



LOCAL WATER UTILITIES ADMINISTRATION
 LWUA Bldg., MWSS-LWUA Complex
 Katipunan Avenue, Balara, Quezon City 1105
 Telefax No. 920-54-36

RFQ No.:

DATE: **29 APRIL 2013**

REQUEST FOR QUOTATION

NAME, ADDRESS & TEL/FAX NO. OF SUPPLIER _____ _____ _____ QUOTED BY _____ PRINT AND SIGN NAME / POSITION	PLEASE QUOTE YOUR LOWEST PRICE, NET OF ANY POSSIBLE DISCOUNT: <input checked="" type="checkbox"/> IN SEALED ENVELOPE <input type="checkbox"/> WITH COMPANY PROFILE, ETC. <input type="checkbox"/> WITH PRODUCT BROCHURE DEADLINE FOR SUBMISSION (DATE/TIME): May 15, 2013, 2 PM CANVASS OPENING DATE/TIME: May 15, 2013, 2 PM DELIVERY REQUIREMENT WITHIN 15 CALENDAR DAYS FROM RECEIPT OF APPROVED P.O. / CONTRACT SIGNING APPROVED BUDGET: P 250,000.00 REF. P.R. NO.#: 226-13
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ITEM NO.	DESCRIPTION	QUANTITY	UNIT	DELIVERED LWUA	
				UNIT PRICE	TOTAL AMOUNT
01. x	General testing and Servicing of High Voltage switchgears (34.5KV/480V, 3P, 60Hz), and low voltage switchgear and other related works. Specifications: KVA rating: 1600/2000 Voltage Rating: 34500-480V/277V Temperature Rise: 55°C Const. Number: 391400 Serial Number: 79069655/6 Class: OA/FA Number of Phases: 3 Frequency: 60 Hz Impedence: 5.51% Brand Name: TOSHIBA xx (Please refer to the attached Scope of Work)	1 x	Lot x	P _____	P _____
<u>VAT INCLUDED</u>					

TERMS AND CONDITIONS: 1) AS A GOVERNMENT AGENCY, LWUA SHALL DEAL ONLY WITH LEGITIMATE SUPPLIERS/CONTRACTOR WHICH ISSUE BIR-REGISTERED O.R.s; 2) QUOTED PRICES MUST BE INCLUSIVE OF 5% TAX FOR MATERIALS & SUPPLIES 6% FOR LABOR AND 1% EXPANDED WITHHOLDING TAX; 3) ALL QUOTATIONS SHALL BE FIRM AND VALID FOR A PERIOD OF AT LEAST THIRTY (30) DAYS FROM THE DATE OF RECEIPT OF QUOTATION & SHALL BE BINDING UPON THE SUPPLIER WITHIN THE PERIOD; 4) LWUA RESERVES THE RIGHT TO POST-QUALIFY ANY SUPPLIER AND/OR TO REJECT ANY OR ALL SUBMITTED QUOTATIONS; 5) P.O. / CONTRACT SHALL BE AWARDED TO THE LOWEST EVALUATED RESPONSIVE BID; DELIVERED ITEMS ARE SUBJECT TO INSPECTION, WITH PAYMENT PROCESSING TO COMMENCE ONLY AFTER ACCEPTANCE BY THE PROPERTY CONTROL DIVISION; AND 6) TERMS OF PAYMENT WITHIN 14 - 28 CALENDAR DAYS FROM DATE OF ACCEPTANCE.	REQUESTED BY: MELITON C. SOBERANO Procurement Officer NOTED BY: CYNTHIA M. DE OCAMPO Acting Manager GENERAL SERVICES DEPARTMENT
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TECHNICAL SPECIFICATION

Project:: General Testing and Servicing of High Voltage Switchgears (34.5KV/480V, 3P, 60Hz) and Low Voltage Switchgears and Other Related Works

Location: Basement, LWUA Main Building

SCOPE OF WORK:

A. Preventive Maintenance of 2 - 2 MVA Power Transformer (34.5 KV/480V)

1. Isolation of primary and secondary terminals.
2. Check transformer tank, radiators, bushing for any sign of leaks and flush over.
3. Check/purge nitrogen gas to transformer to normal level if necessary.
4. Conduct standard transformer testing as follows:
 - a. Dielectric Breakdown Voltage Test (DBV)
 - b. Transformer Turns Ratio (TTR)
 - c. Insulation Resistance Test / Polarization Index (PI)
 - d. Winding Resistance Measurement
 - e. Insulation Power Factor Test (IPF)
5. Laboratory test of transformer oil (DGA)
 - a. Dissolved Gas Analysis
 - b. Oil Power Factor
 - c. Water Content
 - d. Color / Visual Examination
 - e. Interfacial Tension
 - f. Neutralization Number
 - g. Dielectric Breakdown Voltage test
6. Check/inspect grounding system and anchorage and neutral connections
7. Check/retighten all bolts, terminals and termination.
8. Cleaning and de-dusting of transformer radiators, tanks, cabinets, bushings and terminals.

B. Preventive Maintenance of High Voltage Switchgear (HVSG)

1. Isolation of incoming power cable from first private pole and load side going to the two (2) transformers.
2. Check/clean insulator of load interrupter switch.
3. Check/inspect ground system and anchorage and neutral connections
4. Check/retightening of all bolts, terminations, bus-bar connections, insulators and spacer/barriers.
5. Earth/ground resistance test of HV switchgear assembly.
6. Clean inside and outside surface of HV switchgear panel/cubicle.
7. Re-termination and reconnection.
8. Check and operate mechanism of HVSG.

C. Preventive Maintenance of Low Voltage Switchgear (LVSG)

1. Open front and rear panel of switchgear and check for loose items or anything

TECHNICAL SPECIFICATION

foreign to the switchgear that may hamper its efficient or correct operation.

2. Inspection of all terminals, wire ends, abrasions, corrosions, carbonations of contact surfaces and other sign of materials fatigue.
3. Check for loose, worn out or missing parts.
4. Check/correct bus-bar joints for evidence of overheating and looseness.
5. Retightening of bus bar bolts, terminals and cable connections of circuit breaker.
Insulation Resistance test,
6. Check/tightening of all wire connections and terminals including the neutral connections..
7. Clean, de-dusting of switchgear panel inside and outside surface.
8. General cleaning of the area.

D. Automatic Transfer Switch/Capacitor Banks/Harmonic Filter

1. Insulation Test
2. Contact Resistance Test
3. Cleaning/re-tightening of terminals
4. Neutral/Ground Connections.

E. Thermal Scanning of Electrical Facilities

Conduct before and after thermal imaging of electrical facilities subject for maintenance.

F. SCOPE OF SUPPLY:

1. Labor and manpower supervision.
2. Use of tools and testing equipment
3. Consumable materials.
5. MERALCO Coordination/Permit
6. Provide portable generator for the project.

G. TERMS AND CONDITION

1. All works to be done shall be properly coordinated by the contractor with the LWUA representative prior to the project implementation.
2. The contractor shall take all precautionary measures to ensure the safety of workers and the LWUA facilities during and after the conduct of the maintenance activities.
3. The maintenance activities shall be done during weekends or non-office hours to avoid disturbance to office activities.
4. Comprehensive report on the result of the maintenance activities shall be submitted by the contractor.
5. The contractor warrants that the power at the LWUA Building is restored and normalized before the next office day.
6. Interested bidders must have previous experience or completed similar projects for the last five (5) years.