



**UNITED NATIONS DEVELOPMENT PROGRAMME
TERMS OF REFERENCE / SCOPE OF WORKS AND REQUIREMENTS
FOR THE SUPPLY OF LABOR, MATERIALS, TOOLS AND EQUIPMENT
AND TECHNICAL SUPERVISION FOR THE PREVENTIVE
MAINTENANCE OF ONE HUNDRED and TWO (102) AIRCONDITIONERS**

1) General

This specification covers the terms of reference for the provision of manpower, consumable materials, tools, and equipment for One (1) year contract for the Maintenance Services of various Airconditioning Units the UN Common Premises, Fourah Bay Close, Off Main Motor Road, Wilberforce, Freetown.

During the One (1) year contract period, the Contractor shall engage properly trained and experienced personnel that shall properly maintained the various air-conditioning units (see attached list below) in accordance with the provision as specified in the scope of work.

Prospective bidders should conduct actual site inspection of the air-conditioners that will be maintained to appreciate the total works to be undertaken and must secure Certificate of Inspection from the UNDP appointed representative.

All maintenance activities shall be properly coordinated with the UNDP appointed representative within the Operations team. Utmost care shall be strictly observed by the Contractor during the maintenance works to avoid damage of any kind to existing structure and equipment. The Contractor shall provide any necessary materials to protect all UN properties from damage and dirt during the maintenance activities.

If any such damage, breakage, or losses occur due to the carelessness, negligence or fault of the Contractor, the Contractor shall repair, replace, or otherwise make good all damaged items at his own expense and to the satisfaction of UNDP.

Enumerated below are the detail of the One Hundred and Two (102) air-conditioning units (ACU's):

Midea V4 Plus DC Inverter K SERIES

Area	No. of Units	Type	Category	Capacity Rating	Years of Acquisition
Reception Area	8	Midea V4 Plus DC Inverter K SERIES	MDV-4009(14)W/DRN1(D) (TOTAL 6 PCS)	Cooling Capacity 40KW	2018
1 st Floor	12	Midea V4 Plus DC Inverter K SERIES		Cooling Capacity 40KW	2018
2 nd Floor	13	Midea V4 Plus DC Inverter K SERIES	MDV-450(16)W/DRN1(D) (TOTAL 7 PCS)	Cooling Capacity 40KW	2018
3 rd Floor	13	Midea V4 Plus DC Inverter K SERIES		Cooling Capacity 40KW	2018
4 th Floor	14	Midea V4 Plus DC Inverter K SERIES		Cooling Capacity 40KW	2018
5 th Floor	13	Midea V4 Plus DC Inverter K SERIES		Cooling Capacity 40KW	2018

6 th Floor	13	Midea V4 Plus DC Inverter K SERIES		Cooling Capacity 40KW	2018
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Split Type Aircons

Area	No. of Units	Type	Category	Capacity Rating	Years of Acquisition
Reception Area	1	Hisense		6450W	2018
1 st Floor	1	Hisense		6450W	2018
2 nd Floor	1	Hisense		6450W	2018
3 rd Floor	1	Hisense		6450W	2018
4 th Floor	1	Hisense		6450W	2018
5 th Floor	1	Hisense		6450W	2018
6 th Floor	1	Hisense		6450W	2018
6 th Floor Attic	1	Hisense		6450W	2021
Canteen	4	LG DUAL inverter			2022
Annexes	4	Hisense		/6450W	2018

The total number of air-conditioning subject for preventive maintenance is One Hundred and Two (102) units of various types/brands ranging from wall mounted, ceiling cassette, ceiling suspended and floor mounted air-conditioning unit (inverter/non inverter).

2) **Scope of Work**

The Contractor shall provide highly trained and qualified air-condition maintenance aide(s) to perform monitoring, maintenance, and repair works.

In case that some of the subject air-conditioners units for preventive maintenance is declared extremely faulty hence unserviceable and recommend for disposal during the service contract, the Contractor shall report to UNDP and the preventive maintenance on the air-conditioner will discontinue, and UNDP has the option to assign another airconditioner units not included in the above listed of air-con unit.

Staff Qualifications:

- Air-con Technician: Training Certificate (issued by Institution with specialty on the repair and troubleshooting of air-conditioning)

3) **Preventive Maintenance:**

a. Monthly Basis:

- Inspect operation of the units; Check condition and settings of panel controls, operating controls, safety controls, thermostat, and gauges to ensure optimum performance.
- Cleaning of air dust filters, cover grills, air passages and outlet vanes as per approved maintenance schedule.
- Preparation and submission of Preventive Maintenance Report and complete accomplish maintenance checklists

b. Quarterly Basis:

- Condensing Units (Outdoor Units)
 - Pressure washer-cleaning of condenser coils, fans, fins and casing of air-con condensing units as per approved maintenance schedule.
 - Checking and settings of electrical controls and safety control
 - Checking compressor ampere reading

- b.1.4. Check condenser fan motor alignment
- b.1.5. Checking, cleaning, and tightening all terminal connections, grease and lubricant all moving parts, as required.
- b.1.6. Check for proper refrigerant charge to ensure proper performance
- b.1.7. Preparation and submission of Preventive Maintenance Report and complete accomplish maintenance checklists.

b.2. Fan Coil Units (FCU) / Windows

- b.2.1 Pressure washer-cleaning of evaporator coils, fins, fan/blower blades drain pans, and casing of air-con FCU as per approved maintenance schedule;
- b.2.2. Checking and settings of electrical controls and safety control;
- b.2.3. Check-up and flushing of drain lines to remove partial clogging;
- b.2.4. Check fan motor/blower blades;
- b.2.5 Checking, cleaning, and tightening all terminal connections, grease and lubricant all moving parts, as required;
- b.2.6 Preparation and submission of Preventive Maintenance Report and complete accomplish maintenance checklists.

4) Other Maintenance Activities:

The Contractor shall perform the following services without any additional cost / fee:

Be available during the emergency or on call service by UNDP for the conduct of check-up, testing or troubleshooting of units and shall submit recommendations and propose quotations for UNDP's evaluation and approval.

5) Repair Works:

- a. In case there are supplies/materials and parts that found to be defective at the time of latest conduct of preventive maintenance or emergency service which are needed in the approval of the repair works to be done but not included in the terms of reference. Prices of supplies / materials and parts shall be mutually agreed upon by UNDP and the Contractor after a canvass from three (3) reputable sources during the contract implementation. All needed supplies/materials and parts intended for every approved repair works should be delivered by the Contractor with the contract period upon the request of UNDP. Payment for the repair works shall be billed separately.
- b. All repair works shall be done in accordance with the requirements of the unit's manufacturer and acceptable industry practice.
- c. All repair works to be undertaken must be witnessed by UNDP's authorized representative/s. Repair works shall be guaranteed by the contractor for at least one (1) year after acceptance.
- d. The Contractor shall submit service report of all the repair works done which must be confirmed and signed by UNDP's authorized representative/s.

6) Payment Terms:

Payment for the services to be provided by the Contractor to UNDP for One (1) year contract shall be made on quarterly equal payment. Payment shall be within thirty (30) working days upon UNDP's certification of satisfactorily performance and Contractor submission of quarterly invoices, service reports and other supporting documents required by UNDP.

Billings for the repair works and/or replacement parts provided by the Contractor shall be made separately and shall be in accordance with the approved Scope of Work (SoP).