

**NATIONAL INSTITUTE FOR EMPOWERMENT OF  
PERSONS**



**WITH MULTIPLE DISABILITIES**

*(Dept. of Empowerment of Persons with Disabilities)*

*(Ministry of Social Justice and Empowerment, Govt of India)*

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**NOTICE INVITING e-tender**

**NIT NO: NIEPMD/ESTATE 6(13)/2016-17**

Name of work: **Annual Comprehensive Maintenance of Contract for Air Conditioning units and Water coolers installed - at NIEPMD Campus, Muttukadu, Chennai-112**

Estimated cost: **Rs. 11, 41,900/-**

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Certified that this e - NIT contains 1 to 17 Pages. (Schedule of Quantity hosted separately)

**The Director, NIEPMD  
Muttukadu, Chennai-112**

**INFORMATION AND INSTRUCTIONS FOR CONTRACTORS FOR e-TENDERING  
FORMING PART OF NIT AND TO BE POSTED ON WEBSITE**

(Applicable for inviting tenders on two bid system)

The **Director NIEPMD, Chennai**. On behalf chairman, Executive council of Dept. of Empowerment of Persons with Disabilities, MSJ & E, and GOI invites online tender from the Registered Electrical contractor from CPWD/PWD/MES and other Government Organization Agencies/Contractor.

<b>S.No.</b>	<b>Particulars</b>	<b>Particulars</b>
1	NIT No.	<b>NIEPMD/ESTATE 6(12)/2016-17</b>
2	Name of work & Location	<b>Annual Comprehensive Maintenance of Contract for Air Conditioning units and Water Coolers installed - at NIEPMD Campus, Muttukadu, Chennai-112</b>
3	Estimated cost put to tender (In Rs.)	<b>Rs. 11,41,900/-</b>
4	Earnest money (In Rs.)	<b>Rs. 23,000.00</b>
5	Period of Contract	<b>Twelve Months</b>
6	Last date & time of online submission of eligibility criteria, and Financial bids	<b>Up to 15:00 Hrs. on 29.06.2017</b>
7	Time & date of opening of eligibility bid.	<b>15:30 Hrs. on 30.06.2017(online)</b>

**Information and Conditions relating to Submission of Bids.**

1. The initial period of contract shall be for 12 months may be extended by another 12 month depending on performance of the Agency and at discretion of the institute.
2. The interested agencies are required to go through the all the terms and conditions and the scope of works mentioned in this tender
3. All the pages of the tender should be signed by the owner of the firm or his Authorized signatory. In case the tenders are signed by the Authorized signatory, a copy of the power of attorney/authorization may be enclosed along with tender.
4. A copy of the terms and conditions shall be signed on each page and submitted with the technical bid as token of acceptance of terms and conditions.
5. **Submission of bid:** The tender documents should be uploaded through NIC e-Procurements URL <http://eprocure.gov.in/eprocure/app> Up to 29.06.2017 (1500 hrs.), containing following:

**(i) Earnest money deposit (EMD) & Tender fee:** The agency shall deposit EMD amount Rs.23, 000/- (Rupees Ten Thousand only) and Rs.1, 000 (one thousand only) for through e-payment should be paid online through NEFT/RTGS/ in NIEPMD account and payment receipt to be uploaded with the technical bid. Technical bids without EMD and tender fee (Rs.1, 000)

**NIEPMD Bank details:**

**A/C No.762762246**

**Type of Account: Saving Bank**

**Name of the bank: Indian Bank. Kovalam branch**

**IFS code: IDIB000K122**

**Branch code: 01176**

**Note:** please ensure that you need to mention the correct beneficiary account number and IFSC code as mentioned above while making payment via RTGS/NEFT. In the event of funds remitted to wrong beneficiary account number, NIEPMD, Chennai or its bank would not responsible for the same.

