	100	
	Cable for VRF ODU & IDU's		
6.1	3CX1.5 sqmm	Rmt.	220
6.2	3CX1 sqmm	Rmt.	425
7	Cable tray of size 100 mm width x 50mm depth x 1.6 mm	Rmt.	180
	thickness		
8	SITC of Refrigerent R-410a	Kg.	78
9	Hanging arrangement	Lot	1
10	SITC of 2*1.5 Sq. mm. control cum transmission wire in PVC	Rmt.	235
	conduit for VRF System		

