



## TERMS OF REFERENCE

for the

### **SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING OF 2MVA, 3 PHASE, 60HZ, DELTA-WYE COMPARTMENTALIZED PAD MOUNTED TRANSFORMER, FIRST PRIVATE POLE (FPP), AND PRIMARY HARDWARE FROM FPP TO TRANSFORMER.**

#### **A. OVERVIEW**

PAGASA is embarking to establish a Data Center at the PAGASA WFFC Compound, Agham road, Diliman, Quezon City. The Data Center will house a high speed supercomputer that will operate and run weather and climate models. It will provide many benefits to our forecasters who are regularly developing of formulating weather and flood forecast for dissemination to the public. It will greatly improve the accuracy of our forecasts. This project is part of the program that would satisfy one of our strategic objectives to be able to deliver reliable and relevant weather related information and services.

Due to the voluminous amount of data and the high speed at which these are being process the system including the cooling system would require a large amount of power. To satisfy the requirements, a 2MVA Compartmentalized Pad mounted transformer. 3 Phase, 400 VAC shall be installed to satisfy the amount of power requirements. The said transformer shall be tapped to the established MERALCO primary lines inside the PAGASA Compound. To ensure the smooth installation and tapping of the transformer it is recommended that the participating bidder should be a subsidiary of MERALCO.

#### **B. APPROVED BUDGET FOR THE CONTRACT (ABC)**

The approved budget for the project amounts to **Eight Million and Seven Hundred Thousand Pesos (Php 8,700,000.00)** inclusive of VAT and all applicable government taxes.

#### **C. QUALIFICATIONS OF THE BIDDER**

Bidder shall be a MERALCO Subsidiary.

Other qualifications, please refer to Section II – instruction to Bidders, the Bid Data Sheet and Checklist of Eligibility and Technical requirements of the Bidding Documents.

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#### **D. PROJECT DURATION**

The winning bidder, after accepting the Notice to Proceed (NTP), shall complete the project within 3 to 4 months.

#### **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).

These details will allow the PAGASA-Bids and Awards Committee to fully evaluate and determine compliance from the prospective bidders.

#### **F. TECHNICAL SPECIFICATIONS**

##### **1.1 2000kVA Compartmentalized pad mounted transformer**

Phase: 3 Phase  
Frequency: 60Hz  
Vector Group: delta-wye  
Primary Voltage /BIL: 34.5Kv  
Secondary Voltage: 400Vac  
Conductor: Copper  
Regulation Range on HV: 34.5kV +2 / -2 @2.5%  
Vector Group: Dyn11  
Impedance Voltage: 5.75%  
Sound Level: 60dB  
Max Ambient Temperature: 40 deg C  
Temperature rise of top oil: 60 deg C  
Temperature rise of windings: 65 deg C

##### **1.2 First Private Pole (FPP) including the following:**

Concrete Pole, 50ft, Class 3A  
Load Break Switch o Outdoor Distribution, 600A, 36kV, Rated 630A  
Power Fuse Assembly 36kV  
Distribution Lighting Arrester, 27kV w/ mounting bracket  
Consumables

##### **1.3 Primary Hardware from FPP to Transformer**

#1/0 XLPE cable (Metering pole to FPP)  
#1/0 Tree wire cable (Metering pole to FPP)  
#1/0 ACSR cable (neutral wire)  
Consumables

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## **G. SCOPE OF WORK**

- Supply, delivery, installation, testing and commissioning of 2MVA, Compartmentalized Pad Mounted transformer with the following accessories :
  1. First Private Pole (FPP),
  2. Concrete Pole, 50ft,
  3. Class 3A Load Break Switch o Outdoor Distribution, 600A, 36kV, Rated 630A
  4. Power Fuse Assembly 36kV Distribution Lighting Arrester, 27kV w/ mounting bracket
  5. Primary Hardware from FPP to Transformer
  6. #1/0 XLPE cable (Metering pole to FPP)
  7. #1/0 Tree wire cable (Metering pole to FPP)
  8. #1/0 ACSR cable (neutral wire)
- Construction of concrete pedestal, 4runs, height 6m, including the excavation, gravel bedding, rebars and mandrel works, Supply and installation of UPVC Duct, UPVC elbow, End bell Form works, Concrete backfill/Compaction.
- Construction of concrete encasement, 4 runs, 100mm diameter, including the excavation, gravel bedding, rebars and mandrel works, Supply and installation of UPVC elbow, Concrete Spacer, End bell, UPVC Form works, Concrete backfill/Compaction, Assist in Energization.

## **H. WINNING BIDDER'S REQUIREMENT**

- a. Winning bidder must provide certification from the manufacturer that the transformer to be supplied is brand new;
- b. Winning bidder must be subsidiary of MERALCO. A proof of which shall be submitted to PAGASA;
- c. Winning bidder should provide certificate that it has 24x7 technical support capabilities. Winning bidder should identify the persons responsible for restoring service due to outages and provide his contact details i.e. contact person, position, contact numbers and email address;
- d. Winning bidder should provide a certificate from manufacturer that they are capable of rendering after sales support in the next five (5) years;
- e. Winning bidder must employ and assign an authorized safety officer to oversee the implementation of the project. The assigned safety officer must be a member of safety organization of the Philippines.

## **I. WARRANTY AND MAINTENANCE**

The winning contractor shall provide a four (4) years warranty period against defects and workmanship reckoned from the date of project acceptance. Labor and materials including transportation cost shall be provided at no cost to PAGASA during the warranty period. The contractor shall readily respond to the owner's notification or request for service within 24 hours.

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