6. **Opening of bid:** bid shall be opened on the 30.06.2017 (1530hrs).
7. **Bid validity:** bid shall remain valid for a period of 90 days from the date of opening of bid.
8. **Bid evaluation:** duly filled price bid shall be evaluated on lowest tender basis.
9. The tender submitted by any other means except NIC e-procurement portal, will not be entertained under any circumstances.
10. The list of technically qualified bidder will be published on the notice board/ web site of NIEPMD.

11. The financial bids of technically qualified bidder only will be opened. On the same day or time of opening will be intimated after evaluation of technical bid.
12. **Tender submission process**

Interested Agencies may submit their quotes in **two bid system (i) Technical bid & (ii) Financial bid** : by giving all the necessary documents in English as specified. The Tender must be submitted only online through central public procurement portal e-procurement application only through URL: <http://eprocure.gov.in/eprocure/app> only. No manual bids will be entertained under any circumstances.

The tender document attached must be direct, concise, and complete and arranged in an organized and structured manner.

To participate in online bidding process, bidder must procure a digital signature certificate as per information technology Act-2000 using which they can digitally sign and encrypt their electronic bids. Bidder can procure the same from any CCA approved certifying agency, i.e. TCS, safecrypt, Ncode. eMudhra etc. bidders who already have a valid digital signature certificate (DSC) need not procure a new DSC.
13. Information and instructions for bidders posted on website shall form part of bid document.
14. The bid documents consisting scope of work, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website [www.eprocure.gov.in](http://www.eprocure.gov.in) or [www.niepmd.tn.nic.in](http://www.niepmd.tn.nic.in)
15. Those contractor not registered in the website mentioned above, are required to get registered beforehand. If needed they can be imparted training on online bidding process as per details available on the site.
16. The intending bidder must have valid digital signature to submit the bid.
17. On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
18. Contractor can upload documents in the form of JPG format and PDF format.
19. The eligibility bid shall be opened first on due date and time mentioned above. The time and date of opening of the financial bid of contractors qualifying in the eligibility bid shall be communicated to them at a later date.
20. The department reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criterion.

21. The contractor whose bid is accepted will be required to furnish performance guarantee of 5% (Five Percent) of the bided amount within the period specified in Schedule. This guarantee or Deposit at Call receipt of any scheduled bank/Banker's cheque of any scheduled bank/Demand Draft of any scheduled bank/Pay order of any Scheduled Bank of any scheduled bank (in case guarantee amount is less than Rs. 1, 00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule, including the extended period if any, the Earnest Money

Deposited by the contractor shall be forfeited automatically without any notice to the contractor. The earnest money deposited along with bid shall be returned after receiving the afore said PG. The Contractor whose bid is accepted will also be required to furnish either copy of applicable licenses / Registrations or proof of applying for obtaining labour

**Licenses, registration with EPFO, ESIC and BOCW welfare board and program chart (Time and Progress) with in the period specified in Schedule.**

**Eligibility & List of documents to be scanned and uploaded with in the period of bid submission:-**

- i. Government registered(Electrical) / CPWD/PWD/MES Enlistment copy
- ii. Three years' experience in similar services
- iii. Certificate of Registration for Sales Tax/VAT /service Tax
- iv. Receipt of EMD and Tender fee payment copy
- v. Copy of Reg of EPFO / ESIC and BOCW as Applicable

**SPECIAL INSTRUCTION TO BIDDERS**

1. Tenderers are requested to go through the technical requirements for maintenance and repair of Split/Duct ACs & Water Coolers before quoting for the tender.
2. Tenderers should provide brief details of their past experience of work of similar nature with value.
3. Tenderers should submit along with the tender a list of equipment in their possession which will be employed by them in this job.
4. If any clarification regarding technical specifications, conditions of the contract for scope of work is required the same may be obtained by the tenderers from the Estate & Maintenance Section of NIEPMD.
5. Tenderers shall clearly point out all deviations from the tender specifications and commercial conditions of the tender. Except for the deviation accepted (in written) by the owner, all other conditions of the contract and

Technical specifications issued by the owner will be applicable for the purpose of the contract.

