Section VII. Technical Specifications

Outside Plant (OSP) Maintenance and Repair Services for Luzon Bypass Infrastructure under Framework Agreement for DICT

Technical Specifications

[Bidders must state here either "Compliant" or "Not Compliant" against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of "Comply" or "Not Comply" must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidder's statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the applicable laws and issuances.]

Item	Specification	Statement of Compliance	
LOT A	**Outside Plant (OSP) Maintenance and Repair Services for Luzon Bypass Infrastructure under Framework Agreement for DICT's**	**Compliant**	**Non Compliant**
3.	**OBJECTIVE**		
	3.1. The main objective of this procurement is to ensure that DICT- Luzon Bypass Fiber Optic Network is operational 24/7 and immediate restoration/repair on the occasion that there is fiber network degradation and/or failure, including power cable.		
	3.2. The Project will secure services for the maintenance of the following OSP facilities:		
	3.2.1. Front-haul: Beach manhole to Cable Landing Station(CLS) with a total of 6 kilometers fiber optics, 3run-4 inches HDPE pipe, 33 manholes, and beach manholes, including power cable (8-15 KV-DC)		
	3.2.2. Terrestrial: Baler CLS to SFLU CLS with a total of 240.2 kilometers fiber optics, 2-ducts (7-way microduct and 40mm HDPE), combination of underground, trench and bridge attachment, 315 pcs. (manholes, service box and access box).		

	3.3. The winning bidder will supply labor and necessary materials needed in the maintenance of the network or otherwise provided by DICT.		
4.	**SCOPE OF THE PROJECT** Maintenance and repair services includes the following services/activities to be rendered by the Contractor to ensure the continuous operation of the DICT- Luzon Bypass Fiber Optic Network.		
	4.1. Detailed Scope of Works for Maintenance		
	4.1.1. All FOC routes under Luzon Bypass Fiber Optic Network shall be patrolled daily. Special cases, such as construction near the network routes and sites, will require daily visits to monitor 3rd party activities, ensure that there is no risk to the network, and to prevent any cable cuts. The patrolling activity shall be summarized in a weekly patrolling report and submitted to DICT including update of all construction near the duct facilities.		
	4.1.2. In the event that the contractor detects, or has been made aware, that a third party is working or intends to work close to DICT-Duct Facility and FOC Network, contractor shall but not limited to;		
	4.1.2.1. Inform DICT as soon as possible. DICT will be the one coordinating this to local government authority for appropriate action.		
	4.1.2.2. Duly fill a warning letter form, get it signed by the 3rd party/project owner and submit to DICT.		
	4.1.2.3. Document the third party name, route under risk, date/time, and expected action to take.		
	4.1.2.4. If the 3rd party has all permission, locate the cable route, monitor the 3rd party activities to ensure that there is no risk to the DICT network and to prevent any cable/duct cut or damage.		

	4.1.3. Report of damaged DICT facilities for the Luzon By-pass fiber network.		
	4.1.4. Follow up on all cut cases up to permanent repair and settlement is completed with third party/project owners.		
	4.1.5. Contractor shall execute proper and advance coordination with DICT for DICT to timely facilitate the needed permits from the government authorities and municipalities for them to carry out the preventive maintenance service.		
	4.1.6. Conduct cleaning and dewatering of manholes/service box at least twice (2) a year.		
	4.1.7. Sealing of vacant and occupied pipes with end cap/plug and simplex duct plug respectively.		
	4.1.8. Check and replace missing end caps, connectors (micro-duct).		
	4.1.9. Perform monthly link attenuation test on all dark fibers from ODF to ODF between Cable Landing Station to Relay Station and Relay Station to Relay Station to check if span loss is within acceptable limits.		
	4.1.10. Contractor should submit a Traffic Management Plan for every scheduled activity along the Luzon By-pass fiber network.		
	4.1.11. Submit weekly, monthly and quarterly reports as Key Performance Indicator (KPI).		
	4.2. Repair Services through Framework Agreement		
	4.2.1. Detailed Scope of Works		
	4.2.1.1. Secure 24/7 on-call/standby repair team for immediate response in case of network failure..		

	4.2.1.2. Regardless of the cause, the contractor should find out the fault, cut or damage the location and splice the working fibers (and High-Voltage power cable if fault is in the fronthaul) to restore the traffic as soon as possible. Splicing of the non-functioning fibers and couple the free ducts should be done on the permanent restoration;		
	4.2.1.3. Contractor shall prepare and submit an incident report, notice for cable cut\duct damage to DICT.		
	4.2.1.4. Restoration and replacements of damaged and/or stolen fiber optic cables.		
	4.2.1.5. Restoration and replacements of damaged and/or stolen power cables.		
	4.2.1.6. Restoration/Repair of broken duct/conduit system and other underground facilities including bridge attachments.		
	4.2.1.7. Installation of duct/conduit system including existing facility for the rerouting due to road widening and other related works.		
	4.2.1.8. Restoration and repair is not limited to fiber optic network link, but also to OSP facilities (ex. uplifting of manhole frame and cover, manhole repair).		
	4.2.1.9. Installation of aerial cable including all accessories, if necessary (for temporary restoration).		
	4.2.1.10. Pole installation including all accessories, if necessary (for temporary restoration).		
	4.2.1.11. For repair and restoration of fiber optic cable, the contractor must submit revised as-built plans (in PDF format and printed in A3 paper), test results (OTDR before and after and Optical Loss		

	Testing), material consumption and other necessary documents.		
	4.2.1.12. The contractor and/or DICT shall provide the respective materials for any corrective maintenance services to be performed by the contractor. The contractor shall provide all needed spare materials identified in the DICT approved Framework Agreement List.		
	4.2.1.13. Secure own warehouse for safe-keeping of spare materials and equipment.		
	4.2.1.14. Contractor should have a Traffic Management Plan in place during restoration/repair activity along the Luzon By-pass fiber network.		
	4.2.1.15. Contractor shall provide a three (3) months warranty from the date of permanent restoration during which time the Contractor shall remedy, free of charge, any failure, repair or restoration.		
	4.2.1.16. Contractor must be in constant coordination with the DICT from start to finish during restoration/repair and document everything for submission to DICT.		
	4.2.1.17. Contractor shall execute proper and advance coordination with DICT for DICT to timely facilitate the needed permits from the government authorities and municipalities for them to carry out any restoration/repair works.		
	4.2.2. Response and Report Time Target		
	4.2.2.1. Contractor considers all interruptions in service as urgent priority. Expected response and repair time are given in the table below:		

Hours / Days Coverage	*Level Type of Restoration*	*Response Time*	*Restoration Time*

	24 X 7 X 365 Days Monday to Sunday	*LEVEL 1*	*Max. 2 hours* *(must be on site/work place)*	*8 hours from issuance of trouble ticket*		
		LEVEL 2		*6 Days from issuance of trouble ticket @ level 1*		
	Level 1: Temporary Restoration- cable re-routing (from underground to aerial and pole installation, fiber blowing on vacant tube). Level 2: Permanent Restoration- base on original plan. Count zero (0) is the time received of the trouble ticket by the contractor on Level 1. Notes: Failure to comply with the given restoration time will result in Liquidated Damages.					
5.	**PROJECT DELIVERABLES**					
	5.1. Maintenance Supplies/Materials and Equipment Contractor will provide all materials, labor and equipment needed for the maintenance and repair services of the Luzon-Bypass Fiber Optic Network or otherwise provided by DICT. *Note: All materials/supply to be used by the contractor is subject for approval of DICT and shall conform to Common Materials and Equipment Specifications in Annex B*					
	5.2. Reports, Specification, Practices and Procedures The following Reports, Practices and Procedures shall be prepared by the Contractor, called as the "Technical Documents" in this paragraph, to be approved by DICT.					
	5.2.1. Installation/Construction Practices					
	5.2.2. Restoration/Maintenance Procedures					

	5.2.3. Inspection and Acceptance Test Procedures, For Outside Plant System and Optical Fiber Cable Systems		
	5.2.4. KPI Report *Note: The Contractor shall submit to DICT all the technical documents both in hardcopy and softcopy (in original editable format) including all revised as-built plans and drawings involved in the project*		
	5.3. Manpower Work Requirements		
	5.3.1. **Manpower** Personnel must be properly trained to use such related equipment and do the maintenance and must be available on a moment's notice in cases of fiber cut/break. In order to effectively maintain the FOC Network, maintenance personnel, at the minimum, must include the following: a. One (1) Project Manager b. One (1) Project Engineer/Coordinator c. One (1) Warehouseman d. Two (2) Maintenance team that consists of seven (7) personnel **(1 team dedicated per Segment)** − One (1) OSP Supervisor − Two (2) Lineman − Two (2) Splicers/Commissioning personnel − Two (2) Support personnel e. Two (2) Repair/Restoration team that consists of the following personnel **(1 team allotted per Segment)** − One (1) OSP Supervisor − Two (2) Lineman − Two (2) Splicers/Commissioning personnel − Two (2) Support personnel − One (1) HDD Team		

	- One (1) Fiber Blowing Team *Note: All contractor personnel must have at least 3 year's related experience with respect to their positions except for the Project Manager and Project Engineer which must have a minimum 5 years' experience. All must have the necessary professional/trade certifications related to their field of specialization. Also, all personnel communication expenses should be shouldered by the contractor.*		
	5.3.2. **Satellite Office with Warehouse Capability** The contractor must establish or use existing satellite offices for each Segment of the Luzon Bypass Infrastructure to promptly carry out daily activities. The Satellite Office, where the technical team will be stationed, should have a Warehouse for storage of all materials provided by the Contractor and DICT. Contractor is required to update and maintain records of the list of supplies and materials, when stocks are being used or consumed and are readily available upon request of DICT. Segment A Satellite Office is responsible from Baler Front-haul to MH149 while Segment B Satellite Office is responsible from SFLU Front-haul to MH 149. The contractor has the option to choose the location of their offices along the Segment of the LBI, preferably midway of the Segment for better restoration response time. The contractor has the option to use its existing warehousing facilities provided they comply with the response time consistent with the SLA		
	5.3.3. **Personnel Protective Equipment (PPE) and Safety Devices** Contractor must also provide and ensure that all personnel are wearing proper PPE at all times and use safety devices in their working area to		

avoid any accident. Personnel should also wear proper uniforms and ID at all times.

