

TECHNICAL SPECIFICATION

FOR THE PROCUREMENT OF PHANTOM LOAD THREE-PHASE CURRENT AND VOLTAGE SOURCE EQUIPMENT

A. RATIONALE

The Consumer Affairs Service (CAS) is primarily responsible in handling consumer complaints and ensuring the adequate promotion of consumer interests pursuant to Section 41 of the EPIRA or Republic Act No. 9136. It is also responsible in ensuring the accuracy of watt-hour meters used by all distribution utilities under the jurisdiction of the Commission pursuant to Section 16 (d), (e), (f) and (g) of Commonwealth Act No. 146 otherwise known as the Public Service Act, to wit:

(d) To fix just and reasonable standards, classification, regulations, practices, measurements, or service to be furnished, imposed, observed and followed thereafter by any public service.

(e) To ascertain and fix adequate and serviceable standards for the measurement of quantity, quality, pressure, initial voltage and other condition pertaining to the supply of the products or service rendered by any public service, and to prescribe reasonable regulations for the examination and test of such product or service and for the measurement thereof.

(f) To establish reasonable rules, regulations, instructions, specifications, and standards, to secure the accuracy of all meters and appliances for measurement.

(g) To compel any public service to furnish, safe, adequate and proper service as regards the manner of furnishing the same as well as the maintenance of the necessary material and equipment.

The accuracy reliability of meter test will ultimately provide consumer protection in terms of accuracy on kilowatt-hour registration of their electricity consumption. To ensure the optimum accuracy of kWhr meters being used by regulated entities, these revenue meters installed at the consumers' premises are tested on-site with the use of testing equipment. A set of three phase (polyphase) testing equipment comprises of a three phase standard meter and a stable voltage and current generating equipment or a Phantom Loader. The procurement of three-phase voltage and current source equipment or Polyphase Phantom Loader is in accordance with the provision of Section 5.5.2 of ANSI C12.20 which states that:

“For polyphase loading, the meter shall be tested with voltage and current phase angles similar to actual service installations. Polyphase loading will be mandatory for testing of polyphase meters effective January 1, 2020.”

This polyphase phantom loader will be deployed in the ERC Main Office, and in order to respond to request for testing/accuracy verification of in-service three phase meters of Distribution Utilities’ (DUs) commercial and industrial customers, contestable customers in their areas of jurisdiction and those polyphase meters brought to the Meter Division laboratory.

B. OBJECTIVE

The objective of the Consumer Affairs Service (CAS) is to augment the inventory of three phase phantom loader of the ERC Main Office and to be compliant with requirement of ANSI C12.20 standards. It is imperative to have reliable source of three phase current and voltage to produce accurate meter test results, and to provide quality service to all stakeholders.

C. RESPONSIBILITIES OF THE WINNING BIDDER

The following are the responsibilities/obligations of the winning bidder:

1. It shall be responsible for the safe-keeping of the items until it reaches the final destinations;
2. Provide After Sales Service and Technical support within five (5) years or within the economic life the equipment;
3. Keep an inventory of consumables/ spare parts and to conduct repairs within seven (7) days from notification for minor issues or those replacements for defective parts that are locally available parts; or within ninety (90) days for major issues or those replacements for defective parts/items sourced outside the country;
4. Hands-on Training to a minimum of 5 Meter Division Personnel to be conducted in the said site, within one month from delivery, or within Two (2) weeks from the lifting local travel restriction;
5. Coordinate with the ERC General Services Division (GSD), the Meter Division (MD) at least three (3) days before the date of delivery; and
6. Provide Certificate of Warranty for One (1) Year (at least) from the delivery and acceptance of the equipment by the ERC.

D. RESPONSIBILITY OF THE ERC

1. Acknowledge receipt of items, after testing and acceptance by the ERC Technical Property Inspection Committee (TPIC), including pertinent details such as quantity, date and condition of the items received; and
2. Prepare payments due to the Winning Bidder after the deliveries of the equipment at the ERC Main Office.

