



TERMS OF REFERENCE (TOR)

Project Title & Code: Preventive Maintenance of 2MVA Cast Resin Transformer at Passenger Terminal Building

Project Location: Port of Cagayan de Oro

I. PURPOSE AND SCOPE

This project covers the Preventive Maintenance of the 2MVA Cast Resin Transformers located at the Passenger Terminal Building. The activity aims to ensure the transformers' optimal performance, reliability and operating condition.

The project aims to ensure the reliability, safety, efficiency and proper operating condition of the transformers, preventive maintenance, inspection, testing and necessary servicing shall be undertaken by a qualified and competent service provider.

II. SCOPE OF WORKS/SERVICES

The contractor shall undertake the project in accordance with the accepted industry standards and procedures:

- 1.) Conduct visual walk around inspection of the surroundings and data gathering.
- 2.) Safely remove transformer tap wires in preparation for unit testing.
- 3.) Inspect transformers' external components such as bushings, terminals and any accessories for any visible defects or abnormalities.
- 4.) Conduct cleaning and removal of dust and contaminants from the transformer and surrounding components.
- 5.) Check the condition and operation of transformer fans and blowers and perform necessary repairs.
- 6.) Safely remove transformer tap wires or power cable connections to prepare units for testing.



7.) Perform following Transformer Tests:

- a.) Transformer Turns Ratio Test (TTR)
- b.) Winding Resistance Test
- c.) Insulation Resistance Test
- d.) High Potential Test (Hi-Pot)
- e.) Excitation Test
- f.) Insulation Power Factor Test

8.) Re-tap and secure the power cables according to the required tap settings.

9.) Conduct Pre-energization checks and safely energize the transformer.

NOTE:

- 1.) Warranty: 6 Months on Workmanship**
- 2.) Warranty: 12 Months on Parts/Materials**
- 3.) Submit Detailed Technical Service Report shall be submitted, and Date of Completion is stated duly signed and sealed by a licensed Professional Electrical Engineer (PPE).**

All works shall conform to applicable engineering standards, manufacturer specifications, and PPA PMO MOC guidelines.

III. CONTRACTOR DELIVERABLES

The Contractor shall be responsible for the complete execution and successful completion of the project titled **“Preventive Maintenance of 2MVA Cast Resin Transformer at Passenger Terminal Building”**.

1. Pre-Maintenance Inspection Report

- Initial condition of the 2MVA Cast Resin Transformer.
- Observed defects, abnormalities and deficiencies.
- Photographic documentation of the equipment prior to maintenance.

2. Preventive Maintenance Accomplishment Report

- Detailed description of all maintenance, inspection, cleaning, tightening and servicing activities performed on each transformer.

3. Transformer Tests Results Report

- Transformer Turns Ratio Test



- Winding Resistance Test
- Insulation Resistance Test
- High Potential Test
- Excitation Test
- Insulation Power Factor Test

4. Test Results and Evaluation

- Actual measured values obtained during testing.
- Comparison with applicable standards, manufacturer's recommended values, or acceptable limits.
- Interpretation of test results.
- Overall condition assessment of each transformer.

5. Photographic Documentation

- Before, During and After the Preventive Maintenance Activities.
- Photographs of testing activities and instruments used.
- Photographs of any observed defects or abnormalities.

6. Deficiency/Findings Report

- Detailed list of defects, deficiencies or components requiring repair or replacement.
- Identification of conditions requiring immediate attention, if any.

7. Recommendations Report

- Recommended corrective actions.
- Recommended repair or replacement of defective components.
- Recommended future maintenance activities.

8. Certificate of Completion

A duly signed Certificate of Completion certifies that the required preventive maintenance, inspection and testing activities for the 2MVA Cast Resin Transformer have been satisfactorily completed.

9. Final Maintenance Report

A consolidated report containing the inspection findings, maintenance activities, electrical test results, photographs, condition assessment, deficiencies, recommendations and conclusion on the operational condition of the cast resin transformer.





IV. PRICING, PROCUREMENT METHOD & PAYMENT TERMS

The **Approved Budget for the Contract (ABC)** is **Five Hundred Thousand (Php 500,000.00) inclusive of VAT**.

This procurement shall be undertaken through **Small Value Procurement** in accordance with Republic Act No. 12009 (New Government Procurement Act) and its Implementing Rules and Regulations (IRR).

Payment shall be processed **only upon 100% completion** and subject to the submission of the following:

- Detailed Test Result and Service Report
- Inspection and Acceptance Report
- Certificate of Completion and Acceptance

V. CRITERIA FOR EVALUATION AND AWARD

Evaluation and Award for *the* **“Preventive Maintenance of 2MVA Cast Resin Transformer at Passenger Terminal Building”** shall be conducted in accordance with **Republic Act No. 12009** and its **Implementing Rules and Regulations (IRR)** specifically **Small Value Procurement (SVP)** ensuring transparency, accountability and value for money.