6. The contractor shall quote for all the necessary equipment, required for the execution of the job and the proper operation thereafter, whether such items are included in the specifications, drawings, schedule of quantities or not.
7. The Split A.C. & Water coolers, which are under minor breakdown, has to be attended and rectified within 24 hours of receipt of the complaint from the user/NIEPMD.

Complaints of the major nature such as replacement of compressor, replacement of sheet metal parts, filling of gas has to be attended and rectified within 15 days of the receipt of the complaints. Penalty will be charged for any further delay in completion of the work at the rate of Rs.100/- per day.

8. Periodical cleaning of front grill may be done by the contractor as often as required.
9. Service Support, Spares and Tools: Bidder should have Service Support Set-up like office, qualified technical personnel, etc. in metropolitan region of Chennai to ensure minimum time for replacement of faulty parts and for providing technical service during the period of contract.  
The bidder shall also give details like office address, details of qualified personnel normally available in their office in Chennai.
10. For brazing of Copper pipes etc. Oxy Acetylene flame may be strictly used. LPG cylinder will not be acceptable in any case.
11. For flushing the refrigerating system pressure testing the contractor should use Nitrogen gas. Enough stock of Nitrogen gas should be available with the contractor. All gas cylinders used for carrying different Types of gases should have valid certificate of safety issued by the competent department. Cylinders without safety certificate will not be permitted.
12. The contractor should carry out the works directly. Sub-contracting of this work will not be permitted.
13. Any defective Split/Duct A.C. & water coolers, which is required to be removed for repair for more than 24 hours, has to be provided with a Contractor's spare A.C. unit. If the spare units are not provided, a penalty of Rs.100/- per day will be levied to the contractor from the time of expiry

of 24 hours till the complaint is rectified to the satisfaction of the department.

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14. All hermitically sealed compressors are to be replaced with OEM (Original Equipment Manufacturer) repaired compressor during the break down and this will be the responsibility of the contractor fully. If OEM repaired compressors are not available due to any reason, the contractor has to replace the same with a new compressor of suitable model or as per the instruction of Estate Engineer without any additional charge. The repaired/new compressor will be acceptable only after inspecting the original challan of the manufacturer. Under no circumstance local repair of sealed compressor will be acceptable.
  15. NIEPMD reserves the right of including or excluding any number of A.C. units into/ from the contract in any time.
  16. Some quantities of corroded condenser coil of split Air-conditioners/Window Air-conditioners have been included in BOQ for replacement. It is the responsibility of contractor to prove the performance of new coil after replacement.
  17. NIEPMD being a large establishment, a number of contractors are working for different projects and maintenance contracts. While recruiting technicians, the contractor should practice a mutual understanding between each other so that technicians of one contractor will not join other contractor without the knowledge of present contract.
  18. A complaint register will be kept in the NIEPMD Office. In this register all complaints including breakdowns will be written. Your supervisor should report to the NIEPMD at 9.00 hrs. Every day and note down the complaints. These complaints/ breakdowns should be attended by your staff immediately and feedback should be given daily. Otherwise penalty will be imposed on you as per our tender specification.
  19. Contractor should keep a portable welding machine in the workshop site which can be used for any small welding work at site. The welding machine should have proper certificate of safety.
- A. In case of loss/theft of identity card, the matter should be immediately brought to the notice of the department after registration of complaint with the police.
  - B. The firm should ensure that the identity cards issued to their staff are returned to the department after expiry date of the same immediately,

- C. Failing which action will be taken by this department as deemed fit conforming to our security rules and regulations.

