

TECHNICAL SPECIFICATIONS

Project Title : Supply, Delivery, and Installation of Data Center Auxiliary Equipment for Power Management System, Including Design, Supply, and Installation of Related Electrical Requirements for the Auxiliary Equipment, and Data Center Facility Maintenance Services

PROJECT DESCRIPTION:

Supply, installation, configuration, testing, and make the BTr Data Center Power Management System operational including Integration of the new UPS to the existing electrical setup of the BTr Data Center facility, including supply and installation of related electrical components necessary to complete the project and Maintenance of the existing Data Center Facility.

PROJECT DURATION: 90 CALENDAR DAYS

APPROVED BUDGET FOR THE CONTRACT (ABC): P3,600,000.00

The minimum requirement specified in this Technical Specifications shall be complied with. Non-compliance with these requirements is a ground for disqualification.

| PURCHASER'S SPECIFICATIONS | SUPPLIER'S SPECIFICATION |
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| <p>PART I. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEM</p> <p>1. SPECIFICATIONS</p> <ul style="list-style-type: none">• Double Conversion with True-online Voltage Frequency Independent (VFI) mode• 40kVA / 32kW Capacity Rating | |

- Typical Backup Time of approximately 10 minutes at full-load
- Valve Regulated Lead-Acid (VRLA) Battery
- Input power factor of > 0.98 lagging
- Input Voltage of 320V – 460V, 3-phase in (4-wires including ground)
- Output Power Factor is 0.8
- Output Voltage of 380V / 400V / 415V, (user selectable) 3-phase out
- Plus/minus (+/-) 1% Output Voltage Regulation
- 50/60Hz +/- 10% Input Frequency
- 50/60Hz +/- 0.1% Output Frequency
- Floor Standing Configuration
- 0 – 40 °C (32 – 104 °F) Ambient Operating Temperature
- Capable up to 4 units for future parallel redundant capacity configuration
- With front panel display for controls and indication LEDs.
- Must have SNMP web-based management software via network connection.
- Must have remote monitoring capability to send alarms and events via SMS
- EN 62040-1 / EN 60950 / IEC 60950 Safety Standards Compliance
- EN 62040-2 Class A EMC Standards Compliance

2. SCOPE OF WORKS

The bidder shall provide the

following UPS System requirements and technical works:

- Supply, installation, and configuration of one (1) unit of 40KVA UPS System at the BTr Data Center facility.
- Site preparation and mobilization / demobilization
- Positioning of UPS unit including hauling from Ground Floor to approved location of unit.
- Provision of related electrical components as necessary, to integrate and make operational the new UPS to the existing electrical setup of the BTr Data Center facility.
- Configuration, testing, and commissioning.
- Restoration of affected areas.
- Provide UPS as-built documentation.
- Provide UPS administration overview and management training for BTr IT personnel.

3. UPS SUPPORT AND DATA CENTER FACILITY COMPONENTS MAINTENANCE SERVICE REQUIREMENTS

- One (1) year warranty on UPS parts and service.
- One (1) year maintenance services for the existing components inside the Data Center including the new UPS system installation. This shall include schedule for related quarterly preventive maintenance activities; checking, reporting, and documentation of DC components condition and status; recommendation for

components replacements or upgrade as necessary. Data Center components include the following:

- a. Raised Floor System
- b. Comfort Cooling Air-conditioning System
- c. Electrical System
- d. Water Leak Detection System
- e. Fire Suppression System
- f. IP Surveillance System
- g. Structured Cabling System Connections
- h. Cable Containment System
- i. Security Access System including Automatic Sliding Door Mechanism
- j. Acoustic Ceiling System

PART II. WARRANTY REQUIREMENTS

- 1. Product Warranty Certificate issued by the Manufacturer or Distributor covering a period of one (1) year from the date of delivery on site.
- 2. Sworn Statement by the Bidder attesting that:
 - a. The proposed equipment shall seamlessly integrate with the current Data Center facility setup of the BTr.
 - b. The Bidder shall take on the existing warranty provisions of all Data Center components installations, including but not limited to electrical and electro-mechanical

installations.