Site/workplace must have proper warning devices/signage during restoration.

5.4. Tools and Equipment

As part of the maintenance activity, all necessary equipment and tools must be available at all times. Contractor must have the following common tools and equipment to do the maintenance activities in the duration of the contract.

Description
*Arc Fusion Machine
*Optical Loss Test Set (Power Meter & Light Sou
*Optical Time Domain Reflectometer (OTDR)
Fiber Blowing machines (w/complete accessorie
HDD machines (w/ complete accessories)
Splicing Tools/Equipment
Micro-duct jointing tools
Submersible pump
Lineman Tool Kits
Cable jack/trailer or Boom truck
Jack hammer
Air Compressor
Fiber Extension Ladder
Digging Tools / Carpentry
Other necessary tools/ equipment for maintenar

Note: All test equipment that will be used for this project such as Items 1, 2, and 3, shall have

	updated calibration certificates (issued by any third party) to ensure accuracy of results		
	5.5. Maintenance vehicles Contractor must have the following minimum vehicles (in good working condition) to mobilize necessary tools and materials that will be used in the maintenance and repair of the network in the duration of the contract. 1) Two (2) Splicing Van with Ladder rack/holder 2) One (1) Fiber Blowing Vehicle 3) One (1) Bucket Truck 4) One (1) Set HDD machine (including other vehicle needed for HDD works) 5) One (1) Boom Truck 6) Two (2) Service Vehicles with Ladder rack/holder 7) Two (2) Patrolling Vehicles with GPS *Note: Maintenance Vehicle should already be inclusive of all expenses (i.e., petrol, maintenance, toll fees, LTO registration).*		
	5.6. Compatibility / Interoperability with the Existing Technology The specification of the fiber optic cable, (underground and aerial) must be in compliance with the DICT fiber optic requirements which is ITU-T G.652D. All other Outside Plant materials shall conform with the latest Telco standard.		
	5.7. Testing and Acceptance The contractor is responsible in the performance of all civil and cable network pre-test requirement but not limited to: Fiber Optic Cable (FOC) – attenuation and all its related testing, power meter test, and grounding test and all other tests that may need to perform to complete the FOC test requirements.		

	5.7.1 Acceptance tests shall be performed to all fiber optic cable to confirm the manufacturer's tests. As per ITU-T G.652D the fiber loss/km: at wavelength 1310nm loss shall be **0.4 dB/km** or less; at 1550nm shall be **0.3dB/km** or less.		
	5.7.2. End-to-end attenuation is the amount of optical power loss between cable system connector tips. This will include the fiber and splice /connector loss in the cable system after it has been installed Splice acceptance tests *(individual splice insertion losses)* − splice loss shall not be above **0.1 dB for fusion;** − connectors shall have insertion losses of **0.5 dB or less.**		
	5.7.3. All OSP installation/construction and materials shall conform with the latest Telco standard.		
	5.7.4. DICT will issue certification of acceptance on all civil and cable network testing done by the contractor.		
	8.2. Payment for repairs will be on the basis of Call-Off made. Reports/Documents for payment of Purchase Order: 1. List of materials used (witness by DICT personnel) 2. Repair and Test report (before and after) restoration 3. Pictures before and after restoration 4. Revised/updated as-built plan/drawing with GPS reading/landmark		
9.	**PROJECT TIMEFRAME** Upon receipt of Notice to Proceed, the duration of the contract is one (1) year for maintenance of		

	the Luzon Bypass FOC network. While the maintenance materials and equipment must be available and inspected within 60 days upon receipt of Notice to Proceed.		
10.	**Annex B: Common Materials and Equipment Specifications**		
	10.1.1. **Fiber Optic Cable Requirements** Contractor must provide to DICT the detailed specification of their offered fiber optic cable (FOC) vis-a-vis compliance with ITU-T Recommendation G.652d.		
	10.1.1.1. Cable Construction: General considerations The basic purpose is to keep transmission and mechanical strength properties stable in the course of the cable manufacturing process, cable installation work and operation. Optical fiber cables offered must be able to withstand all possible weather conditions in the Philippines when used in an outside plant and installed underground or aerial. The optical fiber cables and accessories offered must be mechanically strong and chemically resistant to be suitable for use under extreme external conditions. Cable sheath marking shall be as follows; ***Property of DICT Philippines;*** ***Manufacturer's Name and Fiber Count;*** ***Date of Manufacture;*** ***Length Marker; and*** ***Fiber type: SM***		
	10.1.1.2. Design Consideration		
	10.1.1.2.1 Underground Fiber Blowing (mini cable)		

	- Mini cable (Air blown) 144c ITU-TG652d - Black HDPE, a compound of PE and carbon black shall be used for the cable sheath. - Mini Cable must be fully water blocked and contain a fiber reinforced plastic (FRP) central strength member :1200N - Cable Fiber Attenuation: 0.35dB/km.max @ 1310nm; 0.22/km.max @1550nm - Product work with low friction tube bundles for optimum blowing performances. - Maximum outer diameter is 8.5mm, with maximum central strength member of 3.5mm		
	10.1.1.2.2. Client FOC specs - The fiber optic cable incorporates loose buffer tubes filled with gel that are stranded via the reverse oscillating lay method around a dielectric central strength member, sheath strength elements which function as the primary strength member, a single electrically chrome-coated steel (ECCS) armor with water blocking material applied to the armor and a polyethylene jacket for overall protection of the cable core - The central strength member is a glass/epoxy composite dielectric rod that functions as a strength member and anti-buckling element. Water blocking thread is placed longitudinally along the central member. - The buffer tubes are made of flexible tube material (FTM) and can contain up to 12 fibers in each tube. The individual fibers and buffer tubes are color coded for ease of identification.		

	- Gel-filled buffer tubes are filled with a water blocking material that is compatible with the buffer tube material, fiber coating, and fiber color. The material is non-nutritive to fungus, non-hygroscopic, electrically non conductive, homogeneous, and free from dirt and foreign matter. - In order to create a round cable, filler rods of the same diameter as the buffer tubes may be used to fill empty positions. Filler rods are made out of high-density polyethylene (HDPE) and are natural in color. - Fiberglass strength elements are applied over the cable core to provide the cable with the required tensile strength. - An outer medium-density polyethylene (MDPE) jacket, usually black in color, is applied over the cable to provide overall mechanical protection. - For ease of jacket removal, a clearly identifiable aramid ripcord is placed underneath the armor layer.		
	10.1.1.2.3. Aerial Cable - Cable Sheath (for the 48-core FOC) - Black HDPE, a compound of PE and carbon black shall be used for the cable sheath. - The moisture barrier shall consist of a longitudinally applied laminate of polymer coated aluminum foil. - A rip cord shall be laid beneath the outer sheath to facilitate access to the fiber. - The completed cable shall have sequentially numbered length markers at regular intervals of one meter (1.0m). - One or more strength members shall be incorporated into a cable structure designed to carry the tensile load associated with installation.		

- The fiber reinforced plastic (FRP), serving mainly as the central strength member must be laminated with an MDPE-Jacket to prevent disintegration/breakage of plastic materials use

10.1.1.2.4. Identification

The color coding of the loose tubes and the individual fibers within each loose tube shall be as follows:

Tube No./ Fiber No.	**Fiber Color**	**Tube Color**
1	Blue	Blue
2	Orange	Orange
3	Green	Green
4	Brown	Brown
5	Slate	Slate
6	White	White
7	Red	Red
8	Black	Black
9	Yellow	Yellow
10	Violet	Violet
11	Rose	Rose
12	Aqua blue	Aqua Blue