**SCOPE OF WORK AND GENERALREQUIRMENTS**

- 1.0 **Scope of Work: (The work is estimated to cost Rs. 11, 41,900/-Estimate, however, is given merely as a rough guide).**
- 1.1 Servicing, repair installation, reinstallation and testing of Split A.C. units at the place of installation or in the local premises at NIEPMD, Testing & commissioning should be done for all the equipment mentioned in the schedule of quantities. The work is to be carried out as per the relevant India Standards and tender specifications. Following are the total quantities for various types of machine installed;

S.NO.	Types of Machines	Total Quantity *
1	Split Air-conditioners (including Multi Split, inverter type) 1.5TR & 2.0 TR	180 Nos.
2	Duct type Split Air-conditioners 8.75TR &11.5TR	3 Nos.
3	Water Coolers 90Ltr & 150Ltr	14 Nos.

\* The Quantities may vary depending on addition /deletion of AC Units/ water coolers during the course of contract.

**Requirement of Manpower**

Following manpower will be deployed to carry out the work mentioned in the tender

- Supervisor - 01no.
- Technician - 03 Nos
- Semiskilled - 04 nos.

The above manpower should be provided at all times during working hours. In absence of anyone staff, the firm shall post alternate staff, otherwise the penalty of Rs. 150/- per person per day will be deducted from the bill.

- 1.2 **Brief Description of Machine:**
- a) SPLIT ACs: - Split AC's (Including Multi split & 3TR Duct type) of different makes (Voltas, Blue Star, Godrej, LG, Onida & Others ) are installed at various places like Guest House Dining , Main building & other location and etc. Some of these machines are for critical application and needs very careful handling during the maintenance.
  - b) WATER COOLERS: - Water Cooler makes (Voltas, Blue Star, Shriram & others) are installed at various locations like Canteen, building corridors, Hostel, Schools and etc.,



### 1.3 Jobs to be Carried Out by the Contractor:

- a) **ROUTINE SERVICING:** - The purpose of the routine servicing is to recondition the equipments and to minimize the breakdown of equipments and for smooth functioning of machine. It should also be ensured that the routine servicing is carried out strictly within the scheduled time in order to stabilize the maximum availability of the operating equipment as per the operational requirement. This is to be done once in two months.
- b) **MAJOR OVERHAULING:** - One major overhauling shall be executed on ACs (Split & Windows) and Water Coolers during annual maintenance contract period. The purpose of this overhauling is to recondition the equipment and to do the major work in order to keep the equipment ready to operate during operational period, as well as reducing the percentage of major or minor breakdowns during the operational periods.
- c) **BREAKDOWN MAINTENANCE:** - On failure of any machine like ACs (Split & Windows) and Water Coolers the break down maintenance will be carried out.

The tenderer should clearly indicate departure if any from the specifications with reasons for the same. No addition/alteration should be incorporated by the tenderer. However, any deviations should be brought out separately along with their offer.

### 1.4 Completion of Contract:

Any work, fittings, accessories or apparatus which may not have been mentioned in the specifications but which are necessary in the equipment/unit for the efficient and satisfactory working of plant/unit/systems should be included in the offer. All the plants/systems which are included in the Schedule of Quantities should be in satisfactory working condition, throughout the period of contract, after the same are serviced/repaired by the contractor.

### 1.5 Instructions Books/Manuals:

In case the contractor intends to make change on the operation or maintenance of any of the unit for the safe and efficient operation of the equipment/unit, before carrying out such changes, contractor will submit four copies of the instructions manuals along with relevant drawings, complete price list of additional spare parts with specific code numbers along with the original offer. The changes may come in force subject to the approval of competent authority nominated for the purpose.

### 1.6 Materials:

All materials, spares used for the maintenance and repairs of the equipment's shall be new, genuine and of the best quality, conforming to the relevant IS/IEC/BS/ASTM specifications. They must be the product of

reliable manufacturers of many years standing. All like parts of materials shall be interchangeable. The name of the manufacturers of various materials shall be furnished. Samples of materials shall,

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Wherever required, be submitted and got approved by the Competent Authority before use in the installations. All materials shall be with stand coastal weathering action/ weather proof by application of suitable covers and paints.

