



**Bid Bulletin No. 3**

07 May 2019

**Public Bidding No. 19-130-8**

**PROCUREMENT OF ONE (1)-YEAR COMPREHENSIVE MAINTENANCE AND SUPPORT SERVICES FOR THE DATA CENTER IT INFRASTRUCTURE AND AUXILIARY EQUIPMENT OF THE BUREAU OF THE TREASURY (BTr) – CENTRAL AND PANAY OFFICE**

Issued pursuant to Sec. 22.5 of the 2016 Revised Implementing Rules and Regulations (IRR) of Republic Act (RA) 9184 to clarify and/or amend certain provisions in the Bidding Documents issued for this project, considering the issues raised and clarifications made by prospective bidders during the Pre-Bid Conference held on 30 April 2019 likewise, respond to bidders' written queries received within the prescriptive period for filing.

**A. AMENDMENTS/INCLUSIONS**

**1. Section III. Bid Data Sheet (BDS)**

<b><u>AMENDMENTS/INCLUSIONS</u></b>	<b>BASES FOR AMENDMENT/INCLUSION</b>
<p><i>BDS Clause 29.2</i></p> <p>xxx</p> <p>5. Certificate of Dealership or Authority to Sell and Commitment to Supply directly or indirectly and with access to spare parts issued by the Manufacturer for the following:</p> <p>xxx</p> <p>e. <u>Toshiba for Variable Refrigerant Flow Unit (VRFU)</u></p> <p>f. <u>Cummins for Generator Set</u></p> <p>g. <u>Koppel for VRFU</u></p> <p>xxx</p>	<p>To amend the requirement.</p>

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## 2. Section VII. Technical Specifications

AMENDMENTS/INCLUSIONS	BASES FOR AMENDMENT/INCLUSION									
<p>XXX</p> <p>APPROVED BUDGET FOR THE CONTRACT : P32,173,076.92</p> <table border="1" data-bbox="227 495 975 775"> <thead> <tr> <th data-bbox="227 495 691 555">AGENCY SPECIFICATIONS</th> <th data-bbox="691 495 848 555">BIDDER'S STATEMENT OF COMPLIANCE</th> <th data-bbox="848 495 975 555">REFERENCE DOCUMENT/ BROCHURE</th> </tr> </thead> <tbody> <tr> <td data-bbox="227 555 691 712">Procurement of One (1) - year Comprehensive Maintenance and Support Services for the Data Center IT Infrastructure and Auxiliary Equipment of the Bureau of the Treasury – Central Office and Panay Office which consist and comply with the following minimum requirements unless specified:</td> <td data-bbox="691 555 848 712"></td> <td data-bbox="848 555 975 712"></td> </tr> <tr> <td data-bbox="227 712 691 775">1. SCOPE OF WORK Perform Preventive Maintenance Service on the following systems inside the Data Center</td> <td data-bbox="691 712 848 775"></td> <td data-bbox="848 712 975 775"></td> </tr> </tbody> </table>	AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE	REFERENCE DOCUMENT/ BROCHURE	Procurement of One (1) - year Comprehensive Maintenance and Support Services for the Data Center IT Infrastructure and Auxiliary Equipment of the Bureau of the Treasury – Central Office and Panay Office which consist and comply with the following minimum requirements unless specified:			1. SCOPE OF WORK Perform Preventive Maintenance Service on the following systems inside the Data Center			<p>To remove the last column of the form. Please see and use Appendix A upon bid submission.</p>
AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE	REFERENCE DOCUMENT/ BROCHURE								
Procurement of One (1) - year Comprehensive Maintenance and Support Services for the Data Center IT Infrastructure and Auxiliary Equipment of the Bureau of the Treasury – Central Office and Panay Office which consist and comply with the following minimum requirements unless specified:										
1. SCOPE OF WORK Perform Preventive Maintenance Service on the following systems inside the Data Center										
<p>XXX</p> <p>2.5.6 Must conduct actual maintenance training to five (5) BTr personnel during the <del>first</del> <u>second</u> quarter of the maintenance schedule and must submit actual maintenance procedure documentation (<b>ITEM 1</b>).</p>	<p>To amend the requirement.</p>									
<p>XXX</p> <p>2.10.1. First Quarter            2.10.1.1. Quarterly report  <del>2.10.1.2. Training Completion Certificate which refer to Part I. Section 2.5.6 of this Terms of Reference (<b>ITEM 1</b>)</del></p> <p>2.10.2. Second Quarter            2.10.2.1. Quarterly report  <u>2.10.1.2. Training Completion Certificate which refer to Part I. Section 2.5.6 of this Terms of Reference (<b>ITEM 1</b>)</u></p> <p>XXX</p>	<p>To amend the requirement.</p>									

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### 3. Terms of Reference (Item I)

<b>AMENDMENTS/INCLUSIONS</b>	<b>BASES FOR AMENDMENT/INCLUSION</b>
<p><i>2. SCOPE OF SERVICES / SERVICE LEVEL AGREEMENT</i></p> <p><i>2.5. Inspection Frequency, reports, documentation and training:</i></p> <p>xxx</p> <p>2.5.6 Must conduct actual maintenance training to five (5) BTr personnel during the <del>first</del> <u>second</u> quarter of the maintenance schedule and must submit actual maintenance procedure documentation (<b>ITEM 1</b>).</p> <p>xxx</p>	<p>To amend the requirement.</p>
<p><i>5. MODE OF PAYMENT</i></p> <p>xxx</p> <p>2.10.1. First Quarter</p> <p>    2.10.1.1. Quarterly report</p> <p>    <del>2.10.1.2. Training Completion Certificate which refer to Part I. Section 2.5.6 of this Terms of Reference (<b>ITEM 1</b>)</del></p> <p>2.10.2. Second Quarter</p> <p>    2.10.2.1. Quarterly report</p> <p>    <u>2.10.1.2. Training Completion Certificate which refer to Part I. Section 2.5.6 of this Terms of Reference (<b>ITEM 1</b>)</u></p> <p>xxx</p>	<p>To amend the requirement.</p>

### B. CLARIFICATIONS

The Procurement Service – Bids and Awards Committee VIII (PS-BAC VIII) hereby clarifies bidders' concerns and queries.

