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Bhutan Trust Fund for Environmental Conservation

Terms of Reference (ToR) for Annual Maintenance Contract (AMC) for HVAC System

1. Introduction

This Terms of Reference (ToR) outlines the scope of work, service schedule, and responsibilities under the Annual Maintenance Contract (AMC) for the Heating, Ventilation, and Air Conditioning (HVAC) system. The objective of this contract is to ensure the efficient operation, reliability, and longevity of the HVAC units through regular preventive and corrective maintenance services.

2. Scope of Work

During the AMC period, the service provider shall be responsible for providing the following services:

2.1 Routine Maintenance Services

- Two (2) routine services per year
- Immediate response to breakdown calls to ensure minimal downtime.

2.2. Maintenance Services

The maintenance services shall include, but are not limited to, the following:

- Air Filter Inspection and Cleaning Ensuring proper airflow and system efficiency.
- **Refrigerant Gas Pressure Check** Monitoring gas levels and topping up if necessary (*labor* only).
- Power Supply Check and Repairs Ensuring uninterrupted power supply and fixing any identified faults.
- **Inspection of Power and Control Cables** Checking for wear, damage, or loose connections and rectifying issues.
- **Ambient Temperature Check** Adjusting system settings if necessary.
- **Suction Air Temperature Check** Monitoring and adjusting for optimal performance.
- **Discharge Air Temperature Check** Ensuring proper heat exchange and efficiency.
- **Supply Air Temperature Check** Measuring output temperature and fine-tuning as required.
- Return Air Temperature Check Monitoring and adjusting circulation efficiency.
- Electrical Components Inspection and Repairs Checking electrical points for faults and performing necessary repairs.
- Condenser Cleaning (ODU Only) Ensuring optimal heat dissipation.
- Evaporator Cleaning (ODU Only) Removing dirt and debris for efficient cooling.
- **Drain Pipe Leakage Check and Repair** Preventing water leakage and associated issues.

2.3 Types of Services

- One (1) Wet Service and One (1) Dry Services for all Outdoor Units (ODUs) annually.
- Two (2) Dry Services for all Indoor Units (IDUs).

2.4. Service Schedule

- Wet Service: before cooling season.
- Dry Service: once before heating season and once before cooling season.

3. Deliverables

The service provider shall ensure:

Execution of the scheduled maintenance services as per the agreed timeline.





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- Immediate response and resolution of breakdown issues.
- Provision of a detailed maintenance report after each service, highlighting findings, corrective actions, and recommendations.

4. Responsibilities

4.1 Responsibilities of the Service Provider

- Perform all maintenance activities in accordance with industry best practices and safety standards.
- Deploy qualified technicians and necessary equipment for effective service execution.
- Maintain proper documentation of all maintenance work and provide reports to the Purchaser.
- Respond promptly to breakdown calls and rectify issues in a timely manner.

4.2 Responsibilities of the Purchaser

- Ensure accessibility to the HVAC units for scheduled maintenance and repairs.
- Bear the cost of any spare parts or refrigerant gas required for the maintenance process.
- Provide relevant system documentation and records as needed for efficient service delivery.

5. Contract Duration

The AMC shall be valid for a period of one (1) year from the date of commencement, with the possibility of renewal based on performance and mutual agreement.

6. Compliance and Safety

The service provider shall strictly adhere to safety regulations and operational guidelines during maintenance activities. Any safety hazards identified must be reported immediately to the Purchaser.

7. Termination Clause

Either party reserves the right to terminate the contract with a prior written notice of at least 15 days. Upon termination, any pending maintenance services or urgent repairs must be addressed as per the agreed terms.