- 1.6.1 Replacement of materials/spares: - The materials and spares used for replacement should be of standard manufacturers and of genuine quality. The item should be got approved by our department personnel before using them in machines.
- 1.6.2 Replacement of Capacitors: - All the capacitors used for replacement should be metallic canister with the explosion proof features (canister with bellow type design). The Capacitors used should be of standard manufacturers like EPCOS/KELTRON or may ISI make only.
- 1.6.3 Whenever the contractor has to take out spares like compressor, fan motor, condenser coil or similar other items for repair outside NIEPMD premises, that has to intimate to the Director, NIEPMD in writing by them. When the materials is brought back after the repairs the same has to be got checked by personnel of Technical Services before actually fixing it on the machine and the yellow copy of the gate pass should be squared off.
- 1.7 Maintenance of Spares and Tools:  
The contractor should be entirely responsible for stocking of all necessary spares of Split A.C unit and other raw materials, including all types of tools, tackles, plants, testing instruments etc. necessary to carry out servicing and repairs. **Some of these spares of Split/Window unit like Blower, Fan & motor, remote, PCB cards, relays, Thermostat, Capacitors, Air – Filters (for each model), etc. should be kept at site in sufficient numbers.**
- 1.8 Workmanship:
  - 1.8.1 Good workmanship and neat finish/appearance are the pre requisites for complying with the specifications. The contractor shall employ qualified staff for carrying out servicing and repairs to the equipment's listed in the schedule of quantities. The maintenance and repair work should be done under the supervision of competent and qualified experience person with requisite educational qualifications and considerable experience. The supervisor should be responsible for carrying out servicing and repair work to the equipment's covered under the contract.
  - 1.8.2 Sub-standard workmanship will not be accepted and shall be rectified at Contractor's own cost and risk to the satisfaction of Competent Authority.

- 1.8.3 The tenderer shall furnish the name of supervisors & technicians and members of staff who will be engaged in this work with details of their working experience.

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1.9 Character & Conduct of Staff Employed:

The contractor should note that the staff recruited/appointed for the purpose of work should be of Indian Origin/Domicile of this country only. The person recruited/appointed for the purpose of contract should have good moral character and must not be in the wanted list of criminals of any country.

1.10 Painting & Name Plates:

- 1.10.1 Wherever air-conditioners are required to be painted, specifications as mentioned in this document should be followed strictly and no deviation of any kind will be permitted.

- 1.10.2 Wherever any equipment/unit/installations bear name plates, the preservation of the same on its place will be responsibility of the contractor.

1.11 Insurance:

The tenderer shall insure at his own cost, all the personnel, materials, tools, jigs, spare, and during transit from his factory/office to site as well as during storage at site till the contract is in force.

1.12 Security:

- 1.12.1 No security will be provided by the department for the equipment's, tools, jigs, spares etc. brought inside NIEPMD by the Contractor, or issued to the contractor and the contractor will be required to make his own arrangements for the security of such materials.

- 1.12.2 The equipment's covered under this contract belonging to this department taken by the contractor to the site workshop/repair shop unless installed back in position will be under the custody of contractor for security. Any damages e t c . of whatsoever nature will be contractor's responsibility.

- 1.12.3 The staff required to work in the workshop/field is to be on the pay roll of contractor. The security and safe working of the staff will be the Contractor's responsibility and the department will not pay any compensation whatsoever to the contractor or to their employees in case the said staff meeting with any unfortunate incident which may cause damage of any kind. And it will be of contractor's responsibility and no compensation of whatsoever kind will be paid to the contractor or to their staff by the department.

- 1.12.4 During the period of contract, the contractors and their staff will have to follow departmental security rules and in the event of dispute, the decision of the department will be final and binding.