PART III. BIDDER REQUIREMENTS

1. Bidder's Business Existence and Expertise

- The Bidder must be an ICT company with multi-experience in different fields of ICT, Electro-Mechanical Engineering, and Electrical Engineering, disciplines with experience in the Data Center Design, Installation, and Configuration of Data Center components.
- The Bidder must be operating in the Philippines for the past fifteen (15) years.
- The Bidder must have completed at least two (2) Data Center projects for the past 10 years involving supply, installation, and configuration of UPS system with a capacity rating equivalent of at least 20kVA. (Submit proof.)
- The Bidder must have at least two (2) completed or on-going projects for the past 10 years that include design and installation of electrical feeder lines and data center grounding system (440V to 480V). (Submit proof.)
- The bidder must have completed a single largest contract which is equivalent to at least fifty (50) percent of the ABC.

2. Licenses and Certificates Required from the Bidder

- Certified true copy of PCAB License valid at least until opening of the bid indicating the following information:

- a. Must be PCAB licensed contractor with License Category C in Electrical Works. (Submit copy of PCAB license.)
- b. Must have a PCAB Allowable Range of Contract Cost (ARCC) Registration of Small B in Electrical Works.
- c. PCAB License should not have the notation “Not Registered for Government Projects”
- Bidder must be a member of any safety organization recognized by the Bureau of Working Conditions in the Philippines under the Department of Labor and Employment (DOLE) and must have at least one trained safety officer.

3. Clientele

- List of clients

4. Bidder’s Certifications

- Certificate from the manufacturer that the product and model to be bid is being manufactured by the concern manufacturer.
- Certification issued by the Manufacturer of the proposed UPS that the bidder is the authorized reseller and support provider in the Philippines.
- Certification from the Distributor of the proposed UPS that the Distributor is willing to extend its support to the Bureau of the Treasury for the product being offered by the bidder.

5. Key Personnel Qualifications

Minimum required experience of key personnel. (*Submit curriculum vitae and training certificates. For professions regulated by law, submit copy of valid licenses issued by the Professional Regulations Commission*).

- **One (1) Project Manager of equivalent:**
 - a. Preferably a Computer Engineering degree holder with an aggregate experience of at least ten (10) years in Data Center design and implementation.
 - b. Experience in project management of UPS systems integration and implementation in a Data Center environment.
- **One (1) Certified Administrator** or equivalent
 - a. Certified Administrator of Physical Layer Connectivity Management Software (OSI Layer1) or equivalent.
 - b. Certified in Security Management Software and Intelligent Surveillance Monitoring Software installation and configuration by an Original Software Manufacturer (OSM)
 - c. Trained in Network System Management and Linux

Administration

- **One (1) Systems Engineer** or equivalent
 - a. Certified in Security Information Management Software Administration and Management or its equivalent.
 - b. Certified in Implementing MS Windows 2000 Professional and Server.
- **Technical Engineers**
 - a. Must be registered with the government Philippine Contractors Accreditation Board (PCAB) as Sustaining Technical Engineers (STE) of the Bidder with relevant experience of at least ten (10) years in their respective fields.
 - i. One (1) Registered Electrical Engineer;
 - ii. One (1) Registered Mechanical Engineer.

6. Mode of Payment

- Within 30 days upon completion and issuance of certificate of acceptance by BTR through the Systems Administration Divisions.
- One-time payment of the contract shall be made upon completion of supply, delivery, installation of the UPS system, and issuance of certificate of acceptance by the end-user.
- Training component shall not form part of the requirements

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| <p>for the payment of the contract, but must be completed by the bidder after the installation of the UPS system, based on the schedule to be determined by the end-user.</p> <ul style="list-style-type: none">• For failure to completely deliver any portion of the goods, a penalty equivalent to one-tenth of one percent (0.1%) of the total cost of the unperformed portion of work shall be imposed for everyday of delay. | |
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