



TERMS OF REFERENCE FOR THE “PROVISION OF QUARTERLY PREVENTIVE MAINTENANCE OF PAGASA 5 TR AND 10 TR PRECISION AIRCONDITIONING UNIT (PACU) ”

A. BACKGROUND

A.1 Introduction:

All things denigrate as they age. Equipment and systems are of no exception. In order to optimize performance and prolong the life usage of such, proper operation and maintenance must be applied. This project is aligned in this philosophy wherein the 5 tonner and 10 tonner Precision Air Conditioning Units (PACU) being used at the different ICT rooms to be mentioned later as the subject of this terms of reference.

The importance of this undertaking was highlighted by a server run down incident due to a PACU malfunction during the early weeks of the Covid lockdown. Several databases was opted to be turned off to avoid further damage until the problem with the PACU was solved. Adding insult to injury is the absence of appropriate personnel at the time causing a delay in the normalization of the system operation. Furthermore, the work from home scheme being implemented highly depends on the availability of these servers.

Due to the several reasons stated, it is recommended to program scheduled preventive maintenance not only for the PACUs but for all aspects covering the operation of the server rooms including the servers itself in order to lessen if not prevent unlikely incidents in the future. Cleanliness of the room and racks, power continuity/stability, servers' hardware and software soundness are among the factors that should be considered aside from the cooling and humidity maintenance in the programming of preventive maintenance schedule. Our operations high dependency to these servers justify this recommendation but for now we have to resolve only the maintenance of cooling and humidity due to the immediate needs.

A.2 Project Purpose:

The purpose of the project is to conduct quarterly preventive maintenance in the span of one year to the following PACUs:

1. Ten (10) tonner GEA-DENCO model no. DMA 030D located at:
 - a. 2nd floor FTP Server Room (DIC Bldg.) - **1 unit**
 - b. 3rd floor Forecasting Server Room (DIC Bldg.) - **2 units**
2. Five (5) Tonner GEA-DENCO model no. 018D PACU located at:
 - a. 4th floor ICT Server Room (Central Office Bldg.) - **1 unit**
 - b. 1st floor ICT Server Room ((DIC Bldg.) - **2 units**

B. APPROVED BUDGET FOR THE CONTRACT (ABC)

The Approved Budget for the Contract is **Six Hundred Thousand Pesos (P600,000.00)** inclusive of VAT and all applicable government taxes.

C. QUALIFICATIONS OF THE BIDDER

(Please refer to Section II. Instructions to Bidders, the Bid Data Sheet and Checklist of Eligibility and Technical Requirements of the Bidding Documents)

D. DELIVERY PERIOD AND PLACE OF DELIVERY

The winning bidder shall conduct quarterly preventive maintenance of PAGASA 5 tr and 10 tr PACUs at different sites mentioned in the span of one(1) year from receipt of the Notice to Proceed (NTP) at the PAGASA Central Office located at PAGASA Science Garden Complex, BIR Road, Diliman Quezon City.

E. BID PROPOSAL CONTENTS

The prospective bidder is expected to comply and respond in accordance with the specific instructions to bidders and submit all the documentary requirements under the Checklist of Eligibility, Technical and Financial Requirements. The submission of documentary requirements must be properly arranged in order and with label.

The prospective bidder shall respond paragraph by paragraph and shall clearly indicate compliance to all the required specifications (*Please see Section VII. Compliance Matrix*) and shall specify the number of days or schedules within which to complete the delivery of all the goods required (*Please see Section VI. Schedule of Requirements*).

The prospective bidder shall be required also to include in this proposal, original descriptive literatures and unamended brochures of all equipment/materials to be supplied. Plans, drawings, and diagrams/configurations must likewise be provided. These details will allow the **PAGASA-Bids and Awards Committee** to fully evaluate and determine compliance from the prospective bidders.

The following are additional requirements which will be part of the bid documents that will be submitted by interested bidders:

- Proposed Service Level Agreement (SLA) for this undertaking

F. TECHNICAL SPECIFICATIONS

The winning bidder shall conduct quarterly preventive maintenance of:

- Ten (10) tonner GEA-DENCO PACU model no. DMA 030D located at:
 - 2nd floor FTP Server Room (DIC Bldg.) - 1 unit
 - 3rd floor Forecasting Server Room (DIC Bldg.) - 2 units

- Five (5) Tonner GEA-DENCO PACU model no. 018D PACU located at:
 4th floor ICT Server Room (Central Office Bldg.) – 1 unit
 1st floor ICT Server Room ((DIC Bldg.) - 2 units

A total of 6 PACUs to be maintained four (4) scheduled times or every three (3) months.

- Provide maintenance report for every completed maintenance
- Provide proposed Service Level Agreement which indicates the scheduled maintenance details to be approved by PAGASA.
- Provide necessary **original replacement parts** for the conduct of repair and provision of supporting documents for the facilitation of payment

G. SCOPE OF WORK

The scope of work covers the shall conduct quarterly preventive maintenance of PAGASA 5 tr and 10 tr PACUs at different sites mentioned in the span of one(1) year. The works and services to be performed under this contract shall essentially consist of but not limited to the following:

1. Visual inspection of all internal sub-assemblies and major components.
2. Record indicator readings of temperature and humidity.
3. Clean internal component from any foreign dust and particles.
4. Thorough check on the accuracy and integrity of electrical connections
5. Check up of cables and miscellaneous materials such as nuts, bolts, screws and other connectors for connection tightness and inspect for broken/damaged or burned components.
6. Delivery, installation, and testing of equipment at various Check status of alarm control circuits
7. Vacuum clean or replace air filters, whichever is applicable.
8. Inspect and adjust fan belt tension if necessary
9. Check for possible defective or worn out electrical components, recommend replacement immediately.
10. Check the normal operation of the system
11. Check and record compressor suction and discharge for each compressor.
12. Check conditions of humidifier boiler electrodes
13. Inspect outside coils for dirt and brush clean condenser coils as required
14. Check condenser fan motors for improper shaft alignment, abnormal end play, vibration and noise.
15. Tighten all starter terminal and check contacts for wear.
16. Test differential pressure switch for proper operation.
17. Check the condition of control contacts for wear.
18. Check fan and motor bearing.
19. Check mounting integrity of all safety and temperature monitoring control.
20. Provide a written report of work completed and indicated deficiencies.
21. Observe the equipment operation for any sign of abnormality.

22. Twenty four (24) hours, seven (7) days a week on call service in attending field trouble call received and done during business hours

H. WARRANTIES

1. The bidder warrants that it shall strictly conform to all the Terms and Conditions of this Terms of Reference.
2. The Bidder must provide a 24/7 technical support with:

Communication support facility.

- E-mail /Telephone /mobile /sms
- Online Support / Chat Support

Escalation

- PAGASA NOC
- 24/7/SUPPORT
- Technical group

Scheduled Maintenance

- Quarterly

3. The winning bidder shall neither assign, transfer, pledge, nor subcontract any part or interest therein.