- 1.12.5 Since the contractor's staff is to be posted in NIEPMD, it will be in the interest of the contractor to issue suitable Identity Cards to their staff members.

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1.13 Loss of Equipment:

Any equipment/unit if lost while in the custody of the contractor or damaged for any reasons, the contractor will be liable to pay the full cost of the equipment at current market rate, prevailing at that time.

1.14 Transportation of Workman & Materials:

1.14.1 No transport facility will be provided for transportation of men and material

1.14.2 The Contractor should make the transport arrangements for the staff as well as for the materials and equipment's/components needed to carry out maintenance/repair including those required for dismantling/shifting of unit from user's locations to their workshop and back.

1.15 Handling of Equipment:

1.15.1 The contractor shall be entirely responsible for handling of equipment while dismantling and again installing the same including any damage or loss of the components or equipment's as a whole during the repair work. Any damage or loss is to be replaced by the contractor without additional cost to the department.

1.15.2 Wherever equipment's covered under the contract & located at a higher height, it will be the contractor's responsibility to provide a safety arrangement for his staff for carrying out servicing/attending to repair to the equipment's etc.

1.15.3 Wherever the equipment's are covered under this contract is installed at higher heights the contractor should make arrangements so as to ensure that the member of his staff will not damage/cause any loss to the NIEPMD property in any way. In case any such damages are made, the contractor will be required to make up the losses in full.

1.16 Record of Work:

1.16.1 The contractor shall attend immediately to all intimations on telephone/by letter/by person received from the users of NIEPMD in respect of unsatisfactory/inoperative working conditions of the equipment's without any extra charges and the same shall be attended within 24 hours of the date and time of receiving the call from the users of NIEPMD.

1.16.2 The contractor will be required to maintain a) Machine History card for each machine. This history card should have preventive maintenance details (Routine Servicing & Major Overhauling) on one side and breakdown/complaint details on the other side. The information asked for in the card are minimum and any further additional details, if required, should be included. The details of attending

breakdown/complaint should be written in brief. The full details should be entered in the Service reports. B) Service Reports for Breakdown calls. Maintenance of these records of the

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works, which has been carried out on each equipment and must be produced to the user of NIEPMD or their representatives as and when asked for.

1.16.3 The results of such maintenance cards are to be formulated by the contractor and to be got approved by the competent authority of the department.

1.17 Power & Water Connection:

The contractor should also specify the power and water connection requirements in details. The department subject to the availability shall provide water supply and electrical connection.

1.18 Duration of Repair:

1.18.1 Contractor takes up whenever any equipment/unit covered by this contract for repairs to Workshop for necessary repairs, a replacement unit of equivalent capacity being provided/installed in its place.

1.18.2 Unit/equipment taken up for repairs must be brought back and commissioned in its place within 10 days from the date of complaint received.

1.18.3 1 Nos. each of 1.5 TR & 2.0 TR Split AC units, 1 Nos. Each of condensing units of 1.5 TR & 2.0 TR Split AC shall be kept at NIEPMD as service units.

1.19 Validity of Contractor Period:

**The contract will remain in force for a period of one year and also extended further one more year as per the norms.**

**01.07.2017 to 30.06.2018**

1.20 Guarantee:

The equipment/unit covered in this contract are installed/located in the various offices/plants/laboratories/workshops of various divisions of NIEPMD and its allied units. The contractor after issue of work order will contact directly the Estate & Maintenance Section and will submit detailed maintenance program and will carry out the work as and when required by them for maintenance/repair of these units to the satisfaction of respective divisional heads. The detailed list of units/equipments with their locations will be given to the successful tenderer.

1.21 Survey:

1.21.1 Currently all the, split ACs & water coolers are under working condition. The bidders, before quoting for the job, should visit the site. The list of AC Units (Split type) and Water Coolers having all the details like type, make, capacity, location, date of installation, etc. is available with concerned Estate and Maintenance at NIEPMD. The bidder must see and check the details before quoting.