	Packing of Cables Cable protection shall include, as a minimum, a covering placed between the cable reel flanges and over the exposed layer of the cable. The covering shall be weather resistant and shall limit solar heating of the cable such that the cable surface temperature does not exceed 10°C above ambient temperatures under maximum solar radiation. The cable ends shall be accessible for testing, and securely fastened to the reel to prevent the cable from becoming loose in transit or during cable installation. End caps shall be securely installed to both cable ends to prevent escape of filling compound and entry of moisture during shipping, handling, and storage. The manufacturer shall state the sizes of cable drums used for the purpose of packing the offered single mode optical fiber cables. The minimum diameter of spool of the cable drums shall be at least 20 times the cable diameter		
	10.1.1.2.5. Contractor must submit a manufacturer's ISO Certification or other internationally accepted third party certifying authority of their offered FOC.		
	10.1.2. **High-Voltage (HV) Power Cable (8-15KV DC)** HV land cable consists of the following layers, starting from the center and moving toward the outer jacket: seven-strand copper wire No. 6 AWG conductor, semiconducting strand sheath, insulation, semiconducting insulation sheath, helically applied		

	copper shielding tape, and outer polyethylene jacket. Weight (kg/m): 0.44 Outer diameter (mm): 18 Minimum bend radius (cm): 22 Pulling tension (ken): 1.11 Voltage rating (kV DC-conductor to ground): 15 Current-carrying capacity (A): >50 Conductor resistance at 25degC (ohms/km): 1.345		
	10.1.3. **Micro-duct (7-way)** Micro-duct size OD/ID: 16mm/12mm diameter (with tolerance of ± 1%) Outer sheath made from HDPE and color orange Micro-duct must be metal free and can be installed direct buried Minimum working pull strength of 2500 lbs. Minimum pressure test is 15 bar Color of 7-tubes (white, blue, green, rose, yellow, violet and brown)		
	10.1.4. **HDPE pipes** **3.a HDPE- 4 inches' diameter** Outer sheath made from HDPE and color black SDR 11 diameter or equivalent to market available Minimum pull strength of 17,500 psi **3.b 40 mm HDPE** HDPE size OD/ID: 40mm/32mm diameter HDPE inside: rib type Outer sheath made from HDPE and color black Minimum pull strength of 3200 psi. Minimum pressure test is 15 bar.		
	10.1.5. **Micro-duct connector** Micro-duct connector size OD/ID: 16mm/12mm diameter Connector Outer shell is made from acrylate (clear) or polypropylene		

	Connector must be resistant in corrosion, most chemical and dirt Minimum pressure test is 15 bar with locking clips		
	10.1.6. **HDPE Connector** **a. 4 inches HDPE** Connector for 4 inches pipes either butt fusion or coupler. Connection must be water and dirt resistant **b. 40mm HDPE (Compression coupling)** Compression coupling size OD/ID: 40mm/32mm diameter Connector must be resistant in corrosion, moist chemical and dirt Minimum pressure test is 15 bar Seal way: Rubber ring		
	10.1.7. **Fiber Optic Cable Splicing Closure, Dome-Type** Minimum capacity:144 fiber (for underground) Minimum capacity: 48 fiber (for aerial) Seal way: Rubber ring high-strength engineering plastic shell that can endure harsh conditions such as vibration, impact, tensile cable distortion and strong temperature changes Reusable components to open seal in order to ensure a good airtight waterproof performance. Does not require special tools, easy to install and open the duplicate. Applicable aerial, direct-buried, wall-mounting, duct-mounting, and other accessories.		
	10.1.8. **Micro-duct joint closure (E/E pit)** Either Heat Shrinkable or Cold Seal Jointing capacity: 7 tubes		
	10.1.9. **Handheld Optical Time Domain Reflectometer (OTDR)** Support Single-mode Optical Time Domain Reflectometer		

	Using "PDA" technology, combining a simple user interface with the features of a mini-OTDR in a "micro" package. Highly portable OTDR to document and trouble-shoot fiber links works. Items should comply with parameters listed below, additional features are accepted. Wavelength of 1310/1550/1625 ns Distance range up to 250 km		
	10.1.10. **Optical Loss Tester** All-in-one light source and optical power meter supporting Single Mode (SM) [1310 nm/1550 nm] and Multi-Mode (MM) [850 nm/1300 nm] fiber Compact and lightweight Measures +23 dBm maximum optical power 20 hours of battery (dry cell) operation Useful fiber identification modulation function [270 Hz, 1 kHz, 2 kHz and continuous Wave (CW)] Items should comply with parameters listed below, additional features are accepted. Wavelength 1310/1550nm and 850/1300nm		
	10.1.11. **Arc Fusion Splicer** Automatic splice 7sec for fast mode; 12-15 sec auto mode Splice loss maximum 0.02dB for Single Mode Fiber Automatic/manual arc calibration Portable		
	10.1.12. **HDD Machine with Locator** Working distance up to 500 meters per one shoot Maximum Push and Pull Speed, 40m/min		
	10.1.13. **Fiber Blowing Machines** Can blow fiber up to 4km		

	Blowing speed up to 100m/min Blowing method either air or combination of air and water		

Bidder's Authorized Representative:

_____

Signature over Printed Name

_____

Principal Bidder/ Supplier

Section VII. Technical Specifications

(PREVENTIVE MAINTENANCE SERVICES FOR INTERNATIONAL CABLE LANDING STATION AND REPEATER STATIONS FACILITIES)

Technical Specifications Compliance Form

[Bidders must state here either "Compliant" or "Non Compliant" against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of "Comply" or "Not Comply" must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidder's statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the applicable laws and issuances.]

Item	Specification	Statement of Compliance	
LOT B	**Preventive Maintenance Services For International Cable Landing Station And Repeater Stations Facilities**	**Compliant**	**Non Compliant**
1.	**SCOPE OF WORKS**		
	1.1. THE BIDDER SHALL CONDUCT QUARTERLY PREVENTIVE MAINTENANCE SERVICES		
	1.1.1. Generator, Automatic Transfer Switches, AC Power Systems A. General Scope of Works Supply of labor, tools, and equipment, consumable materials for preventive maintenance (i.e. oil, oil filter, fuel filter, air filter, etc.), ancillary materials, technical competence, and supervision for the preventive maintenance of the Generator Sets, Automatic Transfer Switch, and AC panels. B. The preventive maintenance works should be done within the approved manufacturer maintenance procedures. Below is the detailed scope of works but not limited to: 1.) CLS and RS Generator Set (a) Quarterly Preventive Maintenance (1) Perform a capacity load test on batteries.		

	(2) Check the battery charger for proper operation. (3) The entire cooling system will be checked for leaks and brittle hoses, all hose clamps will be tightened as required. (4) The fan hub will be lubricated with the recommended grease, if applicable. (5) The jacket water heaters will be checked for proper operation. (6) Check the engine for leaks in the fuel, lubrication, and air inlet. Special attention will be given to the water pump, turbocharger, and rear main seal areas. (7) Check the oil level – maintain at a proper level. (8) The exhaust condensate trap will be opened to drain possible water out of the system if applicable. (9) The exhaust condensate trap will be opened to drain possible water out of the system if applicable. (10) The unit will be run for 15 minutes and oil pressure, fuel pressure, charging amps, voltage, and frequency. Engine temperature will be recorded. (11) Check the engine safety shutdowns for proper operations, if applicable. (12) Check fuel level – notify end-user if below ½ tank. (b) Annually (at 4th Quarter PM) Preventive Maintenance or based on the approved manufacturer maintenance procedures. Subject to the approval by the end-user. (1) Change oil. (2) Change filters (diesel fuel filter, oil filter, and air filter). (3) Check and clean the radiator, if necessary. (4) Fuel tank - drain water and sediment. (5) Clean engine crankcase breather, if applicable. (6) Governor - check and maintain oil level, if required. (7) Lubricate the governor linkage and check the governor response on-ramp to rated speed for proper adjustment. (8) Check glow plugs for proper operation, as applicable. (9) Check for signs of leaky nozzles; advice on course of action. (10) Pressure check cooling system. Check for proper inhibitor balance.		

	(c) As needed: Generator Winding - Annually (1st PM, starting 2nd year). Subject to the approval by the end-user. (1) Check the generator slip rings and brushes as applicable for wear and proper conditions. (2) Check the line to line voltage and adjust the voltage regulator to specifications as required. (3) Lubricate the generator bearings(s) as applicable using lubricant specified by the generator manufacturer. (4) Check the engine/generator alignment. Note: This should only be done if a problem is indicated or the coupling has been disturbed for maintenance purposes. 2.) CLS and RS Automatic Transfer Switch (ATS) (a) Quarterly Preventive Maintenance (1) General Condition of Transfer Switch and Controls ● Inspect the outside of the transfer switch for any indication of wear, excessive vibration, leakage, high temperature, contamination, or other deterioration. ● Verify all external components are in place, firm, tightened, and not excessively worn. (2) Control System ● Exercise the generator set under load. ● Test the transfer switch's automatic control system. (b) Annually (at 4th Quarter PM) Preventive Maintenance (1) General Condition of Transfer Switch and Controls ● Inspect the inside of the transfer switch for any indication of excessive vibration, leakage, high temperature, contamination, or any other deterioration. ● Verify all internal components are in place, firm, tightened, and not excessively worn. (2) Control System ● Test all indicators (LEDs) and all remote-control systems for operation. (3) Electrical System ● Check wiring and connections are tight with no discoloration of metal, melted plastic, and odor indicating excessive heat.		

	● Verify the contractor's external operating mechanism is clean and re-lubricate if found dirty. ● Check for any deterioration of wiring insulation such as cuts and abrasions. Replace or repair any damaged wiring. ● Check the tightness of wiring connections. Retighten to specification if any loose wiring is found. ● Check ATS main power switching contacts condition. Clean or replace. Replace contactor assembly if necessary. 3.) AC Panels and Circuit Breakers (a) Quarterly Preventive Maintenance (1) Clean the insulating parts including the bushings. (2) Check the alignment and condition of movable and stationary contacts and adjust them per the manufacturer's data. (3) See that bolts, nuts, washers, cotter pins, and all terminal connections are in place and tight. (4) Check arc chutes for damage and replace damaged parts. (5) Clean and lubricate the operating mechanism and adjust it as described in the instruction book. If the operating mechanism cannot be brought into specified tolerances, it will usually indicate excessive wear and the need for a complete overhaul. (6) Check, after servicing, circuit breaker to verify that contacts move to the fully opened and fully closed positions, that there is an absence of friction or binding, and that electrical operation is functional.		
	1.1.2. DC Power Systems A. <u>General Scope of Works (delete)</u> Supply of labor, tools, and equipment, materials for preventive maintenance, ancillary materials, technical competence and supervision for the preventive maintenance of DC Power System B. The preventive maintenance works should be done within the approved manufacturer maintenance procedures. Below is the detailed Scope of Works but not limited to: 1.) DC Power Plant and Rectifiers Quarterly Preventive Maintenance (a) Check general appearance and cleanliness of DC Plant room. (b) Visually inspect Power Bays and Rectifiers for loose foreign items and heat spots.		