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## 1. Pre-Bid Conference<sup>1</sup> Queries

ITEM	CONCERN	REFERENCE	CLARIFICATION/ RESOLUTION
1	Is temporary-issued ISO Certification acceptable?	BDS Clause 29.2 Licenses or Permits Required	If the temporary-issued ISO Certification is still valid, it is acceptable.
2	To replace the year of Latest Income Tax Returns from 2018 to 2017.	BDS Clause 29.2 Post-Qualification Requirements Item 1	The requirement stays as indicated in the Bidding Documents.
3	To remove the requirement of providing manuals of the listed equipment.	BDS Clause 29.2 Post-Qualification Requirements Item 5	The requirement stays as indicated in the Bidding Documents. If the manual from the Manufacturer is no longer unavailable, prospective bidders may submit its actual maintenance procedure per Clause 2.5.6 of the TOR.
4	To change the Mode of Payment from Quarterly to Monthly	Section VII. Technical Specifications Items 2.10	The requirement stays as indicated in the Bidding Documents.
5	Request for testing protocol or parameter.	Section VII. Technical Specifications Items 1.5.2	Prospective bidders must follow any protocol stated in the TOR. They may also add special parameters for better and innovative maintenance provision subject for approval.
6	Clarification on submitting attachments for the On-Going Contracts form.	Section VIII. Bidding Forms Annex C-1	Prospective bidders may submit but these are not necessary. However, any required documents or compliance on the licenses and pieces of evidence shall be submitted while supporting documents must be ready and are callable upon demand.

<sup>1</sup> Minutes posted at the PS website last 03 May 2019.

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## 2. Multi-Fold Links, Inc.<sup>2</sup>

ITEM	CONCERN	REFERENCE	CLARIFICATION/ RESOLUTION
7	<p>In BDS /ITB Clause 29.2 item 4 one of the post qualification requirement is "the submission of pieces of evidence as a proof of compliance with the bidder's actual offer". The evidence stated in the footnote are materials not readily available from the manufacturer. Evidences shall be in the form of :</p> <ul style="list-style-type: none"> <li>a. manufacturer's or distributor un-amended sales literature</li> <li>b. unconditional statements or specification and compliance issued by the manufacturer or distributor</li> <li>c. samples</li> <li>d. independent test data</li> </ul> <p>In most cases, these documents constitute "trade secrets" of manufacturers. This requirement is impossible to be met. Please reconsider to discard this requirement.</p>	<p>BDS Clause 29.2 Post-Qualification Requirements Item 4</p>	<p>Please refer to Item 6.</p>
8	<p>In BDS /ITB Clause 29.2 item 6 one of the post qualification requirement is "Installation, maintenance and other related manuals of the listed equipment from the manufacturer". Presumably all of the equipment manuals are with BTr. All equipment manuals are limited in issuance from the original manufacturer. So how can this be satisfied in the post qualification period?</p>	<p>BDS Clause 29.2 Post-Qualification Requirements Item 6</p>	<p>Please refer to Item 3.</p>

<sup>2</sup> Letter received by the BAC after the Pre-Bid Conference (30 April 2019) at 12:20 PM.

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ITEM	CONCERN	REFERENCE	CLARIFICATION/ RESOLUTION
	<p>Also, BTr has to identify or list only the equipment that will require manuals.</p> <p>Lastly, as the original contractor of BTr for the Ayuntamiento and Panay Data Center all pertinent manuals were turned over to BTr as a requirement in the final billing. Manufacturers provide installation manuals only with equipment purchases. In this regard, this requirement is impossible to be met. Please reconsider to discard this requirement.</p>		<p>The equipment is listed under Item No. 5 a. to g. as amended through this Bid Bulletin.</p> <p>Please refer to Item 3.</p>
9	<p>Please reconsider a monthly payment scheme. A quarterly payment scheme will result to almost six (6) months of receivable due to the long payment process in government and our experience with both BTr and DBM-PS.</p>		<p>Please refer to Item 4.</p>
10	<p>Please reconsider that the training will be conducted on the 2nd quarter of the project. The 1st quarter will be occupied by equipment stabilization, repairs if any, forward positioning of the spare parts, logistics, equipment reconfiguration (if any), etc.</p>		<p>Please refer to Section A. Amendments/Inclusions.</p>
11	<p>Please reconsider the use of 2017 Audited Financial Statement because it takes BIR about three to four weeks to "stamped and received" the audited Financial statement from the April 15 deadline on</p>		<p>Please refer to Item 2.</p>

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ITEM	CONCERN	REFERENCE	CLARIFICATION/ RESOLUTION
	tax filing or to allow the 2018 audited financial statement which may not have been "stamped and received" by BIR yet.		
12	Please identify who is the authorized or designated inspector for BTr Ayuntamiento and BTr Panay for billing and payment purposes.		Please refer to SCC Clause 1.1(k). The Contact Person indicated therein is the authorized or designated inspector for both offices.
13	<p>Please specify the testing protocol to be used for the following:</p> <ol style="list-style-type: none"> <li>1. Data Center Equipment <ol style="list-style-type: none"> <li>a. Precision Air-conditioning System</li> <li>b. Access Raised Flooring System</li> <li>c. Acoustic Ceiling System</li> <li>d. Tempered Glass Partition</li> <li>e. Cold Aisle Containment</li> <li>f. Structured Cabling System</li> <li>g. Network Switch</li> </ol> </li> <li>2. Auxiliary Equipment <ol style="list-style-type: none"> <li>a. Electrical System</li> <li>b. Uninterruptible Power Supply</li> <li>c. Variable Refrigerant Flow (VRF)</li> <li>d. Fire Suppression System</li> <li>e. Very Early Smoke Detection Aspirating (VESDA) System</li> <li>f. Security Access Control System</li> <li>g. Security Video Surveillance System</li> <li>h. Water Leak Detection System</li> <li>i. Generator Set</li> </ol> </li> </ol>		Please refer to Item 5.