E. SCHEDULE OF DELIVERY

The Winning Bidder should deliver the Equipment **within ninety (90) calendar days from receipt of the Notice to Proceed.**

F. SPECIFICATION OF THE PHANTOM LOAD THREE-PHASE VOLTAGE AND CURRENT SOURCE EQUIPMENT AND INCLUSIONS

1 set Phantom Load Three-Phase Voltage and Current Source Equipment

Single Phase Input Power Supply:

Voltage : 90 ~ 250 VAC (auto ranging)
Frequency : 57 ~ 63 HZ (auto ranging)

Single/Three Phase Precise, Stable Power Output:

Voltage Range	: 57 ~ 480 VAC	Resolution : 0.1 V
Current Output	: 3 x 1 mA ~ 120 A	Resolution : 1 mA
Phase Angle	: -180° ~ +180° (0°~ 360°)	Resolution: 0.1°
Frequency	: 45 ~ 65 Hz	Resolution : 0.1 Hz
Power Factor	: -1.0 ~ +1.0	Resolution : 0.01

Integrated RS 232C interface PC-controlled

Degree of Protection : IP40 or better

Protection Mechanism from Over-Current and Cross-voltages

Operation Temperature Range : 0°C ~ 50°C

Complete set of Test Cables & Accessories

Operation Manual (Hard and Soft Copy)

Power Supply Cable

G. MODE OF PROCUREMENT

The procurement shall be undertaken through **Competitive Bidding** pursuant to RA No. 9184 and its 2016 Revised IRR.

H. FUND SOURCE and APPROVED BUDGET FOR THE CONTRACT

1. The fund for this engagement shall be sourced from the **Continuing Appropriation** of the General Appropriations Act (**GAA**) for the fiscal year **2020** of the ERC.
2. The Approved Budget for the Contract for the project is **FOUR MILLION PESOS (PhP 4,000,000.00)**, inclusive of all government taxes, fees and charges.

I. PAYMENT SCHEME

1. The Total Contract Price which should not exceed the ABC of **FOUR MILLION PESOS (PhP 4,000,000.00)**. Payment shall be released at the ERC Main office **within thirty (30) days** after the completion of delivery of the item and final acceptance at the ERC Main Office.
2. Since the above payment shall be subject to the usual government accounting and auditing requirements, the Winning Bidder is expected to be familiar with the Government Accounting and Auditing Manual (GAAM).

J. ACCEPTANCE/REJECTION PERIOD

Testing/Inspection and Acceptance or Rejection: Within 15 calendar days from the actual delivery date, the ERC authorized representative shall test and inspect the equipment and issue either an Inspection and Acceptance Report, if equipment is in accordance with the specifications, or a Notice of Test/Inspection Results, if there are parts or functionalities that need to be replaced or adjusted. The supplier shall be given a reasonable number of days to make the necessary replacement or adjustment. After which, the ERC authorized representative shall test and inspect the equipment again and either issue an Inspection and Acceptance Report, if the equipment is in accordance with the specifications, or Reject the equipment.

H. LIQUIDATED DAMAGES

1. Where the Winning Bidder refuses or fails to satisfactorily complete the work within the specified contract time, plus any extension time duly granted and is hereby in default under the contract, the Winning Bidder shall pay ERC for liquidated damages, and not by way of penalty, an amount, as provided in the conditions of the contract, equal to one tenth (1/10) of one percent (1%) of the cost of the unperformed portion for every day of delay. The maximum deduction

shall be ten percent (10%) of the amount of the contract, of which ERC shall have the discretion to terminate the contract without prejudice to any other action or remedy it may take to recover the losses incurred as a result of the Winning Bidder's failure/non-performance, including but not limited to forfeiture of performance security and/or blacklisting of the latter.

2. For entitlement to such liquidated damages, ERC need not prove the damages actually incurred. Said damages in any amount shall be deducted from any money due or which may become due the service provider under the Contract and/or collect such liquidated damages from the retention money or other securities posted by the service provider at the ERC's convenience.

I. RESERVATION CLAUSE

The Energy Regulatory Commission (ERC) reserves the right to reject any and all bids, declare a failure of bidding or not award the contract at any time prior to contract award in accordance with Section 41 of R.A. 9184 and its IRR, without thereby incurring any liability to the affected bidder or bidders.

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