	(c) Check any audible and visual alarms and verify alarms are working properly and reporting accurately. (d) Verify covers and panels are in place. (e) Verify proper Plant Voltages at Rectifiers, Batteries, and Meter & Alarm Panel. (f) Check operation and calibration of Plant Volt and Amp Meter. (g) Record load and output voltages. (h) Verify and adjust DC float voltage to maximize battery life & reserve. (i) Calculate the percentage of n+1 rectifier capacity on the power plant. (j) Calculate the percentage of n+1 battery capacity. (k) Verify rectifier voltage and amperage setting. (l) Verify Rectifier voltage and amperage setting: High Voltage (HV). (m) Verify proper operation of rectifier cooling fans (n) Verify Alarms are extended to the Meter and Alarm Panel. (o) Perform thermal inspection and temperature scan of internal components, circuitry, and all rectifier-related cabling and connections. **See note (p) Check safety equipment conditions, gloves, eye wash kit, etc. (q) Check general appearance and cleanliness of battery room and batteries. (r) Check for corrosion on the terminal post and connector, clean and re-secure, as needed. (s) Measure and record ambient room temperature. (t) Measure and record overall system DC float voltage and (u) current levels. (v) Measure and record each cell terminal voltage. Recommendations: ● **Report any conditions that are inconsistent with "normal*" readings. ● No un-plated bus connections can be over 70 degrees C. ● No plated bus connections can be over 90 degrees C. ● No cable lug to bus connections can be over 70 degrees C. ● No front panel touchpoints (typically at the DC distribution Circuit Breakers) can be over 50 degrees C. ● These limits should not be violated. Compare temperatures of similar types of points and investigate any points		

	running higher than the "norm*" for that type. 2.) Battery Quarterly Preventive Maintenance (a) Check safety equipment conditions, gloves, eye wash kit, etc. (b) Check general appearance and cleanliness of battery room and batteries. (c) Check for corrosion on the terminal post and connector, clean and re-secure, as needed. (d) Measure and record ambient room temperature. (e) Measure and record overall system DC float voltage and current levels. (f) Measure and record each cell terminal voltage.		
	1.1.3. Uninterruptible Power Supply (UPS) and Inverter A. General Scope of Works Supply of labor, tools, and equipment, materials for preventive maintenance, ancillary materials, technical competence, and supervision for the preventive maintenance of UPS and Inverter. B. The preventive maintenance works should be done within the approved manufacturer maintenance procedures. Below is the detailed Scope of Works but not limited to: 1.) Quarterly Preventive Maintenance (a) Consult with personnel responsible for the equipment. (b) Visually inspect all internal sub-assemblies and major components, this includes exhaust fans, input/output filter assembly, rectifier/inverter assembly, etc. (c) Clean any foreign material and dust from internal components if the system is down. (d) Thorough check-up on the accuracy and integrity of electrical connections. (e) Check-up of cables and miscellaneous materials such as nuts, bolts, screws, and connectors for connection tightness and inspect for broken damaged, or burned components using thermo scanner. (f) Check the status of all alarms stored in the UPS memory. (g) Measure and record voltage & current. (h) Calibrate equipment to Manufacturer's specifications if required. (i) Check the normal operation of the system. (j) Comprehensive check-up of batteries, measure and record individual float and ripple voltages. (k) Check battery transfer/discharge and perform a short duration battery-run.		

	(l) Perform any required Engineering Field changes if required. (m) Return unit to operational service with the normal load then verify the output in case the system was set to maintenance bypass. (n) Annual Battery Test must be conducted during the first quarterly preventive maintenance. Data and results must be submitted to DICT one week after the test. (o) Maximum response time of four (4) hours for corrective repairs of Uninterruptible Power Supply (UPS) system.		
	1.1.4. Heating Ventilation and Air-Conditioning (HVAC) System A. General Scope of Works Supply of labor, tools, and equipment, materials for preventive maintenance, ancillary materials, technical competence, and supervision for the preventive maintenance of HVAC Systems. B. The preventive maintenance works should be done within the approved manufacturer maintenance procedures. Below is the detailed Scope of Works but not limited to: 1.) Air Filter Quarterly Preventive Maintenance Procedures: (a) Clean or replace (if necessary) the air filter whenever it is visibly dirty. Never operate the unit without any filter in place. 2.) Evaporator Quarterly Preventive Maintenance Procedures: (a) If the evaporator becomes clogged or dirty, it may be cleaned by careful vacuuming or with a commercial evaporator cleaning spray. DO NOT use a solvent containing bleach, acetone, or flammable substances. (b) Turn off power before cleaning. Make sure not to wet any of the electrical components. Be sure the unit has dried before restarting. 3.) Condenser Quarterly Preventive Maintenance Procedures: (a) Inspect the outdoor condenser coil and the cabinet air reliefs for dirt or obstructions. Removes foreign objects. (b) Clean the condenser coil, wash with commercial solvent intended for the purpose. TURN OFF POWER BEFORE CLEANING! (c) Be sure that all electrical components are thoroughly dry before restoring power. 4.) Cabinet		

	(a) Clean the cabinet with a sponge and warm soapy water or a mild detergent. (b) Do not use bleach, abrasive chemicals, or harmful solvents. 5.) Drains (a) Check the primary and secondary condensate drains. (b) Check the secondary drain standpipe. Remove any obstruction, an obstruction will force water to dump into the middle of the unit and drain out the sides causing discoloration of the side panels. (c) If discoloration is noted, service the drains. (d) If a commercial drain solvent is used, flush out the drain pan and system with plenty of freshwaters to prevent corrosion. 6.) Lubrication (a) Oiling of the condenser fan motor or the evaporator blower is not recommended. 7.) Observe the equipment's operation for any signs of abnormality. 8.) Return unit to operational service with the normal load then verify the output. 9.) Submission of Comprehensive PM Checklist Report, to include, if any, recommendation on part/s that need/s replacement. 10.) Provide quotation for any needed part/s, and other repair service works not covered by the quarterly PM Service.		
	1.1.5. Fire Suppression System A. General Scope of Works Supply of labor, tools, and equipment, materials for preventive maintenance, ancillary materials, technical competence, and supervision for the preventive maintenance of Fire Suppression System B. The preventive maintenance works should be done within the approved manufacturer maintenance procedures. Below is the detailed Scope of Works but not limited to: Before proceeding with any testing, all persons and facilities who may receive an alarm, supervisory, or trouble signal shall be notified to prevent an unnecessary response. At the conclusion of testing, those previously notified (and others necessary) shall be further notified that testing has been concluded. Testing personnel shall be qualified and experienced in the inspection, testing, and maintenance of Clean Agent Fire Suppression System and Fire Alarm and Detection Systems. Only qualified service personnel familiar with		

	the systems and equipment used shall be permitted to perform the required tests 1.) Quarterly Preventive Maintenance: (a) Inspection (1) Hazard Enclosure ● Check original installation for any changes and equipment that have not been replaced, modified, or relocated. Verify if the hazard volumes are still the same and no walls or partition have been added. ● Verify if the protected room is effectively sealed for any significant air leaks that could result in agent leakage and a failure of the enclosure to hold the specified agent concentration level for the specified holding period. (2) Agent Cylinder ● Verify all containers and brackets are securely fastened. Check the mounting position of horizontally mounted containers. ● Verify the weight of the agent in each cylinder matches the agent stamped on the label. ● Check all containers' pressure gauges. They should be reading 360 PSIG at 21 °C or 70 °F. ● Check Solenoid Valve/Gas cartridge Actuator leads and wiring to agent release modules for corrosion and loosen or broken wires. (3) Piping and Nozzles ● Verify discharge nozzles and pipe size if in accordance with system drawings. Checked means of pipe size reduction and attitudes of tees if they conform to the design. ● Verify that piping joints & discharge nozzles are securely fastened to prevent unacceptable vertical or lateral movement during discharge. ● Verify that the piping distribution system internally detects 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 that nozzle deflectors are positioned to obtain maximum benefit. ● Verify that discharge nozzle, pipe and fittings are in good condition and free of mechanical damage, corrosion, and misalignment		

	(4) Pipe Supports and Braces ● Inspect pipe supports hangers and braces for loose, corrosion, and physical damage. (5) Fire Detection, Alarm, Releasing Devices and Peripherals ● Verify that all wiring systems are properly installed in compliance with local codes and the system drawings. ● Verify that the control panel is properly installed and readily accessible. ● Check that all end-of-line resistors have been installed at the last field devices and not at the control panel. ● Verify that alternating current (ac) and direct current (dc) wiring are not combined in a common conduit or raceway unless properly shielded and grounded. ● Verify that all field circuits are free of ground faults and short circuits. ● Check that control panel power supplied to the control unit from a separate dedicated source that will not be shut down on system operation. ● Verify that adequate and reliable primary and 24-hour minimum standby sources of energy are used to provide for the operation of the detection, signaling, control, and actuation requirements of the system. ● Verify that all auxiliary functions such as alarm-sounding air-handling shutdown, and power shutdown for proper operation in accordance with system requirements. ● Verify that the detection devices are in the proper type and location as specified on the system drawings. ● Verify that detectors are not located near obstructions or air ventilation and cooling equipment that would appreciably affect their response characteristics. ● Verify that 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 that the main/reserve switch is properly installed, readily accessible, and clearly identified.		