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All other related provisions in the Bidding Documents correspondingly affected by these amendments /inclusions/clarifications are likewise deemed amended to conform to this Bid Bulletin.

Amendments/inclusions/clarifications made herein shall be considered an integral part of the Bidding Documents.



**ENGR. JAIME M. NAVARRETE, JR.**  
*Chairperson, Bids and Awards Committee VIII*

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## TECHNICAL SPECIFICATIONS

**LOT NO. 1**

**ITEM 1** : Procurement of One (1) - year Comprehensive Maintenance and Support Services for the Data Center IT Infrastructure and Auxiliary Equipment of the Bureau of the Treasury – Central Office.

**ITEM 2** : Procurement of One (1) - year Comprehensive Maintenance and Support Services for the Data Center IT Infrastructure and Auxiliary Equipment of the Bureau of the Treasury – Panay Office

**QUANTITY** : 1 lot

**APPROVED BUDGET FOR THE CONTRACT** : ₱32,173,076.92

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE
<p><b>Procurement of One (1) - year Comprehensive Maintenance and Support Services for the Data Center IT Infrastructure and Auxiliary Equipment of the Bureau of the Treasury – Central Office and Panay Office</b> which consist and comply with the following minimum requirements unless specified:</p>	
<p><b>1. SCOPE OF WORK</b>  <b>Perform Preventive Maintenance Service on the following systems inside the Data Center</b></p>	
<p><b>1.1. Electrical System (ITEM 1)</b>                      Electrical system maintenance works shall cover the Data Center and IDF locations at Basement, Ground Floor, Second Floor, and Third Floor. Maintenance services for the electrical system shall include the following as needed:</p>	
<p style="text-align: center;"><b>Electrical System (ITEM 2)</b></p> <p>Electrical system maintenance works shall cover the Data Center (Cold Aisle area, NOC, and Auxiliary), EE room, TelCo room, Gen set and Condenser unit area, and IDF room. Maintenance services for the electrical system shall include the following as needed:</p>	
<p>1.1.1. Checking of circuit breakers and switches.</p>	
<p>1.1.2. Perform load balancing as needed to prevent power overload and other power issues; Study the system load during the actual operation, Determine the unbalance phase load; Transfer/reconfigure load to balance the phase load, Monitor</p>	

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AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE
the balanced current load; Project the additional load per phase and re-balance load as the change arise.	
1.1.3. Provide and readjust electrical load requirement as necessary for the equipment installed in every rack cabinet within the existing overall load capacity of the UPS. Add and install additional PDU and electrical cabling as necessary.	
1.1.4. Calibration of protective relays. Perform megger testing. Identification of potential electrical problems.	
1.1.5. Survey and identify of high temperature incursions.	
1.1.6. Switchgear cleaning and inspection.	
1.1.7. Cleaning and tightening of all electrical connections and equipment enclosures.	
<p><b>1.2. Uninterruptible Power Supply (ITEM 1)</b>  Maintenance services shall cover the three (3) operational units of 40KVA-capacity UPS installed at the Auxiliary Area of the Data Center, as well as the 3KVA-capacity rack mounted UPS units deployed to protect active equipment per IDF rack.</p>	
<p><b>Uninterruptible Power Supply (ITEM 2)</b>  Maintenance services shall cover the two (2) operational units of 80KVA-capacity UPS installed at the Auxiliary Area of the Data Center:</p>	
<p><b>In the event of Maintenance procedure, the Data Center shall not experience any power interruption that will cause unexpected shut off of any equipment of the Data Center.</b> Maintenance services for the UPS shall include the following as needed <b>(ITEM 1 and 2)</b>:</p>	
1.2.1. Monthly periodic maintenance services for the UPS unit and battery system to be performed on a mutually agreed schedule.	
1.2.2. All the necessary spare parts or consumable items to maintain the UPS will be allotted from stock Inventory or immediate replacement of defective components.	
1.2.3. Conduct on-site inspection of the equipment and check the integrity of any electrified hinges or similar power-transfer devices.	
1.2.4. Replace batteries and fine-tune each opening.	
1.2.5. Check current UPS installation condition. Installation should be in accordance with the manufacturer's guideline and wiring regulations.	
1.2.6. Provide necessary recommendation to expand the life of the equipment. User and operations training refresher for client's technical personnel.	
1.2.7. Perform appropriate preventive measures to keep the UPS in good and running condition as follows:	
1.2.7.1. Ensure adequate clearance around the UPS for ventilation and maintenance access. Check the surrounding of the UPS.	
1.2.7.2. Do not allow smoke or naked lights in the vicinity of the UPS or its battery. Keep the room in which the UPS is situated dry, clean and dust free.	

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AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE
1.2.7.3. Do not store or use corrosive materials in the vicinity of the UPS. Do not allow building or electrical work to be carried out near the UPS unless the machine has first been de-energized and covered. Thoroughly clean the room before re-energizing the machine.	
1.2.7.4. To ensure optimum performance and life out of the UPS the ambient temperature in the battery cabinet / compartment should be maintained between 20 to 25 degrees centigrade.	
1.2.7.5. Ensure the ventilation air conditioning is sufficient to cope with the heat dissipated and is capable of maintaining the Data Center within recommended ambient temperature and humidity recommendations.	
1.2.8. Record UPS display parameters. Measure actual UPS parameters. Measure and record input and output filter current. 1.2.8.1.	
1.2.9. Check for present alarm/s and note findings. Download alarm history and event alarms. Check and record environmental condition.	
1.2.10. Perform ocular inspection and check capacitors for signs of leakage; coils, wire/cables, PCB components for signs of burns; blowers for correct operation.	
1.2.11. Perform thermal scanning of all UPS electrical connections and power components using infrared scanner and note findings.	
1.2.12. If a discrepancy from original calibration was identified, transfer the UPS to bypass mode if permitted by the Authorized person of Systems Administration Division and perform control supply only calibration procedure, otherwise, gathering of parameters are to be done thru its display and accessible parts are to be checked.	
1.2.13. If the unit needed corrective measures, through cleaning of internal components, and other activities that could endanger the safety of the personnel, perform orderly shutdown of the unit and do as necessary.	
1.2.14. Clean battery tops and terminals for corrosion if present. Perform battery test procedure and record parameters. Clean UPS and battery cabinet panels.	
1.2.15. Normalize UPS and double-check all display parameters. Reset alarm history and event alarms buffer.	
1.2.16. Shutdown the UPS following the recommended operating procedures:	
1.2.16.1. Isolate the UPS input Mains supply externally and isolate the battery. Ensure that the UPS is totally powered down. UPS power components and sub-assemblies.	
1.2.16.2. Open the internal hinged safety panel to gain access to the interior of the UPS. Check electrolytic capacitors for signs of leakage, bucking, so forth; check magnetic components for	