- 1.21.2 **The successful tenderer should immediately, before the expiry of current AMC contract, inspect all the units for performance.** Wherever the contractor feels, that replacement/repairs to any of the components/parts of the unit is a must then he should specifically

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Bring out such cases to the notice of The Director, NIEPMD in writing. All such units will be jointly inspected by the contractor and the Department's engineer. All the repairs to such cases will be carried out by the department and/or current AMC Contractor and then handed over to the successful tenderer.

- 1.21.3 All the Split air-conditioners in good working condition once handed over to the contractor for servicing and maintenance purpose has to be maintained and kept always in up to date conditions by the contractor. Whenever required or asked by the Director, NIEPMD/ Estate division, the contractor has to repair/replace the defective components/parts immediately free of cost. At the end of contract period, the contractor has to hand over all A.C. units to the department in good working condition.

1.22 Compressors:

All the hermetically sealed compressors are to be replaced with OEM (Original Equipment Manufacturer) repaired compressor during the break down and this will be the responsibility of the contractor only. If OEM repaired compressors are not available due to any reason, the contractor has to replace the same with a new compressor of suitable model or as per the instruction of Director, NIEPMD without any additional charge. The repaired/new compressor should be shown to the departmental representative along with relevant documents in original before actually fixing it on the machine. Under no circumstance local repair of sealed compressor will be acceptable.

- 1.23 NIEPMD reserves the right of including or excluding any number of Split air-conditioners into/from the contract at any time.

**TECHNICAL REQUIREMENTS FOR SERVICING & REPAIR OF SPLIT/DUCT TYPE  
OTHER AIR-CONDITIONERS**

1.0 SCOPE:

This section indicates the technical requirements for maintenance, repair, installation and re-installation of Split type room air-conditioners of various capacities and makes. The maintenance is to be carried out on all components of the air-conditioners, while repair is to be made, as found necessary, to all or any of the components like compressor, fan motors, condenser, cooling coil, blower, fan, main body with its associated sheet metal parts assembled on M.S./G.I. base tray, with all electrical accessories, for efficient operation of the air-conditioners.

2.0 ROUTINE MAINTENANCE OF SPLIT/OTHER TYPE AIR-CONDITIONERS:

The following works are to be carried out once in two months:

- 2.1 Cleaning of filters, intake and exhaust screens & replacing them if required.
- 2.2 Lubricating the fan, motor and other mechanical parts such as hinges, livers for exhaust & ventilation parts.
- 2.3 Cleaning the unit in general with the help of a brush.

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- 2.4 Checking of all electrical connections and ensuring the functional working of all electrical components.
- 2.5 Checking for noise and vibration.
- 2.6 Checking grill temperature, current and recording the same.
- 2.7 Checking electronic control parts like remote, relay, PCB card and ensuring the functional working of these parts.
- 2.7 Checking of all damper operations, lubricating and repairing the same.
- 2.8 Checking & cleaning of condensate drain.
- 2.9 Cleaning of the condenser, cooling coil, blower and condenser fans with air pressure & water.

3.0 MAJOR OVERALL MAINTENANCE OF SPLIT AIR- CONDITIONERS:

The following works are to be carried out every year:

- 3.1 Removal of the unit from its location & dismantling its sheet metal parts completely (In case of windows), whereas dismantling the casing of condensing units on its position (In case of Split unit). Cleaning rust, removing and painting with Red Oxide primer and any synthetic enamel paint of approved quality.
- 3.2 Fan, motor to open and overhaul.
- 3.3 Bearing and shaft to replace/fabricate if required.
- 3.4 Corroded sheet metal parts to be renewed /damaged to be replaced.
- 3.5 Base tray to be bituminized and if corroded/damaged to be replaced.
- 3.6 Unit after servicing to be reassembled.
- 3.7 Noise, vibration, current, grill temperature to be checked and recorded for satisfactory working.