	(b) Testing (Subject to approval by the end-user) (1) If the system is connected to an alarm receiving office, notify the alarm receiving office that the fire system test is to be conducted and that an emergency response by the fire department or alarm station personnel is not desired. Notify all concerned personnel at the end-user facility that a test is to be conducted and instruct personnel as to the sequence of operation. (2) Disable each solenoid valve/agent storage container release mechanism so that activation of the release circuit will not release the agent. Reconnect the release circuit with a functional device in place of each agent storage container release mechanism. For electrically actuated release mechanisms, these devices can include 24-V lamps or flashbulbs. (3) Verify that the control panel is connected to a dedicated circuit and labeled properly. (4) Verify that control panels are readily accessible yet restricted from unauthorized personnel. Using a smoke tester, operate detection initiating circuit(s). Check each detector for proper response. Verify that all alarm functions occur according to the design specification. (5) 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. (6) Operate manual release. Verify that manual release functions occur according to design specifications. (7) Operate the abort switch circuit if supplied. Verify that abort functions occur according to design specifications. Confirm that visual and audible supervisory signals are received at the control panel. (8) Test all supervised circuits for proper trouble response. (9) Operate one of each type of input device while on standby power. Verify that an alarm signal is received at the remote panel after the device is operated. Reconnect primary power supply.		

	(10) Operate each type of alarm condition on each signal circuit and verify receipt of trouble conditions at the remote station.		
	1.1.6. Building Management System (BMS) A. General Scope of Works Supply of labor, tools, and equipment, materials for preventive maintenance, ancillary materials, technical competence, and supervision for the preventive maintenance of the Building Management System. B. The preventive maintenance works should be done within the approved manufacturer maintenance procedures. Below is the detailed Scope of Works but not limited to: 1.) Quarterly Preventive Maintenance (a) Check and Verify the various systems connected to the BMS if it is updating properly. (b) Check Input Voltage Measurement (-48Vdc nominal. You will measure the DC Plant's float voltage of approximately -54Vdc). (c) Check the Power Supply Breakers on the DC Plant. (d) Check the interface cabling for the sensors or controls causing any problems. (e) Check the fuses, verify if they are in good condition. (1) F1 is a DC input fuse. (2) F2 is HVAC 2 (24Vac coming from HVAC 2) (3) F3 is HVAC 1 (24Vac coming from HVAC 2)		
	1.1.7. Security System A. General Scope of Works Supply of labor, tools, and equipment, materials for preventive maintenance, ancillary materials, technical competence, and supervision for the preventive maintenance of Security Systems. B. The preventive maintenance works should be done within the approved manufacturer maintenance procedures. Below is the detailed Scope of Works but not limited to: 1.) Quarterly Preventive Maintenance (a) Door Access (1) Visually inspect all system components. Check for any damage. (2) Test access and exit with a valid access card. Check audit trail for correct results (3) Test access with an invalid access card. Ensure that access is denied, and the		

	proper alarms are raised on Access Control Server. (4) Remove some wiring from the DRI (i.e. card reader) that would simulate tampering. Ensure that proper and expected alarms are raised on Access Control Server. (5) Measure power supply voltages. Confirm within the nominal range. (6) Check battery condition. Replace as required. (b) Security Cameras and Network Video Recorder (1) Check outdoor and indoor camera lenses, Clean for any dirt. (2) Check camera enclosures/housing check for any leaks, it should remain waterproof at all times. (3) Check out all connectors for signs of corrosion. Replace immediately the corroded connectors. (4) Ensure that all cables are connected securely. Ensure that the monitor, DVR, and security cameras are all receiving power. (5) Check the cabling for any signs of wear and tear, replace any exposed wire immediately. (6) Check the power supplies of all security system components, ensure that there is no loss of power due to storms, tampering, brownouts, or other unwanted events. (7) Check the UPS to ensure the battery is fully charged and does not show any warning lights. (8) Check the Video Recorder regularly for any dust, wipe any dirt found. (9) Verify the recording function. (10) Periodically review camera position setups (11) set the correct date and time		
	1.2. THE BIDDER SHALL PREPARE SCHEDULE OF SERVICES, LIST OF EQUIPMENT, DEVICES, AND SYSTEMS FOR QUARTERLY PREVENTIVE MAINTENANCE SERVICE		
	1.2.1. Quarterly Preventive Maintenance Services Schedule To avoid having too many Preventive Maintenance (PM) tasks due at the same time, the equipment shall be serviced on a rotational basis. Therefore, to ensure timely and uniform maintenance on all equipment, a quarterly PM schedule will be		

generated by the winning bidder and provided to the End-User for approval.

Period	Timeframe
1st Quarter PM	January 01 to March 31
2nd Quarter PM	April 01 to June 30
3rd Quarter PM	July 01 to Aug 31
4th Quarter PM	Sep 30 to Dec 31

1.2.2. List of Equipment, Devices, and Systems for Quarterly Preventive Maintenance

Item	Particulars	Qty.	Qty.	Qty.	Qty.	Qty.
	Generator, ATS and AC Power	Baler	SFLU	RS1	RS2	RS3
1	400 kVA FG Wilson P438-3	2	2			
2	ATS1: GE Zenith ZBTS Series ATS	1	1			
3	ATS2: GE Zenith ZTS Series ATS	1	1			
4	Primary and Secondary AC Panels	2	2			
5	30kVA FG Wilson P26-3S			2	2	2
6	ATS1: ASCO D300L Power Transfer Load Center			1	1	1
7	ATS2: ASCO 7000 Power Transfer Switch			1	1	1
	DC Power System (DCPS)	Baler	SFLU	RS1	RS2	RS3
8	GE GPS 4830 Power System	2	2			
9	Rectifier Module: GE GP100H3R48TEZ	38	38			
10	Battery: Deka UNIGY I, 12V, 200AH	112	112			
11	General Electric Infinity S System			2	2	2
12	Rectifier Module: GE NE050AC48ATEZ			4	4	4
13	Battery: Deka UNIGY I, 12V, 200AH			8	8	8
	UPS and Inverter	Baler	SFLU	RS1	RS2	RS2
14	GE GT Series 10kVA	2	2			
15	CE+T Power TSI Media 2I			1	1	1
	Heating Ventilation and Air-Conditioning (HVAC)	Baler	SFLU	RS1	RS2	RS3
16	ICE ECUDA150ACH180AKBRU-A2-216-VAR	3	3			
17	MARVAIR AVPA30ACH060CKRU-A5-200-VAR	3	3			
18	MARVAIR AVPA72ACA			2	2	2
	Fire Suppression System	Baler	SFLU	RS1	RS2	RS3
19	Fike SHP Pro Control System	1	1			
20	FM-200 Agent: 100 lbs. cylinder	1	1			
21	FM-200 Agent: 596 lbs. cylinder	1	1			
22	FM-200 Agent: 73 lbs. cylinder	1	1			
23	VESDA Air Sampling Unit	1	1			
24	Smoke Detectors	11	11			
25	Watermist System	1	1			
26	Fike CHEETAH Xi Control Panel			1	1	1
27	FM-200 Agent: 60 lbs. cylinder			1	1	1
28	VESDA Air Sampling Unit			1	1	1
29	Smoke Detectors			2	2	2

	Building Management System (BMS)	Baler	SFLU	RS1	RS2	RS3
30	DCPS Controller: GE Galaxy Millennium Controller	2	2			
31	DCPS Controller: GE Galaxy Pulsar Controller			2	2	2
32	Battery Thermal Probe (BTP): PLC Group THS	2	2	2	2	2
33	HVAC Controller: PLC Group TCU800-ET	3	3	1	1	1
34	Hydrogen Detector (HD): SBS NTN Sensors	1	1	1	1	1
35	Generator Controller (GEN): DSE 4510	2	2			
36	Generator Controller (GEN): DSE 7410			2	2	2
37	Liquid on floor detector (LD): Kele WD-2-T-10	2	2	2	2	2
38	Differential Pressure Sensor (DPS): QY Electronic QP-86C	1	1	1	1	1
39	Temperature & Humidity Sensor (THS): PLC Group THS	3	3	1	1	1
	Security System	Baler	SFLU	RS1	RS2	RS3
40	Access Control Server (ACS): Dell PowerEdge R230	1				
41	Access Control Panel (ACP): LifeSafety Power FPO150-2C82D8E4	1	1			
42	Access Control Panel (ACP): LifeSafety Power FPO150-C4D8E2			1	1	1
43	Access Door Control (ADC): Siemens SiPass AC5102	1	1	1	1	1
44	Reader Interface (ERI): Siemens ADE5300	2	2			
45	Reader Interface (ERI): HID EntryProx reader			1	1	1
46	Electric Door Strike for Deadbolt Recapture (ES-1): HES	2	2	1	1	1
47	Electric Door Strike for Latchbolt (ES-3): HES	9	9	1	1	1
48	Request to Exit Passive Infrared Sensor (RX-1): Bosch	1	1	1	1	1
49	Card Reader (CR-1): HID EntryProx reader	1	1	1	1	1
50	Power Over Ethernet (POE) Switch: Transition Networks SM24T6DPA	1	1	1	1	1
51	Network Video Recorder (NVR): EverFocus EPRO NVR 16	1	1	1	1	1
52	IP Camera: EverFocus EHN3260	6	6	1	1	1
53	IP Camera with Motion Detector: EverFocus BA-EHD+	3	3	1	1	1