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE
<p>signs of overheating, security of fixture and delamination; check cables and connections for chaffing, fraying, and signs of overheating; check printed circuit boards for cleanliness and integrity; replace bonds that show signs of deterioration; verify that all board connections are tight and secure; thoroughly clean inside the equipment enclosure using a vacuum cleaner and low-pressure air to remove foreign debris; reconnect the UPS input mains power; start the UPS and transfer the load to the inverter.</p>	
<p>1.2.16.3. Complete a battery check as needed. Ensure that the available battery autonomy time meets the installation specifications.</p>	
<p><b>1.3. Precision Air-conditioning System (PACS) (ITEM 1)</b>  The Data Center is primarily cooled with three (3) Units Indoor 10TR Montair PACU and six (6) Outdoor condensing units which is alternately operated. All these PACUs that help control the environment of the area require regular monitoring and maintenance to keep its efficient operation. The IDF is cooled with one (1) unit indoor 5TR Airedale PACU and one (1) outdoor condensing unit.  Maintenance services for the PACS shall include the following as needed:</p> <p style="text-align: center;"><b>PACS (ITEM 2)</b></p> <p>The Data Center is primarily cooled with four (4) Units Indoor 10TR PACU and eight (8) Outdoor condensing units which is alternately operated. All these PACUs that help control the environment of the area require regular monitoring and maintenance to keep its efficient operation.</p> <p>Maintenance services for the PACS shall include the following as needed <b>(ITEM 1 and 2):</b></p>	
<p>1.3.1. Visual inspection of all internal sub-assemblies and major components.</p>	
<p>1.3.2. Recording of indicator readings on temperature and humidity.</p>	
<p>1.3.3. Cleaning of any foreign material and dust from internal components.</p>	
<p>1.3.4. Check thermostat settings to ensure the cooling system of the area is kept comfortable. Check status alarm circuits.</p>	
<p>1.3.5. Clean and pressure wash condenser coils. Dirty coils reduce the system's ability to cool and cause the system to run longer, increasing energy costs and reducing the life of the equipment.</p>	
<p>1.3.6. Tighten all electrical connections and measure voltage and current on motors. Check for possible defective or worn out electrical components, replace if necessary. Faulty electrical connections can cause unsafe operation of the system and reduce the life of major components. Check for possible defective or worn out electrical components, replace if necessary.</p>	
<p>1.3.7. Lubricate all moving parts. Parts that lack lubrication cause friction in motors and increase the amount of electricity used.</p>	

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE
1.3.8. Check and inspect the condensate drain in the central air conditioner, furnace and/or heat pump. Check controls of the system to ensure proper and safe operation. Check the starting cycle of the equipment to assure the system starts, operates, and shuts off properly.	
1.3.9. Inspect evaporator (indoor blower) and condenser (outdoor unit) air conditioning coils.	
1.3.10. Check central air conditioners refrigerant level and adjust if necessary. Too much or too little refrigerant will make the system less efficient increasing energy costs and reducing the life of the equipment.	
1.3.11. Clean and adjust blower components to provide proper system airflow for greater comfort levels. Airflow problems can reduce the system's efficiency.	
1.3.12. Inspect and adjust fan belts tension, replace if necessary. Inspect, clean, and change air filters as necessary. A dirty filter can increase energy costs and damage the equipment, leading to early failure.	
1.3.13. All the necessary spare parts or consumable items such as filters, charging of Freon, and the likes to maintain the PACU will be allotted from inventory for immediate replacement of defective components at the expense of the Contractor.	
<p><b>1.4. Variable Refrigerant Flow (VRF): Maintenance of One (1) Outdoor condensing units with Six (6) indoor AC units (ITEM 1)</b></p> <p><b>VRF: Maintenance of One (1) Outdoor condensing units with five (5) indoor AC units (ITEM 2)</b></p> <p>Maintenance services for the VRF shall include the following as needed <b>(ITEM 1 and 2):</b></p>	
1.4.1. Check thermostat settings to ensure that cooling system of the area is kept comfortable.	
1.4.2. Tighten all electrical connection and measure voltage and current on motors.	
1.4.3. Check and inspect the condensate drain in the air conditioner. A clogged drain can cause water damage and affect indoor humidity levels.	
1.4.4. Check controls of the system to ensure proper and safe operation. Check the starting cycle of the equipment to assure the system starts, operates and shuts off properly.	
1.4.5. Inspect evaporator (indoor blower) and condenser (outdoor unit) air conditioning coils.	
1.4.6. Check central air conditioners refrigerant level and adjust if necessary.	
1.4.7. Clean and adjust blower components to provide proper system airflow for greater comfort levels.	
1.4.8. Inspect, clean, or change air filters in air conditioning units as applicable.	
1.4.9. Perform monthly cleaning of indoor and outdoor units using pressurized washer motor.	