The Procuring Entity shall adopt the **Most Economically Advantageous Responsive Bid (MEARB)**, considering both technical quality and financial competitiveness to ensure best value for the government as the basis for selection and award.

VI. RESPONSIBILITIES OF THE BIDDER

The contractor shall undertake full responsibility for proper execution, completion and warranty of all works under this project in accordance with applicable standards, manufacturer requirements and NGPA regulations.

General Responsibilities

- Perform all works in accordance with approved plans, specifications and scope of work.
- Provide all necessary labor, tools, equipment, supervision and consumables required to complete the project.
- Ensure that all activities comply with applicable codes, safety standards and environmental regulations.





- Coordinate closely with End-User/Procuring Entity for scheduling and work execution to avoid disruption of terminal operations.

VII. RESPONSIBILITIES OF THE PROCURING ENTITY

The procuring entity shall ensure proper oversight, coordination and support for the effective implementation of the project in accordance with the NGPA and its Implementing Rules and Regulations.

General Responsibilities

- Assign Project Engineer/Inspector to oversee and monitor the implementation of works.
- Ensure that all works performed by the Contractor are in accordance with the approved Terms of Reference, Technical Specifications and Contract Provisions.
- Conduct regular inspections and validation of completed maintenance and repair activities.
- Conduct joint inspections with the Contractor before, during and after project implementation.
- Verify and certify the completion of works based on agreed performance standards and deliverables.

VIII. PROJECT DURATION

The winning bidder shall complete all works under this project with *Twenty (20)* calendar days from the **date of receipt** of the **Purchase Order (PO)**.

IX. PAYMENT TERMS

Payment shall be made to the winning bidder only upon full completion and final acceptance of the work by the PMO MO/C, through the ESD, upon submission of all required billing and supporting documents.

No advance or progress payment shall be allowed under this Contract. The total contract amount shall be released after project completion, subject to the usual government accounting, auditing and tax deduction requirements.

X. PENALTIES FOR DELAY

For **unjustified delay in delivery**, Liquidated Damages shall be imposed at a rate of **0.10% (One-Tenth of One Percent)** of the **unperformed portion of the contract per calendar day of delay**.





The total Liquidated Damages shall **not exceed ten percent (10%) of the total contract price**, after which the Procuring Entity may rescind the contract in accordance with rules and regulations under the NGPA.

XI. BIDDER QUALIFICATIONS AND OTHER INFORMATION

The bidder shall possess and submit proof of the necessary technical capability, experience, qualified personnel, tools, testing instruments and resources to satisfactorily undertake the **“Preventive Maintenance of 2MVA Cast Resin Transformer at Passenger Terminal Building”**

1.) Relevant Experience

The bidder shall have experience in the preventive maintenance, inspection, testing, repair or servicing of transformers and/or similar electrical distribution equipment.

2.) Similar Completed Projects

The bidder shall submit a sample completed and duly signed service report for a project of similar nature, which shall include the transformer test results corresponding to all tests specified. The submitted sample shall demonstrate the bidder's capability to properly document, conduct and report the required transformer testing and preventive maintenance activities.

3.) Qualified Technical Personnel

The bidder shall provide qualified technical personnel with appropriate experience in transformer maintenance and electrical testing. The personnel shall possess applicable professional licenses, certifications, training or other proof of competency, as required by the nature of the work.

4.) Testing Instruments and Equipment

The bidder shall have the readily available necessary testing instruments and equipment required to perform the prescribed electrical tests. The bidder shall submit proof of documentation of such instruments and intended use.

5.) Technical Capability

The bidder shall demonstrate sufficient technical capability to conduct preventive maintenance, electrical testing, evaluation and condition assessment of the three (3) 167kva transformers.

6.) Safety Capability

The bidder shall demonstrate its capability to safely perform electrical maintenance and testing works, including the provision of appropriate PPE, safety equipment and qualified personnel.

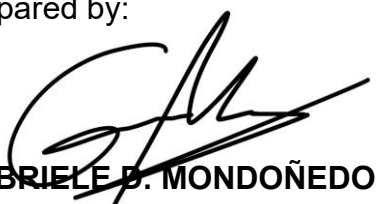


Must submit the following eligibility documents:

TECHNICAL DOCUMENTS	FINANCIAL DOCUMENTS
1.) Updated PhilGEPS Registration 2.) Omnibus Sworn Statement/Eligibility Declaration (RA 12009 Format) 3.) Bid Form (RA12009 Format) 4.) Other documents deemed necessary for minimum qualification.	1.) Duly Accomplished Request for Quotation (RFQ)

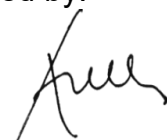
This TOR takes effect upon approval by the Port Manager and remains valid until full and satisfactory completion of the project.

Prepared by:



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Noted by:



MARC M. AVELLANA
ESD Manager

Approved by:



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