1.3. THE BIDDER MUST HAVE EMERGENCY SUPPORT SERVICES FOR THE FOLLOWING:

1.3.1. Emergency Support Services

A. The Winning Bidder shall provide emergency support services on an as-needed basis.
B. The emergency support services shall be Phone-Call support and/or On-Site support.
C. The Phone-Call and On-Site support shall be available on a 24-hours basis, weekends, and including legal holidays.
D. The emergency support services shall be for the Critical and Major incident/alarm severity level:

Incident/Alarm Severity Level Definition:

1.) Critical – The System/Service is a non-operative or complete loss of system/service for which no workaround exists. All or some system/service is affected.
2.) Major – The system/Service does not function as designed or is experiencing significant degradation in the quality of service.
3.) Minor – Faults that have little or no impact on the daily system operations.

E. The emergency Support Services shall cover the following systems.

1.) Generator, Automatic Transfer Switches, AC Power System
2.) DC Power System
3.) Uninterruptible Power Supply (UPS) and Inverter System
4.) Heating Ventilation and Air-Conditioning (HVAC) System and Building Management System (BMS).
5.) Fire Detection and Suppression System.

F. The Winning Bidder shall provide an updated list of contact persons, telephones, and cellphone numbers in case of emergency calls.

1.3.2. Repair and Response Time Matrix

Winning Bidder shall consider all interruptions in service as an urgent priority. Expected response and repair time are given in the table below:

SERVICE ITEM	BASIC SUPPO	
Helpdesk	24 hours x 7 days a week	
Phone Call Support	24 hours x 7 days a week	
Emergency Support Service	24 hours x 7 days a week	
INCIDENT/ALARM SEVERITY LEVEL	**CRITICAL**	**MAJOR**
Response Time (After receipt of advice)	Within 3 hours	Within 8 hour
Restoration Time (Excluding travel time)	Within 4 hours	Within 2 calendar
Progress Update Time (Escalation)	Update every 1 hour	1 update every c
Root Cause Analysis (RCA Report)	Within 2 calendar day after final resolution	

2. PROJECT DELIVERABLES

2.1. THE BIDDER SHOULD PROVIDE MAINTENANCE SUPPLIES/MATERIALS and EQUIPMENT

The winning bidder shall provide all materials, labor, and equipment needed for the quarterly preventive maintenance of the Luzon-Bypass Infrastructure Facilities.

	Note: All materials/supply to be used by the contractor is subject for approval of the end-user		
	2.2. THE BIDDER SHOULD PROVIDE EMERGENCY SUPPORT SERVICES The Winning Bidder shall provide emergency support services on an as-needed basis. The emergency service shall be available on a 24-hours basis, weekends, and including legal holidays.		
	2.3. WINNING BIDDER's RESPONSIBILITIES 2.3.1. Provide in advance the names of personnel that will conduct and perform the preventive maintenance services activity. The end-user will process the necessary work permits ahead of the scheduled activity. Advance notice should be communicated for any changes in the names of the personnel on the schedule. 2.3.2. Provide recommendations for the schedule of Preventive Maintenance activity. 2.3.3. Provide an estimate/quotation of the cost of labor, parts, and materials for all repair services within two (2) days after the check-up. 2.3.4. Checking and Servicing of the units shall be done under the supervision of the end-user. 2.3.5. Keep intact a complete servicing record of each unit that will be vital for determining the cause of any trouble that might occur. 2.3.6. Submit to the end-user the duly accomplished Quarterly Preventive Maintenance Service Report and copies for acknowledgment. 2.3.7. Submit to the end-user the duly accomplished Unit Repair Service Report in case of Repair Services and copies for acknowledgment. 2.3.8. Minor repairs and adjustments as required in the periodic schedule shall be undertaken at no extra cost to the end-user. 2.3.9. Any fault/issues that occurred during the preventive maintenance activity must be rectified/corrected immediately and submit an Incident Report. 2.3.10. Regardless of the cause, the Contractor should locate the fault and restore the system as soon as possible. 2.3.11. Train on-site the end-users operator on the proper operation and maintenance activities.		
	2.4. REPORTS, PROCEDURES, and SUBMISSIONS 2.4.1. Reports A. The winning bidder shall submit the format of the following report in hardcopy and softcopy (in original editable format) within a week after the receipt of Notice to Proceed (NTP) for approval by the end-user.		

	1.) Preventive Maintenance Report 2.) Service and Test Report 3.) Incident Report 4.) Photo documentation before, during, and after preventive maintenance and service procedures. 5.) Inspection and Test Procedures B. Using the approved report format, the winning bidder shall submit three (3) copies of the report in hardcopy and a softcopy (in original editable format) to the end-user for approval. ***C.*** The winning bidder should take note that the specified number of copies is subject to change depending on the requirements in billing and payment.		
	2.4.2. Reports/Documentation submission A. Submission of quarterly preventive maintenance report within a week after the activity completion. B. Incident Report, in case of problems encountered within 2 days after the restoration. C. Service and Test report within 2 days after the restoration/rectification. D. Photo documentation supporting the above reports.		
	2.5. MANPOWER WORK REQUIREMENTS		
	2.5.1. Manpower Personnel must be properly trained to use such related equipment and do the troubleshooting and restoration and must be available at a moment's notice. In order to effectively maintain the Information and Technology Facilities, maintenance personnel at the minimum must include the following below. The maintenance team credentials shall be submitted in the Post Qualification A. One (1) Project Manager 1.) With at least five (5) years' relevant experience in the management of the operation and maintenance of Building Facilities and /or Information and Technology Building Facilities or similar facilities. B. One (1) Project Coordinator 1.) With at least two (2) years' relevant experience in project coordination of the operation and maintenance of Building Facilities and /or Information and Technology Building Facilities or similar facilities/projects.		

	C. Maintenance team. The team shall consist of the following minimum number of personnel with the following qualifications. 1.) One (1) Mechanical or Electrical or Electronics Engineer/Supervisor (a) Mechanical or Electrical or Electronics Engineer with at least three (3) years' relevant experience in the operation and maintenance of Building Facilities and /or Information and Technology Building Facilities or similar facilities. 2.) One (1) Generator and Automatic Transfer Switch (ATS) Technician (a) Trade School Graduate with TESDA National Certification (NC II) or equivalent and with at least three (3) years' relevant experience in Genset and Automatic Transfer Switch (ATS) operation, maintenance, and repair. 3.) One (1) Multi-Skilled Technician (a) Trade School Graduate with TESDA National Certification (NC II) or equivalent and with at least three (3) years relevant experience in operation and maintenance of Building Facilities and /or Information and Technology Building Facilities or similar facilities: 4.) One (1) Ventilation and Air-Conditioning (VAC) Technician (a) Trade School Graduate with TESDA National Certification (NC II) or equivalent and with at least three (3) years' relevant experience in operation, maintenance, and repair:		
	2.5.2. Personal Protective Equipment (PPE) and Safety Devices The Contractor must provide and ensure that all personnel are always wearing proper PPE and use safety devices in their working area to avoid any accident. Personnel should also wear proper uniforms and ID at all times. Site/workplace must have proper warning devices/signage during restoration/repair.		
	2.5.3. Tools and Equipment As part of the maintenance activity, all necessary equipment and tools must be available at all times to do the preventive maintenance, repair, and restoration activities for the duration of the contract.		
	2.5.4. Maintenance vehicles and Communication expenses		

	The Contractor must have a service vehicle in good working condition for the team to mobilize necessary tools and materials that will be used in the maintenance of the Information and Technology facilities in the duration of the contract. The Contractor shall shoulder all transportation expenses (i.e., fuel, toll fee, registration) and communication expenses for all personnel in the team.		

Bidder's Authorized Representative:

_____-

Signature over Printed Name

_____-

Principal Bidder/ Supplier

Section VII. Technical Specifications

Technical Specifications

[Bidders must state here either "Comply" or "Not Comply" against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of "Comply" or "Not Comply" must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidder's statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the applicable laws and issuances.]