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE
1.4.10. Checking of drain pipe to prevent clogged drain of units.	
1.4.11. Necessary spare parts or consumable items to maintain the VRF ACU operation shall be allotted from inventory for immediate replacement of components as needed at the expense of the contractor.	
<p><b>1.5. Fire Suppression System (ITEM 1 and 2):</b>  To prevent the vast amount of investment of BTr from fire hazards and the occurrence of fire, an automatic and intelligent fire suppression system was installed.</p> <p>In this regard, inspection and check-up of FM-200 field devices such as smoke detectors, manual pull station, abort station, alarm bell, horn and other mechanical parts and components are the vital activities to assure functionality and efficiency of the fire suppression system.</p> <p>Maintenance services for the fire suppression system shall include the following as needed:</p>	
<p>1.5.1. Inspection of Devices</p> <p>1.5.1.1. Hazard Enclosure</p> <p>Check original installation for any changes and equipment have not been replaced, modified, or relocated; verify if the hazard volume is still the same and no walls or partition has been added; verify protected rooms are effectively sealed any significant air leaks that could result to agent leakage and a failure of the enclosure to hold the specified agent concentration level for the specified holding period.</p>	
<p>1.5.1.2. Agent Cylinder</p> <p>Verify containers and brackets are securely fastened; check mounting position of horizontally mounted containers; verify the status of agent in each cylinder; check all containers pressure gauges; check solenoid valve/gas cartridge actuator leads and wiring to agent release modules for corrosion and loosen or broken wires.</p>	
<p>1.5.1.3. Piping and Nozzles</p> <p>Verify discharge nozzles and pipe size; verify piping joints &amp; discharge nozzles securely fastened; verify piping distribution system internally to detect the possibility of any oil or particulate matter soiling the hazard area or affecting the agent distribution due to a reduction in the effective nozzle orifice area; verify the nozzle reflectors are</p>	

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE
<p>positioned to obtain maximum benefits; verify if discharge nozzle, pipe and fittings.</p> <p>1.5.1.4. Pipe Supports and Braces Inspect pipe supports hangers and braces for loose, corrosion, and physical damage.</p>	
<p>1.5.1.5. Fire Detection, Alarm, Releasing Devices and Peripherals</p> <p>Verify all wiring systems are properly installed in compliance with local codes and the system drawings; Verify the control panels; check if all end-of-line resistors are intact for backflow loop; verify alternating current (ac) and direct current (dc) wiring; verify all field circuits; check the control panel power supplied to the control unit from a separate dedicated source that will not be shut down on system operation; verify availability of adequate and reliable primary and 24-hour minimum standby sources of energy are used to provide for operation of the detection, signaling, control, and actuation requirements of the system; verify all auxiliary functions for proper operation in accordance with system requirements; verify detection devices in proper type and location; verify condition of detectors; verify manual pull stations are properly installed, readily accessible, accurately identified, and properly protected to prevent damage; verify all manual stations used to release agents require two separate and distinct actions for operation and properly identified; verify the main/reserve switches are properly installed, readily accessible, and clearly identified.</p>	
<p>1.5.2. Testing</p>	
<p>1.5.2.1. Disable each agent storage container release mechanism so that activation of the release circuit will not release agent.</p>	
<p>1.5.2.2. Verify the control panel is connected to a dedicated circuit and labelled properly. Verify control panel is readily accessible, yet restricted from unauthorized personnel.</p>	
<p>1.5.2.3. Using smoke tester, check each detector for proper response. Verify all alarm functions occur according to design specification.</p>	
<p>1.5.2.4. Operate the necessary circuit to initiate a second alarm circuit if present. Check each detector for proper response. Verify that all second alarm functions occur according to design specifications.</p>	
<p>1.5.2.5. Operate manual release. Verify manual release functions occur according to design specifications.</p>	
<p>1.5.2.6. Operate abort switch circuit if supplied.</p>	

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE
1.5.2.7. Verify abort functions according to design specifications.	
1.5.2.8. Test all supervised circuits for proper trouble response.	
1.5.2.9. Operate one of each type of input device while on standby power. Verify that an alarm signal is received at remote panel after device is operated. Reconnect primary power supply.	
1.5.2.10. Operate each type of alarm condition on each signal circuit and verify receipt of trouble condition at the remote station.	
1.5.2.11. The system shall be returned to its fully operational design condition.	
1.5.3. Replacement of defective FM-200 components.	
1.5.4. One-time refill of FM-200 agent if used during the maintenance period or due to accidental discharge.	
1.5.5. Provision of hand-held, stand-alone fire suppression cylinder as service unit during the refill process and until the actual FM-200 cylinder has been re-installed.	
1.5.6. Re-testing of the entire fire suppression system upon installation of any replaced device or component.	
<p><b>1.6. Very Early Smoke Detection Aspirating (VESDA) System (ITEM 1 and 2):</b></p> <p>In any organization such as BTr, continuity of operations is imperative, while environmental monitoring is challenging, and time is required to ensure safe and orderly evacuation during unexpectedly circumstance.</p> <p>The VESDA system' very early warning and aspirating smoke detection solution with continuous air sampling provides the earliest possible warning of an impending fire hazard.</p> <p>VESDA buys the critical time needed to investigate an alarm and initiate an appropriate response to prevent injury, property damage or business disruption.</p> <p>VESDA detectors have multi-level warnings and a wide range of sensitivity that does not degrade or change over time, so even minute levels of smoke can be detected before a fire has time to escalate.</p> <p>To assure its systems operations, the following preventive maintenance works shall be performed as needed:</p>	
1.6.1. Inspection and measure values for the primary and back-up power supply as made available for the VESDA system.	
1.6.2. Checking of electrical wiring, dedicated branch circuits, terminations, disconnect switch, and polarity to be maintained as relevant to the VESDA device.	

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AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE
1.6.3. Inspection of perimeter and surroundings where the controller and components are installed including ease of accessibility.	
1.6.4. Checking for any presence or sources of vibration, moisture, and electromagnetic interference, which may interfere with the successful operation of the system.	
1.6.5. Per length or segment checking of mechanical pipes for breaks, including pipe joints, end caps.	
1.6.5.1. Verification of sampling system piping or tube condition including labels. 1.6.6. Verification condition of sampling points location relative to airflow and presence of air supply diffusers.	
1.6.7. Systems check of controller at normal state, alarm, or trouble indications.	
1.6.8. Verification of auxiliary functions such as alarm sounding or display of devices, remote test, annunciators, air handling, and power shutdown in accordance with system requirement.	
1.6.9. System test methodology including simulation of sample smoke, to determine:	
1.6.9.1. Transport Time	
1.6.9.2. Initial Response	
1.6.9.3. Alert Response	
1.6.9.4. Action/Pre-Alarm	
1.6.9.5. Fire 1/Fire Response	
1.6.9.6. Fire 2 Response	
1.6.9.7. Peak Smoke Response	
1.6.10. Restoration of system to normal operation.	
1.6.11. Compilation of test results and related documentation.	
1.6.12. All the necessary spare parts or consumable items to maintain the VESDA system will be allotted from inventory for immediate replacement of defective components at the expense of the Contractor.	
<b>1.7. Security Access Control System (ITEM 1 and 2)</b>	

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE
Maintenance services for the access control system shall include the following as needed:	
1.7.1. Visual inspection of all internal sub-assemblies and major components.	
1.7.2. Hardware troubleshooting and problem isolation.	
1.7.3. Replacement of defective parts.	
1.7.4. A set of equivalent access control unit shall be provided on site as back-up unit.	
1.7.5. Regular monitoring and generation of report as needed from the access control management software.	
1.7.6. Maintenance and version updates of security management software.	
1.7.7. Checking of primary and backup power supply.	
1.7.8. Cleaning and maintenance inspection of the access control unit including its peripherals such as the electromagnetic lock mechanism, as necessary.	
<b>1.8. Security Video Surveillance System (ITEM 1 and 2):</b> Maintenance of the Security Video Surveillance system to ensure the effectiveness of security camera system shall include the following as needed:	
1.8.1. Check cameras in accordance with the specification and any amendment. Check indicator lamps condition. Check the picture quality of each camera and correct monitor selection.	
1.8.2. Clean camera housings and lenses.	
1.8.3. Check all cables and conduit are properly supported, undamaged and showing no signs of wear.	
1.8.4. Check camera functions and movement and fields of view are free from obstruction.	
1.8.5. Check overall performance of the system.	
1.8.6. Check all power connections to ensure AC plugs are not loose or cable power frayed.	
1.8.7. Check all control equipment running condition.	
1.8.8. Clean monitor screen, control panel and keyboard with diluted cleaning solution.	

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AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE
1.8.9. Check monitor for proper brightness and contrast.	
1.8.10. Check Hard Disk Drive (HDD) Health and Network Video Recorder (NVR) Recording. Monitor its compression capability and storage capacity level.	
1.8.11. Conduct regular backup of all camera connected to NVR.	
<p><b>1.9. Water Leak Detection System (ITEM 1 and 2):</b>  Water leak detection system installed under the raised flooring that contains sensing cables which were laid out in the Data Center perimeter connected to the control panel with alarm system will be maintained and shall include the following as needed:</p>	
1.9.1. Routine checking and cleaning of all water leak detection components.	
1.9.2. Inspection of all sensing cable laid out in the Data Center perimeter.	
1.9.3. Testing of the control panel and alarm system.	
1.9.4. All the necessary spare parts or consumable items to maintain the Water Leak Detection System will be allotted from inventory for immediate replacement of defective components at the expense of the Contractor.	
<p><b>1.10. Access Raised Flooring System (ITEM 1 and 2):</b>  Periodic monthly maintenance service for the acoustic ceiling shall include the following as needed:</p>	
1.10.1. Panel rotation for even wear and Under structure adjustments.	
1.10.2. Replacement broken edge trim and warped panels.	
1.10.3. Refurbish delaminated panels and filter vacuuming.	
1.10.4. Sealant applied to sub flooring and Spot cleaning to remove stains.	
1.10.5. Professional surface cleaning and detail cleaning of entry points.	
<p><b>1.11. Acoustic Ceiling System (ITEM 1 and 2):</b>  Periodic monthly maintenance service for the acoustic ceiling shall include the following as needed:</p>	
1.11.1. Spot cleaning to remove stains.	
1.11.2. Re-painting or re-capping of grid system.	

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE
1.11.3. Re-surfacing acoustic panels to restore original appearance.	
1.11.4. Re-alignment of t-runners and support.	
1.11.5. Replacement warped or broken acoustic panels at the expense of the Contractor.	
<b>1.12. Tempered Glass Partition (ITEM 1 and 2):</b> Periodic monthly maintenance service for the Tempered Glass Partition System shall include the following as needed:	
1.12.1. Spot cleaning to remove stains.	
1.12.2. Cleaning of the entire glass panels by squeegee strokes.	
1.12.3. Removing excess dirt at the bottom of the glass panels using sponge or dry cloth.	
1.12.4. Cleaning of the bottom frame.	
1.12.5. Buffing of glass using soft dry cloth.	
1.12.6. Replacement of broken glass panels at the expense of the Contractor.	
<b>1.13. Cold Aisle Containment (ITEM 2):</b>	
1.13.1. Maintenance of the entire Cold aisle containment structure which includes the following components	
1.13.1.1. Tempered Glass	
1.13.1.2. Door Mechanism	
1.13.1.3. Lighting	
<b>1.14. Structured Cabling System (ITEM 1 and 2):</b> The following shall include all the labor, tools of trade, and expertise necessary in the performance of the services as needed:	
1.14.1. Regular monthly routine check of structured cabling installation per cabinet.	
1.14.2. Checking and re-testing of equipment patch cables.	
1.14.3. Perform troubleshooting and provide problem resolution.	
1.14.4. Regular check, test and perform maintenance services to keep the system in good operating condition.	
1.14.5. Perform necessary re-termination of cables at Information Outlet and patch panels.	

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE
1.14.6. Termination of patch cords and pigtails.	
1.14.7. Termination of cables on wiring blocks and patch panels.	
1.14.8. End to end cable testing, labelling and tagging.	
1.14.9. Update network layout and as built documentation using own electronic utilities.	
1.14.10. Maintenance of all server and network racks including IDF racks distributed per floor location.	
1.14.11. Assist in the survey, planning and design, implementation, and documentation of new cabling requirements.	
1.14.12. All the necessary spare parts or consumable items to maintain the physical cabling system will be allotted from inventory for immediate replacement of defective components at the expense of the Contractor.	
<b>1.15. Network Switches (ITEM 1 and 2):</b> Maintenance and support works for the active Network Switches setup as deployed in strategic locations per IDF rack on each floor of the BTr building shall include the following as needed:	
1.15.1. Inspection of Network Rack or IDF Rack to make sure that airflow is unobstructed around the device and into the air intake vents.	
1.15.2. Surface cleaning of unit with solution to remove dirt on the chassis.	
1.15.3. Apply pressurized air on the LAN ports and chassis to remove dust and dirt that can cause malfunction of the equipment.	
1.15.4. Cleaning of equipment ventilation for accumulated dirt and dust.	
1.15.5. Check the status of the device.	
1.15.6. Check gigabit transceiver if all are working properly and accepted power to transmit light.	
1.15.7. Monitoring and verification of software upgrades. Application of upgrades and updates on equipment with the latest software and firmware provided by the manufacturer as necessary.	
1.15.8. Provision for standby hardware replacement of the defective unit.	
1.15.9. All the necessary spare parts or consumable items to maintain the Network Switches will be allotted from inventory for immediate replacement of defective components at the expense of the Contractor.	
<b>1.16. Data Center Infrastructure Management (ITEM 1):</b> Supply of Data Center Infrastructure Management software with service agreement one (1) year with the following features and specification:	
1.16.1. Data Center Management	
1.16.2. Application Dependency Mapping/Impact Chart	

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE
1.16.3. Password Management	
1.16.4. IP Address management (IPAM)	
1.16.5. ITAM (IT Inventory and Asset Management)	
1.16.6. Agentless Discovery (Auto Discovery)	
<b>1.17. Two (2) sets of silent type 165 KVA Generator Set – Cummins (ITEM 2):</b>	
1.17.1. Lubricating System	
1.17.1.1. Check for leaks.	
1.17.1.2. Check engine oil level.	
1.17.1.3. Check hydraulic governor oil level.	
1.17.1.4. Change full flow filter; by-pass filter	
1.17.1.5. Change engine oil of two (2) generator sets twice a year or every six (6) months.	
1.17.2. Cooling System	
1.17.2.1. Check for leaks.	
1.17.2.2. Check for radiator air restriction.	
1.17.2.3. Check the hose & connections.	
1.17.2.4. Check coolant level	
1.17.2.5. Check belt condition & tension.	
1.17.2.6. Check fan hub, drive pulley, & water pump.	
1.17.2.7. Change DCA water filter.	
1.17.2.8. Clean cooling system.	
1.17.3. Air Intake System	
1.17.3.1. Check for leaks.	
1.17.3.2. Check air cleaner restriction.	
1.17.3.3. Check piping & connections.	
1.17.3.4. Clean crankcase breather or change air cleaner element.	
1.17.4. Fuel System	
1.17.4.1. Check for leaks.	
1.17.4.2. Check governor linkage.	
1.17.4.3. Check fuel lines & connections.	
1.17.4.4. Change fuel filters.	

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE
1.17.4.5. Clean or change float tank breather.	
1.17.5. Exhaust System	
1.17.5.1. Check for leaks.	
1.17.5.2. Check for exhaust restriction.	
1.17.5.3. Drain condensate trap.	
1.17.6. Engine Related	
1.17.6.1. Check for unusual vibration	
1.17.6.2. Tighten mounting hardware	
1.17.6.3. Clean the engine	
1.17.7. Battery	
1.17.7.1. Check battery water level and refill distilled water if necessary.	
1.17.7.2. Check Battery DC output voltage and charging rate.	
1.17.7.3. Replace four (4) pieces 3SM battery 12 Volts if needed.	
1.17.8. Automatic Transfer Switch (ATS)	
1.17.8.1. Check ATS indicator lamps and breaker.	
1.17.8.2. Checking of Temperature on busbar and terminal connection using Thermal Scanner.	
1.17.9. The CONTRACTOR'S Engineer must assist the BTr during refueling.	
<b>1.18. Vulnerability Assessment (ITEM 1 and 2):</b>	
1.18.1. External Testing: Network mapping and Vulnerability Scanning	
1.18.2. Internal Vulnerability Assessment Automated vulnerability scanning, manual security review and recommendation	
<b>2. SCOPE OF SERVICES (ITEM 1 and 2)</b>	
Effective support of in-scope services is a result of maintaining consistent service levels. The following sections provide relevant details on service scope and service availability.	
<b>2.1. Service Scope</b>	
2.1.1. Network Technical Support Personnel with the following functions:	
2.1.1.1. Oversee the day-to-day operation of computer networks.	

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE
2.1.1.2. Maintain efficient computer environment by identifying network failure, recommend upgrades and updates as necessary	
2.1.1.3. Maintaining Local Area Network connectivity.	
2.1.1.4. Monitoring Top bandwidth user	
2.1.1.5. Provide assistance to BTR Management in reviewing network policies.	
2.1.1.6. Provide assistance to BTR Management in configuration of network switches and network related devices/equipment.	
2.1.1.7. Assist in BTR Management in maintaining user account, profiles, file sharing, access privileges and security in Active directory	
2.1.1.8. Assist BTR Management in implementation of network policies and operational procedure.	
<p><b>2.2.</b> Provide at least six (6) on-site technical support personnel for a period of Twelve (12) months and perform other task required for continuous Data Center Operation 24 x 7 for continuous Data Center operation with the following qualifications (<b>ITEM 1</b>):</p> <p>Provide at least <b>five (5)</b> on-site technical support personnel for a period of Twelve (12) months and perform other task required for continuous Data Center Operation 24 x 7 for continuous Data Center operation with the following qualifications (<b>ITEM 2</b>):</p>	
2.2.1. At least one (1) personnel must be trained and certified in the existing major Data Center components, submit certification as proof ( <b>ITEM 1 and 2</b> ):	
2.2.1.1. Air Conditioning Units (PACU)	
2.2.1.2. VRF (ACU)	
2.2.1.3. Uninterruptible Power Supply	
2.2.1.4. Fire Suppression	
2.2.2. At least one (1) personnel with electrical and/ or structured cabling system experience ( <b>ITEM 1 and 2</b> ).	





AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE
2.3. Provide 24 x 7 Phone and Email Support and Onsite Technical Support <b>(ITEM 1 and 2)</b> .	
2.4. Person-to-person (P2P) response time of on-site personnel to user requests shall be made within two (2) hours from receipt of call <b>(ITEM 1 and 2)</b> .	
2.5. Inspection Frequency, reports, documentation and training <b>(ITEM 1 and 2)</b> :	
2.5.1. Conduct weekly system monitoring:	
2.5.1.1. Data Center Equipment	
2.5.1.1.1. Precision Air-conditioning System (PACS)	
2.5.1.1.2. Access Raised Flooring System	
2.5.1.1.3. Acoustic Ceiling System	
2.5.1.1.4. Tempered Glass Partition	
2.5.1.1.5. Cold Aisle Containment <b>(ITEM 2)</b>	
2.5.1.1.6. Structured Cabling System	
2.5.1.1.7. Network Switches	
2.5.1.2. Auxiliary Equipment	
2.5.1.2.1. Electrical System	
2.5.1.2.2. Uninterruptible Power Supply	
2.5.1.2.3. Variable Refrigerant Flow (VRF)	
2.5.1.2.4. Fire Suppression System	
2.5.1.2.5. Very Early Smoke Detection Aspirating (VESDA) System <b>(ITEM 1)</b>	
2.5.1.2.6. Security Access Control System	
2.5.1.2.7. Security Video Surveillance System	
2.5.1.2.8. Water Leak Detection System	
2.5.1.2.9. Generator Set <b>(ITEM 2)</b>	
2.5.2. Conduct monthly system testing:	
2.5.2.1. Data Center Equipment	
2.5.2.1.1. Precision Air-conditioning System (PACS)	
2.5.2.1.2. Access Raised Flooring System	
2.5.2.1.3. Acoustic Ceiling System	
2.5.2.1.4. Tempered Glass Partition	

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE
2.5.2.1.5. Cold Aisle Containment <b>(ITEM 2)</b>	
2.5.2.1.6. Structured Cabling System	
2.5.2.1.7. Network Switches	
2.5.2.2. Auxiliary Equipment	
2.5.2.2.1. Electrical System	
2.5.2.2.2. Uninterruptible Power Supply	
2.5.2.2.3. Variable Refrigerant Flow (VRF)	
2.5.2.2.4. Fire Suppression System	
2.5.2.2.5. Very Early Smoke Detection Aspirating (VESDA) System <b>(ITEM 1)</b>	
2.5.2.2.6. Security Access Control System	
2.5.2.2.7. Security Video Surveillance System	
2.5.2.2.8. Water Leak Detection System	
2.5.2.2.9. Generator Set <b>(ITEM 2)</b>	
2.5.3. Submit monthly activity report with photo attachment <b>(ITEM 1 and 2)</b> .	
2.5.4. Submit incident report (if any) with attached photo before and after the action taken <b>(ITEM 1 and 2)</b> .	
2.5.5. Submit monthly site inspection report and attach photo of inspection <b>(ITEM 1 and 2)</b> .	
2.5.6. Must conduct actual maintenance training to five (5) BTr personnel during the first quarter of the maintenance schedule and must submit actual maintenance procedure documentation <b>(ITEM 1)</b> .	
<b>2.6.</b> Designate a head office-based personnel who will be responsible in managing and providing administrative support for the services as follows <b>(ITEM 1 and 2)</b> :	
2.6.1. One (1) Project Manager or Equivalent:	
2.6.1.1. Must be a regular employee for at least five years.	
2.6.1.2. Must have project management training	
2.6.1.3. Must be trained in premises cabling system design, and installation by an Original Equipment Manufacturer (OEM).	
2.6.1.4. Must be trained in Total Building Integration Cabling and Project Management	
2.6.1.5. Must be trained in Wireless LAN	
2.6.1.6. Trained in Fire Systems Design, Configuration, Installation	
2.6.1.7. Trained in Precision Air-Conditioning System	

AGENCY SPECIFICATIONS	BIDDER'S STATEMENT OF COMPLIANCE
2.6.1.8. Trained in Uninterruptible Power Supply	
2.6.1.9. Must submit certification for all trainings attained for validation	
2.6.1.10. Must submit all the Certificate referring to: 2.6.1.2, 2.6.1.3, 2.6.1.4, 2.6.1.5, 4.6.1.6, 2.6.1.7 and 2.6.1.8 for validation.	
2.6.1.11. Must also submit Curriculum Vitae (CV)	
2.6.2. Back Office support – provide administrative support service including processing relevant documents pertinent to the administration of the services herein required.	
2.6.3. The said personnel must be accompanied by a Management Information System Service (MISS) personnel for validation of the proposed works <b>(ITEM 1 &amp;2)</b>	
2.6.4. One (1) safety Officer <b>(ITEM 1 and 2):</b>	
2.6.4.1. Must be a licensed engineer	
2.6.4.2. Must have a professional certificate in facilities management.	
2.6.4.3. Must have completed the prescribed course in Occupational Safety and Health by DOLE.	
2.6.4.4. Must have completed the prescribed course in Basic Occupational Safety and Health (BOSH) by DOLE.	
2.7. Phone and email support: 24 x 7 Monday – Sunday including regular holidays, special holidays and government announced holidays <b>(ITEM 1 and 2).</b>	
2.8. On-call personnel: 24 x 7 Monday – Sunday including regular holidays, special holidays and government announced holidays. On call support is provided in situations that require the presence of Technical Personnel at BTr site as urgently needed to perform critical activities. Response time is within 4 hours from receipt of call <b>(ITEM 1 and 2).</b>	
2.9. The CONTRACTOR must coordinate with Facilities Maintenance Division (FMD) of the BTr for scope of electrical concerns <b>(ITEM 1 and 2).</b>	
2.10. Mode of Payment: Quarterly Payment; The following requirements are needed as deliverables prior to the payment <b>(ITEM 1 and 2):</b>	
2.10.1. First Quarter	
2.10.1.1. Quarterly report.	
2.10.1.2. Training Completion Certificate which refer to Part I. Section 2.5.6 of this Terms of Reference <b>(ITEM 1)</b>	