4.0 GENERAL BREAKDOWN CONDITIONS:

- 4.1 In case of gas leaks, the same is to be rectified & gas charged for satisfactory working condition.
- 4.2 Compressor if found defective due to any reason the same is to be got repaired/replaced with rubber grommets etc.
- 4.3 All electrical/electronic components are to be replaced if found defective such as start relay, Remote, PCB circuit, overload protector, start and run capacitors, thermostat, selector switches, rotary switches, knobs etc.
- 4.4 Fan motor if found defective is to be repaired or replaced.
- 4.5 Corroded sheet metal parts to be replaced and insulated. Base tray to be bituminized and painted or replaced if required.
- 4.6 Condenser fans and blowers to be replaced if found broken or damaged.
- 4.7 Due to any reason if the units are not working the same has to be attended.
- 4.8 After completion of repairs the unit should maintain a grill temperature of  $54 \pm 2^{\circ}\text{F}$  at the rated current and voltage.

- 4.9 Noise level of the unit at a distance of 1 mtr. From the unit should not be more than  $55 \pm 2$  db at scale 'A'.

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- 5.0 Front Grill/Indoor unit enclosures of split: All the machines will be handed over to the contractor in good condition including the front grill. Keeping the front grill/Indoor unit enclosure in good condition is the responsibility of the contractor. If any damage is caused to the front grill/Indoor unit cover during the period of the contract, the contractor has to replace the same with a new front grill/Indoor unit cover of similar type without any charges.
- 6.0 PENALTY CLAUSE: The Split/window A.C., which are under minor break down, has to be attended and rectified within 24 hours of receipt of the complaint from the user/Technical Services Division.
- 6.1 Complaints of the major nature such as replacement of compressor, replacement of sheet metal parts, filling of gas has to be attended and rectified within 10 days of the receipt of the complaint. Penalty will be charged for any further delay in completion of the work. Penalty will be charged for any further delay in completion of the work at the rate of Rs.100/- per day.
- 6.2 Any defective Split/window A.C., which is required to be removed for repair for more than 24 hours, has to be provided with a service unit by the contractor. If the service units are not provided, a penalty of Rs.100/- per day will be levied to the contractor from the time of expiry of 24 hours till the complaint is rectified to the satisfaction of the department.



## LIST OF PARTS COVERED UNDER THIS CONTRACT

SI No	Item
1	Compressors
2	Starting Capacitors
3	Running Capacitors
4	Relays, Thermostats
5	Fan Capacitors
6	Fan Motors
7	Selector switches
8	Contactors ( Power / Control)
9	Gas charging
10	Stabilizers
11	Rewinding of motors
12	Ball bearings of motors
13	Fan blades
14	Electronic Control Circuitries
15	Remote Control Units
16	Micro Swing Motors
17	Built – in Timer kit
18	Air-Filters
19	External Electronic / Analog time switches provided for timed running of A.C's
20	Outdoor unit mounting frames
21	Condenser Coils/Copper Tubes of indoor/outdoor units
21	Parts of indoor / Outdoor unit enclosures
22	Batteries in the remote control
23	Cabling from indoor to outdoor

24	Existing copper piping from indoor to outdoor
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Place:

Date:

**Signature and seal of the Tenderer**

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**Check list for Tender-AC-AMC 2016-17**

S.No	Particular	Yes or No
1.	Receipt of tender fee amount for Rs.1000 (one thousand only) ( non-refundable)	
2.	Receipt of EMD amount of Rs.23,000 (twenty three thousand)	
3.	Government registered(Electrical) / CPWD/PWD/MES Enlistment copy	
4.	Three years' Experience for the similar works in Government Organization	
5.	Certificate of Registration for Sales Tax/VAT /service Tax	
6.	Copy of Reg of EPFO / ESIC and BOCW as Applicable	