<table>
<tr><th>Item</th><th>Specification</th><th>Statement of Compliance</th></tr>
<tr><td>1.</td><td>GENERAL INFORMATION</td><td></td></tr>
<tr><td></td><td>1.1. Project Title: Supply and Delivery of Diesel for the Generators at Cable Landing Stations and Repeater Stations</td><td></td></tr>
<tr><td></td><td>1.2. Project Sites:
<table>
<tr><th></th><th>Cable Landing Stations (CLS)</th></tr>
<tr><td>1.</td><td>Baler CLS: Aurora Trading Center, Baler, Aurora</td></tr>
<tr><td>2.</td><td>San Fernando CLS: Poro Point, San Fernando, La Union</td></tr>
<tr><th></th><th>Repeater Stations (RS)</th></tr>
<tr><td>1.</td><td>Pantabangan RS: Brgy. Marikit, Pantabangan, Nueva Ecija</td></tr>
<tr><td>2.</td><td>San Jose RS: Brgy. Tulat, San Jose City, Nueva Ecija</td></tr>
<tr><td>3.</td><td>Sta. Maria RS: Poblacion, Sta. Maria, Pangasinan</td></tr>
<tr><td>4.</td><td>Rosario RS: Brgy. Cataguintingan, Rosario, La Union</td></tr>
</table></td><td></td></tr>
<tr><td></td><td>1.3. Target Beneficiaries: The General Public Nationwide, National and Local Government Offices, Public Places</td><td></td></tr>
<tr><td></td><td>1.4. Proponent: National Broadband Program</td><td></td></tr>
<tr><td></td><td>1.5. Project Timeframe: 12 months</td><td></td></tr>
<tr><td></td><td>1.6. Estimated Project Cost: PhP 2,100,000.00</td><td></td></tr>
<tr><td>2.</td><td>EXECUTIVE SUMMARY</td><td></td></tr>
</table>

	The Department of Information and Communications Technology (DICT) in its commitment to build a High-Speed Internet Infrastructure – the National Broadband Program (NBP) Luzon Bypass Infrastructure in order to improve internet speed for government and public use and to signify the related reduced internet cost.	
3.	**OBJECTIVE** The purpose of this project is to procure diesel to fuel the generator sets. This is to ensure the government network and internet services for the public via Luzon Bypass Infrastructure (LBI) facilities are operational twenty-four (24) hours a day, seven (7) days a week in case of a commercial power failure.	
4.	**TECHNICAL SPECIFICATIONS**	
	4.1. SCOPE OF WORK	
	4.1.1. The Winning Bidder shall supply and deliver the diesel fuel on an as-needed basis.	
	4.1.2. The Winning Bidder shall deliver and dispense the diesel fuel at the location, date, time, and volume specified in the Order Slip.	
	4.1.3. The Winning Bidder shall allocate up to 46,500 liters of diesel fuel per year more or less.	
	4.1.4. The Winning Bidder shall supply and deliver diesel fuel by volumes of 10,000 liters, 5,000 liters, 1,000 liters, 400 liters, and 100 liters as specified in the Order Slip.	
	4.1.5. The diesel Bid Price shall be based on the prospective supplier's Wholesale Posted Price (WPP) ten (10) days prior to the date of bid opening as verified with the Oil Industry Management Bureau of the Department of Energy. *Note: The Pricing scheme is based on Revised 2016 IRR RA9184 Appendix 22 Section 5.1 guidelines*	
	4.2. DEFINITION OF TERMS	

	Stations	Fuel allocation per year
1	Baler CLS	21,250 Liters
2	San Fernando CLS	21,250 Liters
3	Pantabangan RS	1,000 Liters
4	San Jose RS	1,000 Liters
5	Sta. Maria RS	1,000 Liters
6	Rosario RS	1,000 Liters
	Total	46,500 Liters

Wholesale Posted Price or WPP – refers to the reference fuel prices individually set by local refiners and traders subject to periodic changes based on the movement in crude oil prices, foreign exchange, and all other costs as verified and confirmed by the Department of Energy (DOE).

4.3. FRAMEWORK AGREEMENT

Item	Particulars / Location	Projected Quantity (Liters)	Unit Cost Per Liter (Php)	Total Cost (Php)
1	Supply, Delivery, and Dispensing of Diesel at San Fernando La Union Cable Landing Station (CLS).	21,250 li.	Bid Price	959,650.00
2	Supply, Delivery, and Dispensing of Diesel at Baler Cable Landing Station (CLS).	21,250 li.	Bid Price	959,650.00
3	Supply, Delivery, and Dispensing of Diesel fuel at Rosario Repeater Station (RS).	1,000 li.	Bid Price	45,160.00
4	Supply, Delivery, and Dispensing of Diesel at Sta Maria Repeater Station (RS).	1,000 li.	Bid Price	45,160.00
5	Supply, Delivery, and Dispensing of Diesel at San Jose Repeater Station (RS).	1,000 li.	Bid Price	45,160.00
6	Supply, Delivery, and Dispensing of Diesel at Pantabangan Repeater Station (RS).	1,000 li.	Bid Price	45,160.00

5. ORDER AND PAYMENTS

5.1. The following documents shall be made integral parts of the Order(s) Slip issued to the Winning Bidder;

5.1.1. Notice to Execute Framework Agreement

5.1.2. Framework Agreement.

<table>
<tr><td></td><td>5.2. Terms and conditions of payment;
5.2.1. Payment shall be made within 15 working days after receiving the invoice from the supplier.
5.2.2. Required documents for payment are as follows;
a. Order Slip duly signed and approved.
b. BIR VAT registered Winning Bidder's Invoice issued to the end-user.
c. Winning Bidder's Delivery Receipt duly received/signed by end-users authorized representative.
d. Acceptance Report issued and signed by end-users authorized representative</td><td></td></tr>
<tr><td>6.</td><td>PROJECT COST
<table><tr><th>Particulars</th><th>Qty</th><th>ABC</th></tr><tr><td>Supply and Delivery of Diesel for the Generators at Cable Landing Stations and Repeater</td><td>1 lot</td><td>PHP 2,100,000.00</td></tr></table></td><td></td></tr>
<tr><td>7.</td><td>PROJECT TIMEFRAME
Twelve (12) months upon the receipt of Notice to Execute Framework Agreement.</td><td></td></tr>
</table>

Technical Specifications

TECHNICAL SPECIFICATIONS			
Item / Service	***Maximum Quantity (liters)***	***Technical Specifications / Scope of Work***	***Statement of Compliance***
1	***21,250***	***Supply, Delivery, and Dispensing of Diesel at San Fernando La Union Cable Landing Station***	
2	***21,250***	***Supply, Delivery, and Dispensing of Diesel at Baler Cable Landing Station***	
3	***1000***	***Supply, Delivery, and Dispensing of Diesel fuel at***	

		Rosario Repeater Station	
4	***1000***	***Supply, Delivery, and Dispensing of Diesel at Sta Maria Repeater Station***	
5	***1000***	***Supply, Delivery, and Dispensing of Diesel at San Jose Repeater Station***	
6	***1000***	***Supply, Delivery, and Dispensing of Diesel at Pantabangan Repeater Station***	

Section VII. Technical Specifications

Security Services of International Cable Landing and
Repeater Station-Lot D

Technical Specifications Compliance Form

[Bidders must state here either "Compliant" or "Non Compliant" against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of "Comply" or "Not Comply" must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidder's statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the applicable laws and issuances.]

TECHNICAL SPECIFICATIONS			
Item	Technical Specifications / Scope of Work	***Statement of Compliance***	
LOT D	**Security Services of International Cable Landing and Repeater Station-**	***Compliant***	***Non Compliant***
	The SECURITY AGENCY shall undertake the following: 1. Bidder must provide a Certified True Copy the Agency License to Operate as a Security Services Agency issued by the PNP Supervisory Office for Security and Investigative Agencies (SOSIA) 2. Agency Organizational Set Up indicating the Names of Key Personnel and Personnel Manning of Key Officers 3. List and Photocopies of Licences of Firearms under is Inventory, If such licenses are already expired, A certification from FEO , PNP that the request for renewal are under process		

	4. Prepare a Security Plan on the monitoring of activities in all designated areas in the DICT which shall be presented to the management for final approval. Said plan shall form part of the CONTRACT; 5. Provide guards who are in their proper uniforms or, in the case of the Supervising Guards, formally attired, per requirement of the DICT; 6. Provide adequate firearms and ammunitions to each guard as well as, such equipment (e.g. CCTV) and paraphernalia (e.g. first aide kit) as maybe necessary in the discharge of their duties; 7. See to it that all guards assigned to the DICT are at all times vigilant, honest, dependable and aware of their duty to protect lives and limbs of personnel and finally protect the properties of the DICT; 8. Make sure that all guards remain courteous to all employees and guests to protect the proper image of the DICT; 9. The Security Guard per station must conduct frequent inspection, day and night; 10. Ensure that unauthorized persons are kept out of guarded premises; 11. Guarantee peace and order within the guarded premises at all times; 12. Make available, at all times, duly-licensed, trained and qualified reliever guards in case of the absence of any assigned guard, for the continuous uninterrupted security services in the DICT premises. Make sure that the duty schedule of each Guard should not be more than Eight (8) hours; 13. Change any guard who does not measure up to the standards or criteria of the DICT as soon as the SECURITY AGENCY is informed of the request for replacement, and conversely, not to		

	change or replace any assigned guard without the consent of the DICT; 14. Submit and surrender all record books used for monitoring and recording activities in the whole Building and those of the personnel. The designated Guard per station must submit monthly report to the FOO Cluster Director; 15. To comply with all existing laws, rules and regulations relative to the operations of security agencies.		

Bidder's Authorized Representative:

_____
Signature over Printed Name

_____
Principal Bidder/ Supplier

Tab I (Lot A - Forms)

[Letterhead]

[Date]

The Bids and Awards Committee for Goods
Bases Conversion and Development Authority
2/F Bonifacio Technology Center
31st Street, corner 2nd Avenue, Bonifacio Global City

Ladies/Gentlemen:

We, the undersigned, have at least five (5) years of direct experience on planning, engineering, supply and delivery, installation, testing and commissioning and experience in operations and maintenance of optical fiber transmission backbone projects/systems.

We remain,

Yours sincerely,

Authorized Signature:
Name and Title of Signatory:
Name of Firm:
Address:

[Letterhead]

Material specifications based on the Common Material and Equipment Specifications enumerated in Annex B and Framework List (brand name and model number)

Authorized Signature:
Name and Title of Signatory:
Name of Firm:
Address:

[Letterhead]

Installation/Construction Practices

Authorized Signature:
Name and Title of Signatory:
Name of Firm:
Address:

[Letterhead]

Inspection and Acceptance Test Procedures for Outside Plan System and Optical Fiber Cable Systems

Authorized Signature:
Name and Title of Signatory:
Name of Firm:
Address:

[Letterhead]

Restoration/Maintenance Procedures

Authorized Signature:
Name and Title of Signatory:
Name of Firm:
Address:

[Letterhead]

Sample Reports/Documentation for Maintenance

Authorized Signature:
Name and Title of Signatory:
Name of Firm:
Address:

[Letterhead]

Project Requirement

(Project Implementation Organization Chart)

Authorized Signature:
Name and Title of Signatory:
Name of Firm:
Address:

[Letterhead]

List of key personnel with their Qualifications/CV/biodata

	Name	Position
1		Project Manager
2		Project Engineer/Coordinator
3		Warehouseman
Maintenance Team 1		
4		OSP Supervisor
5		Lineman 1
6		Lineman 2
7		Splicers/Commissioning personnel 1
8		Splicers/Commissioning personnel 2
9		Support personnel 1
10		Support personnel 2
Maintenance Team 2		
11		OSP Supervisor
12		Lineman 1
13		Lineman 2
14		Splicers/Commissioning personnel 1
15		Splicers/Commissioning personnel 2
16		Support personnel 1
17		Support personnel 2
Repair/Restoration Team 1		
18		OSP Supervisor
19		Lineman 1
20		Lineman 2
21		Splicers/Commissioning personnel 1
22		Splicers/Commissioning personnel 2
23		Support personnel 1
24		Support personnel 2
25		HDD Team
26		Fiber Blowing Team
Repair/Restoration Team 2		
27		OSP Supervisor
28		Lineman 1
29		Lineman 2
30		Splicers/Commissioning personnel 1
31		Splicers/Commissioning personnel 2
32		Support personnel 1
33		Support personnel 2

34		HDD Team
35		Fiber Blowing Team

Authorized Signature:
Name and Title of Signatory:
Name of Firm:
Address:

FORMAT OF CURRICULUM VITAE (CV) FOR KEY PERSONNEL

Proposed Position:

Name of Firm:

Name of Staff:

Profession:

Date of Birth:

Years with Firm/Entity: Nationality:

Membership in Professional Societies:

Detailed Tasks Assigned:

Education:
[*Summarize college/university and other specialized education of staff members, giving names of schools, dates attended, and degrees obtained. Use about one quarter of a page.*]

College/University	Degree/Title Obtained	Inclusive Dates

Trainings/Seminars
[Summarize the trainings, seminars and workshops undertaken, including those conducted by the nominated key staff, using the matrix below]

Title/Description	Conducted by	Inclusive Dates	Venue	Involvement *

*Such as participant, speaker or trainer

Projects Undertaken related to detailed architectural and engineering design of buildings with land development
[Provide outline of projects undertaken using the matrix below]

Title/Description	Client	Position	Start Date	Completion Date

On-Going Projects

[Provide outline of on-going projects using the matrix below]

Title/Description	Client	Position	Start Date	End Date

Memberships in Professional Societies
[Give an outline of memberships in professional societies using the matrix below]

Name of Society/Commission	Date of Conferment/ Registration	License/Professional Number	Validity Date

Languages
[Using the format below, indicate proficiency of languages familiar with proficiency whether excellent, good, fair, or poor in speaking, reading, and writing]

Language	Proficiency		
	Speaking	Reading	Writing

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and my experience.

Commitment:

I also commit to work for the **Outside Plant (OSP) Maintenance and Repair Services with Framework for DICT's Luzon Bypass Infrastructure** in accordance with the time schedule as indicated in the contract once the firm is awarded the Project.

Date:

[Signature of staff member and authorized representative of the firm] *Day/Month/Year*

Full name of staff member:
Full name of authorized representative:

SUBSCRIBED AND SWORN to before me this__day of *[month] [year]* at *[place of execution]*, Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her *[insert type of government identification card used]*, with his/her photograph and signature appearing thereon, with no. .

Witness my hand and seal this day of *[month] [year]*.

NAME OF NOTARY PUBLIC

Serial No. of Commission
Notary Public for until
Roll of Attorneys No.
PTR No._, *[date issued], [place issued]*
IBP No._, *[date issued], [place issued]*
Doc. No.
Page No.
Book No.
Series of_.

Important Note: Provide applicable documents to substantiate professional registration, educational attainment and trainings undertaken. Only those attainments and undertakings with supporting documents will be considered for evaluation.

[Letterhead]

Implementation or work schedule to include work plan

Authorized
Signature: Name and
Title of Signatory:
Name of
Firm:
Address:

[Letterhead]

[Date]

The Bids and Awards Committee for Goods
Bases Conversion and Development Authority
2/F Bonifacio Technology Center
31st Street, corner 2nd Avenue, Bonifacio Global

City Ladies/Gentlemen:

We, the undersigned, have the necessary items that will be used in the maintenance and repair of the network mentioned in the Project Deliverables during the duration of the contract including but not limited to: Manpower, Tools and Equipment and Maintenance Vehicles.

We remain,

Yours sincerely,

Authorized
Signature: Name and
Title of Signatory:
Name of
Firm:
Address:

Tab J (Lot B - Forms)

[Letterhead]

[Date]

The Bids and Awards Committee for Goods
Bases Conversion and Development Authority
2/F Bonifacio Technology Center
31st Street, corner 2nd Avenue, Bonifacio Global City

Ladies/Gentlemen:

We, the undersigned, have at least five (5) years of direct experience on supply and delivery, installation, testing and commissioning and experience in operations and maintenance of Building Facilities or Information and Communication Technology Building Facilities or Telecom Facilities.

We remain,

Yours sincerely,

Authorized Signature:
Name and Title of Signatory:
Name of Firm:
Address:

[Letterhead]

Project Requirement

(Project Implementation Organization Chart)

Authorized Signature:
Name and Title of Signatory:
Name of Firm:
Address:

[Letterhead]

List of key personnel with their Qualifications/CV/biodata

	Name	Position
1		Project Manager
2		Project Coordinator
3		Mechanical or Electrical or Electronics Engineer/Supervisor
4		Generator and Automatic Transfer Switch (ATS) Technician
5		Multi-Skilled Technician
6		Ventilation and Air-Conditioning (VAC) Technician

Authorized Signature:
Name and Title of Signatory:
Name of Firm:
Address:

FORMAT OF CURRICULUM VITAE (CV) FOR KEY PERSONNEL

Proposed Position:

Name of Firm:

Name of Staff:

Profession:

Date of Birth:

Years with Firm/Entity: Nationality:

Membership in Professional Societies:

Detailed Tasks Assigned:

Education:

[*Summarize college/university and other specialized education of staff members, giving names of schools, dates attended, and degrees obtained. Use about one quarter of a page.*]

College/University	Degree/Title Obtained	Inclusive Dates

Trainings/Seminars

[Summarize the trainings, seminars and workshops undertaken, including those conducted by the nominated key staff, using the matrix below]

Title/Description	Conducted by	Inclusive Dates	Venue	Involvement *

*Such as participant, speaker or trainer

Projects Undertaken related to detailed architectural and engineering design of buildings with land development

[Provide outline of projects undertaken using the matrix below]

Title/Description	Client	Position	Start Date	Completion Date

On-Going Projects
[Provide outline of on-going projects using the matrix below]

Title/Description	Client	Position	Start Date	End Date

Memberships in Professional Societies
[Give an outline of memberships in professional societies using the matrix below]

Name of Society/Commission	Date of Conferment/ Registration	License/Professional Number	Validity Date

Languages
[Using the format below, indicate proficiency of languages familiar with proficiency whether excellent, good, fair, or poor in speaking, reading, and writing]

Language	Proficiency		
	Speaking	Reading	Writing

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and my experience.

Commitment:

I also commit to work for the **Outside Plant (OSP) Maintenance and Repair Services with Framework for DICT's Luzon Bypass Infrastructure** in accordance with the time schedule as indicated in the contract once the firm is awarded the Project.

Date:

[Signature of staff member and authorized representative of the firm] *Day/Month/Year*

Full name of staff member:
Full name of authorized representative:

SUBSCRIBED AND SWORN to before me this__day of *[month] [year]* at *[place of execution]*, Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her *[insert type of government identification card used]*, with his/her photograph and signature appearing thereon, with no. .

Witness my hand and seal this day of *[month] [year]*.

NAME OF NOTARY PUBLIC

Serial No. of Commission
Notary Public for until
Roll of Attorneys No.
PTR No._, *[date issued], [place issued]*
IBP No._, *[date issued], [place issued]*
Doc. No.
Page No.
Book No.
Series of_.

Important Note: Provide applicable documents to substantiate professional registration, educational attainment and trainings undertaken. Only those attainments and undertakings with supporting documents will be considered for evaluation.

Tab J (Lot D - Forms)

[Letterhead]

SECURITY PLAN

Authorized Signature:
Name and Title of Signatory:
Name of Firm:
Address: